MANITOBA PUBLIC UTILITIES BOARD

Re:

MANITOBA HYDRO

GENERAL RATE APPLICATION

2012/13 AND 2013/14

Before Board Panel:

Regis Gosselin	- Board Chairman
Raymond Lafond	- Board Member
Larry Soldier	- Board Member

HELD AT:

Public Utilities Board 400, 330 Portage Avenue Winnipeg, Manitoba December 19, 2012 Pages 1810 to 2086

APPEARANCES 1 2 Bob Peters)Board Counsel 3 4 Patti Ramage)Manitoba Hydro 5 Odette Fernandes) 6 7 Byron Williams)CAC (Manitoba) 8 9 William Gange) GAC 10 Peter Miller (np)) 11 12 Antoine Hacault)MIPUG 13 14 Michael Anderson (np)) MKO 15 16 Denise Pambrun (np))City of Winnipeg 17 18 19 20 21 22 23 24 25

1812 1 TABLE OF CONTENTS 2 Page No. 3 List of Exhibits 1813 4 List of Undertakings 1814 5 6 MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT, RESUMED: 7 VINCE WARDEN, Resumed 8 DARREN RAINKIE, Resumed 9 LARRY KENNEDY, Resumed 10 JAMES HALL, Resumed 11 12 Continued Cross-examination by Mr. Byron Williams 1819 13 Cross-examination by Mr. Antoine Hacault 1912 14 15 Certificate of Transcript 2086 16 17 18 19 20 21 22 23 24 25

				1813
1		LIST OF EXHIBITS		
2	Exhibit No.	Description	Page	No.
3	MH-33	Response to Undertaking 4		1817
4	MH-34	Response to Undertaking 8		1817
5	CAC-7	Supporting materials of CAC		
6		(Manitoba), dated December		
7		19th, 2012		1818
8	MH-35	Response to Undertaking 15		1939
9	MH-36	Response to Undertaking 23		1940
10	MH-37	Response to Undertaking 24		1940
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

			1814
1		LIST OF UNDERTAKINGS	
2	No.	Description Page	e No.
3	33	Manitoba Hydro to provide a listing	3
4		of accounts where installed year da	ata
5		is not available, or fully available	Le,
6		and where the computed mortality	
7		method was employed	1840
8	34	Manitoba Hydro to identify, in	
9		regards to Pointe du Bois, any	
10		retirements related to Account 00A,	
11		as well as Account 000D being the	
12		spillway; and to provide clarity in	ı
13		terms of the age of vintaging.	1888
14	35	Manitoba Hydro to identify the numb	ber
15		of poles associated with the	
16		acquisition of Winnipeg Hydro	1890
17	36	Manitoba Hydro to provide two (2)	
18		detailed calculations using an	
19		example of investment installed in	
20		1923 and with a lifespan date of	
21		2063, and a set of detailed	
22		calculations assuming plant	
23		installed in 2013 through 2063	1937
24			
25			

		1815
1		LIST OF UNDERTAKINGS (Con't)
2	No.	Description Page No.
3	37	Manitoba Hydro to provide information
4		on what kind of premium would be paid
5		for reconstructing on the same site
6		as a generating station that was
7		previously constructed 1958
8	38	Manitoba Hydro to provide the details
9		of the calculation, without salvage,
10		applying the rates shown in MIPUG-5
11		with respect to Wuskwatim, using
12		known figures to the extent they
13		are available and using its best
14		estimates to the extent that the
15		known numbers are not available 1988
16	39	Manitoba Hydro to provide the
17		presentation Larry Kennedy made in
18		December 2008 to the Canadian
19		Electrical Association 1998
20	40	Manitoba Hydro to indicate the
21		recommended level of componentization
22		as at September 2009 2000
23		
24		
25		

1		1816 LIST OF UNDERTAKINGS (Con't)
2	No.	Description Page No.
3	41	Manitoba Hydro to determine whether
4	- T	for line items 9000K, being computer
5		equipment, and 9000M, being hot water
6		tanks, the annual provision for
7		true-up continues in each year of
8		IFF12 in the projections 2078
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

--- Upon commencing at 9:03 a.m. 1 2 3 THE CHAIRPERSON: Okay, we're -- I believe we're ready to start. Good morning, everyone. 4 5 Do we have some documents to acknowledge this morning? 6 MS. PATTI RAMAGE: Yes, we do. There's been two (2) responses to undertakings distributed this 7 morning, Mr. Chair, the first of which is the response 8 9 to Manitoba Hydro Undertaking number 4. It was 10 provided at transcript page number 653. It is the analysis of the number of days where the peak load is 11 12 over 3,500 megawatts. And I'm suggesting that be 13 marked as Manitoba Hydro Exhibit 33. And a nod from 14 Mr. Singh so I think we're all on the same page here. 15 --- EXHIBIT NO. MH-33: Response to Undertaking 4 16 17 18 MS. PATTI RAMAGE: The next is the 19 revised WPLP projected operating statements so as to be consistent with IFF12. That undertaking is -- was 20 21 numbered as 8 in the transcript at page 801, and we 22 suggest that be marked as exhibit -- Manitoba Hydro Exhibit 34. 23 24 25 --- EXHIBIT NO. MH-34: Response to Undertaking 8

1 2 THE CHAIRPERSON: Those are all the -the documents that we need to acknowledge this morning? 3 MS. PATTI RAMAGE: Yes, that's all from 4 5 Manitoba Hydro this morning. 6 THE CHAIRPERSON: Okay. 7 MR. BOB PETERS: I believe Mr. Williams 8 may have something. 9 MR. BYRON WILLIAMS: Yes. And I do 10 apologize for flooding the panel with paper, but taking 11 Mr. Kennedy's advice I -- I went back to Appendix 40 12 and provided a little excerpt which might just assist 13 the discussion. So that is supporting materials of CAC (Manitoba) dated December 19th, 2012, and I would 14 15 suggest it be marked as CAC Exhibit number 7. 16 17 --- EXHIBIT NO. CAC-7: Supporting materials of CAC 18 (Manitoba), dated December 19 19th, 2012 20 21 MR. BYRON WILLIAMS: And I'm ready to -22 - to proceed, Mr. Chair. 23 24 MANITOBA HYDRO PANEL 2 - REVENUE REQUIREMENT, RESUMED: 25 VINCE WARDEN, Resumed

1 DARREN RAINKIE, Resumed 2 LARRY KENNEDY, Resumed 3 JAMES HALL, Resumed 4 5 CONTINUED CROSS-EXAMINATION BY MR. BYRON WILLIAMS: 6 MR. BYRON WILLIAMS: Welcome back Mr. Hall and Mr. Kennedy, and -- and I guess, Mr. Rainkie 7 and Mr. Warden, although I don't expect to have many 8 9 questions for -- for the two (2) of you. I may have a 10 couple, but most will be for Mr. Kennedy. And Mr. Hall 11 may feel the need to -- to step in from time to time. 12 And just for the panel and for Mr. 13 Kennedy, perhaps we could return to the excerpt from 14 the Kinectrics study which is CAC Exhibit 6. It should 15 have a bit of blue on the -- on the -- on the front. 16 And Mr. Kennedy -- and perhaps we could turn to page 26 -- Mr. Kennedy, I -- I believe we had 17 18 where -- when -- you'll agree -- well, let me try this 19 again. 20 Mr. Kennedy, you'll agree that when we finished our riveting discussion last afternoon, we 21 were addressing elements of the Kinet -- Kinectrics 22 23 study which Manitoba Hydro -- excuse me -- which 24 Gannett Fleming has cited as support for the -- its --25 its decision to extend the estimated average service

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1820 lives for -- for certain elements of the distribution 1 network such as poles and fixtures and conductors, 2 agreed? 3 4 MR. LARRY KENNEDY: Agreed. 5 MR. BYRON WILLIAMS: And you've had an 6 opportunity to study Kinectrics extensively last night, 7 Mr. Kennedy? 8 MR. LARRY KENNEDY: Bedtime reading. MR. BYRON WILLIAMS: It beats your 9 10 other bedtime reading, the NARUC study, sir. At least 11 this has -- at least this has colour pictures. 12 You'll agree? 13 MR. LARRY KENNEDY: This is true. 14 MR. BYRON WILLIAMS: And if we just --15 just -- we won't spend long with Kinectrics, but I -- I 16 did want to direct your attention to Figure 1.1 on -on page 26. And in -- in terms of understanding the 17 18 bar graphs, perhaps we could go to the right-hand side, 19 the maximum side, Mr. Kennedy. 20 And you'll agree with me that the black 21 bar with the eighty (80) at the top represents Kinectrics assessment of the maximum useful life as --22 23 as defined in this study in terms of its survey of 24 industry data. Agreed? 25 MR. LARRY KENNEDY: I -- I did have the

opportunity to read this last night and I did go 1 through the references that are quoted in this study. 2 The -- the Kinectrics view of industry isn't 3 necessarily utility industry, it's more the 4 5 manufacturing industry. They -- they -- they look at a 6 lot of university-based papers on the chemical composition of materials. They look at some 7 manufacture warranty information. 8 9 So it's -- I would say it's industry 10 information, not necessarily utility information, but more the industry being the manufacturing and -- and 11 12 that type of industry. So, with that qualification, 13 sir, I -- I -- I don't -- I don't want it to be portrayed as a wide survey of industry. 14 15 Then one (1) of the things they did have 16 in industry, they -- they had a rather generic 17 statement that based on their experience of utilities, 18 but they didn't indicate who they were or what they 19 were. So, but they did have I think a hundred and some odd references of various engineering-style reports and 20 21 manufacturer reports. 22 MR. BYRON WILLIAMS: And just so I 23 understand your point, sir, you're not suggesting that 24 the utility-interest industry is excluded from their 25 survey of industry data. You're suggesting that it's

1822 wider than that and extending to manufacturing, agreed? 1 2 3 MR. LARRY KENNEDY: I think what I'm suggesting is that it seemed to be more predominantly 4 5 weighted to the manufacturing industry than the utility 6 industry. 7 MR. BYRON WILLIAMS: With both comprising elements of the study. 8 9 MR. LARRY KENNEDY: Yeah, 10 unfortunately, I don't know the percentage of weighting 11 they applied to any of their references. 12 MR. BYRON WILLIAMS: Okay. And if we 13 go over two (2) bars from the black industry average, we see the -- I'm going to call it "purple," with the 14 15 figure sixty-six (66) above it. 16 Do you see that, sir? 17 MR. LARRY KENNEDY: I do. I do have to 18 admit to being colour blind, so. 19 MR. BYRON WILLIAMS: Well --20 MR. LARRY KENNEDY: But I -- I see the 21 third bar that says sixty-six (66) on top, so --22 MR. BYRON WILLIAMS: Okay. 23 MR. LARRY KENNEDY: -- we're on the 24 same bar. 25 MR. BYRON WILLIAMS: And I -- I think

I'm stretching it to call that purple. It -- it's 1 difficult to kind of -- but you'll agree with me that 2 that is their calculation of the maximum life based 3 4 upon their assessment, the input from six (6) selected utilities with 5 6 distribution assets in -- in Ontario, agreed? 7 MR. LARRY KENNEDY: That -- that's correct, sir. And I just want to point out the six (6) 8 9 utilities -- and -- and if it sounds like I'm not 10 agreeing with the report that's not at all the case. 11 This is a -- a report. It's a very well done report in 12 my view. It's a -- an engineering style report more 13 than a depreciation. 14 The -- the six (6) utilities they 15 selected were generally -- although they don't list 16 them, they list the regions they're from, and are typically quite small, predominantly rural distribution 17 18 systems. But with that qualification, sir, I do agree 19 that column represents their average of the maximum life of those six (6) utilities that they serve it. 20 21 MR. BYRON WILLIAMS: And you'll agree as well that the selection of the six (6) utilities was 22 23 intended to reflect different sizes, different asset 24 mixes, and different geographic locations, agreed, sir? 25 I'd agree with the MR. LARRY KENNEDY:

1823

1824 different geographic locations. I'm not sure that I 1 saw an indication of the size of the utilities. Maybe 2 I just missed that in my reading of the report. 3 4 MR. BYRON WILLIAMS: Well -- and, sir, 5 perhaps you'll accept, subject to check, if one went to 6 page 5 you'll see that they're suggesting they selected six (6) LDCs of different sizes? 7 8 MR. LARRY KENNEDY: Oh, I agree with My point is they did not survey companies like 9 that. 10 Hydro One, that type of company that would be, you 11 know, hundreds of thousands of customers. They're the 12 survey size, I think, representing utilities with 13 hundreds or perhaps thousands of customers. 14 MR. BYRON WILLIAMS: I -- I thank you 15 for that. And so -- so now we've -- recognizing your 16 limitations in terms of colour, between the eighty (80) 17 on the maximum representing the industry average, and 18 the sixty-six (66) representing the selected utilities 19 average, you'll see the figure of -- of seventy-three 20 (73) as well, sir, agreed? 21 MR. LARRY KENNEDY: I see that. 22 MR. BYRON WILLIAMS: And in essence, 23 they -- you'll agree with me that -- that the overall 24 average is -- is calculated giving a 50 percent 25 weighting to industry and a 50 percent weighting to the

1825 selected industries evaluated, agreed? 1 2 MR. LARRY KENNEDY: Agreed. MR. BYRON WILLIAMS: And we won't spend 3 much more on this, but I do just want to go to the 4 5 reference to conductors, which is on about page 49 of 6 this study, sir. 7 8 (BRIEF PAUSE) 9 10 MR. BYRON WILLIAMS: Let me know when you have it, Mr. Kennedy. 11 12 MR. LARRY KENNEDY: I'm sorry, I do have it. 13 14 MR. BYRON WILLIAMS: And just in terms 15 of useful life in terms of conductor -- overhead 16 conductors, the information presented by Kinectrics suggests an average minimum useful life of fifty (50), 17 18 a typical useful life of sixty (60), and a maximum 19 useful life of seventy-five (75). 20 Do you see that, sir? 21 MR. LARRY KENNEDY: That's correct. 22 MR. BYRON WILLIAMS: And again, this 23 information would be one (1) piece of information that 24 Manitoba Hydro relied upon in its overall determination 25 of the appropriate average service life estimate for

conductors, agreed? 1 2 MR. LARRY KENNEDY: I would suggest I relied on it and Manitoba Hydro was involved in the 3 review of my recommendations. 4 5 MR. BYRON WILLIAMS: Yes, I misspoke. 6 I said "Manitoba Hydro" instead of Gannett Flem --7 Fleming. That would be something you relied upon, sir? 8 MR. LARRY KENNEDY: That's correct. 9 MR. BYRON WILLIAMS: Now, I want to put 10 down CAC-6, I think for the duration. We'll see, but I expect we'll put it down for the duration, and direct 11 12 your attention, Mr. Fleming -- I'm sorry, Mr. Kennedy. 13 I've had this happen to me once before, so if I throw 14 about twelve (12) different names at you you'll --15 you'll understand. And I'd like you to go back to CAC-16 5 and in the top right-hand corner, page 13. 17 18 (BRIEF PAUSE) 19 20 MR. LARRY KENNEDY: I have that, sir. 21 MR. BYRON WILLIAMS: And I'm just 22 waiting to make sure the panel has it. And again, the 23 -- at page 13 of CAC Exhibit 5 we'll see an excerpt 24 from your 2010 report in term -- presenting the 25 original and smooth survivor curves relating to poles

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

and fixtures, agreed? 1 2 Agreed. MR. LARRY KENNEDY: 3 MR. BYRON WILLIAMS: And, Mr. Kennedy, subject to check, if -- if Gannett Fleming were to rely 4 5 exclusively on the retirement data in the attached, you 6 know, the attached tables, would I be correct in suggesting to you that it might estimate Iowa 34-R3 7 8 curve for -- for this -- this particular account? 9 MR. LARRY KENNEDY: That would be 10 correct. MR. BYRON WILLIAMS: And the ultimate 11 12 section -- selection we've agreed is Iowa 55-R3, correct? 13 14 MR. LARRY KENNEDY: That is correct. 15 MR. BYRON WILLIAMS: So in terms of the ultimate selection of Iowa 50 -- 55-R3, I would be 16 17 correct in suggesting to you that it does reflect the 18 retirement dispersion shape of the statistically 19 developed average service life estimate, agreed? 20 MR. LARRY KENNEDY: That's correct. 21 Very good. 22 MR. BYRON WILLIAMS: But it does not 23 adopt the calculation? 24 MR. LARRY KENNEDY: It does not adopt 25 the -- the area underneath the curve as being

representative, that's correct. 1 MR. BYRON WILLIAMS: And I want to just 2 go through the same type of question with regard to, 3 turning to page 16 of CAC Exhibit 5. 4 5 MR. RAYMOND LAFOND: Was this --6 MR. BYRON WILLIAMS: Pa --7 MR. RAYMOND LAFOND: Was this one (1) six (6), or six (6) zero? Sixteen (16)? 8 9 MR. BYRON WILLIAMS: Oh, I misspoke. 10 one (1) six (6). I apologize, Mr. -- Mr. Lafond. 11 12 CONTINUED BY MR. BYRON WILLIAMS: 13 MR. BYRON WILLIAMS: So what we should 14 have if -- is, you'll agree with me Mr. Kennedy, is the 15 -- the presentation of the original and smooth survivor 16 curves with regard to overhead conductor and devices, 17 agreed? 18 MR. LARRY KENNEDY: That's correct. 19 MR. BYRON WILLIAMS: And if we were to 20 rely exclusively on the -- on the -- the statistically 21 developed average, the survivor curve we might estimate to be a thirty (30) -- Iowa 32-R2, agreed? 22 23 MR. LARRY KENNEDY: Correct. 24 MR. BYRON WILLIAMS: And we can agree 25 as well that the ultimate selection of 60-R2, which

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1829 reflects the repu -- retirement dispersion shape of the 1 statistically developed average service life estimates, 2 correct? 3 MR. LARRY KENNEDY: That is correct. 4 5 MR. BYRON WILLIAMS: But, again, it 6 does not adopt the calculation, correct? 7 MR. LARRY KENNEDY: So far I'm agreeing with you all morning. 8 9 MR. BYRON WILLIAMS: That's why they 10 pay me the big bucks, Mr. Kennedy. I'm just teasing. 11 Now, Mr. Kennedy, just -- just in terms 12 of -- I'd ask the panel and you to keep CAC 5 near at 13 hand, but just for -- I am going to ask you to -- to 14 turn to CAC 7. And the very last page of that, it 15 should be in the bottom right-hand corner marked one 16 thirty-five (135). Do you have that, Mr. Kennedy? 17 MR. LARRY KENNEDY: I do now. 18 MR. BYRON WILLIAMS: And subject to 19 check, sir, you'll agree with me that this is an 20 excerpt from the document you asked me to reread 21 yesterday, being Appendix 40, the report on 22 distribution asset condition. Subject to check, you'll 23 agree with that, sir? 24 MR. LARRY KENNEDY: Yes. 25 MR. BYRON WILLIAMS: And, sir, you'll

see within -- at page 135 of -- of this excerpt from 1 the report, life expectancy estimates for various 2 conductors including ACSR conductors and 9 Alloy 3 conductors, et cetera. You see that, sir? 4 5 MR. LARRY KENNEDY: I do. 6 MR. BYRON WILLIAMS: And I take it, sir, that while the final version of the distribution 7 asset condition report was not available to you, 8 9 information of this type would have been available to you in -- in developing your ex -- estimated average 10 11 service life for overhead conductors, correct? 12 MR. LARRY KENNEDY: During the time 13 that we did the operational interviews, this report was 14 beginning to be -- to be developed. It wasn't 15 summarized in the nice neat clean format that it is 16 now. But the Company has definitely -- it was 17 undergoing its analysis to develop the report, so we 18 did get indications from the Company's operational 19 staff similar to what -- to what was finally put in the 20 final report. Definitely, we -- we had a lot more 21 22 evidence, in the preparation of this study, from the 23 very detailed review that had been done operationally by the Company than we had in previous studies. And 24 25 that -- that proved very beneficial to us and, in fact,

1830

we -- we used it and -- and con -- very seriously 1 considered the information we received from the 2 3 internal company experts. 4 MR. BYRON WILLIAMS: And so this type 5 of information coupled with the insight from the 6 industry, including the Ontario information, would have been some of the material available to you to inform 7 your judgment to select an Iowa 60, as opposed to the -8 9 - the conclusions from the 2005 study. Agreed? 10 MR. LARRY KENNEDY: Very definitely. 11 We -- we viewed that the statical results were giving us a value, or a life estimate that, based on the other 12 13 information that we had, the -- well, the other tools 14 in our toolbox that we use to analyze it didn't seem to 15 be consistent. So we -- we placed more relevance in 16 the circumstances with a few of these distribution 17 accounts to -- on other factors, such as the peer 18 analysis and items that we just discussed. 19 MR. BYRON WILLIAMS: And, Mr. Kennedy, 20 I am going to ask you to -- to keep this CAC-7 near at 21 hand, and -- but in terms of CAC Exhibit 5, pull up 22 page 11, which should be the -- the response of the --23 Manitoba Hydro, prepared by Gannett Fleming, to PUB-1-24 And, Mr. -- Mr. Kennedy, I apologize to you and 82. 25 the panel for asking you to flip, but hopefully it --

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

we can follow. 1 2 So do you have that page, sir? 3 MR. LARRY KENNEDY: I do have it. 4 5 (BRIEF PAUSE) 6 7 MR. BYRON WILLIAMS: So, sir, in terms of overhead pole -- excuse me, in terms of poles and 8 9 fixtures, as well as overhead conductors, the -- the 10 Corporation -- or excuse me, Gannett Fleming, we've agreed, has materially revised its estimates in terms 11 12 of the estimated average service life from the 2005 13 study to the estimates in the 2010 study, agreed? 14 MR. LARRY KENNEDY: That's correct, 15 sir. And -- and I think it's important to understand that in 2005 we didn't have much of the information 16 17 that we had available to us in the study. And, 18 secondly, we've seen some trends in industry where 19 these type of assets are extending; perhaps, not to the same extent that we moved in this case. 20 21 But we are definitely seeing utility 22 distribution systems -- or electric distribution 23 systems, my apologies, have longer life indications. 24 And that -- that's for a variety of reasons. In part, 25 the availability of capital funding for replacement fat

-- increased expenditures on -- on operating and 1 maintenance programs to extend the lives. 2 3 But -- so it's a trend we're seeing and, like I say, maybe not to the same extent, but it --4 5 definitely Manitoba Hydro was fitting into the trend 6 that we had seen. 7 MR. BYRON WILLIAMS: I thank you for that, sir. And -- and just directing your attention 8 9 again to the 2005 time, and focussing you on the first paragraph of the -- of the -- of this response. 10 And Mr. Hall may want to help us as we walk though this. 11 12 But Gannet Fleming makes the statement, 13 circled in the middle of this -- this paragraph, that: 14 "The -- the estimates from the 2005 15 depreciation study were based on the 16 results of a study where the original 17 installation year of retirements were 18 not known but, rather, were 19 statistically developed." 20 You see that statement, sir? 21 MR. LARRY KENNEDY: I do. 22 MR. BYRON WILLIAMS: And in terms of --23 focussing, first of all on the 2005 study, and then 24 we'll get to where we are today, sir. When you're 25 saying that the original instal -- installation years

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

of retirements were not known, are you referring to 1 overhead conductors, poles and fixtures, or both? 2 3 MR. LARRY KENNEDY: Both. 4 5 (BRIEF PAUSE) 6 7 MR. BYRON WILLIAMS: And as we look at the state of information today, sir -- so let me back 8 9 up. So in 2005, at a high level, can you detail the lack of information in terms of installations for both? 10 11 MR. LARRY KENNEDY: Certainly. And I 12 want to be clear that a number of utilities, as they --13 as they developed from the 1940s, and '50s, and '60s, didn't have the computing -- computerized systems that 14 15 we have today. So it's common in industry to -- for utilities to track their -- their investment on the 16 17 basis of transactional year. 18 Bas -- in other words, in the year 1955 19 we installed a hundred thousand dollars (\$100,000) of 20 poles. In the year 1955 we may have retired a thousand 21 dollars of poles, but they didn't know what vintage those thousand dollars of retirements came from, 22 23 largely because it was all a paper-based systems. 24 I can remember starting in the utility 25 world in 1980 and having a wall the length of this room

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1835 full of filing cabinets, and we'd have to go through 1 and find little 5x7 cards for every asset when we --2 when we tried to do things. It wasn't -- it wasn't 3 feasible to try to -- to sort things the way we do. 4 Along came the 1970s and '80s -- I guess 5 6 the 1980s. Companies started to make electronic versions of those systems, and they -- and they really 7 had a choice. They could go back to all those walls 8 9 and thousands and thousands of cards and implement all the retirement data on there, and go back and try to 10 find the installation years of all the historic 11 12 retirements, or load the information that they had in 13 their -- on their system into a mechan -- into our 14 computerized system. Companies made choices at that time and 15 -- and I would say by far the majority of utilities 16 17 loaded the data on a transactional year basis rather 18 than loading it on a vintage year, or install year 19 basis. 20 So we -- we had a challenge when we 21 started to try to do depreciation studies. In the 22 1970s, another Iowa State graduate, Dr. Susan Jensen, 23 developed a -- a paper, and her paper was that we could 24 statistically develop the retirement portion of that, 25 or the install year portion of those transactional year

1836 It became popularized as the simulated plant records. 1 balance or the simulated retirement method. And she 2 further refined that in -- in a -- in her -- in her 3 graduate thesis to something called the "computed 4 5 mortality method". That became a very widely used method 6 and still is. I would say probably 25 percent to a 7 third of my studies are still completed using the 8 9 computed mortality method, where we statistically age the transactional records, simply because the aged 10 11 records were not available. 12 So in the 2005 study for these accounts, 13 we had transactional year data. We did not have 14 install year data available to us. One (1) of the 15 things that we had to do as part of the 16 componentization exercise is go back to each of these 17 documents to try to figure out which of the components 18 the plant would fit into . And -- and our famous Ms. 19 Huper -- Hooper that we talked about yesterday, went back and found the retirement data for a lot of these 20 21 records; not -- and not in every account, but in most 22 accounts. 23 And so we -- we had the benefit in this 24 study for a lot of accounts to have -- we -- install 25 year data in addition to transactional year data. We

had a much better database in this time, so we had
 better information.

3 Unfortunately, just given the nature and the literally hundreds of thousands of poles and 4 5 conductor that -- those were two (2) accounts for which 6 we still did not have the -- the install year data available to us statistically. What we did find is, 7 the company at that point, and that point being the 8 9 2009/2010 time-frame, was starting to develop the databases that Mr. Hall is here to speak to, perhaps, 10 in terms of they actually started doing some pole 11 12 tracking by vintage and -- so we started having better 13 data available empirically, but not necessarily 14 statistically within our database, yeah. 15 So along comes 2009. For most of the accounts we now have good aged data. Unfortunately, 16

17 for two (2) accounts, and two (2) of these over -- two
18 (2) of these transmission accounts, we still had data
19 that was calculated using the computed mortality
20 method; in other words, statistically aged.
21 And so when we came to these two (2)
22 accounts, we -- we looked at the results they were
23 giving us, but now we had the benefit of the internal

24 experts within the Company having spent much time
25 analyzing these -- these assets, and said to us, That

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1838 statistically aged data doesn't look right. It didn't 1 look right to me, didn't compare to what industry had, 2 so now we have a better set of data. Not necessarily 3 statistical data, but a better set of operational data 4 5 that we could use to either confirm or enhance our 6 statistically developed databases. 7 So I think that's a long answer, but I thought the history was rather important to have the 8 9 Board understand. 10 MR. BYRON WILLIAMS: There may be other 11 long answers you -- you need to apologize for, sir. 12 That was not one (1) of them. That was -- that was 13 very helpful, and I thank you for that. 14 So circa, or about 2009, in terms of 15 these two (2) accounts, being poles and fixtures and overhead conductors and devices, you still did not have 16 17 installed your data? 18 MR. LARRY KENNEDY: For these two (2) 19 accounts, we did not. 20 MR. BYRON WILLIAMS: And we'll come 21 back to these two (2) accounts in a second. 22 But are there other accounts, sir, to 23 your knowledge, in which there is installed year data 24 still lacking? 25 MR. LARRY KENNEDY: A few. Not many.

1839 I would suggest there's a few in the -- you're going to 1 test my memory now so -- I don't have all my notes. 2 But in the distribution set of accounts where -- was 3 where we had the largest challenges, given the 4 5 magnitude of the -- of the accounts. And the practice 6 of really mass accounting, mass property accounting, we have hundreds of thousands of poles and, you know, 7 thousands and thousands of miles of conductor, hundreds 8 9 and thousands of insulators. Those are the type of 10 assets that was more difficult to develop the -- the actual -- install year data. 11 12 So I would say predominantly in the 13 distribution accounts we had more instances of having 14 to use computed mortality than we did in the other 15 account segments. 16 MR. BYRON WILLIAMS: Sir, would it be onerous to -- to ask you to, rather than dredge your 17 18 memory, to undertake to provide a listing of accounts 19 where there was still installed year data lacking, and 20 where the computer mortality method was relied upon? 21 MR. LARRY KENNEDY: I think we can do 22 that. 23 MR. BYRON WILLIAMS: And so the un --24 and so the undertaking, for the purposes of the 25 reporter, would be for a listing of accounts where

1840 installed year data is not available, or fully 1 available, and where the computed mortality method was 2 employed. Agreed, sir? 3 4 MR. LARRY KENNEDY: Agreed. 5 --- UNDERTAKING NO. 33: 6 Manitoba Hydro to provide a 7 listing of accounts where 8 installed year data is not 9 available, or fully 10 available, and where the 11 computed mortality method 12 was employed 13 14 CONTINUED BY MR. BYRON WILLIAMS: 15 MR. BYRON WILLIAMS: Now -- and, Mr. 16 Kennedy, this can go to you or Mr. Hall. But if we -if we pick up CAC Exhibit 7 for one (1) second, and we 17 18 go to the second last page, two (2) sided, which is 19 page 125 in the bottom right-hand corner, and 20 specifically under "demographics"; am I correct in 21 suggesting that in terms of overhead distribution conductors throughout the province, that there are --22 23 are still challenges in determining installation dates, 24 because manufacture dates are not readily available for 25 specific conductor sections?

MR. JAMES HALL: I think that's 1 correct. What we would say, though, is in -- in most 2 cases where we've installed a line, we install the pole 3 and the conductor at the same time. And so the -- if 4 5 we have age data on the poles for a section of line, 6 it's very likely the conductor's of a similar age. 7 MR. BYRON WILLIAMS: And so as I understand it, methodologically -- if that's a word, 8 9 the assumptions or estimates in terms of conductor 10 sections flow from the assumption that there's a similar age profile to the wood poles, agreed? 11 12 MR. JAMES HALL: Yeah, that's true. 13 MR. BYRON WILLIAMS: Now, if I just 14 were to flip -- staying with CAC Exhibit 7 to pa --15 near the front, page 106, in the bottom right-hand 16 corner. 17 Do you have that, Mr. Hall? 18 MR. JAMES HALL: Yes. 19 MR. BYRON WILLIAMS: First of all, as I 20 understand it, Manitoba Hydro's current estimate of --21 of wooden poles is in the range of 1 million, agreed? 22 MR. JAMES HALL: Yes, I agree. 23 MR. BYRON WILLIAMS: And in the olden 24 days the estimate was that it was about seven hundred 25 thousand (700,000) poles, agreed?

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1842 MR. JAMES HALL: Yes, prior to three 1 2 (3) or four (4) years ago, yes. 3 MR. BYRON WILLIAMS: So the olden days 4 were three (3) or four (4) years ago, agreed? 5 MR. JAMES HALL: By that definition, 6 yes. 7 MR. BYRON WILLIAMS: And over the last few years, Manitoba Hydro has been developing a 8 9 database with the acronym "IPM" referring to the 10 Integrated Pole Maintenance program, agreed? 11 MR. JAMES HALL: Yes. 12 MR. BYRON WILLIAMS: And, sir, am I 13 correct in suggesting that as of 2010 about 53 percent 14 of the pole -- there were records for about 53 percent 15 of the estimated \$1 million pole inventory? MR. JAMES HALL: There's -- there's 16 17 actually two (2) programs where we've been collecting 18 information about poles. And so, our -- our 19 maintenance program, which is the Integrated Pole 20 Maintenance Program, is a -- a process where over 21 fifteen (15) years we're -- we're inspecting each pole. 22 And we may be -- well, we'll -- we'll be assessing 23 their condition and may be applying some remedial 24 methods in some way. Since 2000 -- well, I guess aggressively 25

1843 around 2007, we also had a pole inventory program which 1 was separate from this where we collected a lot of the 2 information about the -- the age. And now it's all 3 going into a -- the same database which here is called 4 the -- referred to as the "IPM Database." 5 6 MR. BYRON WILLIAMS: And as of 2010 7 there was about five hundred and twenty-five thousand 8 (525,000) pole records within that database, sir? 9 MR. JAMES HALL: Yes. 10 MR. BYRON WILLIAMS: And what's the current numerical status of that database? Are there 11 12 more? 13 MR. JAMES HALL: Yes. Presently we 14 have -- I -- I don't have the exact number, but we do 15 have about 90 to 95 percent of the -- the poles inventoried at this point. The remaining ones are in 16 17 the northern part of the province. 18 MR. BYRON WILLIAMS: So that explains 19 your statement yesterday of 90 percent of the -- the 20 poles being barcoded. MR. JAMES HALL: Yes. And -- and --21 22 and it would also -- the present inventory is in around 23 the nine hundred thousand (900,000) range, so that's 24 where we're getting the -- the estimate of around a 25 million.

1844 1 MR. BYRON WILLIAMS: Okay. And, sir, in terms of the -- the poles that you have now 2 inventoried, are you able to -- let me back up. Has 3 the inventory enabled you to estimate the age with --4 5 of installation with moral certitude? 6 MR. JAMES HALL: I -- I'm not sure if I 7 know what --8 MR. BYRON WILLIAMS: And I'm just teasing you. 9 10 MR. JAMES HALL: Certainty, yes, I 11 would agree. 12 MR. BYRON WILLIAMS: So you have a -- a 13 greater degree of confidence. Explain the -- the basis for that confidence, sir. 14 15 MR. JAMES HALL: I -- I believe Figure 32 on -- on page 107 talks to the fact that we now have 16 17 the ability to see what the age of the majority of our 18 poles are and -- and, you know, very soon practically 19 all of our poles. And this isn't something that we 20 would have had prior to three (3) or four (4) years 21 ago. 22 MR. BYRON WILLIAMS: What I'm asking, 23 though, sir, is you -- you describe Figure 3.2 as an 24 estimate. How does one determine the age of a pole 25 absent an installation year date?

MR. JAMES HALL: When we purchased 1 poles after around 1950 they would have a tag, a round 2 tag at about the -- I believe it's the 12 to 15-foot 3 mark. Prior to that it was a band -- or -- or a brand. 4 And so prior to poles -- poles that we 5 bought prior to the -- the mid 1950s some of those 6 7 brands are no longer visible. And they've been weathered and we don't know the ages of those poles. 8 9 But the poles that have tags on them we can identify by reading that tag what the age of that pole is. 10 11 MR. BYRON WILLIAMS: And so it'll have 12 the exact year, for example, sir? 13 MR. JAMES HALL: Yes. 14 MR. BYRON WILLIAMS: Okay. 15 16 (BRIEF PAUSE) 17 18 MR. BYRON WILLIAMS: Mr. Kennedy, back 19 to you for -- for a second. Just in terms of the 20 estimates for poles -- the statistical estimates for 21 poles in your 2010 report, to some degree you would --22 you would still have been relying upon computed 23 mortality? 24 MR. LARRY KENNEDY: We were. 25

1846 1 (BRIEF PAUSE) 2 3 MR. BYRON WILLIAMS: Assuming Mr. Hall --Hall's done his job will -- would we expect to see --4 5 would -- would we expect to have greater confidence in 6 the estima -- the statistical estimates of poles and 7 fixtures in the next depreciation study, sir? 8 MR. LARRY KENNEDY: I would think so. 9 I mean, every time we do a study with a client and we 10 can gain more and better information, obviously we --11 we feel more confident in the -- the ability to make a 12 more accurate estimate. 13 The key is, these are estimates, and 14 estimates change with time, and circumstances change 15 with time. So we make the best estimate that we can 16 based on the information available to us at any -- at any given point in time. Those will change. 17 18 I would expect the -- when we come back 19 to do a study in, you know, a couple, three (3), four 20 (4), five (5) more years we will have the benefit of --21 of Mr. Hall's program being fully populated as compared to more anecdotal information that -- that we were 22 23 getting from the group, you know, at the time that the 24 population of that database was 50/60 percent. 25 So we will have more -- more

information, we'll have an ability to put more 1 confidence on it, and we -- yeah, hopefully we can --2 we can provide an estimate at that time that -- that's 3 accurate. It may be different than this one, it may 4 5 not be. But at that time we should have an estimate that I would -- I would view that we can -- we can make 6 7 an accurate estimate on. 8 But again I'm -- I'm going to stress, it's only an estimate. If I -- if I could figure out 9 10 the life of poles to the precise year, sixty (60), seventy (70) years out, I'm playing the commodity 11 12 market. I'm not playing the depreciation game. It's 13 just -- I mean, again these are estimates. 14 I thank you for MR. BYRON WILLIAMS: 15 that. Do you think it's fair to describe the 16 depreciation study process as the depreciation game? 17 No, I -- I did not MR. LARRY KENNEDY: 18 mean to demean it that way. It's my living, so 19 definitely. It's -- yeah, what I was getting at is 20 these are estimates and it's -- it's -- they're very 21 important estimates and they comprise a very large 22 percentage of the -- of the revenue requirement. 23 The -- the point I'm simply making is 24 that they're estimates. 25 Sir, I'm going to MR. BYRON WILLIAMS:

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1848 ask you to in -- within CAC Exhibit 5 to turn to page 1 19, and I -- I'm going to ask you to accept, subject to 2 check, that this is an excerpt from your 2005 study 3 specifically from page 2-12. Sir, you'll -- you'll 4 5 accept that subject to check? 6 MR. LARRY KENNEDY: That's correct, 7 sir, I will. 8 MR. BYRON WILLIAMS: And in terms of 9 the -- the person asking the questions of you, Mr. 10 Kennedy, being me, I'd ask you to assume as well that I have a little more experience having discussions with 11 actuaries or statisticians, and a little less with --12 13 with persons who do depreciation studies. So you'll --14 you'll accept -- accept that for the purpose of my 15 question? 16 MR. LARRY KENNEDY: No problem, sir, 17 yes. 18 MR. BYRON WILLIAMS: Excuse me. At the 19 top of page 19, you'll see a reference to your eth --20 the distribution systems analysis. And on line 3 of 21 that discussion, you'll see a reference to the 22 retirements additions and other plant transactions 23 through 2005 were studied for these accounts. Do you 24 see that reference, sir? 25 MR. LARRY KENNEDY: Yes, I do.

1849 MR. BYRON WILLIAMS: And certainly I 1 can't profess to -- to have minutely examined the 2005 2 study, but in terms of distribution systems, would I be 3 correct in suggesting to you that there's no reference 4 5 here to the -- to the fact that -- that installation 6 year data was missing? 7 MR. LARRY KENNEDY: I'd agree with you. At least not in this page. And -- and I'm not -- and 8 9 I'm trying to -- I'm not trying to be cute. The -- and 10 I'm really trying to remember if we identified that in the study at other sections. 11 12 We may not have at -- even at the point 13 of 2005, as I suggested before, the use of the computed 14 mortality method in the preparation of what we referred 15 to as the -- the -- loading the observed life table is 16 common. It still is common, and it's a commonly accepted method. So, I mean, I may have chosen not to 17 18 -- to even mention it, because it is such a common 19 method of that. 20 MR. BYRON WILLIAMS: And that's really 21 the -- the thrust of my question, sir. Again, 22 recognizing that I'm more familiar with statisticians or -- or actuaries, in terms of data limitations, in 23 terms of the depreciation analysis that you undertake, 24 25 what -- what is the general accepted practice in terms

of identifying data limitation? 1 2 MR. LARRY KENNEDY: We would identify data limitation, if we in fact had one, and if in fact 3 we thought a data limitation was skewing the results. 4 5 At '05, we -- we didn't have any information to 6 indicate to us that the life estimates that were being used through the use of the computed mortality method 7 was causing us -- causing us an issue. We did that by 8 9 comparison to peers, by our industry experience. 10 11 So -- and, again, the -- remembering the 12 computed mortality method is a widely accepted method. 13 So we -- we didn't view it as -- as a limitation. 14 This time we did the study, we had 15 different evidence. We had more information. I'm 16 sorry, we had different information and more 17 information. And it appeared that the computed 18 mortality in the circumstances of a couple of accounts 19 was -- was causing us an issue. And -- and we identified that. 20 21 MR. BYRON WILLIAMS: And just so I 22 understand, then, in terms of the reporting practice of 23 your firm or others in the industry, data limitations 24 will be identified to the extent that you believe they 25 may be skewing the -- the conclusions?

1851 MR. LARRY KENNEDY: That's correct. 1 And -- and, again, I -- I don't have right at hand the 2 '05 study. Usually we will indicate that we did use 3 the computed mortality method, and I can't confirm that 4 5 on the record that we did in '05 or not. 6 MR. BYRON WILLIAMS: And I'm not 7 suggesting you didn't, sir. I'm just trying to get some insight into the -- the actual practice. 8 9 If you could turn to -- staying with CAC 10 Exhibit 5 and turn to page 24, in the top right corner, 11 and page 25. Perhaps have both them open. 12 13 (BRIEF PAUSE) 14 15 MR. LARRY KENNEDY: I have that, sir. 16 MR. BYRON WILLIAMS: And we may have stapled in the -- one (1) of them upside down I see. 17 18 But, sir, on page 24, we have the original and smooth 19 survivor curves for Account OOD being spillways, 20 agreed? 21 MR. LARRY KENNEDY: That is correct. 22 MR. BYRON WILLIAMS: And on page 25, 23 actually running through page 27, you'll agree with me 24 that we have some of the data relied upon by Gannett Fleming in terms of exposures, retirements and et 25

cetera, agreed? 1 2 MR. LARRY KENNEDY: Correct. MR. BYRON WILLIAMS: And -- just -- you 3 4 had a bit of a discussion with My Learned Friend Mr. 5 Peters on a -- on a -- on the Weir's smooth and survivor curve, so I -- I want to talk about spillways 6 7 just for a few moments, Mr. Kennedy. 8 But, directing your attention to page 25 9 to the original life table, would I be correct in 10 suggesting to you that if we look at the very first line, that the exposures at year zero were in the range 11 12 of \$370 million, sir? 13 MR. LARRY KENNEDY: That is correct. 14 MR. BYRON WILLIAMS: And just to help 15 my client and perhaps others, including their lawyer, 16 understand this original life table, sir, if I took you 17 down to the age at the beginning of the interval 30.5 on that same page, but towards the bottom, you'll agree 18 19 with me that the exposures at the beginning of that age interview were in the range of 152 million, agreed? 20 21 MR. LARRY KENNEDY: That is correct. 22 MR. BYRON WILLIAMS: And, sir, I would 23 be correct in suggesting to you that the decline from 24 zer -- year zero through to the decline at -- in terms 25 of exposures at thirty point five (30.5) is -- is not a

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1853 function of re -- is not primarily a function of 1 2 retirements. 3 You would agree with me in that suggestion? 4 5 MR. LARRY KENNEDY: That's correct, 6 sir. And as -- as I tried to explain a little bit 7 yesterday, that -- that becomes a little bit of a 8 complex area. With that -- that decline from the 152 9 million from the 369 million would be indicative of the 10 11 level of additions that have occurred, but have not yet 12 reached age thirty (30). 13 MR. BYRON WILLIAMS: So, if we were to 14 think of the li -- Limestone hydroelectric and generating station, and its associated spillway, 15 16 assuming it was built in the 1990s, we wouldn't see it at year 30.5 because it had not reached that age, sir. 17 18 MR. LARRY KENNEDY: That's correct. It 19 would be something younger than that, obviously. 20 MR. BYRON WILLIAMS: Now, recognizing 21 that, if we look at the data available to Gannet 22 Fleming in terms of retirements, we'll -- we'll see in 23 age 8.5, in that particular year, a retirement or 24 retirements in the range of eighteen hundred dollars 25 (\$1800), agreed?

1854 MR. LARRY KENNEDY: That's correct. 1 2 MR. BYRON WILLIAMS: And if we flipped to the next page, sir, being page 26, in the top right-3 hand corner, we would see in the age beginning at 4 5 interval sixty-five point five (65.5) modest 6 retirements totalling a bit over nine thousand dollars 7 (\$9000), agreed? 8 MR. LARRY KENNEDY: That's correct. 9 MR. BYRON WILLIAMS: And, again, if we 10 went down to the age beginning at interval seventy one point five (71.5) we would see modest retirements in 11 12 that particular time period in the range of sixteen 13 thousand dollars (\$16,000), agreed? 14 MR. LARRY KENNEDY: Agreed. 15 MR. BYRON WILLIAMS: And in terms of 16 the data available to Gannett Fleming -- Fleming at the 17 time of the study in terms of retirements, would I be 18 correct in suggesting to you that that would be it with 19 reference to spillway? 20 MR. LARRY KENNEDY: With reference to 21 spillways, that's correct. 22 MR. BYRON WILLIAMS: So -- so let's, 23 sir, just to see how that is translated into the 24 original and smooth survivor curves, I'd ask you to 25 turn back to page 24 in the top right-hand corner.

1855 MR. LARRY KENNEDY: I have that. 1 2 MR. BYRON WILLIAMS: And I'm just making sure everyone else does. The title for that, 3 sir, you'll agree with me is "Account 000D Spillway, 4 5 Original and Smooth Survivor Curves"? 6 MR. LARRY KENNEDY: That is correct. MR. BYRON WILLIAMS: And that -- that 7 figure of sixteen thousand (16,000), approximately, 8 9 sir, I would see that represented at about the 97th percentile in that little rectangular bar which 10 intersects the eighty (80) year line? 11 12 MR. LARRY KENNEDY: I'm sorry, you said 13 the six (6) -- the sixteen thousand dollar (\$16,000) 14 retirement? 15 MR. BYRON WILLIAMS: Yes, sir. 16 MR. LARRY KENNEDY: It would intersect 17 at about the mid point between the eight (8) -- sixty 18 (60) and the eighty (80) bar. It occurred at age 19 seventy-one (71). 20 MR. BYRON WILLIAMS: Okay. I was just 21 trying -- I was just trying to locate where that --22 that modest retirement appeared, sir. 23 Now, the ultimate selection in terms of 24 -- with regard to the Spillway account was Iowa 75-R2, 25 agreed?

1 MR. LARRY KENNEDY: Agreed. 2 MR. BYRON WILLIAMS: And I would be correct in suggesting to you that you assigned that --3 4 that figure, Iowa -- or that -- that estimate, Iowa 75-5 RT -- R2, not just to the overall account but to the 6 numerous sub-accounts with -- within that category, whether they were Kettle or -- agreed, sir? 7 8 MR. LARRY KENNEDY: Well, yeah. And I 9 was a little bit worried by what you meant by sub-10 accounts. Your -- your clarification of that as being the locations, this 75-R2 is assigned to the spillways 11 12 at all of the locations. 13 MR. BYRON WILLIAMS: So if I looked 14 through the locations fourteen (14) or fifteen (15) of 15 them, this same Iowa 75-R2 would be assigned? 16 MR. LARRY KENNEDY: It would be. And 17 as we discussed yesterday, there may be circumstances 18 where we've truncated that at different points, or 19 applied a lifespan to it. 20 MR. BYRON WILLIAMS: Sir, would I be correct in terms of Gannet Fleming's selection of the 21 22 Iowa 75-R2 for spillways, in suggesting to you that 23 your judgment was not primarily driven by the 24 retirement data available to you? 25 MR. LARRY KENNEDY: I'd agree with

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1857 I mean there was, as -- as we just went through 1 that. for the last few minutes, very limited amounts of 2 actual retirement experience, caused by a couple of 3 things: 1. Perhaps a lack of retirement experience. 4 5 Secondly, perhaps, by capitalization polices such that 6 capital maintenance and overhauls may have historically 7 been expensed rather than capitalized. It could be that paperwork -- and to be clear about it, you know, 8 9 operational people aren't always the -- first and foremost in their mind in the 1950s was to send the 10 11 retirement orders into the accounting group. Their --12 their job was to -- to maintain the plant. 13 So we sometimes suspect a little bit that when we see this lack of retirement data to this 14 15 extent that historically they may not have actually got 16 all the paperwork to make retirements. 17 We -- we also looked at in the 18 circumstance of this account, is the impacts of -- of 19 the revised policies and requirements going forward with the International Financial Reporting Standards, 20 21 such that the -- the -- going forward, the overhauls 22 and -- and capital maintenance will be now capitalized, 23 and there will be retirements made for that. 24 So our expectation going forward is that 25 the pattern of retirements will not be the same as it

1858 historically was. And that's the -- the reason that we 1 placed -- you know, for those three (3) or four (4) 2 reasons it's the -- the reasons that we placed little 3 reliance on the historic retirement data. 4 5 6 (BRIEF PAUSE) 7 8 MR. BYRON WILLIAMS: I think I 9 understand that -- that helpful answer, sir. And --10 and just -- I don't want to reiterate all the points, 11 but one (1) of the reasons with which Gannett Fleming, 12 with this particular account, placed little reliance on the historical retirement data, was the sense that 13 14 perhaps the corporate documentation, in terms of redi -15 - retirement, historically, was -- was not entirely reliable, agreed? 16 17 MR. LARRY KENNEDY: I don't know if I 18 would say -- say it quite that way. I would say in 19 part, into a small degree that may be the case, and 20 then secondly the -- the manner in which it will be 21 reported is changing with the introduction of the IFRS, 22 such that there will be more retirements and different 23 reporting. 24 MR. BYRON WILLIAMS: So another factors 25 was just the nature of how it may have been

historically reported? 1 2 MR. LARRY KENNEDY: To some extent, 3 yes. 4 MR. BYRON WILLIAMS: And that, of 5 course, causes you to look at this particular data with 6 some caution? 7 MR. LARRY KENNEDY: That's correct. Т -- I -- I'm -- I'm going to add to that that I think 8 9 that we look at the results and we review the -- the 10 results of all accounts with, you know, an eye of reasonableness and to -- to ensure that it does look 11 12 reasonable to us. 13 MR. BYRON WILLIAMS: Now, sir, I just 14 want to get a -- a definition down. You -- you don't 15 need to -- to turn there, but if -- if you're looking -- I have not pro -- provided this to the panel -- but, 16 sir, in terms of -- if you're looking to your 2010 17 report in terms of Spillway, you -- you use a -- a 18 19 phrase as "retirement rate analysis." 20 Is -- is that phrase that's familiar to 21 you, sir? 22 MR. LARRY KENNEDY: Yes, it's the 23 process that we use to plot the observed life table. 24 MR. BYRON WILLIAMS: And does the retirement rate analysis for account grouping D-25

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

Spillway, would -- would that have relied on the 1 historical retirement data? 2 3 MR. LARRY KENNEDY: Yes. And to be 4 clear, the printouts that we just went to at pages 25, 5 26, and 27, are -- are in fact the retirement rate 6 analysis. The plotting of the column called, "Percent Survival and Beginning of Age Interval" is the result 7 of the retirement rate analysis that plots onto the 8 9 graph. 10 Some experts in our field, and I'm 11 occasionally somewhat guilty of it, would -- would also 12 infer that the curve matching exercise is part -- of 13 the retirement rate analysis. In a purest sense that 14 isn't. The -- the retirement rate analysis stops at 15 the plotting of the points and then we move into a 16 curve fitting analysis to -- to try to fit a smooth 17 Iowa curve to that retirement rate analysis result. 18 MR. BYRON WILLIAMS: That's a helpful 19 answer, sir. And -- and so let me -- let me just break 20 that down, recognizing the distinction you have drawn 21 between the retirement rate analysis and the plotting of the -- the smooth curve. 22 23 Focussing on the retirement rate 24 analysis, can you identify, at a high level what, if 25 any, statistical tests Gannett Fleming ordinarily

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 undertakes in terms of testing for statistical
2 significance?

3 MR. LARRY KENNEDY: I'm trying to come up with a Readers Digest version of many textbooks. 4 We 5 would look at the percentage of plant retired as a percentage of plant install. In other words, while one 6 7 would not expect high percentages there, we -- we'd like to see that there is a representative percentage 8 9 of plant retired. In other words, we don't have three 10 (3) data points and three (3) retirement points; it's 11 in the retirement rate analysis. That -- that's a 12 signal to us that there's a lack of retirements. 13 We -- we look at the ability of a 14 retirement rate analysis. We can ask the retirement 15 rate analysis to provide a best fit. In other words, 16 the retirement rate analysis programs that we use will 17 -- will try to extend into the next step for us and 18 give us a statistical best fit that's based on -- on an 19 iterative process where it goes through and takes every 20 possible Iowa survivor curve, and do a sum of least 21 squares differences fit to the observed life table. 22 Now, that's where the confusion comes in 23 that people say, Well, the curve fitting is part of the 24 retirement rate analysis. I draw the distinction that, 25 really, our model that we use for retirement rate

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1862 analysis tries to help us in the curve fitting routine. 1 2 So there is some -- there is a statistical review done with that. We -- we look at 3 the percents surviving with a column called "exposures 4 at the beginning of the age interval." That column can 5 6 have a drastic input on the survivor ratio or the percent surviving at the end. For example, if that 7 same eighteen hundred dollar (\$1,800) retirement that 8 9 we see at age 8.5, it has not, even to the second decimal place of rounding, an impact. Had that same 10 eighteen hundred dollars (\$1,800) occurred at age 11 12 eighty-six point five (86.5), we would have a 13 retirement ratio of about 70 percent. In other words, 14 we'd see a great big drop in -- at the end of the 15 curve. 16 So the -- the point in time at which the 17 retirements enter the retirement rate analysis, because 18 those retirements are used in a calculation of the 19 retirements as a percentage of the plant surviving at 20 that age interval, can have a drastic impact. 21 So we will look at the -- the spot of 22 the -- or, the ages of the significant level of 23 retirements to see if that's influencing. I, and I 24 think most of the analysts within our firm, will really 25 stop looking at the significance or put a lot less

weight on the portion of the observed life table that 1 represents exposures that are less than 1 percent of 2 the total plant exposed. So in other words, in this 3 case, we had three hundred and sixty-nine thousand 4 5 (369,000) -- \$369 million of plant exposed at age zero. 6 Once we were down into the -- the three hundred and sixty thousand dollar (\$360,000) range, we would view 7 that any retirements there are over-skewing the results 8 9 and -- and probably eliminate that. 10 So that -- that's the type of thing that 11 we look at. There's a number of them that we do look 12 at as part of the analysis to try to ensure that we're 13 not getting a skewed result on the basis of the timing of the retirements that -- that isn't normal. We want 14 15 to make sure we have enough population to rely on them. 16 So really what it comes down to is looking at those types of things to determine the 17 18 weighting that we put on -- or, that we use in the 19 curve fitting routines that will -- is really the next 20 step of the exercise. 21 MR. BYRON WILLIAMS: And just to make 22 sure I -- I understand your answer, did you perhaps 23 jump ahead in your discussion of best fit, in terms of 24 moving into the curve-fitting analysis, sir? 25 Recognizing we were trying to -- to distinguish between

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1864 the retirement analysis and the curve-fitting analysis, 1 when you move to best fit, were you jumping ahead to 2 the -- the curve-fitting analysis, sir? 3 4 MR. LARRY KENNEDY: That -- that would 5 be partially correct. It -- it's -- and what I was 6 getting at there is our models, our proprietorial models, try to help us in that curve fitting by 7 providing us part of the retirement rate analysis 8 9 model, if you will, a starting point. It says, This 10 may be a good spot for you to start looking at fitting. 11 And so we use that information. That's why -- so 12 you're right. The -- the best fit, statistical best 13 fit, is really a -- an exercise in starting the curve-14 fitting exercise. MR. BYRON WILLIAMS: And with this 15 16 particular account, you would have had some caution in 17 putting much weight on -- on trying to statistically 18 best fit the retirement analysis, given the -- the --19 the size of the sample, the number of data points, and 20 the percentage of plant retired as compared to the 21 percentage of plant installed? 22 MR. LARRY KENNEDY: Very definitely. 23 In fact -- well, I can't confirm on the record -- most likely, I did not even ask for a statistical best fit. 24 25 It would have given me something in the tens of

1865 thousands of years, which is, you know, in essence, 1 it's a straight line across the top for infinity. So 2 when we see that kind of result, we -- we usually don't 3 even ask the -- the -- the software to provide a best 4 5 fit for us. 6 MR. BYRON WILLIAMS: I thank you for that. And -- and let's just -- I know you had that 7 discussion with the Chair and with Mr. Peters 8 9 yesterday, but let -- let us just return to dams, dikes, and weirs for a second. That's at pages 20 10 11 through 23 of CAC Exhibit 5. 12 13 (BRIEF PAUSE) 14 15 MR. BYRON WILLIAMS: And I'm just making sure everyone has it, Mr. Kennedy. Just bear 16 17 with us. 18 In the top right-hand corner, page 21. 19 And, again, try not to trench too much upon the 20 conversation from yesterday. The exposure, looking to 21 page 21, at year zero was about half a billion dollars, 22 sir? 23 MR. LARRY KENNEDY: That's correct. 24 MR. BYRON WILLIAMS: And you went 25 through the retirement with -- with the Chair

1866 yesterday. But to summarize, would I be correct in 1 suggesting to you that there are seven (7) time periods 2 in which -- years in which retirements took place, sir? 3 4 MR. LARRY KENNEDY: That would be 5 correct. MR. BYRON WILLIAMS: And would you 6 7 accept, subject to check, that if we looked at the 8 value of those retirements that they would total a bit 9 less than nine hundred thousand dollars (\$900,000), sir, subject to check? 10 11 MR. LARRY KENNEDY: I'd take that. Т 12 was getting about nine hundred thousand (900,000) in my head as I was --13 14 MR. BYRON WILLIAMS: Yeah. MR. LARRY KENNEDY: -- adding them up 15 16 quickly. 17 MR. BYRON WILLIAMS: I would be pushing 18 you if I said eight hundred eight (808) -- eight 19 hundred eighty-five thousand, seven hundred and eleven (885,711); but you'll accept nine hundred thousand 20 (900,000) subject to check? 21 22 MR. LARRY KENNEDY: I will. 23 24 (BRIEF PAUSE) 25

1867 MR. BYRON WILLIAMS: And without 1 dwelling on -- on this particular result in any great -2 - great detail, when we turn to page 20 and see the 3 original and smooth survivor curves, we can agree, sir, 4 5 that your selection was Iowa 125-R4, agreed? 6 MR. LARRY KENNEDY: Agreed. 7 MR. BYRON WILLIAMS: And I would be correct in suggesting to you, sir, that your judgment, 8 9 in terms of the Iowa 125-R4, was not primarily driven 10 by the empirical -- that empirical sample or retirement 11 rate analysis. 12 MR. LARRY KENNEDY: Not entirely, sir, 13 although in this case we did get some indications of a 14 period, and -- and I would in this case look at the 15 period of -- I think there were six (6) or eight (8) 16 intervals that were tightly banded that -- that had 17 retirement data. 18 In other words, from age interval fifty-19 four-point-five (54.5) through sixty-six-point-five 20 (66.5), that -- that ten (10) year era, we did have some indications of -- of retirement data. That --21 22 you'll see that being plotted as, if you will, the 23 fairly major step that we see, or the knee of the 24 observed life table at page -- page 20. 25 Had we fit that exactly, we would have

1868 ended up with a curve somewhat shorter. The -- when we 1 looked at that, we say, Okay we do have some 2 indication. It's a material amount. It's not the 3 4 majority of the account or anything, but it's nearing a 5 million dollar of -- of retirements within a certain 6 era. We look at that, and we -- we then would try to say, How much relevance do we put on that information? 7 8 Again, this is an information-collecting 9 exercise. The -- the retirement rate analysis is a --10 is a tool that we use as part of the information collecting. And so we'd look at that and we'd say, 11 12 Okay, there is an indication, and how much relevance do 13 we put on that, and do we think that's going to 14 continue to occur again. 15 So we -- we would have put more weight 16 in this case on the retirement rate analysis, but definitely it was not the -- the primary tool or the --17 18 the exclusive tool that we used. 19 MR. BYRON WILLIAMS: And -- and indeed, 20 the Iowa 125-R4, you'll agree with me, is unlikely to 21 have been the best fit when we move to the smoothing 22 exercise if we were relying entirely upon the -- the 23 retirement analysis. 24 MR. LARRY KENNEDY: I agree. That --25 we would have, and I -- I don't have the information,

1869 but visually I would say we would have something in the 1 seventyish (70ish) range on a pure best fit. 2 3 MR. BYRON WILLIAMS: Thank you. And -and I think we shall put away Iowa for the -- for the 4 5 remainder of our -- our discussion. 6 THE CHAIRPERSON: Do you mind if I -- I 7 just want -- just for my clarification. I can -- you know, visually, I can see that the curve in Iowa 125-R4 8 9 in relation to the retiring experience is pretty close, I mean the curve is really close to what you've 10 right? 11 experienced. 12 MR. LARRY KENNEDY: Yes. 13 THE CHAIRPERSON: Now what I don't --14 what I'm getting from the ones we looked at on page 24 15 is not quite the same picture, right. I mean, you've 16 established a curve which is probably conservative relative to the retirement experience that -- that has 17 18 occurred, right? MR. LARRY KENNEDY: Agreed, and -- and, 19 20 Mr. Chair, the -- the -- the primary difference there 21 is, as Mr. Williams and I just went through a few 22 minutes ago, in the circumstance of the curve that's plotted on page 24, we really only had in the 23 neighbourhood of twenty-five thousand dollars (\$25,000) 24 25 of retirements. So, there -- there was virtually no

real actual retirement experience that we could 1 statistically rely on. 2 3 As compared to the curve that we plotted at page 20, we had in the neighbourhood of a million 4 5 dollars of retirement experience. Still not a large 6 percentage of the plant, but it -- it is large enough 7 and it is starting to get to be a material amount that does provide some indication to us. 8 9 The other things we would look at, we'd 10 say for spillways, seventy-five (75) -- or the curve that comes out of the -- probably tens of thousands of 11 12 years, is that a reasonable curve? No. So we do have 13 to rely on something else. 14 We look at the curve that we plot at age -- on page 20, we'd say, Well, the best fit would have 15 16 been, I think, something in the seventies to seventyfive-ish year range. Does that make sense? Again, no. 17 18 Given the age that we know and the information -- other 19 information that we know, the -- Manitoba Hydro has a 20 number of plants that are at or beyond that age. 21 So we say we need to extend it out. We 22 move it out as far as, say, a hundred and twenty-five-23 ish years, that starts to become more -- more in the 24 industry norm of curves that we would apply to these. 25 Definitely from a hundred (100) to a hundred and

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1871 twenty-five (125) would be a more normal curve. 1 And we look at it and say, Okay, that -- that industry 2 developed curve or that curve that's based on our 3 professional judgment still fits a little bit to -- to 4 5 the -- to the life experience. 6 It, at least fits the shape and in, you 7 know, putting all the factors in -- into consideration, it -- it seems to be, at this point in time, a 8 9 reasonable estimate. Five (5) years from now, if we have more retirements or continued -- continued lack of 10 retirement experience, that curve may -- we may change 11 12 our opinion on it in five (5) years. 13 But, at this point, you know, given the 14 industry experience that we have, given what we've seen 15 throughout Canada and North American, given the age of 16 the -- the -- the facilities that are in service, we --17 we didn't totally trust the results of the -- the 18 retirement rate analysis. That's -- that's why we --19 we -- we use some of the other experience that we have. 20 And -- and I -- and I tend to think or tend to hope 21 that that's part of the experience that -- that I and 22 Gannett Fleming can bring to the process in terms of 23 our, you know, broader experience, rather than just the 24 number-crunching exercise. 25 THE CHAIRPERSON: I want to go back to

1872 the newly-discovered poles -- the four hundred thousand 1 2 (400,000) poles that have suddenly been discovered. Ι guess the -- I guess from an accounting standpoint, you 3 probably haven't adjusted your inventory values. 4 5 This is probably more to Mr. Rainkie and 6 Mr. Warden, I guess you would establish those inventory 7 values for those poles based on historical data, right? So the fact that you've actually discovered four 8 hundred thousand (400,000) new poles, or at least old 9 poles, didn't change your inventory value -- your basic 10 11 inventory value. 12 MR. VINCE WARDEN: Well, that's --13 that's right, Mr. Chairman. The poles, of course, have 14 always been there. It's just that they weren't 15 properly or inventoried as well as they are today. 16 They were always -- the cost was always included in our plant records and, as was discussed 17 18 earlier, those plant records have reached a stage of 19 computerization now that we can more accurately identify where those poles are and the -- and the 20 21 vintage of those poles. 22 Going back, as Mr. Kennedy was 23 referring, brought back some memories, actually, of the 24 old plant ledgers we used to have where we would try to 25 -- try to maintain retirements when we actually were

1873 quessing where the -- where the retirements were coming 1 When -- when salvage material arrived back at 2 from. the warehouse, we'd try to sort through that and 3 determine where -- where that credit should -- should 4 5 belong. 6 So, the plant records, though, in terms of the original cost was always entered into the --7 into our plant, the costs, so the -- the financial 8 9 statements reflect the true original cost of -- of 10 those poles. They just weren't properly inventory --11 inventoried in the past. 12 THE CHAIRPERSON: But it has huge 13 impact on your replacement costs going forward, right? 14 Instead of having to replace, potentially, five hundred 15 thousand (500,000) poles, you suddenly have to think 16 about replacing, eventually, a million poles. 17 MR. VINCE WARDEN: Well, that's right. 18 And when we look at our capital expenditure forecast, 19 we realize that there are years in which it is 20 deficient in terms of what the capital costs will be to 21 re -- replace some of those assets that are expiring. 22 THE CHAIRPERSON: Now, I quess there 23 will be -- I mean, barcoding an old pole doesn't tell 24 you the -- the year in which it was put there. It just 25 puts -- puts a barcode on a -- on a telephone pole and

-- and it helps you build inventory. 1 2 So we'll still be talking to Mr. Kennedy in five (5) years time, because there will be poles 3 that -- for which we don't know the vint -- the year of 4 5 -- the -- the year it was placed there. And -- I mean, 6 ultimately at some point we will have records that will be able to tell us how many poles need to be replaced 7 and how -- how long they last and so on. But that's 8 9 not the case for another few years I quess? 10 MR. VINCE WARDEN: Yeah, I would think 11 the -- the tagging proce -- or the identification 12 through tagging that Mr. Hall described would closely 13 coincide with the date at which that pole was 14 installed, even though that would be the manufacturer's 15 co -- tag that's on there that is being inventoried, 16 it's very likely that once it was purchased by Manitoba 17 Hydro it was installed shortly thereafter. 18 So the -- I would think they would line 19 up pretty closely. MR. RAYMOND LAFOND: I -- I now want to 20 21 be clear on this. From what I hear is in actual fact 22 the dollar amounts for all the poles bought over the 23 years has been put into capital or inventory or both. 24 It's just that the numbers -- you will not necessarily 25 have the numbers, but if you bought a hundred thousand

dollars (\$100,000) worth of poles one (1) year you 1 added the hundred thousand dollars (\$100,000) of poles 2 in the inventory. But over time you don't know where 3 they were placed exactly and -- and the exact number of 4 5 poles, correct? 6 MR. VINCE WARDEN: That is correct. We -- we had manual records back in those early days that 7 was -- was being referenced here prior -- in the 1950s 8 9 and prior. And so those manual records over time just became unmanageable. But -- but yes, absolutely, the -10 - the capital cost of those poles would have been 11 12 charged to the -- the capital assets of Manitoba Hydro. 13 MR. RAYMOND LAFOND: And the policy of 14 Manitoba Hydro at this time and over the years, and 15 maybe in the past it could have deferred, was to 16 capitalize only the cost of the pole and not the labour 17 to go and place the pole, et cetera? 18 MR. VINCE WARDEN: No. No, the 19 capitalization policy hasn't changed all that 20 dramatically. The -- the labour costs would have been 21 -- would have been capitalized as well. 22 MR. RAYMOND LAFOND: Thank you. 23 THE CHAIRPERSON: How -- how much does it cost to replace a pole? The -- I mean, a standard 24 25 sort of rural pole that we see along side of the

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1876 highway? Can you give me -- I mean, Mr. Lafond has, 1 you know, talks about the million poles. We each have 2 a pole, so I'd like to know what -- what my pole costs. 3 4 MR. JAMES HALL: I can -- I can attempt 5 to answer that one. It is obviously different size classes and places where poles -- but in around the 6 three thousand (3,000) to thirty-five hundred dollars 7 (\$3,500) material and labour would be a good ballpark 8 estimate of -- of the cost to purchase and install a 9 10 pole. 11 MR. BYRON WILLIAMS: Mr. Chair, I'm --12 I'm -- I have to apologize to My Friend Mr. Peters, 13 because I've been mocking his time-estimating ability 14 during this hearing and -- and mine has fallen off. I 15 probably still have about -- I have another half an 16 hour at least to go. And -- and I was going to suggest 17 -- I may have just one (1) or two (2) more questions on 18 this particular area. 19 I thought we had left it, Mr. Kennedy, 20 but I -- just one (1) point I want to clarify. And 21 then that may be -- an appropriate time for the break would be at 10:30 and -- if -- if that's -- subject to 22 23 the wish of the panel. 24 25 CONTINUED BY MR. BYRON WILLIAMS:

MR. BYRON WILLIAMS: Mr. Kennedy, I 1 apologize for this. Just if you'll travel back in CAC-2 5 to page 21 just for a second, sir. 3 MR. LARRY KENNEDY: I have that. 4 5 MR. BYRON WILLIAMS: And under the title "Original Life Table," you'll see on the left-6 hand ti -- side "Placement Bands 1923 to 2010," and on 7 the right-hand side "Experience Bands 1952 to 2010." 8 9 And I wonder if you can assist my client and perhaps others in understanding what those represent, sir? 10 11 MR. LARRY KENNEDY: Definitely. The --12 the placement band references the -- the band or the 13 years that are included in the exposures at the 14 beginning of the age interval column. 15 So in other words, the -- that 16 represents the period of time which we've looked at the additions or the plant exposed to retirement. 17 We 18 combine that with an experience band that looks at the retirement transactions that have occurred from 1952 to 19 20 2010. 21 Now, one would say, Why didn't you use 1950 -- 1924 to 1951's retirement. Two (2) -- two (2) 22 23 things occur, and this is partly our -- our reporting 24 of what -- within our models, if there was no 25 retirements in that period then the model displays the

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1878 value of 1952. In other words the first year that 1 there may have been a retirement dollar as the 2 beginning of the experience band. 3 I -- I can confirm for the Board that 4 5 this account was run with what we call an all-exclusive 6 band, meaning that we looked at every addition 7 transition and every retirement transaction that was available to us. 8 9 MR. BYRON WILLIAMS: And so just --10 let's take the example of Pointe du Bois, which I'll ask you to accept subject to check, came into service 11 12 in October of 1911. First of all, how if at all does 13 the fact -- well, will you accept that subject to 14 check, first of all, sir? 15 MR. LARRY KENNEDY: And I think that -that is correct, yes. 16 17 MR. BYRON WILLIAMS: Okay. So given 18 the start date of 1911 -- 1911, and the placement band 19 starting at 1923, what if any impact on the analysis would the earlier start date for Pointe du Bois have, 20 21 sir? 22 MR. LARRY KENNEDY: I just -- I just 23 need to confirm one (1) -- one (1) thing, then I'll... 24 25 (BRIEF PAUSE)

1879 1 THE CHAIRPERSON: Mr. Williams, what 2 page are you on? 3 MR. BYRON WILLIAMS: Sir, I was just 4 referring to page 21 in the top right-hand corner of 5 CAC Exhibit 5. 6 7 (BRIEF PAUSE) 8 9 MR. LARRY KENNEDY: I'd rather take a 10 look at that over the break just to make sure that -what I want -- I want to just ensure that the original 11 12 dollars somehow hadn't been retired or missed, or maybe 13 had been quoted as a 1923 or some year after amount in 14 this analysis. 15 So rather than put something that's --16 onto the record that isn't correct I'd rather take a 17 few minutes over the break to -- to ensure my facts. 18 19 CONTINUED BY MR. BYRON WILLIAMS: 20 MR. BYRON WILLIAMS: And perhaps, sir, 21 over the break as well you can come back with some 22 insight in -- into -- we've been speaking of Manitoba 23 Hydro data but I guess presumably a lot of this information would have actually been original Winnipeg 24 25 Hydro data, agreed?

1880 1 MR. LARRY KENNEDY: Well, I agree, and you -- you've hit the point that I wanted to clarify it 2 in terms of how that data was -- was put into -- you 3 know, specifically for Pointe du Bois. If it was put 4 5 in at a net book value at a date later or some -- some 6 such type of thing. 7 MR. BYRON WILLIAMS: Okay. And, Mr. Chair, perhaps this would be an appropriate time for a 8 9 break. 10 THE CHAIRPERSON: Just one (1) question before we go. I guess just for my -- my understanding, 11 12 you know, 2001, 2005, 2011, now the experience over the 13 three (3) years, you know, I -- has been what we've 14 been extending over the -- the lifespans at each of 15 those -- in other words we started -- 2001 is the base year but that must have caused some adjustments to 16 17 inventory values. 18 MR. LARRY KENNEDY: I'm not sure if I 19 totally understand the question but let me take a crack 20 at it and you can tell me if I'm --21 THE CHAIRPERSON: I'm trying to get a 22 trend here. 23 MR. LARRY KENNEDY: Yeah. 24 THE CHAIRPERSON: I'm trying to -- if 25 there is a trend.

1881 MR. LARRY KENNEDY: Definite -- the --1 the -- thanks for that clarification. The -- the trend 2 is definitely that we're seeing life extensions. And 3 we -- we're pulling lives out not only with this 4 5 utility but, you know, industry-wide we're -- as we 6 talked yesterday a bit, we're starting to see some 7 indications of hydro facilities and --and dams, and we're trending out, you know, over the last decade. 8 9 So what we would have seen as perhaps seventy-five (75) or hundred (100) year estimates now 10 seem to be, you know, a hundred (100) or a hundred 11 12 (100) plus type estimates. So we are definitely seeing 13 a trend to longer life estimates. Definitely in things 14 like dams. Definitely in things like distribution 15 plant we're also seeing longer lives. 16 Other accounts -- you know, technology-17 based accounts are going the other way but 18 predominantly the civil structures we're seeing some 19 extensions and, you know, poles and -- and distribution 20 systems we -- we see extensions as well. 21 THE CHAIRPERSON: Okay. I suggest we 22 take ten (10) minutes, and are there any matters to 23 attend to before we adjourn? No, there isn't, okay. 24 Thank you. 25

1882 --- Upon recessing at 10:30 a.m. 1 --- Upon resuming at 10:45 a.m. 2 3 THE CHAIRPERSON: I wonder if we could 4 5 resume the proceedings. Do we have any documents at 6 all to acknowledge, or to...? MS. PATTI RAMAGE: None from Manitoba 7 8 Hydro. 9 MR. BOB PETERS: I can indicate, Mr. Chairman, that at the break there was an additional 10 document provided from Mr. Hacault that will fit inside 11 12 MIPUG Exhibit 6, which is the MIPUG binder of 13 documents. And I suspect that Mr. Hacault will get to 14 that later today. 15 So it's not -- it does not need a new 16 exhibit number. It has a tab, and it would just be inserted into the binders that we all have. Thank you. 17 18 THE CHAIRPERSON: Back to you, Mr. 19 Williams. 20 21 CONTINUED BY MR. BYRON WILLIAMS: 22 MR. BYRON WILLIAMS: I believe we were 23 waited with -- waiting with baited breath for Pointe du 24 Bois from Mr. Kennedy. 25 MR. LARRY KENNEDY: Thank you, Mr.

1883 Williams. During the break, I had a chance to -- to go 1 over, with the help of Ms. Hooper, the database that we 2 have. The Pointe du Bois assets were acquired by 3 Manitoba Hydro in 2003. And they were -- and they were 4 5 booked at their -- based on their current value, based 6 on a valuation the company had performed with -- on the assets. And so, as such, the -- the install date was 7 adjusted backwards. And I -- I'm not sure how far, but 8 9 it was adjusted backwards in time, not back to 2011, but to reflect the average condition of the assets. 10 But it was booked with a transaction 11 12 date of 2003. Therefore, it -- the -- the placement 13 band, starting in 1923, is reflective of the oldest 14 plant, being grand -- Great Falls that was installed in 1923. The Pointe du Bois assets would be an addition 15 16 in the placement band analysis in 2003 or '04 and would 17 have a vintage date of something slightly older. 18 MR. BYRON WILLIAMS: Just a couple 19 follow-up questions. And, Mr. Kennedy, you may have 20 inadvertently misspoke in terms of dates when you said "not back to 2011." 21 22 MR. LARRY KENNEDY: Oh, I'm sorry. 23 MR. BYRON WILLIAMS: I think you might have meant to say, Not back to 1911? 24 25 MR. LARRY KENNEDY: That's correct.

1884 Thank you for that. 1 2 MR. BYRON WILLIAMS: And as I understand your last -- your second-last answer now, 3 Pointe du Bois has gone in at the 2003 year? 4 5 MR. LARRY KENNEDY: That's correct. 6 7 8 (BRIEF PAUSE) 9 10 MR. BYRON WILLIAMS: And perhaps just 11 you can work me through this -- with this, Mr. Kennedy. 12 Going back to a discussion we had near the -- the start 13 of this morning, will the Pointe -- in term -- let's 14 start with exposures. How -- how, if at all, might it 15 expect the exposure -- the -- the placement of Pointe 16 du Bois some seventy (70) to eighty (80) years after -after it was originally installed? 17 18 MR. LARRY KENNEDY: The -- the 19 exposures would represent the expenditure of money that 20 the Company made for the acquisition of those assets. 21 So in other words, the -- the exposure that's going in in -- based on a 2003 date, reflect the fact that the 22 23 Company invested in 2003 a certain amount of money. 24 Think of it as purchasing a used car. 25 The -- the used car is not going to have the same life

1885 indication as a new car would. So when the -- the 1 Company buys the -- the Pointe du Bois asset in 2003, 2 we have a -- there's a couple ways that we can handle 3 it from an actuarial point of view: 1. We can buy that 4 5 used car and call it as an original date of something, 6 1911 or buy a used car that's five (5) years old and 7 put a vintage on it of five (5) years ago. 8 That would be not quite fair in that 9 that would be appropriate if you had put the original cost dollars in. In the circumstance where the Company 10 is adding the acquisition value to its ledgers, that 11 12 acquisition value is reflective of buying a used asset or an older asset that will have a different life 13 14 expectation. 15 So ba -- what we did, and we -- we 16 looked at that and we said, Okay, what's a reasonable 17 life expectation for that Pointe du Bois asset. But 18 Pointe du Bois receives a -- and I need to look this up 19 just for a second -- the -- the actual truncation date 20 of the lifespan date of Pointe du Bois is much more 21 current and much closer than the other plants. 22 So when we talk about that Iowa curve 23 that we were looking at, it's going to be truncated at 24 a point -- that 2003 investment is going to be 25 truncated at a point much closer to the left side of

1886 that curve that -- than would be the other plants. 1 2 So we're picking up the fact that that plant has a shorter life expectation or that investment 3 has a shorter life expectation through the use of the 4 5 truncation date that we're applying to that curve. It still was a 2003 investment. In 2003 6 7 the Company expended the money, and that investment -that specific investment for Pointe du Bois, will have 8 9 a shorter life expectation, and we do that through the influence of the truncation date to the Iowa curve. 10 11 MR. BYRON WILLIAMS: Okay. Now, and 12 we'll leave Pointe du Bois and My Friend, Mr. Hacault, 13 may have some further questions for you on it in just a 14 second. 15 But, in terms of the retirements during 16 the age interval, would there be Pointe du Bois-related 17 information within those seven (7) years? 18 MR. LARRY KENNEDY: To the extent --19 and I don't think there was any retirement transactions 20 that were -- that were booked or recorded. They should have -- one would expect -- now, what I'm worried 21 22 about, sir, is the actual vintage that we applied to 23 that plant when -- when you capitalized it. And that's 24 -- that's the -- the view of the unknown. 25 I know we didn't vintage it at 2003. We

1887 vintaged it based on the results of the valuation model 1 in terms of the condition of the plant. In other 2 words, you bought a used asset. How old is that used 3 asset and how did that tie into the -- the valuation? 4 5 So there would be to the extent of these 6 retirement transactions that would be shown in the life 7 table, I'm not exactly certain -- and I'd have to check the -- the actual vintaging that was applied to 8 9 that investment to confirm that. But I will confirm that the -- the -- to the extent there was retirements, 10 11 they would be reflected in this -- in these -- in these 12 tables. 13 MR. BYRON WILLIAMS: Sir, would it be -14 - could you undertake to explore whether there are 15 retirements associated with Pointe du Bois reflected in 16 the retirements during the age interval. 17 And, secondly, you expressed some 18 uncertainty in terms of the vintaging calculation, so I 19 wonder if you could clarify that in terms of Pointe du 20 Bois. 21 MR. LARRY KENNEDY: I will do that, 22 I -- I just will note that I will likely need my sir. 23 databases that I don't have with me. And so that --24 that's probably going to be after my -- my appearance 25 here is completed. In that it just isn't physically

1888 with the files I have with me that that -- that won't 1 happen today. 2 MR. BYRON WILLIAMS: That's not a 3 problem, sir, and -- and just for the reporter, 4 5 hopefully she's got the undertaking, but we'll -- we'll 6 try it: to -- to identify with regard to Pointe du Bois any retirements related to Account OOA -- I -- I may be 7 amending this -- as well as Account 000D, being the 8 9 spillway. And, secondly, to provide clarity in terms of the age of vintaging. 10 11 Is that satisfactory, Mr. Kennedy? 12 MR. LARRY KENNEDY: That's fair. 13 14 --- UNDERTAKING NO. 34: Manitoba Hydro to identify, 15 in regards to Pointe du 16 Bois, any retirements 17 related to Account OOA, as 18 well as Account 000D being 19 the spillway; and to 20 provide clarity in terms of 21 the age of vintaging. 22 23 CONTINUED BY MY BYRON WILLIAMS: 24 MR. BYRON WILLIAMS: And in -- in -- in 25 terms of Pointe du Bois, what, if any, impact would the

1889 -- the acquisition of that plant have on areas such as 1 distribution? Is there any distribution associated 2 with Pointe du Bois? 3 4 5 (BRIEF PAUSE) 6 7 MR. LARRY KENNEDY: My -- my colleagues up here are giving me a unanimous no, that it would 8 9 have no impact. 10 MR. BYRON WILLIAMS: And let me refine 11 the question and -- and ask it better. Manitoba Hydro 12 acquired a -- a number of assets from Winnipeg Hydro in 13 the relatively recent past. How have -- focussing on 14 distribution, how have the poles related to that 15 acquisition been -- been treated? 16 MR. LARRY KENNEDY: It would have been 17 in the same manner, sir, recorded in 2003. 18 MR. BYRON WILLIAMS: And can you 19 indicate the approximate percentage of poles related to 20 the Winnipeg Hydro acquisition as compared to the total population of poles? 21 22 MR. JAMES HALL: I -- I can't give an 23 exact number, but it would be very small compared to 24 the -- our service territory. It would be a -- a small 25 percentage of our total number of poles.

1890 MR. BYRON WILLIAMS: Mr. Hall, and --1 and if you have to do this by -- by way of undertaking, 2 but are we -- are you suggesting that it's less than 3 fifty thousand (50,000) poles associated with the 4 5 acquisition of Winnipeg Hydro? 6 MR. JAMES HALL: I better take that as an in -- undertaking. I can't give a ballpark number 7 to that extent. 8 9 MR. BYRON WILLIAMS: So the undertaking 10 would be to identify the number of poles associated 11 with the acquisition of -- of Winnipeg Hydro? 12 MR. JAMES HALL: Yes. 13 14 --- UNDERTAKING NO. 35: Manitoba Hydro to identify 15 the number of poles 16 associated with the 17 acquisition of Winnipeg 18 Hydro 19 20 CONTINUED BY MR. BYRON WILLIAMS: 21 MR. BYRON WILLIAMS: I'm going to move 22 I -- I may come back to that, Mr. Chair and on. 23 members of the panel, before I finish my cross. I just 24 have to reflect upon that for a second. 25

1891 1 (BRIEF PAUSE) 2 3 MR. BYRON WILLIAMS: In the CAC Exhibit 5, Mr. Kennedy, I'm going to direct your attention to 4 5 pages 34 and 35, which you'll agree with me, subject to 6 check, are document -- documents produced by Gannett 7 Fleming and appended to the correspondence provided to Manitoba -- to Hydro, specifically Schedule 1 estimated 8 9 survivor curves un -- use of -- under using the ASL procedures, sir? 10 11 MR. LARRY KENNEDY: That is correct. 12 MR. BYRON WILLIAMS: And, Mr. -- Mr. 13 Kennedy, this is not in the materials before you. I --14 I hope My Friend provided it to you at the -- at the 15 break, but if not, you'll accept this subject to check -- well, let me back up. 16 17 Yesterday you'll recall we -- we 18 discussed the -- the difference between booked 19 accumulated depreciation and calculated accrued depreciation under the ELG procedures, sir? You'll 20 21 recall that conversation with me yesterday? 22 MR. LARRY KENNEDY: I just need you to 23 repeat that. I was moving materials around as you were 24 asking. 25 MR. BYRON WILLIAMS: Okay. I -- I

1892 apologize for that. You'll recall yesterday we had a -1 - a bit of a discussion regarding the difference 2 between booked accumulated depreciation and calculated 3 accrued depr -- depreciation under the ELG procedure, 4 5 agreed? 6 MR. LARRY KENNEDY: That's correct. 7 MR. BYRON WILLIAMS: And turning your attention now to the ASL procedure, and -- and 8 9 recognizing that this is not in the materials before 10 the -- the Board in -- on these particular pages of CAC Exhibit number 5, would I be correct in suggesting to 11 12 you, sir, that the -- the overall -- that using the ASL 13 procedure, the overall variance between booked accumulated depreciation and calculated accum --14 15 accrued depreciation is roughly \$550 million? 16 MR. LARRY KENNEDY: That's correct, 17 sir. That -- that would be the use of the average 18 service life procedure and including a provision for 19 net negative salvage. 20 MR. BYRON WILLIAMS: And, sir, similar 21 to our discussion yesterday you'll agree with me that in -- in terms of that variance between booked 22 23 accumulated depreciation and calculated accrued 24 depreciation, the primary drivers would be distribution 25 and sub -- substations totalling close to 400 million

1893 between the two (2) of them? 1 2 3 (BRIEF PAUSE) 4 5 MR. LARRY KENNEDY: I agree that -- I 6 agree that it does total close to 400 million between 7 the two (2). The -- the largest com -- group of components would be, as you suggested, the distribution 8 9 accounts. The second-largest group would be the generation accounts. And the third-largest group would 10 11 be the substation accounts, sir. 12 MR. BYRON WILLIAMS: Fair enough. So 13 we've -- we've agreed that distribution is the largest, 14 and that substations at 130 million roughly are the 15 third-largest in terms of their impact on the variance, 16 agreed? 17 MR. LARRY KENNEDY: Agreed. 18 MR. BYRON WILLIAMS: And we've agreed 19 as well that when one combines the variance under the -20 - using the ASL procedure associated with distribution 21 with the variance using the ASL procedure associated 22 with substations the accumulated variance there is in 23 the range of \$400 million. 24 MR. LARRY KENNEDY: That's correct, 25 sir.

1894 MR. BYRON WILLIAMS: And this is a 1 small point, sir, but when we get to the true-up that 2 you discussed with my friend Mr. Peters yesterday --3 and I'll -- I'll draw your attention now to page 34 of 4 5 CAC Exhibit 5. 6 MR. LARRY KENNEDY: I have that. 7 MR. BYRON WILLIAMS: In terms of the total -- the true-up associated with distribution in 8 9 the year for which the calculation for the annual 10 provision for true-up was -- was performed, you've 11 estimated it's -- it would be about 6.7 million, sir? 12 MR. LARRY KENNEDY: That is correct, 13 sir. 14 MR. BYRON WILLIAMS: And in terms of 15 the true-up related to total substations estimated for 16 -- for the particular year for which it was calculated, it would be 6.3 million, roughly? 17 18 MR. LARRY KENNEDY: Yeah, six point 19 three (6.3), yes. 20 21 (BRIEF PAUSE) 22 23 MR. BYRON WILLIAMS: And that -- that 24 would be out of a total estimated variance in the range 25 of 400 million, agreed?

1895 1 MR. LARRY KENNEDY: I'm sorry, Mr. Williams, you just lost me on that last question. 2 3 MR. BYRON WILLIAMS: The -- the question probably wasn't required, sir, so that --4 5 that's fine. A few short snappers. And in your 6 conversation both with one (1) of the panel members and with Mr. -- with -- with Mr. Peters yesterday, Mr. 7 Kennedy, in terms of ELG you indicated that certain --8 9 you were familiar with certain municipal-owned 10 utilities that were employing it. 11 I wonder if you could iden -- identify 12 those utilities? 13 MR. LARRY KENNEDY: Certainly. Two (2) 14 that come right off the top of my head would be the 15 City of Red Deer electric system, the City of 16 Lethbridge electric system, and the City of Medicine 17 Hat electric and gas systems. I guess that's three 18 (3), not two (2). 19 MR. BYRON WILLIAMS: So you've -- in 20 terms of the municipal-owned utilities employing ELG 21 you're identifying three (3) utilities within Alberta, 22 sir? 23 MR. LARRY KENNEDY: That's correct. 24 Those are the three (3) that in great honesty pop in 25 that -- that I'm -- I'm familiar with and -- and know

right off the top of my head that I'm comfortable 1 putting on the record. 2 3 MR. BYRON WILLIAMS: Sticking with our 4 short snappers, Mr. Kennedy, I'd ask you to turn to 5 page 36 of CAC Exhibit 5. 6 MR. LARRY KENNEDY: You said page 36, 7 sorry? 8 MR. BYRON WILLIAMS: Yes, marked in the top -- top right-hand corner. And -- and, sir, you'll 9 10 agree with me, subject to check, that this is an excerpt from your 2010 report, namely page 2 -- Roman 11 12 Numeral II-2? 13 MR. LARRY KENNEDY: I have that, yes, 14 and I agree. 15 MR. BYRON WILLIAMS: And drawing your attention to the first paragraph, you'll -- you'll 16 17 agree with me that you identify certain factors that 18 are -- are given consideration in depreciation, 19 including wear and tear. And the one (1) that I've 20 circled, sir, changes in the art. Do you see that, 21 sir? 22 MR. LARRY KENNEDY: I do. And this 23 definition and -- causes to review is a -- the 24 definition, as provided in the Federal Energy 25 Regulatory Commission Part 1 of Schedule 101 applicable

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1897 to FERC-regulated electric utilities. It's -- it's 1 also quoted in a number of other textbooks and -- and 2 material. It is for, regulated utilities, the -- the 3 generally accepted definition of depreciation. 4 5 MR. BYRON WILLIAMS: And that's fair 6 enough, sir. And you -- I don't think we need to go back for it, but what caught my attention was that I --7 I didn't recall seeing the term "changes in the art" in 8 9 your two-o-five (205) definition. So -- but I don't 10 want to quibble about that. 11 But what is meant by "changes in the art", sir? 12 MR. LARRY KENNEDY: 13 Changes in 14 technology, changes in -- in the manner in which 15 materials are installed. FERC uses it to -- as kind of 16 a wide -- I'm not sure if I could answer why they use the word "art" in their definition, but they -- it is 17 18 meant to be changes in technology, changes in 19 installation techniques, changes in the manner and 20 composition of -- of assets. 21 MR. BYRON WILLIAMS: And so to your 22 knowledge, it wasn't referring to changes in the art of 23 depreciation analysis? 24 MR. LARRY KENNEDY: No, it's not. It's 25 related to the assets. Had FERC asked me, I probably

would have used a slightly different word. 1 But unfortunately, they -- they didn't ask me for the 2 definitional quotes. 3 4 MR. BYRON WILLIAMS: And frankly, sir, 5 they haven't been consulting that much with me lately 6 either, which -- which is a source of some concern to 7 me. This is not in the materials before the 8 9 panel in CAC Exhibit 5, Mr. -- Mr. Kennedy, but you'll 10 agree with me that in your 2010 report, in terms of the retirement rate method of analysis, that you devote a 11 12 fair bit of -- of the report to discussing the 13 retirement -- retirement rate of analysis, and -- and 14 you provide your view, without asking you to elaborate, 15 that the retirement rate method complies with IFRS. 16 Do you recall that in your evidence? 17 MR. LARRY KENNEDY: I would think so. 18 The -- in my view, the IFRS doesn't tell you how you 19 estimate an average service life. It tells you, you 20 need to estimate one. And the retirement rate analysis 21 is but a tool to -- to meet that end. 22 MR. BYRON WILLIAMS: And I'm not --23 certainly am not taking issue with retirement rate 24 analysis. But that's -- that's a discussion, in terms 25 of retirement rate method of analysis, that attracted

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

some attention in your report of 2010? 1 2 MR. LARRY KENNEDY: It does. We -- we put that in our report generally because often 3 regulators aren't familiar with the -- the calculations 4 5 that we use in these depreciation and how we build 6 these tables. And these -- these things called Iowa curves and the manner in which we build them are -- are 7 not widely -- widely understood, I think, by -- by the 8 9 general population. And so we would put that in our 10 report as, really, a source of education for those 11 reading the report and -- and understanding the -- the 12 detail materials that -- that are also in the report. 13 MR. BYRON WILLIAMS: And, sir, in 14 answering the next couple questions, I'll just ask you 15 to remember, as I suggested before, that I've got a bit 16 more experience with actuaries or statisticians than I 17 do with practitioners of depreciation studies. 18 You -- you do, in -- in characterizing 19 the retirement rate method of analysis, you do describe 20 it as an actuarial method of deriving survivor curves, 21 agreed, sir? 22 MR. LARRY KENNEDY: I do. 23 MR. BYRON WILLIAMS: And -- and would I 24 be cor -- well, would I be correct, sir, in assuming 25 that Gannett Fleming is awash with actuaries that, you

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

-- that you have a lot of actuarial experience at your 1 beck and call? 2 3 MR. LARRY KENNEDY: I wouldn't say awash. We're a firm of approximately twenty-one 4 5 hundred (2,100) people, most of whom are engineers. We're an engineering firm at -- at our core. We have a 6 division of people that are in the Valuation and Rate 7 Division, with degrees ranging from mathematics to 8 majors in statistics to -- to accounting to 9 10 engineering. 11 So, no, we're not awash in actuarial 12 actuarials. I will suggest that the theory used in the 13 retirement rate analysis was developed, as we talked 14 yesterday, in 1935 at Iowa State University, who, I 15 think, actually are awash in -- in actuarials. In 16 actuar -- is that the right word? Actuarians? Actuarials? Actuaries, I guess, isn't it? 17 18 MR. BYRON WILLIAMS: Fellows of the 19 Canadian Institute of Actuaries might be a -- a fancy 20 word. 21 MR. LARRY KENNEDY: Well, Iowa State wouldn't be the Canadian -- they might be the US 22 23 version of that. But the -- I guess my -- my point is, the -- the development of it was done by people very 24 25 familiar with actuarial analysis. And -- and we do

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1901 have people within our firm with a variety of degrees, 1 some within mathematics and some with statistics. 2 3 MR. BYRON WILLIAMS: And, sir, 4 recognizing again, I -- I come from where -- where I 5 see more actuarial reports than depreciation reports. 6 In the kind of the ordinary course of procedure or practice, in terms of at Gannett Fleming, would you 7 expect or require documentation that the file has been 8 9 reviewed by an actuary and that it is consistent with actuarial profession -- professional standards and 10 11 practice? 12 MR. LARRY KENNEDY: We -- we don't document that with the ca -- in the circumstance of 13 14 every file. We do document it in terms of -- of 15 checking our programs and the output from our programs. 16 17 So in other words, any time we make a 18 check or a change to our proprietorial software, we --19 we do a significant amount of testing of that by people in the -- in the field of statistics. I'm not sure if 20 21 they'd have a degree, if they'd be known as actuaries 22 or not. 23 But we do a significant amount of 24 testing on our -- our programs and the outputs and the 25 manner in which it does the calculations every time

there's a change to our software. 1 2 MR. BYRON WILLIAMS: Okay, and one (1) question for you, Mr. Rainkie or Mr. Warden; it can be 3 4 either one. And, again, recognizing that my client and 5 myself are more familiar with the practice of the external auditors for Manitoba Public Insurance. 6 7 To your knowledge, would the external auditor for Manitoba Hydro conduct a review of the 8 9 depreciation study for compliance with actuarial standards and procedures? 10 11 MR. DARREN RAINKIE: Good morning, Mr. 12 Chair and Board members and ladies and gentlemen. What the auditors will do is conduct a 13 14 review of the depreciation study for financial 15 statement purposes. I don't recall them doing one for 16 actuarial purposes, because they're expressing an 17 opinion if the financial statements are reasonable with 18 respect to accounting principles. But I can guarantee 19 you that they did look at the study as part of our 20 '11/'12 audit cycle, because we implemented the -- the 21 service lives as part of that, of course. 22 MR. BYRON WILLIAMS: And fair enough, 23 Mr. Rainkie. And I -- just again to assist my client, 24 I'll ask you to accept, for the purpose of my question, 25 that when the consulting auditor or the external

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1903 auditor for Manitoba Public Insurance reviews their 1 financial statements, they would retain a -- a 2 consulting actuary, an actuarial specialist. 3 And I -- I'm just asking, to your -- to 4 5 your knowledge, that's not done by the external audit -- auditors for Manitoba Hydro? 6 7 MR. DARREN RAINKIE: Well, Mr. Williams, I mean, the MPI the right side of their 8 9 balance sheet there's -- are actuarial-determined liabilities, I suppose. So I think they have to do 10 11 that. 12 Now, in our case, Ernst & Young, who is our current auditors and were the auditors for 'll --13 14 2011/'12, of course, they have all sorts of experts 15 that they go to, you know, in their Toronto office 16 particularly for these types of, you know, specialized 17 reports, if you like. In fact, I've been on the phone 18 with some of their -- their experts myself and IFRS 19 project manager. They can -- if they have any issues 20 with the review of the depreciation study, they go to 21 these experts and make sure that they're in compliance. 22 23 I don't recall, though, the ones that 24 we've talked to as being actuaries. I think they're 25 more, you know, utility experts, if you like, in terms

1904 of the art of depreciation, as Mr. Kennedy would call 1 2 it. 3 But -- but certainly, you know, in other place on our balance sheet, like pension and benefits, 4 5 our auditors would, because they're based on -- our --6 our liabilities are based on actuarial calculations, 7 they would consult with a -- with actuaries in that sit -- circumstances. 8 9 MR. BYRON WILLIAMS: Okay, that's 10 helpful. Thank you. And, Mr. Kennedy, I -- I fear Mr. -- Mr. Rainkie may have puts words in your mouth. I 11 12 think he used the -- attributed the "art of 13 depreciation" to you, sir. 14 Is that a characterization you would 15 accept? 16 MR. LARRY KENNEDY: Sir, I often get --17 the question, Is this an art or a science, and my 18 answer is, Yes. I -- I do think there is some -- some 19 judgment involved. I think there's some professional 20 opinion involved. I think there's some -- some basis 21 for -- for judgment involved in these estimates. So as 22 such, part of it's art; the other part of it's science. And it's -- it's a mix of both. 23 24 So just in -- in -- going back to your 25 questions about auditing. Gannett Fleming is an ISO-

certified company. As part of that, all our 1 proprietorial software is reviewed as part of the ISO 2 process. And as this is a major source of our 3 company's business, our models are audited. I -- I 4 5 just don't know to -- to what extent and the -- the 6 qualifications of those doing the audits. 7 But it is tested. It's -- it's gone through literally hundreds, if not thousands -- our 8 9 current software, literally hundreds of -- of public reviews and have yet to find an issue, in terms of the 10 calculation of the models. So -- so I am -- I am very 11 12 confident that the models comply. I'm very confident 13 that -- that they've been reviewed and -- and tested 14 very thoroughly. 15 MR. BYRON WILLIAMS: Thank you for that. Now in terms of CAC Exhibit 5, still in the 16 quick snappers area, sir, perhaps if you could turn to 17 18 page 45 for a second. 19 20 (BRIEF PAUSE) 21 22 MR. BYRON WILLIAMS: Now, Mr. Kennedy, 23 I believe your evidence yesterday, perhaps in direct or 24 perhaps in cross-examination, was that in terms of ELG, 25 and I'll -- that some of the early adopters of the

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

procedure were the telephone companies, agreed? 1 2 MR. LARRY KENNEDY: Agreed. 3 MR. BYRON WILLIAMS: And just in terms of -- and -- and if I'm stretching your knowledge too 4 5 far, sir, you'll -- you'll decline to answer. But in terms of when the FCC, being the 6 Federal Communication Commission, began to permit use 7 of ELG for new -- for new plant additions for the 8 9 telephone industry, would I be correct in suggesting to 10 you that it chose a three (3) year phase-in period to reduce the immediate impact on both depreciation 11 12 expense and revenue requirements? 13 MR. LARRY KENNEDY: I think you're I'm looking at the page that you provided to 14 correct. 15 me, and I think that indicates a three (3) year phase-16 The -- the -- that type of phase-in was quite in. commonly used in the 1980s, maybe 1970s, and when equal 17 18 life group procedure received, you know, a fair bit of 19 favour and -- and organizations moving to it. 20 The FCC, in essence, mandated it, and I 21 think that's partly why they -- they mandated a phase-22 in as well. I can't put words in the FCC's mouth or 23 cannot put myself into their mind-set, but they -- they 24 did recommend -- or did order a three (3) year phase-25 in, and they -- and they strongly recommended utilities

using the equal life group procedure. 1 2 So, yes, there -- I think to your point, there is phase-ins done on -- on occasion with 3 implementation of the equal life group procedure 4 5 largely to -- to smooth that -- that whole impact. 6 MR. BYRON WILLIAMS: Now if I could direct, as we flip rapidly through the book, your 7 attention to pages 37 and 38 of CAC Exhibit 5, which 8 9 are the Corporation's response to MIPUG Pre-ask 5. Do 10 you have that, sir? 11 MR. LARRY KENNEDY: I do. 12 MR. BYRON WILLIAMS: And I -- I don't 13 wish to, again like my friend Mr. Peters , preempt Mr. 14 Hacault, since they -- they put together the pre-ask. 15 But essentially, as I understand the 16 Corporation's response to the pre-ask, in terms of the depreciation expense calculated for Wuskwatim, without 17 18 asking you to elaborate, I will ask you to confirm that 19 that was conducted by Gannett Fleming using the ALS 20 (sic) approach, agreed? 21 MR. LARRY KENNEDY: The average service 22 life or average group life approach, yes. 23 MR. BYRON WILLIAMS: Yeah, ASL. I -- I 24 misspoke. 25 MR. LARRY KENNEDY: Yeah, that --

1908 that's correct. And I -- I discussed that yesterday, 1 yeah, on a couple of occasions. 2 3 MR. BYRON WILLIAMS: And if we turn to page 38 of CAC Exhibit 5, directing your attention to 4 5 the bottom, sir, we -- we see, I'll suggest to you, a 6 comparison with regard to Wuskwatim of the depreciation rates calculated with net salvage using both the ASL 7 methodology and the ELG method -- methodology, sir? 8 9 MR. LARRY KENNEDY: That is correct. 10 MR. BYRON WILLIAMS: And would I be correct, sir, in looking at these depreciation rates, 11 12 to suggest to you that if ELG were applied to the new 13 construction, the new project of -- of Wuskwatim, the 14 depreciation expense would be higher, at least in the 15 early -- early years, as compared to ASL? 16 MR. LARRY KENNEDY: It definitely would 17 have been higher at least in the first couple of years, 18 yes. 19 MR. BYRON WILLIAMS: And it would be 20 fair to say, sir, generally, that ELG as compared to 21 ASL tends to result in annual accruals that are higher 22 during the early year -- years of a vintage's life, 23 agreed? 24 MR. LARRY KENNEDY: The pure 25 depreciation expense accrual is higher early in the

1909 life. The -- the benefits are when you have early 1 retirements you -- you would have a lesser amount of 2 loss to deal with, either on the balance sheet or the 3 income statement. 4 5 MR. BYRON WILLIAMS: Fair enough, sir. 6 But you've -- what we would expect, using ELG as compared to ASL, would be a tendency to result in 7 annual cru -- accruals that are higher during the early 8 9 years of a vint -- of a vintage's life, agreed? 10 MR. LARRY KENNEDY: The earlier years 11 of the asset's life or the account's life, yes. 12 MR. BOB PETERS: And, sir, in your 13 direct evidence yesterday you were -- in -- in describing the merits of ELG, I believe you used words 14 15 to the effect that it was appropriate, and I'm putting in quotation marks now, "in the context of a stable 16 asset pool." 17 18 Do you recall words to that effect, sir? 19 MR. LARRY KENNEDY: I think it's 20 appropriate in -- in most circumstances, other than in 21 the rather unusual circumstance, such as we saw with 22 Wuskwatim. The -- the equal life group method is -- is 23 an appropriate method of depreciation. 24 MR. BYRON WILLIAMS: But you did temper 25 your comments, sir, with using the words "stable asset

pool." Do you remember that, sir? 1 2 MR. LARRY KENNEDY: Well, definitely. It's -- I -- I'm just trying to remember the -- the 3 4 exact point I used that. The -- it would -- it is, and 5 we've provided some examples. And I think the reason we showed it is we provided some examples assuming a 6 7 stable environment that -- that clearly showed the merits of the equal life group procedure. 8 9 And so at that point we were alluding to 10 the -- the mod -- the examples that we provided in the rebuttal evidence and that those examples were provided 11 12 in a stable environment. So in that context, yes, in a 13 stable environment, I think the equal life group is --14 is appropriate. 15 In -- in the case of a -- particularly 16 in the case of -- of almost any other environment, both 17 in the growth side and the -- and declining, I think 18 the equal life group has some merits. It's got some 19 cons in that it -- it's a bit -- the conversion to 20 equal life group late in an asset's life causes some --21 some tolling pressure. 22 So the question is: Is the merit of the 23 -- the better accuracy and -- and the -- the more -the -- the more detailed approach of it ap --24 25 appropriate? And -- and I think in the circumstances

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 of this firm or this company, in the -- the tying it 2 with the -- the conversion to the -- the International 3 Financial Reporting Standards, is a prime opportunity, 4 because there is a number of things that they have to 5 do as part of that implementation that the equal life 6 group specifically matches with.

7 MR. BYRON WILLIAMS: I might have taken issue with the length of that answer, sir, but you were 8 9 helpful on some other ones. So I'll -- I just want to drill down to the definition of a "stable asset pool". 10 11 And let's assume we have a -- an asset 12 pool with \$14 billion in assets today that we're 13 expecting will -- will expand by \$16 billion over the 14 next twelve (12) to thirteen (13) years. In your view, 15 sir, is -- is that what you would desc -- define as a 16 stable asset pool? 17 MR. LARRY KENNEDY: I would more likely 18 define that as a -- as a growing asset pool or growing 19 investment base. I -- I'd still view that the use of 20 the equal life group is appropriate in -- in -- even in that circumstance. 21

22 MR. BYRON WILLIAMS: And, sir, just one 23 (1) final question. You -- you spoke of tolling 24 pressure in your answer two (2) -- two (2) answers ago. 25 T-O-L-L-I-N-G pressure, I'm assuming. And in a more

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1912 Manitoba context, by that you mean rate pressure, sir? 1 2 3 (BRIEF PAUSE) 4 5 MR. BYRON WILLIAMS: Can I use those 6 terms interchangeably, sir? 7 MR. LARRY KENNEDY: Mr. Rainkie told me they can be used interchangeably --8 9 MR. BYRON WILLIAMS: Okay. 10 MR. LARRY KENNEDY: -- for this 11 purpose. 12 MR. BYRON WILLIAMS: Mr. Kennedy, I was 13 a bit longer -- actually, a fair bit longer than 14 anticipated. I apologize for that. But I thank you 15 and -- for you time. And Mr. Hall -- and Mr. Rainkie, that was a tremendously helpful discussion as well. 16 Thank you. 17 18 THE CHAIRPERSON: Thank you, Mr. 19 Williams. I think, Monsieur Hacault, if you're ready 20 to go, we'll turn over the microphone to you. 21 CROSS-EXAMINATION BY MR. ANTOINE HACAULT: 22 23 MR. ANTOINE HACAULT: Thank you. Mr. 24 Kennedy, before the lunch break, we'll just be going 25 through some general matters. And then perhaps I'm

1913 going to go through an example or two (2) which might 1 illustrate some of the questions that the Board had 2 with respect to the impact of the salvage/no salvage. 3 We've seen that a bit, so I'm going to go through some 4 examples. Hopefully, with your help, Mr. Kennedy will 5 6 be able to further illustrate by using an example or 7 two (2) of how that really works out. 8 So in a very general way, I had 9 indicated at the very beginning when you were introduced, Mr. Kennedy, I might have some questions 10 with respect to your CV. 11 12 Am I right in understanding that, to a 13 large extent, you have acted on behalf of utilities in 14 presenting expert evidence? 15 MR. LARRY KENNEDY: Largely. In the 16 period of the late 1990s, early 2000s, I was on the 17 Intervenors' side of the fence on some occasions, and I 18 have represented, on at least one (1) occasion, a board staff or a commission staff. 19 20 MR. ANTOINE HACAULT: So for about a 21 decade you've been largely representing utilities. Is 22 that correct? 23 MR. LARRY KENNEDY: That would be 24 correct. And I think we could fairly characterize that 25 the preponderance of my -- my work is on behalf of

utilities. 1 2 MR. ANTOINE HACAULT: And just to clarify -- it wasn't absolutely clear from your CV --3 but you're not a chartered accountant or a CMA. Is 4 5 that correct? 6 MR. LARRY KENNEDY: I am not. 7 MR. ANTOINE HACAULT: And you're also -8 - don't have an engineering designation? 9 MR. LARRY KENNEDY: I do not. 10 11 (BRIEF PAUSE) 12 13 MR. ANTOINE HACAULT: The next thing 14 I'd like you to help me and the Board on is to better 15 understand how the word "depreciation" is used in 16 different contexts. In your report at page -- it was 17 Roman numeral II-2, you cited two (2) definitions. 18 And the first definition you cited was 19 what you view to be a fairly standard definition of 20 "depreciation" used for regulatory proceedings. Is that correct? 21 22 MR. LARRY KENNEDY: That's correct. 23 24 (BRIEF PAUSE) 25

1915 MR. ANTOINE HACAULT: 1 Members of the Board, that was reproduced, that particular page, in 2 CAC Exhibit Number 5 at page 36, if everybody could 3 turn to that. So CAC Exhibit Number 5, page 36. 4 5 6 (BRIEF PAUSE) 7 8 MR. ANTOINE HACAULT: Now, is this 9 definition of depreciation in public utility regulation consistent for different types of regulatory controls? 10 For example, some might proceed on return on equity; 11 here in Manitoba, we're on cost of service. 12 13 Is it your view that that definition 14 applies to the different types of regulatory controls? 15 16 (BRIEF PAUSE) 17 18 MR. LARRY KENNEDY: I would suggest it 19 does. Like I say, this definition appears in a number 20 of texts. It started, as I suggested this morning with 21 Mr. Williams, from the Federal Energy Regulatory 22 Commission. You could say it is in -- in a very similar, if not identical, form in a number of other 23 24 textbooks. 25 Now to -- to be a little more direct in

terms of answering your question, I'm trying to 1 envision a circumstance where it would not be 2 applicable. I think in terms of -- I think 3 depreciation is a loss in service value, a recognition 4 5 of a loss in service value. And -- and I think that -that basis is consistent with cost of service rate-6 7 making, with rate of return rate-making, formalistic forms of rate-making. 8 9 So I -- I generally would suggest my answer to your question is I think it applies across 10 11 the board, at least to -- to my knowledge of the 12 various rate-making formulas across the board. 13 So in your mind, MR. ANTOINE HACAULT: 14 there would be no need to approach the issue of 15 depreciation differently if one was trying to determine 16 what the equity was in the company and what the return 17 on equity should be for that company? 18 MR. LARRY KENNEDY: For regulated 19 companies I would say -- my view would be it doesn't need to be adjusted. We do deal with -- some of CV, as 20 21 you would have noticed, is appearing before municipal 22 government boards on the question of valuation for 23 property tax purposes. I generally use the same 24 definition there, although the -- the property tax 25 world does use a slightly different version, where they

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1917 -- they bring in the concept of market value into it. 1 2 So I've been recognizing that form of recognition in those -- those circumstances there may 3 be a bit of a need for change. But for rate-regulated 4 5 companies in this context appearing on -- on behalf of 6 general rate applications, I think it's -- it's broadly 7 applicable. 8 MR. ANTOINE HACAULT: Thank you for 9 that answer. So you're trying to explain that for Manitoba Hydro, when we contrast that to valuation type 10 of proceedings, like for property tax, we're not trying 11 12 to determine the true value of the asset. 13 So for example, Pointe du Bois might be 14 booked at a certain amount, but it might be worth, if 15 we do a fair market value test, many times more than that booked amount. Is that correct? 16 17 MR. LARRY KENNEDY: Or less. Yeah, it 18 could be different, I gue -- I'll -- I'll accept that 19 for sure. 20 MR. ANTOINE HACAULT: So following on 21 those lines, if we were adopting -- and that's a separate definition -- a definition for "firm market 22 23 value", it might give us a better idea of what the real 24 equity value is in that asset, correct? 25

1918 1 (BRIEF PAUSE) 2 3 MR. LARRY KENNEDY: I'm not sure that I can -- when we get into the definition of "equity" and 4 5 the determination of equity I am out of my exp --6 expertise as -- as a depreciation expert. I'll -- I'll be the first to admit that. 7 8 MR. ANTOINE HACAULT: Well, if you 9 can't answer the question --10 MR. LARRY KENNEDY: Yeah. I'm a bit --11 MR. ANTOINE HACAULT: -- I'm not asking 12 you... 13 MR. LARRY KENNEDY: -- I'm a bit 14 hesitant to -- to try to relate the -- the ability to -15 - to discuss the -- the equity ratios and percentages 16 of companies. Definitely, depreciation is part of a evaluation formula. And as we talk in the regulatory 17 18 context, I think this definition of -- of -- and we 19 talk about a rate-regulated company's version of depreciation for -- for this purposes, I think this 20 definition is applicable. 21 22 MR. ANTOINE HACAULT: Thank you. But I 23 was just trying to contrast some of the definitions. 24 So might I understand a very simple example is if I 25 bought my house at fifty thousand dollars (\$50,000)

1919 twenty (20) years ago, and it was depreciated down to, 1 according to the tables, to 20 percent, I'd do 20 2 percent times the fifty thousand dollars (\$50,000), it 3 would give me a residual value of ten thousand dollars 4 5 (\$10,000), correct? 6 MR. LARRY KENNEDY: Of the building. 7 Of course, when we talk about property, we got the value of the land that -- that complicates that issue a 8 9 bit. But generally I -- on the building side of that 10 equation, I would agree. 11 MR. ANTOINE HACAULT: And that's 12 contrasted to the fair market value -- today the fair 13 market value, that house may be five hundred thousand dollars (\$500,000). And if we apply the same 14 15 depreciation rate of 80 percent, you would do 20 percent residual times a five hundred thousand dollar 16 17 (\$500,000) value, so you'd -- you'd have a hundred 18 thousand dollars (\$100,000) in that example, correct? 19 MR. LARRY KENNEDY: Well, I'd have to 20 figure out the -- the appreciation in the land value 21 before I accepted the five hundred thousand dollar 22 (\$500,000) valuation period. The -- the actual 23 building itself may have depreciated. It's the land 24 value that may have appreciated. 25 MR. ANTOINE HACAULT: Thank you. Now,

in your report, you contrast the rate-regulated 1 2 definition of "depreciation" to the definition of "depreciation" used in accounting, correct? 3 4 MR. LARRY KENNEDY: I -- I provide a definition for "depreciation" as it's used in the 5 6 accounting textbooks, yes. I'm not sure if -- I'm not 7 sure if they're contrasting. One (1) is a method of allocation, and one (1) is a method of determination. 8 9 And that's why we put both here. We first need to --10 to establish the -- the consumption of service value. Then we need to figure out the manner in which we get 11 12 it into the income statement and balance sheets of the 13 organizations. 14 MR. ANTOINE HACAULT: Would you agree 15 with me, sir, that if one was asked to do depreciation 16 calculating for accounting only, that the answer might 17 be different than the calculation that you do for a 18 rate-regulated utility on depreciation? 19 MR. LARRY KENNEDY: I'm not certain of 20 that, sir. If you notice, the depreciation to be used 21 for accounting is a method of distributing a fixed 22 capital cost, less salvage over a period of time by 23 allocating new amounts. The -- the first part of it 24 is: What's that fixed period of time, and what's --25 what's the percentage of the loss of service value?

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1921 I will agree with you that they're --1 2 they're written slightly different. I will also agree with you, sir, that the -- the non-regulated market 3 price, if you are a non-regulated environment, doesn't 4 5 do depreciation to the same extent as a rate-regulated 6 company does, you know, for a variety of reasons. I'm 7 not sure that the -- the goal's any different, but the -- the effort and the rigour that we put into it, 8 9 there's a significant difference with a rate-regulated company with a million poles versus a manufacturing 10 11 company with a printing press. It's the manner in 12 which you look at it and matter in which you apply it. 13 It also goes to the -- the point that 14 rate-regulated companies have groups of accounts rather 15 than individual assets, normally. The -- some rate-16 regulated companies that apply on a unit basis. But 17 generally, we're dealing with entities that -- that 18 apply the depreciation rate to a group rather than to 19 an individual asset. So that -- that accounts for some difference. And I think it also accounts for some of 20 21 the -- the -- the different languages around loss of service value versus the allocation of an asset's cost. 22 So I think there's some differences in -- in -- in 23 24 those environments. 25 My question was -MR. ANTOINE HACAULT:

1922 - and I think you've answered it -- is that the answer 1 may not be the same? It may be, but it may not be the 2 same using the two (2) definition and what underlies 3 the purposes of those two (2) definitions? 4 5 MR. LARRY KENNEDY: I think the purpose 6 of the two (2) definitions is the same. I think the 7 answer would generally be the same. I -- I do think they're -- they're looked at from a slightly different 8 9 manner or looked at in a different manner, and partly 10 because of the -- the types of assets and the number of 11 assets. 12 So I -- I will agree with you. We may 13 end up with a slightly different answer, but I think at 14 the end of the day, rate-regulated companies are faced 15 with the financial disclosure issues that the -- the 16 depreciation number that we use normally are in -- at least historically, has -- has been used for both 17 18 regulatory purposes and financial disclosure purposes. 19 So I would as -- I would suggest that the number is 20 applicable for both. 21 As we enter into new worlds of 22 accounting standards, we start seeing some of these 23 pressures in terms of how can we make sure that, you 24 know, maybe there's one (1) answer fit both, and how 25 can we make one (1) answer fit both? But the goal is -

- and I would suggest for this organization and for 1 most regulated Canadian companies -- the depreciation 2 expense is calculated using, if you go to the first 3 4 definition, is applicable for use, even meeting the --5 the definition of the second, or the -- the 6 requirements of the second definition. 7 Really, at the end of the day, the second definition really subscribes that the straight-8 9 line method of depreciation is widely used. It's 10 taking a cost, it's dividing that cost by a fixed number of years and it's resulting in an annual 11 12 depreciation expense that you book to income. That --13 that's straight line depreciation. 14 The first method is saying, Well, how 15 much does that cost, and what's -- what's -- what's the 16 way in which we look at it, and we look at it in terms 17 of trying to recognize the loss in service value. 18 So I think, really, the two (2) 19 definitions are -- are not as different as perhaps --20 perhaps one might think at first. And, I think, can be 21 used for both purposes, and definitely for reg --

22 regulated companies, that's been the history.

Thank you. 23 MR. ANTOINE HACAULT: Now 24 I'd move to another matter, and I'm not going to go 25 through it all again as Mr. -- but there were four (4)

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

changes, some of which were driven by accounting or 1 proposed accounting changes and some of them which were 2 3 not. And we've inserted at tab -- and here, 4 5 if the Board and all parties could have the MIPUG book 6 of documents. It's the book of evidence. It's in -it's in a binder and we've got various tabs -- up to 7 Tab 9 now, it's got a blue sheet in front of the 8 9 binder. 10 THE CHAIRPERSON: I'm sorry, Mr. 11 Hacault, you said book of evidence, but you meant book 12 of documents. 13 MR. ANTOINE HACAULT: Book of 14 documents, Tab 5. 15 16 (BRIEF PAUSE) 17 18 CONTINUED BY MR. ANTOINE HACAULT: 19 MR. ANTOINE HACAULT: I'm just drawing 20 to the attention of this Board and the parties, the 21 extract at Tab 5C. There isn't actually a tab, but if 22 you'll -- you'll see at the top right-hand corner of 23 the documents the lettering is there. And at the 24 bottom of the page, it's page 41. All pages in this 25 binder are numerical at the bottom right-hand corner.

1925 So this was Mr. Rainkie, I believe, 1 speaking at lines -- starting from line 15. At that 2 point, you were explaining in your direct evidence, Mr. 3 Rainkie, and specifically at line 22, that under IFRS 4 5 the future cost to retire and salvage assets would 6 become a cost of the replacement asset. Is that correct? 7 8 MR. DARREN RAINKIE: That's correct. 9 MR. ANTOINE HACAULT: If we flip back 10 to the beginning of that Tab 5 at page 31, we see a grouping of what used to be called "civil." And this, 11 12 I think, is Mr. Kennedy's response, being revised to 13 include a number of components. 14 Is that correct? 15 MR. LARRY KENNEDY: That's correct, sir. 16 17 MR. ANTOINE HACAULT: And we've gone 18 through another questioning that now, if we look at a 19 average service life weighted according to the amounts 20 under that category, it's believed that the composite 21 weighted average would be a hundred and four (104) 22 years as opposed to a hundred (100) now. 23 Is that correct? 24 MR. LARRY KENNEDY: That's correct, 25 sir, for that group of accounts.

MR. ANTOINE HACAULT: 1 And that may change because in each account you'll have different 2 average lives being assigned to different account 3 numbers, and it may even change according to the actual 4 5 asset because you've made changes, for example, to 6 Pointe du Bois because of the concrete issue, correct? MR. LARRY KENNEDY: 7 That's correct. The -- the -- the actual weighting will be different by 8 9 each -- each location, given each location's different allocation of cost to the various accounts. 10 So, obviously, a weighted average from one (1) location 11 12 would have a slightly different result than the 13 weighted average from a different location. 14 MR. ANTOINE HACAULT: Well, thank you. 15 That's a useful answer. So we shouldn't take it for 16 granted that in each case we would see civil components 17 for a particular facility going from one hundred (100) 18 years to a hundred and four (104) years. There may be 19 some variation in that? 20 21 (BRIEF PAUSE) 22 23 MR. LARRY KENNEDY: Sir, I'm just 24 trying to make sure we -- I answer your question 25 properly, if I can take one (1) minute.

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1927 1 (BRIEF PAUSE) 2 3 MR. LARRY KENNEDY: Mr. Hacault, it's -- I wanted to make sure of my -- my facts before I put 4 5 something on the record, which is always a good thing. 6 The -- the hundred and four (104) year average that you see at the bottom on page 31 of your book of documents 7 would represent the weighted average of all those 8 9 stations. 10 So on average all the stations have a 11 small change such as that. We are in the midst of 12 preparing an undertaking response that we took 13 yesterday that -- that will break that out more finite 14 by station and -- and provide that information. But I 15 think the -- the point of your question is there will be a variant station to station. But this is the 16 17 overall average, if you will, of all the stations. 18 MR. ANTOINE HACAULT: But you are 19 getting that -- I'm going to massacre the word, como --20 componentization with respect to specific hydraulic-21 generating assets. And that componentization then is 22 considered as a whole and gives us that average of a 23 hundred and four (104) years. Am I understanding that 24 correct? 25 MR. LARRY KENNEDY: Yeah, I think

that's correct, yeah. 1 2 Now, if I flip MR. ANTOINE HACAULT: over to page 33, you've given a lit -- a little bit of 3 an explanation on that, but I'm not so sure I fully 4 5 understand it. I see lifespan in the extreme right-6 hand column. Some of them are a hundred and forty 7 (140) and some of them go down to seventy-nine (79) years. 8 9 When I had looked at the first page I 10 saw civil under the previous analysis, that's prior to your 2010 analysis, showing that the civil assets would 11 12 last about a hundred years. Now, what's the practical 13 effect of extending that to a hundred and forty (140) 14 year maximum life? 15 MR. LARRY KENNEDY: We -- we chatted about this briefly yesterday, Mr. Hacault, and I'll --16 17 I'll try to again provide the -- the Readers Digest 18 version of much of yesterday morning. 19 The -- the average service life curves 20 that we selected are the -- the survivor curves that 21 Mr. Williams and -- and I went though this morning. We -- we build a wall towards the tail end of those curves 22 at the lifespan date. So if you look at -- or when we 23 were looking yesterday at the survivor curve, the R4-24 25 125, that -- that indicated some assets -- that some

1929 investment would live out as far as about a hundred and 1 seventy (170) years. 2 3 The impact of the lifespan truncates 4 that tail end to go no more than a hundred and forty 5 (140) years in some -- some generating stations, and in 6 the case of Laurie River it would be at seventy-nine 7 (79) years. So it's where we stop that curve, or where we truncate that curve for life purposes. 8 9 So the curve would indicate -- or the 10 unconstrained life would be a hundred and twenty-five 11 (125) years on average, recognizing that some assets 12 would retire earlier than the hundred and twenty-fifth 13 years, and recognizing some investment stretches out 14 significantly past that. 15 The influence of the lifespan date 16 that's specific to each station is the point at which 17 we -- we put an end to that curve or stop that curve. 18 MR. ANTOINE HACAULT: Now let me try 19 and understand that a little bit better, so I'll just 20 give you an example. Great Falls is an older facility. If work was done to Great Falls, that's on page 33, if 21 22 you look at page 33 the first line, Great Falls shown 23 to have been in service in January 3, 1923. And it's shown to have a lifespan of a hundred and forty (140) 24 25 Do I have that correct so far? vears.

1 MR. LARRY KENNEDY: So far you're 2 correct. 3 MR. ANTOINE HACAULT: Yeah. And the lifespan date, so that cutoff date that you've chosen 4 5 even though it could go up to a hundred and seven (107) 6 years, you say, I'm cutting it off at 2063. Do I have 7 that right so far? 8 MR. LARRY KENNEDY: That is correct, 9 sir. 10 MR. ANTOINE HACAULT: Okay. So if I 11 did some work on the weirs at Great Falls, am I right 12 in understanding that it would be amortized over the 13 period to 2063 regardless as to the fact that the weirs 14 are a hundred and twenty five (125) year asset? 15 MR. LARRY KENNEDY: Yes. So T now understand your question, sir, and the -- the -- let's 16 take two (2) examples. The assets that went in 17 18 originally in 1923 follow that curve and would truncate 19 in 2063 at a hundred and forty (140) years. 20 The assets that went -- go in -- let's 21 assume just for purposes of trying to keep life easy we 22 put -- we put something in in 2013. Con -- I can -- I 23 can subtract sixty-three (63) and thirteen (13) and 24 come -- on the fly. 25 The -- the assets that we put in in 2013

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 would start that hundred and twenty-five (125) year 2 curve at age zero but would stop at the age 50 in that 3 curve because in the year 2063 we're truncating that --4 that curve.

5 So every -- and it's a -- I think it's a 6 very important point, sir. Every installation vintage truncates at a slightly different spot on that curve 7 based on the fact that we're applying a lifespan at the 8 9 year 2063. So in 2013 really your -- your lifespan for that investment is a fifty (50) year lifespan. For the 10 11 investment that was installed in 1923 it's a hundred 12 and forty (140) years.

So I think that -- hope that clarifies that. It's -- it's a fairly important point. We do this installation year by installation year. And -and the wall is, in fact, that date, not the hundred and fortieth year. And I think that's the point of your question, sir.

19 MR. ANTOINE HACAULT: Okay. And that 20 example, does it help illustrate what Mr. Williams was 21 explaining, that every time you add a new asset -- so 22 in your example we would add the weirs in 2013, that is not going to be depreciated at the lower end of the 23 24 curve at a -- at a lower depreciation but actually gets 25 the depreciation at the beginning of the curve. Is

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1932 that correct? 1 2 3 (BRIEF PAUSE) 4 5 MR. LARRY KENNEDY: It gets a little 6 bit more complicated than being quite that simple but what happens is we look at that -- 1953 says I have a -7 - a composite remaining life of fifty (50) years for 8 9 that particular year. And then the equal life group 10 takes -- starts working on that basis. So generally 11 I'm going to answer yes. And again it -- it's a little 12 bit more complicated when we get into the calculations 13 but generally it's yes. 14 Can I ask a question THE CHAIRPERSON: 15 -- a follow-up question. So on that particular example 16 where you're adding -- or making a change to Great 17 Falls, so if you were using ASL you would be -- you 18 would be -- how would you treat that particular weir 19 relative to what you would do with that weir with -- if 20 you were using the equal life group? 21 MR. LARRY KENNEDY: Okay. And that --22 a very good question, Mr. Chairman. To follow that 23 same example, for the additions that we put in in 1923 24 to Great Falls that has a hundred and forty (140)25 years, the equal life group would have a different

1933 depreciation. It would have a hundred and forty (140) 1 different depreciation rates because its got a hundred 2 and forty (140) years of remaining life. 3 So I would say, I'm breaking that 4 5 hundred and forty (140) years remaining life to a 6 hundred and forty (140) separate calculations. The average service life would have one (1) constant rate 7 for all hundred and forty (140) years. 8 9 Now, if we move ahead to 2013 and we add 10 some investment, that investment with the equal life groups as I have fifty (50) years left and it -- now we 11 12 look at it and say over the next fifty (50) years, how 13 much plant would the Iowa curve tell me to retire each year over those fifty (50) years, and develop fifty 14 15 (50) separate deprecia -- straight line depreciation 16 rate calculations for that -- that period of time from 19 -- 2013 to 2063. 17 18 The average service life, in contrast, 19 would say, Ah, I'm still a hundred and forty (140) year asset, well, I'm still a fifty (50) year asset. I got 20 21 a fifty (50) year remaining life. My depreciation rate 22 for that vintage would be 2 percent. 23 Now, what happens, though, with the

25 refinements in terms of how we run it, it may actually

average service life calculations, and there's some

24

1934 say I'm a hundred and forty (140) year asset and -- and 1 under a whole life basis it would say my -- my 2 calculation is one (1) divided by a hundred and forty 3 (140) giving me point eight (.8) something. 4 5 If we run it on a remaining life basis, 6 which we do here, it would say my remaining life is 7 fifty (50) years. And the -- the one (1) divided by the fifty (50) years would give me a 2 percent rate. 8 9 So the equal life group will be higher 10 because it's -- it's looking at the specific amount of 11 retirements for each of those fifty (50) periods from 12 2013 to 2063 and developing fifty (50) different and 13 specific depreciation rights. 14 MR. RAYMOND LAFOND: Can I follow up on 15 that, Mr. Chairman? Could -- maybe it's in our 16 materials. Could you indicate or show to us over, for 17 instance, a hundred and forty (140) year period -- the 18 same two (2) examples: the hundred and forty (140) 19 years plus the addition of a unit with a hundred and 20 forty (140) year lifespan, but only fifty (50) years 21 remaining, how much depreciation, as a percentage, 22 would be in each and every year as opposed to ASL? 23 MR. LARRY KENNEDY: We could do that. 24 It's -- it's a fairly extensive amount of calculations, 25 but we -- we could provide that. I'm trying to think

1 of, off the top of my head on the fly, the easiest way 2 that I might be able to do it before I leave this 3 afternoon at -- at 6:30 and -- so, which I don't think 4 would happen.

5 But I -- I could try to -- to find some 6 material and put that into the record that -- that 7 would say, Here's my -- my depreciation rates for the 8 hundred and forty (140) years that would have started 9 in 1923 with equal life group versus ASL, and then the 10 depreciation rate specific to the 2013 vintage that I'm 11 installing over the period of 2013.

12 Now, I'm going to have to make a few 13 simplifying assumptions in -- in that, in that there 14 would be no -- no plant added in -- in -- it gets more 15 complicated, but if I -- I think I could put something 16 together for you by -- you know, once I get back to my office and then can model that out for that period. 17 18 MR. RAYMOND LAFOND: I quess the -- the 19 comparison to ASL is maybe not necessary because we

20 know if it's fifty (50) years, 2 percent per year, it's
21 a hundred and forty (140) years, around point eight
22 (.8). But, so that we can determine the impact and the
23 difference between one (1) and the other.

24 MR. LARRY KENNEDY: Yeah, no, I can do 25 that. I've undertaken to provide that sir.

1936 1 THE CHAIRPERSON: Except that we -could se assume that the ESL method will give you 2 accelerated depreciation at the front end years? 3 4 MR. LARRY KENNEDY: What -- what I'll -5 - what I'll do to -- to try to make it the most 6 accurate, simple example, if that's -- if that's possible, if -- I will show what the equal life 7 depreciation rate would be for each of the fifty (50) 8 9 years from 2013 through 2063, and then compare that to 10 what the equal life group depreciation rate would have 11 been from 1923 through 2063. 12 MR. RAYMOND LAFOND: I'm not sure what 13 you just said in response to what I was indicating. 14 Like, the two (2) examples --15 MR. LARRY KENNEDY: Yeah. 16 MR. RAYMOND LAFOND: -- on that same 17 plant, the original plant and the fifty (50) -- and the 18 fifty (50) year addition. 19 MR. LARRY KENNEDY: Yes, and -- and 20 I'll -- I'll provide the -- what the equal life group 21 rate would look like going out for both the hundred and 22 forty (140) years and for the fifty (50) years starting in 2013. 23 24 Now, just, again, I'm -- I'm -- I'm 25 going to provide the same qualifier that I did with Mr.

1937 Williams this morning, that that does add a bit of work 1 that obviously won't happen before I -- I -- I leave 2 today. But I'll -- I'll try to make it as clear and --3 and as detailed as possible. 4 5 I'll undertake to provide two (2) 6 detailed calculations using an example of investment 7 installed in 1923 and with a lifespan date of 2063, and a set of detailed calculations assuming plant installed 8 9 in 2013 through 2063. I think that captures the 10 undertaking. 11 MR. RAYMOND LAFOND: I think we 12 understand one another. 13 MR. LARRY KENNEDY: At least I do in my 14 mind. 15 16 --- UNDERTAKING NO. 36: Manitoba Hydro to provide 17 two (2) detailed 18 calculations using an 19 example of investment 20 installed in 1923 and with 21 a lifespan date of 2063, 22 and a set of detailed 23 calculations assuming plant 24 installed in 2013 through 25 2063

1938 1 CONTINUED BY MR. ANTOINE HACAULT: 2 3 MR. ANTOINE HACAULT: And just to make sure, because we'll be getting into some of that this 4 5 afternoon, the ASL calculation will be done apples to 6 apples, contrary to some of the material. It will 7 exclude the salvage value so that we have a true 8 comparison? It was --9 MR. LARRY KENNEDY: Yeah. 10 I'm going to try to make it as simple just to yes. 11 show the comparisons purely from an ASL to an ELG-type 12 comparison. Yeah. 13 MR. ANTOINE HACAULT: Mr. Chairman, I 14 don't know, it might be an appropriate time to take a 15 break. I leave that to the Board. 16 THE CHAIRPERSON: Okay. Let's do that, 17 and we'll resume proceedings at 1:00. Have a good 18 lunch. 19 20 --- Upon recessing at 12:00 p.m. 21 --- Upon resuming at 1:04 p.m. 22 23 THE CHAIRPERSON: Good afternoon. Ι 24 believe we're ready to start the proceedings. Welcome, 25 Ms. Fernandes.

1939 1 MS. ODETTE FERNANDES: Thank you, Mr. 2 Chairman. 3 Manitoba Hydro would just like to file three (3) exhibits with the Board this afternoon. 4 The 5 first one (1) is Manitoba Hydro's response to 6 Undertaking number 15 taken at transcript page 1024. 7 And that was for Manitoba Hydro to provide the quantification of how much return energy provided for 8 9 in sales contracts is related to the diversity agreements with the two (2) counterparties and how much 10 11 is additional related to the adverse water. And I 12 believe we are now at Exhibit 35. 13 14 --- EXHIBIT NO. MH-35: Response to Undertaking 15 15 MS. ODETTE FERNANDES: The second is 16 Manitoba Hydro's response to Undertaking number 23, 17 18 taken at transcript page 1282. And that was for 19 Manitoba Hydro to update PUB/MH Round 2 14A to include 20 IFF12 information, and also an update on that historic 21 export unit revenue line for 2012/'13 and 2013/'14, and also Manitoba Hydro's advice whether there will be a 22 23 new high/low average provided. And that would be 24 Exhibit 36. 25

1940 --- EXHIBIT NO. MH-36: Response to Undertaking 23 1 2 3 MS. ODETTE FERNANDES: I believe everything's in order now. So that would be Manitoba 4 5 Hydro's Exhibit 36. And finally, we have Manitoba Hydro's 6 7 response to Undertaking number 24, which was taken at transcript page 1308. And that was for Manitoba Hydro 8 9 to quantify the Jenpeg outage impact on the hydraulic flows for the current test years as well as the net 10 11 effect on revenue and IFF12 and for Manitoba Hydro to 12 also reflect the actual exports that have been 13 achieved, in terms of hydraulic generation, to December 14 1st, 2012. And I believe that would be Exhibit 37. 15 16 --- EXHIBIT NO. MH-37: Response to Undertaking 24 17 18 THE CHAIRPERSON: Thank you very much. 19 Back to you, Maitre Hacault. 20 MR. ANTOINE HACAULT: Thank you, Mr. Just to, for the record, confirm that there 21 Chairman. were added to MIPUG Exhibit Number 6 that the -- that's 22 the MIPUG book of documents, documents identified from 23 24 Tabs 5 to 9, both inclusive. So I don't think we had 25 mentioned that on the record, so I'm just confirming

that for the record. 1 2 CONTINUED BY MR. ANTOINE HACAULT: 3 MR. ANTOINE HACAULT: The next area I'm 4 5 going to be getting into, while most people are still 6 awake, because I'm going to put them to sleep pretty 7 quickly, is the whole issue of the 10 percent salvage. 8 Just by way of general background, I'll ask Mr. Kennedy to confirm, in the studies that were 9 filed as Appendix 5.7 to the Application, there was an 10 ASL study, but it included the salvage value, correct? 11 12 MR. LARRY KENNEDY: We -- we did file 13 an ASL study or rates for use at that time we thought to be for the 2012/'13 -- I -- I have the years wrong -14 15 - for the first year of the two (2) year test period. 16 Those study -- those rates were calculated in 17 accordance with the average service life procedure and 18 included the net salvage percentages as currently 19 approved for use by the Company from the 2005 study. 20 MR. ANTOINE HACAULT: Correct. And 21 then the second set of schedules -- and that's why there was some confusion when we were talking about the 22 23 rates which we thought weren't matching the concepts, 24 the second study was the ELG, but without the salvage, 25 correct?

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

MR. LARRY KENNEDY: That's correct. 1 That was meant to be -- at that time, for the second 2 year of the test period, where we thought the -- the 3 implementation of the IFRS would occur. So we -- we 4 5 filed those rates in accordance with the equal life 6 group procedure and without the net salvage provisions. Could I have an 7 MR. ANTOINE HACAULT: undertaking to file with the Board the ASL schedule, 8 9 but without the salvage calculation? It would be replacing the one that's filed currently at 5.7. The 10 only difference would be removing the salvage. 11 12 MR. LARRY KENNEDY: We could do that. 13 My hesitation is that's not a case that we have yet 14 run, so it would involve some work, actually quite a 15 bit of work, to -- to -- to rerun the models excluding 16 salvage. I know it sounds funny to say, Well, gee, just run the models. It takes us as long to summarize 17 18 them and put the results together with the detailed 19 calculations. 20 So we could do that. Again, it would be 21 an undertaking that probably would not be filed prior to the Christmas break that I think this Board's taking 22 23 and would be -- and probably entered after your - your 24 two (2) week break, where you reconvene your -- your 25 proceeding after that.

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1943 So with -- with that qualifier, that's 1 something we could do. I just note that it -- it does 2 -- it does take some work on my behalf and -- and will 3 take some time. Excuse me for one (1) sec. 4 5 6 (BRIEF PAUSE) 7 8 MR. VINCE WARDEN: Mr. Hacault, if I 9 can just -- I -- I wanted to make it clear that this is 10 something of course that we're not advocating, we're not applying for. And Mr. Kennedy has confirmed that 11 12 this could take upwards to twenty (20) hours of his 13 time to put together at, you know, considerable costs 14 to do so. So I -- I just wonder whether the value of 15 such a -- a scenario is worth that incurrence of time 16 and cost. 17 MR. ANTOINE HACAULT: I'm making the 18 reca -- request, and the request that I'm making is 19 that I -- I've heard some of the panel say that when we 20 didn't have apples to apples it was a misleading 21 comparison. And I'm trying to get an apples-to-apples 22 comparison between an AS -- ASL depreciation without 23 salvage and an ELG comparison without salvage. 24 My very rough calculations seem to show 25 that it's about half a billion dollar difference in

1944 depreciation amount between -- if we had a real apples-1 to-apples comparison. The total excess depreciation 2 would be closer to the billion-dollar range, as opposed 3 to the ELG we've been talking about, about five ninety-4 5 four (594). 6 So I think it would be important 7 information for the Board to know what the apples-to-8 apples comparison is. 9 MR. RAYMOND LAFOND: The numbers you're stating are over a period of how many years? 10 11 MR. ANTOINE HACAULT: It's at this current time, members of the Board. The number, with 12 13 the salvage, is around five fifty-two (552), if my 14 recollection serves me correct. But if you look at the 15 salvage numbers, they're between ten (10) and going to 16 higher, like 50 percent numbers. 17 And a prelim -- preliminary look at that 18 seems to show that currently, if you take out the 19 salvage value, the ASL procedure would leave to a 20 difference between booked depreciation and the calculated depreciation under ASL of about a billion 21 dollars instead of the five-fifty-two (552) which is 22 23 reported. And that's because the salvage amount is in 24 the range of about half a billion dollars. 25 Maybe, Board MR. LARRY KENNEDY:

1945 members and -- and Mr. Hacault, I -- I may have a bit 1 of a compromise. I think I can confirm that order of 2 magnitude. It would be in about -- in about --3 somewhere about a \$400 million difference. And so I 4 5 don't know if it's sufficient to confirm that type of 6 order of magnitude for -- for the record. I -- I mean, I can do that right now, and it would save me a lot of 7 work, you know, and obviously the Applicant a fair bit 8 9 of money. 10 And it would be -- like I say, I can 11 confirm that order of magnitude without being precise. 12 That's definitely where, our view, it would come in at. 13 I don't know if that -- if that suits the purposes for 14 -- for what you needed, sir. 15 MR. RAYMOND LAFOND: We keep referring 16 to the depreciation, but what we're referring to is accumulated depreciation. 17 18 MR. LARRY KENNEDY: In this 19 circumstance, it would be the amount of -- well, as I 20 understood the first request, was to rerun the tables 21 that would show both the annual amount of depreciation. 22 But I think what I'm hearing is the important number is 23 the amount of the accumulated depreciation variance. 24 25 CONTINUED BY MR. ANTOINE HACAULT:

MR. ANTOINE HACAULT: 1 That was certainly one (1) point to members of the Board. 2 The one (1) other thing that will become pretty evident, I 3 think, when we compare the schedule come -- ASL 4 5 calculation with the salvage is that it becomes pretty 6 confusing if the Board wants to have an idea of what 7 the depreciation rate differences are. 8 When you add the salvage number into the 9 calculations, you're looking at depreciation figures which include a salvage portion which don't allow the 10 parties or the Board to make a meaningful comparison of 11 12 the actual depreciation rates comparison between the 13 two (2) methods. 14 So certainly I appreciate and thank you, 15 Mr. Kennedy, for indicating that there would be about a 16 \$400 million difference by rerunning it. The one (1) thing that it won't -- having that acceptance in won't 17 18 help us much though is to really make an apples-to-19 apples comparison between the two (2) amounts and to 20 how the ELG front-loads depreciation. 21 22 (BRIEF PAUSE) 23 24 MR. RAYMOND LAFOND: This is somewhat 25 related to the question this morning, in terms of the

1 rates for the whole period of a hundred and forty (140)
2 years, or fifty (50) years, and one (1) method versus
3 the other?

1947

4 MR. LARRY KENNEDY: I'm sorry, I missed 5 the first -- first part of that question, I apologize. MR. RAYMOND LAFOND: 6 This is essentially related to the question we had at the very 7 -- just before lunch, whereby we're trying to get the 8 9 percentages that would be used under one (1) formula 10 versus the other, over a hundred and forty (140) period in terms of plant installation, and in addition of a 11 12 hundred and forty (140) years when there's only fifty

13 (50) years left?

14 MR. LARRY KENNEDY: That -- that 15 undertaking that we undertook this morning would --16 would show the -- the trend on an example basis. The 17 reason that that request -- or I didn't quite object as 18 much to that undertaking is it's one (1) specific 19 vintage twice, rather than going through all the 20 vintages and all -- all the databases. 21 So that -- that undertaking is -- is a 22 bit easier to run, not as if it's not -- it's five (5) 23 minutes, but it's -- it's a lot easier. This undertaking will take a pretty significant amount of 24 25 work. The -- the trend, I would think, would be

evident through the undertaking that -- that we took 1 prior to lunch, in terms of the differential and the 2 rates over the -- over the period. 3 4 MR. RAYMOND LAFOND: And a rough 5 estimate over the next five (5) to ten (10) years is 6 not really possible without going through the calculations? 7 8 MR. LARRY KENNEDY: Well, to put the 9 schedules in, in the same format as we have the schedules in section -- or, I think it's Appendix 5.7 10 of the Application, are quite detailed. And that --11 12 that's where the -- the extra work comes in. We have, 13 you know, a very large amount of vintages. We have a 14 large number of accounts. 15 And again, prior to putting anything on the record we have to make sure that -- that that all 16 17 works. I'm not willing to put something into the 18 record that's going to be in that type of format unless 19 we can go through and -- and check to make sure that 20 the totals work, that the control totals match. 21 So that's where some of that work takes 22 -- takes -- the work's more in that aspect than -- and 23 setting up the model to run it without salvage isn't 24 really that much work. It's the summarizing, putting 25 the documentation together, ensuring that we haven't

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

missed something. 1 It's been eleven (11) months now since I 2 ran the actual depreciation rate calculation model for 3 this database. So we have to ensure that the databases 4 5 are in order. So there's a -- there's a bit of front 6 end work, but a lot of back end work in -- in doing the 7 summary. 8 I can appreciate the request to see what 9 the differential on the rates are. And as part of it, 10 definitely the -- the rate differential, Mr. Lafond, is 11 that the -- we'll see that -- that impact in the -- in 12 the prior undertaking request. What you won't 13 necessarily see is, account by account, the dollars and 14 -- you know, that -- that appear in the Application. 15 So to me, the -- the question I think 16 that's before you now is -- is the time and the effort 17 for that and for what, you know, for -- for what MIPUG 18 requires that information for, I think, is -- is part 19 of the question. And I'm -- I'm simply stating that it's -- it's a lot of work and it's going to, you know, 20 it's a fair bit of cost. 21 22 THE CHAIRPERSON: Perhaps you could --23 you could enlighten us about how you -- how you calculated the 400 million. Like on what basis did you 24 25 establish that 400 million, the rough estimate?

1950 MR. LARRY KENNEDY: Generally what we 1 did is we took some groups and -- and that -- part of 2 that was done as I wanted some numbers in our back 3 pocket in case this -- this issue came up in -- as 4 5 preparation for the Hearing. We -- we looked at the -- some of the 6 7 rough approaches and we simply take the net salvage percentage, apply it to the accrual rates, and see what 8 9 that comes out to be. That's not precise. It's close, but it's not precise, and we didn't do it for all the 10 11 groups. 12 So we -- we made some estimates of the 13 big groups. That's why I -- I'm saying it's about 400 million. And I could confirm -- confirm Our Friend's 14 15 estimate. But we haven't done anything more precise, 16 where we went through all the accounts. In other words, we took the big groups of accounts and did a 17 18 back of the envelope style calculation. And I came darn close to the 400 million as well. 19 20 So -- that -- that was a more of a back 21 of the envelope style calculation, which is why I was 22 willing to -- to accept it as -- or, confirm it as, you 23 know, as a non-precise number, but in terms of an order 24 of magnitude. 25 MR. RAYMOND LAFOND: Could we not do a

1951 back of the envelope estimate in, terms of the impact 1 on the depreciation amount on a year-to-year basis for 2 the next five (5) years based on one (1) method versus 3 the other, simply giving a -- a number -- just a 4 5 judgment call on your part, without being attached 6 whatsoever to that number? 7 8 (BRIEF PAUSE) 9 10 MR. VINCE WARDEN: Mr. Lafond, I was 11 going to say that if you -- if you compare IFF12 versus 12 IFF11, so the difference between the two (2) IFFs 13 essentially will give you the difference between ELG 14 and ASL. 15 The -- the only stipulation on that is 16 that as was requested to -- to remove the net salvage value from ASL. So that would be the -- we'd have to 17 18 come up with some estimate as to what impact that would 19 have on our IFF11 depre -- depreciation as calculated. 20 And we could probably -- probably do 21 that within a reasonable margin, I would think, if that 22 would be helpful. 23 MR. LARRY KENNEDY: I think, just to 24 add to that, that -- to follow up on -- on Mr. Warden's 25 comments, we probably could do a back of the envelope

1952 style magnitude about the rates. The Company could 1 then apply that calculated rate that we do a little bit 2 on the back of the envelope still to the, you know, to 3 the -- to the forecast over the next -- next period and 4 5 come up with something that may not be precise, but 6 it's definitely a pretty decent order of magnitude. 7 Again, I wouldn't get that done before my plane leaves this -- later this afternoon, but I 8 9 could get it done, you know, maybe by -- by the 10 Christmas break or without spending a lot of hours on 11 it and put that in, in the next week or so into my 12 schedule and get back at you. So it's definitely 13 available while the panels are still -- still up to 14 talk to it. 15 MR. ANTOINE HACAULT: Mr. Chairman, 16 members of the Board, might I suggest this: We could have a brief discussion at the afternoon break with Mr. 17 18 Kennedy. We believe that some portions of the 19 calculations might be fairly easily done; maybe not the 20 whole table. So then after speaking to him, we might 21 jointly be able to come up with an undertaking that 22 gets the information, if not specifically, in a very 23 general way, which would be of assistance. 24 THE CHAIRPERSON: Seems to be a very reasonable proposal, so please -- please go ahead with 25

that. Thank you. 1 2 CONTINUED BY MR. ANTOINE HACAULT: 3 MR. ANTOINE HACAULT: 4 Mr. Kennedy, 5 could you please explain -- and keeping in mind we --6 you might want to take a flight -- how did you -- or, 7 did your company arrive at the salvage percentages? 8 MR. LARRY KENNEDY: I -- I guess I just 9 need a little bit of clarification. The salvage 10 percentages that we used for this Application were the percentages that were used and determined in the 2005 11 12 application. I don't know if that's what you were 13 asking or if you were asking more about how did we determine the '05 calculations. 14 15 MR. ANTOINE HACAULT: Thank you for the 16 first clarification. I'll get into that later, then. 17 Now, this is leading up to the questions 18 that I'll be asking, but could I have an idea, for 19 example, for Wuskwatim, how much money or percentage, 20 as you choose -- and this may be Mr. Warden or Mr. 21 Rainkie might be able to give me an idea -- that went 22 into the site preparation so that we change the site 23 from a greenfield site to a usable site, and things 24 like riverbed preparation, the types of costs that we 25 wouldn't have to duplicate if we just redid the plant

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1954 in a hundred (100) years? There's a certain amount of 1 things that we've done, which I assume will continue to 2 be useful if we have to rebuild the structure, but 3 there's, like, riverbed construction, things like that. 4 5 6 Can you give me an idea of the 7 percentage? 8 MR. VINCE WARDEN: I -- I -- well, I'm 9 not sure about the percentage, but I can tell you one (1) of the major costs in -- incurred at Wuskwatim that 10 would not be required when Wuskwatim is eventually 11 replaced is the road. So the road to the site was in 12 13 the order forty (40) -- \$40 million to build that road. 14 So that would be one (1) of the major costs. And 15 probably -- in fact, probably the nature cost, in terms 16 of site preparation at Wuskwatim. 17 MR. ANTOINE HACAULT: Then there would 18 be the whole issue of dealing with flood or making this 19 from a greenfield to a useful site. There would be 20 compensation related to that. Am I correct? 21 MR. VINCE WARDEN: Well, in the case of 22 Wuskwatim, there was -- there was virtually no 23 flooding, so that wasn't -- wasn't an issue. 24 MR. ANTOINE HACAULT: But for other 25 sites that Hydro might have -- for example, Limestone -

- would that be different? How much --1 Oh, yes. 2 MR. VINCE WARDEN: That's a different -- different story with the other plants on 3 the Nelson River, yes. 4 5 MR. ANTOINE HACAULT: So for the plants 6 on the Nelson River, what type of major costs would not have to be duplicated at the end of the life of the 7 powerhouse and dam? Was there much, for example, in 8 9 rock excavation and riverbed preparation? 10 MR. VINCE WARDEN: Yeah, well, the 11 whole Churchill River diversion project that enabled 12 Nelson River development was a major, major cost, which 13 I don't have a number for immediately. But then there 14 was the compensation payments that were made to the 15 communities affected by -- by the flooding that, to 16 date, have totalled close to a billion dollars. So the 17 Nelson River, definitely, when it comes time to replace 18 those plants, there were many costs that were incurred 19 that would not be necessary to incur again, so. 20 MR. ANTOINE HACAULT: So if we're talking about net salvage value and -- and the cost to 21 22 replace or demolish a facility on Nelson River at the 23 end of its physical life, there would be a number of 24 costs which would not have to be incurred again at that 25 point in time.

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 Is that fair? 2 MR. VINCE WARDEN: That's fair. 3 MR. RAYMOND LAFOND: That leads to me another question. My experience in, for instance, 4 5 restoring or renovating buildings after fifty (50) or 6 sixty (60) years of construction -- I'm talking of 7 buildings with good foundations, et cetera -- it's anywhere between 10 to 30 percent more than building 8 9 brand new on that site -- on that site. 10 So my question is: Would it be more 11 expensive to rebuild a new plant or restore the 12 existing plant in a hundred and forty (140) years than 13 if there was nothing there? Because the costs of 14 demolishing, et cetera can be also very expensive. 15 And I'm not an engineer. I have no idea 16 whether this applies to power generating stations. 17 MR. VINCE WARDEN: I was going to use 18 that statement. That really is a question probably 19 more so for -- for an engineer. So what it might cost to rebuild on the site of -- of a -- a generating 20 21 station -- you know, Pointe du Bois is probably the 22 best example that we have. But even there, I don't 23 know what the number is or what the premium might be to 24 build on that site over and above what it would be, had 25 it been a greenfield site, but we can maybe take an

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1957 undertaking on that if -- if you'd like to... 1 2 MR. RAYMOND LAFOND: Yes. My advisors say yes. And again, we're not looking for hours of 3 work; it's just a very base -- based on past 4 5 experiences maybe of some others, if not for us. 6 MR. VINCE WARDEN: We'll see what we 7 can -- we can do on that. 8 MR. ANTOINE HACAULT: Perhaps we can 9 try and clarify that undertaking as it relates to a 10 facility on Nelson River to compare the costs of preparing a site and constructing at that site a 11 12 facility similar to Limestone at the end of its 13 physical life, assuming that the preparatory work and compensation doesn't need to be duplicated. That's one 14 15 (1) scenario. And the comparison scenario is redoing 16 the site by demolishing the Limestone physical assets that are no longer useful and replacing them. 17 18 MR. VINCE WARDEN: It sounds a lot more 19 complicated than the one -- than I thought I was --20 MR. ANTOINE HACAULT: Okay. 21 MR. VINCE WARDEN: -- undertaking for 22 Mr. Lafond, but --23 MR. ANTOINE HACAULT: Well, perhaps you 24 can give your version of it. 25 MR. VINCE WARDEN: Well, I think we

1958 were going to use Pointe du Bois perhaps as -- as an 1 example. Limestone would be very complicated, in terms 2 of what we would assume for the preparatory work. 3 How much did the Nelson -- did the Churchill River 4 5 diversion contribute towards the construction of 6 Limestone, would be the first question that would be somewhat difficult to answer. 7 8 Could be answered, but to keep --9 perhaps keep this simple, I think we're looking for 10 what kind of a premium would be paid for reconstructing on the same site as a generating station, I think we're 11 12 talking about, that was previously constructed. Ιf 13 that suits you, yes. 14 15 --- UNDERTAKING NO. 37: Manitoba Hydro to provide information on what kind of 16 17 premium would be paid for 18 reconstructing on the same 19 site as a generating 20 station that was previously 21 constructed 22 23 MR. RAYMOND LAFOND: And my last 24 question, Mr. Chairman, at this time: The net salvage 25 value, if I heard correctly earlier in the hearings,

1959 they're essentially 10 percent of the cost of 1 construction. That 10 percent is not increased on an 2 annual basis based on inflation or what it would cost 3 to replace that dam. 4 5 In other words, Pointe du Bois, if it 6 would have cost 100 million in 1911, today would probably cost \$2 billion, or whatever; and so the 10 7 percent salvage value would remain at \$10 million over 8 9 the years? 10 MR. LARRY KENNEDY: The general answer 11 to your question is yes. The -- the percentage is 12 applied to the original cost back in the day that it 13 was installed. So the 10 percent would be against the -- the nineteen (19) -- to use Grand Falls as the 1923 14 15 example, the -- the 10 percent would be against the installation costs incurred in 1923. 16 17 18 CONTINUED BY MR. ANTOINE HACAULT: 19 MR. ANTOINE HACAULT: Now if I could take members of the Board to Tab 5 of the MIPUG book of 20 21 documents, specifically -- sorry, Tab 6. Mr. Kennedy, 22 can we accept -- what -- I'll just explain by way of 23 pretext what I've tried to do here. 24 You'll see the same page of Schedule 1 25 using the ASL procedure, and that's taken from your --

1960 or, the Appendix 5.7, I believe. It's repeated a 1 number of times. I had hoped that this way we could go 2 through how this table works on a step-by-step basis. 3 Are you okay with proceeding that way? 4 5 MR. LARRY KENNEDY: Well, let's start 6 and see where -- where we diverge. 7 MR. ANTOINE HACAULT: Okay. So the very first page after Tab 6 shows step 1, and we've 8 9 identified the spillway for Limestone as the particular 10 example, because there was additional detail provided 11 to us. First, let's confirm that is a table 12 13 that was produced by Gannett Fleming? 14 MR. LARRY KENNEDY: Confirmed. 15 MR. ANTOINE HACAULT: Okay. Now if I 16 flip to the next page, which I call step 2, I just want to make sure I understand this. For the spillway for 17 18 Limestone there is a hundred and forty (140) year 19 lifespan. 20 We've seen that elsewhere in the 21 materials, correct? MR. LARRY KENNEDY: Correct. 22 That's 23 correct. 24 MR. ANTOINE HACAULT: And if I look at 25 the lifespan date, it brings us to 2131. That would

show that there's a hundred and twenty (120) years 1 remaining in that hundred and forty (140) year 2 lifespan. 3 MR. LARRY KENNEDY: Correct. 4 I'm 5 sorry, my mic was off. 6 MR. ANTOINE HACAULT: Next line there, 7 on step 2 it should be hone -- shown in handwriting seventy-five (75) years. That is the survivor curve 8 9 which we've looked at, or kept -- looked at at some of the things in -- with -- when Mr. Williams was 10 11 examining you, correct? 12 MR. LARRY KENNEDY: That's correct. 13 MR. ANTOINE HACAULT: Okay. And then 14 the next line shows net salvage, and there's "10" in 15 brackets. Am I correct in understanding that that 16 represents a percentage? 17 MR. LARRY KENNEDY: Yes. It's minus 10 18 percent. 19 MR. ANTOINE HACAULT: So the 20 calculation -- and I'm going to bring the members to step 3; that's the next page. Going down those lines 21 22 firstly with the survivor curve, am I correct in 23 understanding that under the ASL procedure, given that 24 you've got a seventy-five (75) year survivor curve, I 25 take one (1) over seventy-five (75) times a hundred

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1962 (100) gives me one point three-three (1.33), straight-1 2 line depreciation? 3 MR. LARRY KENNEDY: On a whole-life 4 basis, that is correct, yes. 5 MR. ANTOINE HACAULT: Now, nowhere on 6 this particular schedule does it show the one point three-three (1.33), correct? 7 8 MR. LARRY KENNEDY: That's correct, 9 because the schedule includes net salvage. 10 MR. ANTOINE HACAULT: So that was one 11 (1) thing that we can't do apples-to-apples comparison, because when we see in the following column, which is 12 13 circled at the one point four-six (1.46), that includes 14 the salvage component also, correct? 15 MR. LARRY KENNEDY: That is correct. 16 MR. ANTOINE HACAULT: And we'll see in 17 the subsequent pages how the calculation gets done, but 18 it is the mathematical calculation on the page marked 19 step 3, which shows the total, at the bottom, 20 depreciation rate being an addition of one point three-21 three (1.33) plus the point one three-three (.133), for 22 a total of one point four-six (1.46). 23 That's how we get the number one point 24 four-six (1.46) on this table, correct? 25 MR. LARRY KENNEDY: That -- that's one

(1) way. Our models actually do it just ever so 1 slightly, but it's a different formula or different 2 version of the same formula. We would take the -- the 3 one (1) -- multiply one (1) by one point one (1.1) to 4 5 recognize the net salvage, make the same calculation, 6 and you'd come to one point four-six-three (1.463). 7 It's really just a different version of the same formula, I agree. 8 9 MR. ANTOINE HACAULT: Okay. But 10 conceptually, do you agree that it shows us how we get 11 to the one point four-six (1.46)? And each calculation 12 down that line showing the accrual rate percentage 13 would have a similar type of calculation that would 14 lead to a higher number than the straight-line 15 depreciation, correct? 16 MR. LARRY KENNEDY: It would lead to a 17 higher number. This is straight-line depreciation. So 18 even with the net -- so this is not a replacement or a 19 difference. This is straight-line depreciation calculated with net salvage. And it will lead to a 20 21 higher number than an un-salvage-adjusted number, yes. 22 MR. ANTOINE HACAULT: Thank you for 23 correcting me on that, sir. 24 Now, if we move to step 4, there were 25 calculations on this table which lead to a calculated

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1964 annual amount of depreciation. And the amount shown on 1 that page, which is circled, and it's two million, nine 2 hundred and forty-four thousand, one hundred and fifty-3 three dollars (\$1,944,153), is actually a con --4 5 combination of two (2) numbers, one (1) being a calculation without salvage, the next being a 6 7 calculation with the sal -- or iden -- segregating the salvage. And you add both of them to come to the 2.94 8 9 million. 10 Is that correct? 11 MR. LARRY KENNEDY: That's correct. 12 And, again, you -- you've broken the formula that we do 13 in one (1) part into two (2) parts. But 14 mathematically, it's the same result and, in essence, 15 the same formula. 16 17 (BRIEF PAUSE) 18 19 MR. ANTOINE HACAULT: And it's because 20 if we redo the table without the -- the salvage, you 21 get a lower calculated depreciation. Is that correct? 22 MR. LARRY KENNEDY: I think you said if 23 we do the table without salvage, you have a lower 24 calculated amount. I would agree with that if that was 25 the question.

1965 1 (BRIEF PAUSE) 2 3 MR. ANTOINE HACAULT: Now, what happens in your table is there's also an annual provision for 4 5 true-up, correct? 6 MR. LARRY KENNEDY: That's correct. MR. ANTOINE HACAULT: And that was 7 calculated in the Schedule 2s that you provided, 8 9 correct? 10 MR. LARRY KENNEDY: That is correct, 11 sir. 12 MR. ANTOINE HACAULT: So it's page 85 in the materials that we start that calculation for the 13 14 annual true-up. Is that correct? 15 MR. LARRY KENNEDY: Yes, that's 16 correct. 17 MR. ANTOINE HACAULT: So if we go down 18 the highlighted line, the first number is -- there's 19 surviving original cost at \$201 million and two hundred and forty (240), et cetera, correct? 20 21 MR. LARRY KENNEDY: That is correct. MR. ANTOINE HACAULT: And then we have 22 23 the calculated accrued depreciation, but of -- as we've 24 shown, that includes the salvage amount, correct? 25 MR. LARRY KENNEDY: That is correct,

1 sir. 2 MR. ANTOINE HACAULT: And what happens to calculate the accumulated depreciation variance is 3 that we're taking the apples and oranges, so to speak, 4 5 the forty-eight thousand (48,000), which includes the 6 salvage, and we subtract that amount from the 7 accumulated book depreciation, correct? MR. LARRY KENNEDY: That's correct. 8 9 I'm not certain why they'd be apples and oranges. I 10 think they're two (2) apples minus one (1) apple. 11 MR. ANTOINE HACAULT: But I guess when 12 we do the ELG calculation down the next pages, we don't 13 include the net salvage values. So when we look at 14 comparing the accumulated depreciation we get a 15 different set of number, correct? 16 MR. LARRY KENNEDY: Now I understand 17 your oranges. 18 19 (BRIEF PAUSE) 20 MR. ANTOINE HACAULT: So then I was 21 22 trying to understand how you came up to your annual 23 true-up. So if we flip to page 86, which is shown as 24 sub (2) in this material, am I right in understanding 25 that now we've had a calculation of accumulated

1967 depreciation variance which is a million, one hundred 1 and twelve, three hundred and sixty-one dollars 2 (\$1,112,361,000). 3 Is that correct? 4 5 MR. LARRY KENNEDY: That's correct, 6 sir. 7 MR. ANTOINE HACAULT: And then you have arrived at, with respect to this seventy-five (75) year 8 9 survivor curve, at a probable remaining life of fiftyeight point seven (58.7) years, correct? 10 11 MR. LARRY KENNEDY: That's correct. And just to maybe provide a slight clarification to 12 13 that, that fifty eight point seven (58.7) is -- is dependant on both the survivor curve, but also includes 14 15 the -- the lifespan data 2031. 16 MR. ANTOINE HACAULT: Thank you for that clarification. So then over the next fifty-eight 17 18 (58) years there will be a true-up of this 19 depreciation. Is that correct? 20 MR. LARRY KENNEDY: That's correct, 21 sir, assuming that the estimates don't change in future 22 studies. 23 MR. ANTOINE HACAULT: So over that 24 fifty-eight (58) years, assuming everything remains 25 equal, Manitoba consumers, with respect to that light -

1968 - line item, will have fully had a refund, correct? 1 2 MR. LARRY KENNEDY: Yes, over that --3 over that period. 4 MR. ANTOINE HACAULT: I quess I'll see 5 it in my grave. 6 MR. LARRY KENNEDY: Well, you'll see the first eighteen thousand, nine hundred and fifty 7 dollars (\$18,950) next year. 8 9 MR. ANTOINE HACAULT: Assuming I live 10 that long. These hearings make me die quicker. Actually, probably I already benefited in one (1) part, 11 12 right, because the study was as of March 2010 year end. 13 So we've seen one (1) full year of it? 14 MR. LARRY KENNEDY: This is correct. 15 So you're now eighteen thousand, nine hundred and fifty 16 dollars (\$18,950) ahead. 17 MR. ANTOINE HACAULT: Sorry, perhaps 18 for Mr. Rainkie, when was this implemented? Was it 19 implemented for the 2011/'12 fiscal year? 20 MR. DARREN RAINKIE: That's correct. 21 22 (BRIEF PAUSE) 23 24 MR. ANTOINE HACAULT: Now, the other 25 thing I was trying to understand are all these numbers

1969 and additions. So could I turn everybody to the next 1 page, 87, which is a part of an answer to an 2 interrogatory at MIPUGs-15Q. 3 Now, am I correct that this is a 4 5 schedule showing the ASL method with net salvage? 6 MR. LARRY KENNEDY: You are certain. 7 That's just what I was confirming as you were asking 8 the question. 9 MR. ANTOINE HACAULT: And we know that 10 in part because you have the indication and -- which is highlighted on this page 87. Net salvage percent minus 11 12 ten (10) is the number, correct? 13 MR. LARRY KENNEDY: Yes, in part, and I 14 was confirming the numbers back to the ASL pages that 15 we have just gone through. 16 MR. ANTOINE HACAULT: Now, the one (1) 17 thing that we see on the next page, 88, is that most of 18 the additions to this particular line item came from 19 1991 to 1993, correct? 20 MR. LARRY KENNEDY: As at the end of 21 2010, that's definitely correct. MR. ANTOINE HACAULT: And to further 22 23 understand this table, although the rate shown in 24 column number 4 is one point three-three (1.33) --25 firstly, that's correct?

1 MR. LARRY KENNEDY: Yes, it is. 2 MR. ANTOINE HACAULT: And again, that's because it was a seventy-five (75) year average life, 3 and we divide one (1) by seventy-five (75) to get the 4 5 one point three-three (1.33)? 6 MR. LARRY KENNEDY: That's correct. And if I can maybe just use this as a bit of a point of 7 maybe helping the Board understand what we were talking 8 9 about yesterday, you'll notice the -- the 1.33 percent 10 rate is generally the same with a small rounding correction in the very last vintage. So the same rate 11 12 is applicable to each and every vintage. 13 MR. ANTOINE HACAULT: Okay. So that 14 calculation is shown on my next page, which is step 3, 15 page 89, is the annual accrual rate, how that was calculated? 16 17 MR. LARRY KENNEDY: That's correct. 18 MR. ANTOINE HACAULT: Now, if we flip 19 to the next page, page 90, can we try to see whether or 20 not the accrual amount -- I was puzzled initially, because I did an -- a calculation. I had done the 80 21 22 million divide -- or, at one point three-three (1.33), 23 and it didn't give me the one point one-seven-six 24 (1.176).25 Are the calculations below on that page

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1971 a correct general calculation as to why we don't see 1 the accrual amount being exactly the one point three 2 (1.3)? That's because there's also the net salvage 3 value in there? 4 5 MR. LARRY KENNEDY: That's correct, 6 sir. 7 MR. ANTOINE HACAULT: So this is why we have some difficulty in understanding these tables and 8 9 the true comparison, because some numbers include the 10 salvage value whereas some of them -- and the rates shown don't necessarily do so on this table? 11 12 MR. LARRY KENNEDY: That's -- that's an 13 observation, and that's fair. 14 15 (BRIEF PAUSE) 16 17 MR. ANTOINE HACAULT: So then under the 18 ASL method, you don't take the entire amount all at the 19 seventy-five (75) year average life because there's some amounts that were in fact installed at a later 20 21 date, and you're showing to the left, under the 22 "Average Life" column, three (3) occasions where it's 23 seventy-five (75) years, but then it starts to diminish 24 because they're more recent additions to the expenses, 25 correct?

1972 MR. LARRY KENNEDY: 1 That's correct, and you're starting to see the influence of the truncation 2 date or the lifespan date. 3 MR. ANTOINE HACAULT: So the ASL method 4 5 does break down the depreciation for these later items 6 in that they're not done at the original rates, 7 correct? MR. LARRY KENNEDY: You notice the rate 8 9 is the same, sir; it's the remaining -- it's the average life that changes, and that's to recognize the 10 11 influence of the truncation date. So the rate's the 12 same; it's the life expectancy that starts to vary. 13 Now, that -- that may be quibbling a 14 little bit about terminology, but you will notice that 15 the annual accrual rate is still based at the 1.33 16 percent all the way down. 17 MR. ANTOINE HACAULT: But that does --18 changes the way you accrue depreciation. There is an 19 impact by the average life. If you put five (5) there instead of seventy-four point eight-eight (74.88) for 20 21 the last number, there will be a difference in the way 22 the accrue -- amount is accrued, correct? 23 24 (BRIEF PAUSE) 25

1973 MR. ANTOINE HACAULT: The example we 1 went through was the Great Falls example. 2 3 MR. LARRY KENNEDY: It will be changed to a small extent, yes. 4 5 MR. ANTOINE HACAULT: Thank you. So at 6 page 92, which was the final step, we see the total amount of original cost and the accrued amount, but the 7 accrued amount includes the salvage amount at 10 8 9 percent, correct? 10 MR. LARRY KENNEDY: That is correct, 11 sir. 12 MR. ANTOINE HACAULT: And that gives us 13 a total annual accrual rate of 1.46 percent instead of 14 the one point three-three (1.33). 15 MR. LARRY KENNEDY: That's correct, sir. Now the one point three-three (1.33) is 16 identified in column 4, as you will notice. 17 18 MR. ANTOINE HACAULT: In this 19 particular document. 20 MR. LARRY KENNEDY: Yes. 21 MR. ANTOINE HACAULT: But not in the schedules that we had started to look at. 22 23 MR. LARRY KENNEDY: No, I agree with 24 you there. I'm sorry. 25 MR. ANTOINE HACAULT: So without the

1974 Information Request and the additional details that you 1 have now provided, a party wouldn't be able to know and 2 look at the Schedule A to see what rate was applied to 3 the assets before salvage. Is that correct? 4 5 MR. LARRY KENNEDY: I do agree, sir. 6 MR. ANTOINE HACAULT: Now, if we can contrast that, if we keep on flipping the pages, I've 7 done the same thing with the ELG method. 8 9 10 (BRIEF PAUSE) 11 12 MR. ANTOINE HACAULT: Now, am I right 13 that in your preliminary drafts, you had an ELG method 14 with the salvage in? 15 16 (BRIEF PAUSE) 17 18 MR. LARRY KENNEDY: Again, I just 19 wanted to make sure of my facts before -- before I put 20 anything on the record. The -- we did do a earlier 21 draft with a bit of a modified approach to -- to 22 salvage. But we did do -- attempt to do an ELG version 23 with salvage, but it wasn't, A) precise or, B) ever 24 completed. It was, if you will, abandoned a little bit 25 midship, so we never did complete the analysis.

1 MR. ANTOINE HACAULT: Okay. So although it was not a full analysis, you did have an 2 analysis of ELG with salvage. 3 4 MR. LARRY KENNEDY: We at least started 5 an analysis with salvage, yes, we did, sir. 6 7 (BRIEF PAUSE) 8 9 MR. ANTOINE HACAULT: Now, sir, was it 10 you who made the decision not to have comparisons of ASL and ELG without salvage? 11 12 MR. LARRY KENNEDY: I wouldn't say it 13 was me. As we were going through this process, we 14 started getting a number of different scenarios going 15 on: with ELG, without ELG, with ASL, with salvage, 16 without salvage. 17 Generally, through the process -- and 18 again remembering it was a bit of a dynamic process, we 19 -- we started, you know, back and forth at the Company, in terms of what's the policy going to be. And at the 20 21 end of the day it's a company policy in terms of how 22 they -- how they wanted to go forward with the -- the 23 study, in terms of the -- the policy decisions. 24 So we started, and at various points we 25 -- the Company became more solidified in -- in its --

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

1976 in its policy decision and -- and advised me that the 1 time and effort and -- and cost of continuing down the 2 various scenarios to completion wasn't something that 3 4 they wanted me to do. 5 And we were facing a deadline to get the 6 -- the studies completed. And quite frankly, we were facing a deadline in terms of budget to -- to try to --7 you know, make sure that we -- we provided a -- the 8 9 best document we could in the most cost-effective 10 manner. 11 MR. ANTOINE HACAULT: Okay. So let's 12 go -- I'm going to take you through those instructions 13 at a later time. But while we're in these 14 calculations, at page 93 I've identified the category 15 11-75-D, spillway, again, with respect to Limestone. 16 Do you see that? 17 MR. LARRY KENNEDY: I do. 18 MR. ANTOINE HACAULT: And if I go to 19 step 2, if we go through the column that's highlighted, 20 again, it's the same page, agreed? 21 MR. LARRY KENNEDY: Agreed. 22 MR. ANTOINE HACAULT: Again, nothing 23 changes with respect to the lifespan. It's still a 24 hundred and forty (140) years, correct? 25 MR. LARRY KENNEDY: That's correct,

1 sir. 2 MR. ANTOINE HACAULT: We continue to have a hundred and twenty (120) years remaining with 3 respect to this particular line, correct? 4 5 MR. LARRY KENNEDY: That's correct. 6 MR. ANTOINE HACAULT: And it's the same curve that's used in both studies, the ASL study and 7 the ELG method, the 75-R2 Iowa curve, correct? 8 9 MR. LARRY KENNEDY: That's correct. 10 MR. ANTOINE HACAULT: And the reason we have a zero under the line "Net salvage" is because you 11 12 were instructed not to complete the salvage ELG method, 13 but rather to go to a zero net salvage calculation, 14 correct? 15 MR. LARRY KENNEDY: That's correct. At 16 the time this -- this schedule was prepared, the Company had -- had decided its -- its policy on where 17 18 they would go with the implementation of IFRS, and that 19 was with a zero-percent net salvage. 20 MR. ANTOINE HACAULT: And if we turn to 21 page 95, and we're going down the lines now to the 22 surviving original cost and the calculated amount of 23 the annual accrual. 24 In the ELG method, the calculated amount 25 is three million, thirty-five, one ninety-six

(3,035,196) correct? 1 2 MR. LARRY KENNEDY: That is correct, sir. 3 4 MR. ANTOINE HACAULT: And that, if we -5 - we -- I put the numbers, but we can -- we could go 6 back to the previous pages and see that if we had done 7 it on a consistent basis -- that is, without including the net salvage -- we would have a number of 2.68 8 9 million, correct, subject to check? 10 MR. LARRY KENNEDY: I'll take it 11 subject to check, rather than... 12 MR. ANTOINE HACAULT: Okay. Now, the 13 one (1) thing that we also see on this page 95 is that 14 the accrual rate before provision for true-up is one 15 point five-one (1.51), correct? 16 MR. LARRY KENNEDY: That is correct, 17 sir. 18 MR. ANTOINE HACAULT: And the true 19 comparison to that is the one point three-three (1.33), 20 correct? 21 MR. LARRY KENNEDY: That is correct. 22 MR. ANTOINE HACAULT: Now, step 4 in 23 understanding this ELG method and the table is 24 determining how the annual true-up positi -- provision 25 was made, correct?

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

MR. LARRY KENNEDY: Correct. 1 2 MR. ANTOINE HACAULT: And it's in schedule 2 that we find those calculations, correct? 3 4 MR. LARRY KENNEDY: That is correct, 5 sir. 6 MR. ANTOINE HACAULT: So we're at page 7 97 of the book. Page 97 has those true-up calculations, correct? 8 9 MR. LARRY KENNEDY: Yes. 10 MR. ANTOINE HACAULT: So that the calculated accrued depreciation without the salvage 11 12 value is the fifty-six million, seven hundred and three 13 thousand dollar (\$56,703,000) number that's circled, 14 correct? 15 MR. LARRY KENNEDY: That's correct. 16 MR. ANTOINE HACAULT: And the annual book value is the same actual -- the actual accumulated 17 book value is the same for both calculations, the ASL 18 19 and ELG, correct? 20 MR. LARRY KENNEDY: That's correct. 21 I'm just going to back up part of one (1) step if I 22 The calculated accrued number, in this may. 23 circumstance, as it was in the ASL circumstance, is a 24 calculation of theoretical accumulated depreciation, 25 assuming that the parameters that are in place as at

1980 this study were in place since day 1 of the company -1 in other words, the 75-R2 survivor curve and the percen 2 3 -- and the percentage. So -- so that -- that's a calculation 4 5 that says, Here's where we would be theoretically if we 6 had followed those parameters from day 1. I just wanted to make sure that that -- that clarification is 7 understood. 8 9 MR. ANTOINE HACAULT: And -- and your study recommends that you follows those parameters, 10 11 correct? 12 MR. LARRY KENNEDY: Yes, it does. 13 MR. ANTOINE HACAULT: So that we've 14 seen that you've changed the life for some items up to 15 a hundred and twenty-five (125) years, correct, some 16 down to seventy-five (75), and they're further com --17 compared -- componentized in this study, correct? 18 MR. LARRY KENNEDY: That's correct, 19 sir. 20 MR. ANTOINE HACAULT: So here there is a shortfall that's -- or, difference. I don't want to 21 22 call it a shortfall -- I might get into the same 23 trouble Mr. Peters got into -- but a difference of seven million, four hundred and sixty-two thousand, 24 25 three hundred and seventy-six dollars (\$7,462,376).

1981 Now, the one (1) thing that changes also 1 on this table is we no longer see the fifty-eight point 2 seven (58.7) years, correct? 3 4 MR. LARRY KENNEDY: That is correct, 5 sir. And what you're seeing is a number that's lower 6 because it reflects the assumption of retirements of certain of those equal life groups from 2010 through --7 through 20 -- 2131. So your -- your life -- your 8 9 investment in service as at 2010 will have a smaller composite remaining life because we're assuming the 10 11 retirements of various blocks in the calculations each 12 and -- each and every year. 13 MR. ANTOINE HACAULT: And if we flip to 14 page 98, we see the ELG method with no salvage. Those 15 were the further details that you provided to us, 16 correct? 17 MR. LARRY KENNEDY: That's correct sir. 18 And again, if I can beg the indulgence just to -- to 19 describe this page a little bit, here with the equal 20 life group procedure, you will see in column 3 the rate 21 in 2010 is two point zero-six (2.06) for those 22 additions, and the rate for 1991 is one point five-zero 23 (1.50). And you'll notice it's changing or declining 24 with each year as -- as the -- the vintage ages. 25 So this is part of that impact of the

1982 equal life group where you have a different accrual 1 rate as the plant ages and as some of those expected 2 earlier retirements in fact come out of the 3 calculation. 4 5 MR. ANTOINE HACAULT: So for the 6 Wuskwatim facility, we don't have the numbers yet, but it would start ... 7 8 MR. LARRY KENNEDY: At a higher rate. 9 MR. ANTOINE HACAULT: At a higher rate. 10 Am I right that construction was essentially completed 11 in the summer of this year? Is that correct? 12 MR. VINCE WARDEN: It went -- Wuskwatim went into service -- the final unit went into service 13 14 in October of this year, yes. 15 MR. ANTOINE HACAULT: So instead of 16 starting at the one point three-three (1.33) rate under the ASL method for Wuskwatim, am I right that some of 17 18 that would start at or about the two point zero-six 19 (2.06) depreciation rate --20 MR. LARRY KENNEDY: Well --MR. ANTOINE HACAULT: -- for this year? 21 22 MR. LARRY KENNEDY: -- had we used the 23 equal life group in the calculation of the Wuskwatim 24 rates, that would be correct. In part, until we 25 actually saw that distribution and the -- the dollars

is why we -- for the Wuskwatim plant, this would 1 actually be depreciated at the 1.33 percent rate in 2 that we used the average service life procedure for the 3 4 Wuskwatim plant because it was not in service yet as at 5 the study date. 6 MR. ANTOINE HACAULT: So I understand 7 your answer with respect to the study that you did in March of 2010, but we are in test years where those 8 9 numbers are available, correct? 10 MR. LARRY KENNEDY: At this point in 11 time. I would assume there may be some clean-up 12 expenditures that will occur in 2013. There normally 13 is in the case of large con -- construction projects 14 for utilities, some -- some expenditures that carry 15 over into the next year. 16 We are in that period now. And as I 17 suggested yesterday in my -- my direct examination, in 18 the next study, when we have a vintage distribution of 19 that Wuskwatim plant, it will be my recommendation, if 20 IFRS is adopted, that -- that we move to the ELG rate 21 for that plant. It was only in this transition pa --22 stage at the study date, not having the -- the vintaged 23 information, that I recommended for that plant 24 specifically to use the ASL method or procedure. 25 I'm trying to MR. ANTOINE HACAULT:

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1984 understand your response a bit better. So in 2010, 1 your thinking was, Well, we don't ac -- have actual 2 numbers, so I'm not going to use and do calculations 3 4 for ELG. Now we're in a position, except for some 5 minor clean-up costs, where we have all those numbers. 6 Are you saying that you can't, today, provide the calculation under ELG to show us the 7 difference for Wuskwatim? 8 MR. LARRY KENNEDY: 9 Oh, we could. And, 10 in fact, in response to MIPUG Pre-ask 5, we provided the depreciation rates that would have been in place if 11 12 we used the equal life group procedure. 13 MR. ANTOINE HACAULT: Sir, I'm asking 14 you specifically the calculations, not the rates, so 15 that we would have the actual amount spent, say, in 2011, 2012, and have an actual explanation to see if I 16 -- as I believe, there's about a \$5 million difference 17 18 that isn't being recognized in the financial statements 19 of the partnership. 20 MR. LARRY KENNEDY: I'll start, and 21 maybe Mr. Warden and Mr. Rainkie can deal with the 22 second part of your question. 23 The plant went into service in 2012. As 24 such, we could take that first-year rate that I 25 provided in response to Pre-ask 5 for this account,

1985 take that rate, multiply it by the -- the plant in 1 service this year, and have the expense. One (1) would 2 have to be a little bit careful, and that expense would 3 be, in a plant of that size -- as I understand it, one 4 5 (1) of the units went in very early in the year and the 6 second unit went in later. We would want to be a bit careful with not applying the whole year's annual 7 accrual to the -- to the piece of the plant that went 8 9 in very late or later in the year. 10 So I think it's simple arithmetic. I've seen many pages of it here has taken the rate times the 11 12 number and coming up with the value. The rate has 13 been, as I suggested, placed into the record just for 14 the clarity of the record. 15 Now, the second part of your question, 16 I'm not sure if I understand. And maybe one (1) of my 17 colleagues could help you with that. 18 MR. ANTOINE HACAULT: Before we get 19 into the second, I just want to make sure I understand 20 your response. You said to multiply the two point 21 zero-six (2.06) times the plant in service with some 22 minor adjustment for the fact that not everything was 23 in service at the beginning of the fiscal year. Is 24 that correct? 25 MR. LARRY KENNEDY: That's correct.

1986 MR. ANTOINE HACAULT: So we would be 1 able to get a general idea of the difference by doing 2 the two (2) following calculations: The first one (1) 3 would be the cost of plant in service times the one 4 5 point three-three (1.33). 6 That would be one (1) calculation for 7 ASL; correct? 8 MR. LARRY KENNEDY: For ASL it would be 9 correct, yes. 10 MR. ANTOINE HACAULT: And the other 11 calculation would be two point zero-six (2.06) times 12 the value of plant in service for the ELG method, and 13 that would give us at least a general idea of the 14 impact of the ELG method when we start adding new 15 assets? 16 MR. LARRY KENNEDY: That's correct. 17 And again, sir, I would clarify that only to say you 18 might want to make the adjustment recognizing the 19 timing of the assets being placed in service. 20 MR. ANTOINE HACAULT: And I was oversimplifying that because that calculation is only 21 22 for spillways, and you've given us a breakdown of all 23 the different numbers for the different components of 24 Wuskwatim. 25 So we'd have to have all the

1987 componentization to be able to do those multiplications 1 2 for the different rates that you've given us, correct? 3 MR. LARRY KENNEDY: That's correct, sir. 4 5 6 (BRIEF PAUSE) 7 8 MR. ANTOINE HACAULT: In -- in 9 2013/'14, which is the second part of this test years in -- in this case, the full rate would apply to 10 11 Wuskwatim, correct? 12 MR. LARRY KENNEDY: That's correct, 13 sir. 14 MR. ANTOINE HACAULT: I'd request that 15 there be an undertaking to provide us with the plant in 16 service numbers componentized so that we could make the calculations with the rates that were provided to us in 17 18 Pre-ask 5 to Manitoba Hydro. Do we have that 19 undertaking? Alternatively, you could do the calculation and give it to us. 20 21 22 (BRIEF PAUSE) 23 24 MR. VINCE WARDEN: Mr. Hacault, the --25 there are still some expenditures to be incurred at

Wuskwatim, and so whatever we did give you would be 1 based on expenditures to date with an estimate of 2 expenditures to be incurred in the next -- actually, I 3 think it extends for the next two (2) fiscal years. 4 5 And I think all you're looking for is a quantification 6 of the difference between the two (2) methodologies, 7 and we can -- we can do that. 8 MR. ANTOINE HACAULT: Thank you. So to 9 restate the undertaking, Manitoba Hydro will provide us the details of a calculation applying the rates shown 10 11 in MIPUG-5 with respect to Wuskwatim, using known 12 figures to the extent they are available and using its best estimates to the extent that the known numbers are 13 not available. Is that correct? 14 15 MR. VINCE WARDEN: Yes, we'll do that. 16 17 --- UNDERTAKING NO. 38: Manitoba Hydro to provide 18 the details of the 19 calculation, without 20 salvage, applying the rates shown in MIPUG-5 with 21 22 respect to Wuskwatim, using 23 known figures to the extent 24 they are available and 25 using its best estimates to

1989 1 the extent that the known 2 numbers are not available 3 MR. RAYMOND LAFOND: 4 Can I -- can I ask 5 a question at this stage? I think I understood the --6 the undertaking. However -- and please correct me 7 where my thinking is not proper -- it seems to me that during the conversations yesterday we said that -- and 8 9 through the simple example that was provided to us -the current way of applying the ASL method would not 10 11 satisfy accounting principles under IFRS because it was 12 not broken into -- into components. And if essentially 13 it was broken down into many more -- more components like it should under these new guidelines, then it 14 15 would be much more similar; the -- the results between 16 the two (2) methods would be very similar. 17 So when this undertaking is -- is being 18 looked at, is it based on the way it was done prior or 19 the way it would need to be done in the future under 20 IFRS quidelines if ASL was -- was adopted? 21 MR. LARRY KENNEDY: Mr. Lafond, that's 22 a very insightful question. I think in order to -- to 23 respond relatively quickly, we would have to make the 24 assumption that the componentization didn't change. 25 And I do agree with you, and I do -- do agree with my

1 testimony yesterday and the Company's testimony. If 2 IFRS was implemented and we went forward with the 3 average service life, that calculation is probably not 4 what will end up being booked in the future because we 5 would have to then go through and -- and recomponentize 6 those -- those plants.

So you're absolutely correct that what we may have as a series of about nine (9) or ten (10) categories now may end up being fifteen (15) or twen -probably more, twenty (20) or thirty (30) categories, each with a specific life, which would give us a different number than -- than I think we're planning to provide in our undertaking.

14 So our undertaking, I think, in order to 15 provide it on a -- on a relatively timely basis, would be with the current level of componentization. And I 16 17 will put on the record that that probably isn't what 18 would be used if average service life was used going 19 forward in conjunction with implementation of IFRS. 20 We -- we haven't gone to the point of 21 trying to figure out what that componentization would

23 MR. RAYMOND LAFOND: So under IFRS, the 24 calculations you would do as prescribed under the last 25 undertaking would be the same for ELG but not for ASL.

look like yet in that circumstance.

22

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada 1990

1991 1 MR. LARRY KENNEDY: That's correct, 2 sir. 3 4 (BRIEF PAUSE) 5 CONTINUED BY MR. ANTOINE HACAULT: 6 MR. ANTOINE HACAULT: Just to confirm, 7 8 the calculations will be done without salvage? That's 9 the undertaking? 10 11 (BRIEF PAUSE) 12 13 MR. LARRY KENNEDY: We're just making 14 sure that that's the case, and my -- my -- I was going 15 to hit the mic real fast and say that's correct. And Mr. Warden and Mr. Rainkie confirmed that that is 16 17 correct as well, so. 18 MR. ANTOINE HACAULT: Now, if I've 19 understood, since 2009 you've been advising Manitoba 20 Hydro on the issue of IFRS with respect to 21 depreciation. Is that correct? 22 MR. LARRY KENNEDY: With respect to 23 depreciation and a few other aspects of -- of Standard 24 16 and 37, largely around depreciation and -- and plant 25 accounting issues, yes.

1992 MR. ANTOINE HACAULT: 1 And did I take your statement down fairly accurately, that you have 2 not got to the point as of today of determining what, 3 if any, and the extent of any further categorization or 4 5 compar -- comen -- componentization? Yeah, I screwed 6 this up. 7 MR. LARRY KENNEDY: I think your question is: Have we looked at what that additional 8 9 level of componentization would be if we did not use 10 the equal life group procedure and were to adopt IFRS? 11 MR. ANTOINE HACAULT: Do you know the 12 answer to that today? Do you have something from the 13 Manitoba Hydro auditors that says, Yes, you're going to 14 have to further com -- componentalize the categories in 15 addition to what's already been done? 16 MR. LARRY KENNEDY: I have not provided 17 anything to -- to Manitoba Hydro in terms of my view. 18 I'm not sure if Hydro has received any comment from the 19 auditors. I can tell you that my work with other 20 utilities has indicated that those using the average 21 service life have been required by their auditors to --22 to go to a more detailed level. 23 And it depends on the auditors. And the 24 IFRS is a funny standard, and I'll -- I'll be very 25 clear about that. It really is the opinion of the

1993 partner doing the audit, in terms of what that level 1 is. Generally, though, it is much more detailed that -2 - that we would say. 3 4 MR. ANTOINE HACAULT: Thank you very 5 much, Mr. Kennedy. I'd like to take you through a 6 little bit about how your retainer evolved with 7 Manitoba Hydro. And for my references, I had the preask from MIPUG available. And for members of the 8 9 Board, it should be in a small binder identified "Public Utility Board Intervenor Pre-asks". 10 11 MR. RAYMOND LAFOND: That's Exhibit 22-12 MH? 13 MR. ANTOINE HACAULT: Yes. 14 15 (BRIEF PAUSE) 16 CONTINUED BY MR. ANTOINE HACAULT 17 18 MR. ANTOINE HACAULT: The first page, 19 so it's page 1 of 4, in response to MIPUG Pre-ask 1, 20 there's a summary response there over the next four (4) 21 pages as to the chronology. 22 Sir, did you read that response prior to 23 it being filed? 24 MR. LARRY KENNEDY: I did, sir. 25 MR. ANTOINE HACAULT: And are there any

1994 corrections or changes that you think ought to be made? 1 2 3 (BRIEF PAUSE) 4 5 MR. LARRY KENNEDY: Now you've got me worried, sir. Based on the reading that I -- that I 6 7 made prior to the filing, I didn't see any. 8 MR. ANTOINE HACAULT: It wasn't 9 intended to get you worried, sir. Maybe it got you awake after all these boring depreciation questions 10 11 that I had to ask. 12 But in any event, your engagement 13 started in January of 2009. Is that correct? 14 MR. LARRY KENNEDY: We -- we had some 15 discussions in January of 2009. I think the engagement 16 really started a slight bit later. Just in terms of a bit of a preamble, I presented at a conference of the 17 18 Canadian Electrical Association in December of 2008 --19 MR. ANTOINE HACAULT: Sir, you can 20 continue answering, but I -- just be mindful about 21 whether you want to make your flight. 22 MR. LARRY KENNEDY: I'll be brief. And 23 Manitoba Hydro was in attendance at that presentation 24 that I made in December. Following that, I received a 25 phone call from Mr. Martin, saying, Can you come talk

1995 There was things in your presentation that we to us? 1 thought would interest us. And so I came out and 2 chatted with them. That was in January of '09, and 3 then that led to a more formal engagement, I think, 4 5 beginning in March of '09. 6 MR. ANTOINE HACAULT: At that 7 presentation, did you explain the difference of perhaps adopting the ELG method and front-loading costs? 8 MR. LARRY KENNEDY: 9 I did. Actually, 10 it was attended by each of the big four (4) audit partners, our -- representatives from each of the audit 11 12 companies. Well, and we talked about the equal life 13 group and the manner in which it -- it deals with 14 retirements and particularly retirements that would 15 occur, be expected to occur, prior to the average service life. 16 17 It was at that -- that conference really 18 we got into an interesting debate really for the first 19 time with the accounting community about the benefits of the equal life group procedure. And it stimulated a 20 21 lot of -- a lot of discussion amongst me and the 22 auditors and -- and, quite frankly, amongst me and a 23 lot of clients, and me and a lot of clients and a lot 24 of auditors. So yeah, there was a -- it was a very 25 hotly contested because there was some divergent

1996 opinions between myself and the audit community at that 1 2 time. 3 MR. DARREN RAINKIE: Mr. Hacault, I --MR. ANTOINE HACAULT: A -- a business 4 5 development then, I gather. 6 MR. DARREN RAINKIE: Mr. Hacault, as I said, I think, yesterday, at that point, I remember 7 their presentation from the big four (4) was they 8 9 weren't even sure they were going to accept group accounting for -- under IFRS, which left us, in the 10 utilities space, a little puzzled how we were going to 11 12 do the whole thing. 13 MR. ANTOINE HACAULT: So is it fair to 14 say that some of the initial discussion with Manitoba 15 Hydro was whether or not the ELG method should be 16 adopted and the ASL method dropped in view of how the ELG method allows to increase, at the very front, the 17 18 depreciation expense? 19 MR. LARRY KENNEDY: I would suggest the 20 discussions were there may be alternatives that may 21 make a little bit more sense to the -- to the auditing 22 or the -- the -- the accounting community as we 23 transitioned to IFRS. I think at that point, we 24 recognized that if we were to continue down the path of 25 average service life, we had some issues around the

1997 derecognition of costs - namely, the gains and losses 1 2 upon retirement. 3 The audit community was very steadfast in -- in -- in that -- that requirement. And so my 4 5 view at that point started to transition where the equal life group will result in lesser amounts of 6 7 retirement, and would that make sense to the audit community? The audit community was very receptive to 8 9 that. 10 And so by that early 2009 time period, 11 it became apparent to me that those firms that -- that 12 wished to -- to smooth their implementation to IFRS 13 without carrying many, many, many -- and I should say 14 those regulated firms -- without carrying many, many 15 types of deferral accounts; a number -- at least two 16 (2) sets of books; that the equal life group would be 17 something they should explore. 18 It wasn't yet a -- a solid 19 recommendation, but it was definitely at that point in time an exploratory discussion. I believe in equal 20 21 life group for a number of reasons, and -- and this was 22 an -- not an opportunity, but a reason that -- that it 23 maybe could be implemented and -- and solve a whole 24 bunch of other problems that -- that were going to 25 exist under the world of IFRS.

1998 So -- so as early as 2009, I suggested 1 to Manitoba Hydro that we ought to begin exploring a 2 transition to the equal life group. It wasn't a -- a 3 recommendation yet at that time; it was still, if you 4 5 will, the beginning of a -- of -- of a journey. 6 MR. ANTOINE HACAULT: Thank you. Could 7 you provide us with a copy of the presentation I think you said you made in 2008, sir? 8 9 MR. LARRY KENNEDY: I -- I'd like to, 10 yeah. That's maybe -- my -- my number of clients that have read it so far have gone away, so -- no, I -- I 11 12 would be happy to provide that, sir. 13 MR. ANTOINE HACAULT: Okay. So we'll 14 consider that an undertaking, sir? 15 MR. LARRY KENNEDY: Sure, and I 16 undertake to provide the presentation that I made in 17 December of 2008 to the Canadian Electrical 18 Association. 19 20 --- UNDERTAKING NO. 39: Manitoba Hydro to provide 21 the presentation Larry 22 Kennedy made in December 23 2008 to the Canadian 24 Electrical Association 25

1999 1 MR. VINCE WARDEN: If I just might mention, it's a good thing we didn't have a travel 2 restriction on at that time. 3 MR. DARREN RAINKIE: That's the last 4 5 time that I travelled out of province, by the way. 6 CONTINUED BY MR. ANTOINE HACAULT: 7 8 MR. ANTOINE HACAULT: Sir, I'm going to 9 page 2 of the summary which was provided. And on page 10 2, about midway through the page, it references that in September 2009, Gannett Fleming provided their first 11 12 draft of sugges -- suggested depreciation component 13 groups. 14 Has that draft been provided to us? 15 16 (BRIEF PAUSE) 17 18 MR. LARRY KENNEDY: Sir, in 19 anticipating your next question, I forgot the one you just asked. I apologize for that. 20 21 MR. ANTOINE HACAULT: Related to the indication that in September 2009 there was a draft of 22 23 suggested depreciation groups. I don't think we have 24 it, but I just ask the question: Do you think we have 25 it? If not, I'd like an undertaking that it please be

provided to us. 1 2 MR. LARRY KENNEDY: That -- that was the -- the second part that I was leaping to. And, 3 yes, we can provide that as an undertaking. So the 4 5 undertaking would be to provide the -- the suggested --6 or the recommended level of componentization as at 7 September 2009 that I provided to Manitoba Hydro. 8 --- UNDERTAKING NO. 40: 9 Manitoba Hydro to indicate 10 the recommended level of 11 componentization as at 12 September 2009 13 14 CONTINUED BY MR. ANTOINE HACAULT: 15 MR. ANTOINE HACAULT: Now, is it your 16 recollection that these suggested depreciation 17 component groups related to the ASL method or to the 18 ELG method? 19 MR. LARRY KENNEDY: At that time we 20 were leaning at that point already to the equal life 21 group. That level of componentization was for the 22 equal life group. We -- we haven't, for this company, 23 provided -- or, at least I have not provided for this 24 company the level of componentization that I think 25 would be required if they went to ASL, and nor have I

> or 1-403-276-7611 1-800-663-4915 DIGI-TRAN INC. Serving Clients Across Canada

2001 turned my mind to that yet. 1 2 MR. ANTOINE HACAULT: Thank you. 3 4 (BRIEF PAUSE) 5 6 MR. LARRY KENNEDY: And -- and again, I 7 just want to stress that at least that undertaking is a work -- was, at that time, a working document. So it 8 9 was quite draft in terms of its -- of its preparation 10 and stuff. But I'd be happy to provide the document 11 that we did provide to Manitoba Hydro. 12 MR. ANTOINE HACAULT: Understood, sir. 13 Thank you for that clarification. 14 15 (BRIEF PAUSE) 16 17 MR. ANTOINE HACAULT: I'd like you to 18 turn to a February 9, 2010, letter which was directed 19 to Darryl Martin of Manitoba Hydro. That's further in that Pre-ask number 1. It's Attachment 2 to the pre-20 21 ask. 22 MR. LARRY KENNEDY: I do have that, 23 sir. 24 MR. ANTOINE HACAULT: In the second 25 full paragraph on the first page of the February 9,

2002 2010, letter, there's an explanation that the 1 implementation of IFRS requires a depreciation of 2 assets over the estimated life of the assets. And the 3 there's the statement that: 4 5 "Gannett Fleming has completed the review of the current level of 6 7 componentization and recommended a 8 number of new asset categories, most 9 predominantly in the area of hydro 10 generation." 11 My first question with respect to that 12 statement is: Was this with respect to ELG, sir? 13 MR. LARRY KENNEDY: Yes, consistent 14 with my last answer, my recommendations for 15 componentization throughout this process with Manitoba 16 Hydro were -- were anticipating the implementation of 17 the equal life group procedure. 18 MR. ANTOINE HACAULT: And my second 19 question is you indicate, "most predominantly in the area of hydro generation." Why put emphasis in that 20 21 particular area? MR. LARRY KENNEDY: It was the area 22 23 that, in my opinion, required the -- the most 24 additional componentization. A lot of the distribution 25 companies -- and you'll notice here, the distribution

2003 assets weren't com -- when -- when you go to the equal 1 life group procedure, were generally componentized to a 2 level that's not dissimilar to the Federal Energy 3 Regulatory Commission Chart of Accounts. 4 5 And so what we found was the -- the audit community, for distribution companies and for 6 7 distribution assets that -- that were predominantly mass property accounts, seem to -- to accept that level 8 9 of componentization that was fairly standard throughout North America, with some -- with some enhancements, but 10 by far fewer, whereas with the generation and the --11 12 and the big-site-type assets that we -- we see it a 13 little bit in the -- in the world of compression on 14 pipelines, for example, and -- and we see it in 15 generation, and we see it in a few other areas. But 16 when we have these large site -- sited assets, the 17 audit community seemed to feel that there was an 18 increased need for -- for a greater amount of 19 componentization. 20 21 (BRIEF PAUSE) 22 23 MR. ANTOINE HACAULT: Now, sir, in the 24 FERC componentization, do you know how many categories 25 are used for this particular area, being the hydro

2004 generation area? 1 2 3 (BRIEF PAUSE) 4 5 MR. LARRY KENNEDY: Off the top of my 6 head, I couldn't give you a precise number. I'd hate 7 to put anything on the record because it would be not much more than an educated guess at this point. 8 9 MR. ANTOINE HACAULT: Would it be --10 could you give me a range? Would it be in the range of 11 five (5) to ten (10)? 12 MR. LARRY KENNEDY: It would be greater 13 than that, sir. It would be -- I'm -- I'm quessing 14 it's in the range of -- related specifically to hydro 15 generation, it would be in the range of ten (10) to 16 fifteen (15), maybe -- maybe fifteen (15) to twenty 17 (20). So ten (10) to twenty (20) would be a -- and I -18 - and again, I'm -- I'm providing that to the Board on 19 the record as really a -- a test of my memory and -and a bit of an educated guess without the documents in 20 hand. 21 22 The documents are public. They're 23 available to anybody to -- to find on the FERC website, 24 so it's an easy number to go get. It's -- it's by no 25 means a -- a hard document to find.

MR. ANTOINE HACAULT: 1 And what areas are covered in your mind when you say "hydro 2 generation"? 3 MR. LARRY KENNEDY: That -- that would 4 5 encompass the -- the civil assets that -- that we've 6 talked about: the -- the dams, the weirs, the -- the 7 waterways, the powerhouses. It would also include the generators, the turbines. It would include the -- it's 8 9 been a long couple of days here, and I'm -- I'm trying to work on memory now -- things like step-up 10 11 transformers, spillways. I mean, that -- that type of 12 asset. So in addition to the -- it would be virtually 13 anything that you would see within -- at the site of a -- of a hydro generating station. 14 15 MR. ANTOINE HACAULT: My Friend, 16 Patrick, has pulled up a listing, and it might assist 17 in refreshing your memory. Under the heading 18 "Hydraulic Production," I see: 19 "Item 330, Land and Land Rights; 331, Structures and Improvements; 332, 20 Reservoirs, Dam, and Waterways; 333, 21 22 Waterwheels, Turbines, and 23 Generators; 334, Accessory Electric 24 Equipment; 335, Miscellaneous Power 25 Plant Equipment; 336, Roads,

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2005

Railways, and Bridges." 1 So there's a listing of a total of seven 2 (7) different categories here. Would that be what 3 you're referring to, sir? 4 5 MR. LARRY KENNEDY: It would be. 6 That's a bit smaller than my memory, quite honestly. And -- and quite honestly, that's why I think as the 7 IFRS, if it's ever implemented in the States, they're 8 9 going to have the same challenges of auditors requiring more breakout there. 10 11 I'm not aware of -- well, I shouldn't --12 I'm aware of a few hydraulic generators in Canada that 13 have implemented IFRS that would be at that -- that few numbers of -- of accounts. 14 15 So I -- my -- my guess is this may be a 16 business development opportunity for me in the States 17 as we -- as -- as they go to the IFRS. I'm -- I'm 18 assuming they're going to face the same challenges that 19 regul -- or, regulated hydro companies in Canada have, in terms of that level. 20 21 I think you'd notice if you looked at the FERC listing, there's a little bit more detail in 22 23 and around the mass property accounts for the distribution companies, which is why I think we had 24 25 less disagreement with the audit community on -- on

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

2007 distribution accounts. 1 MR. ANTOINE HACAULT: So -- and I'm 2 being a bit cheek -- tongue in cheek here. To get that 3 extra business I quess you need to do more -- some more 4 5 lobbying with the audit community to make sure they 6 want those additional componentization amounts, 7 correct? 8 MR. LARRY KENNEDY: I have -- if you 9 notice, I have enough grey hairs in my head. It -- it 10 was a lon -- it was a long -- a long, involved, three 11 (3) year process getting to where we are in Canada. I 12 may leave that to my -- my American colleagues in my firm. 13 14 MR. ANTOINE HACAULT: Sir, thank you 15 very much for answering my questions with respect to 16 this area. I -- I do have a couple more. So at what 17 point in time did it become determined, and you've used 18 as a -- as a policy decision and communicated to you 19 that Hydro would be adopting ELG with respect to IFRS? 20 21 (BRIEF PAUSE) 22 23 MR. LARRY KENNEDY: My memory is -- is 24 seeming to be failing me faster than I -- than I care. 25 I -- I can give you the time frame, maybe not the

> or 1-403-276-7611 1-800-663-4915 DIGI-TRAN INC. Serving Clients Across Canada

2008 precise date. It would have occurred in the summer to 1 fall of 2011. We started working with Hydro in -- in 2 about the April to May time frame of 2011 on the final 3 4 development of the study. I remember sitting in Mr. 5 Warden's office in, I think it was, about the May time 6 frame, where we chatted about the equal life group and 7 the average service life and where do we go with 8 salvage. 9 It would have followed that series of 10 meetings that Hydro got back to me that indicated their policy was to go with the equal life group and to 11 12 remove net salvage from the calculation. So that --13 that would put in the timing of probably summerish of 2011, sir. 14 15 MR. ANTOINE HACAULT: Can you explain 16 to me the fundamental -- I'm going to say -- facts 17 provided them -- provided to them with respect to the 18 two (2) options? Did you have actual numbers by that 19 time as to the impact of ASL and ELG on depreciation 20 and how much could be depreciated under one (1) study 21 or method as opposed to the other? 22 MR. LARRY KENNEDY: I think at the time 23 -- and maybe, Mr. Rainkie and Mr. Warden, you may 24 remember better than I do. I think we were, at that 25 time, still talking orders of magnitude rather than

1 precise numbers. I think we were talking about the 2 benefits and the way in which they would implement IFRS 3 and -- and the pros and cons of -- of the -- the 4 various options.

2009

5 And to be very frank, the -- the ELG was 6 presented much in the same way we presented it 7 yesterday with -- with Our Friends up in the -- going through some simp -- simplistic examples. We did some 8 9 -- a few accounts. So we went through the company very 10 similar in terms of the theory of the equal life group. 11 And we were blunt, and I was blunt with the Company 12 that, yes, it is going to result in a -- in a bit of an 13 increase -- or, an increase in the annual depreciation 14 We also talked about do -- what do you do expense. 15 with the cost of removal? And how do they handle that 16 without maintaining two (2) sets of books?

17 So really, we -- we talked about a 18 number of things regarding the implementation of IFRS 19 and then all -- all those would flow into a 20 depreciation study. And I think at the end of the day, 21 we -- we -- we looked at it, and I suggested to the 22 Company that they look at it on the merits of -- of the 23 ability to implement IFRS. And I was very blunt with 24 the Company at that time that my view was, although we 25 had not yet reviewed the level of componentization that

2010 would be required for the average service life, they 1 were going to have to go down that exercise to do that 2 if, in fact, they chose to go ASL. And so we -- we 3 chatted about what that would mean, and we've talked 4 5 about that over the last day and a half here. So really, the information presented to 6 the Company in large part was much of the same 7 conversations we've had for the last ten (10) or twelve 8 9 (12) hours in this hearing room. And -- and at the end 10 of the day, I provided the recommendation to the Company that I thought the equal life group was -- was 11 12 the -- the method of implementing IFRS, in their 13 circumstances, there would be, 1) ease the burden of -of getting into IFRS and, 2) would provide a fair level 14 15 of depreciation expense for regulatory purposes. 16 MR. ANTOINE HACAULT: Sir, could I -have you completed your answer? If so, I'll proceed to 17 18 Tab 5B. 19 MR. LARRY KENNEDY: No, go ahead. Ι 20 think that's the ... 21 MR. ANTOINE HACAULT: I don't want to 22 cut you off. 5B is page 34 in the MIPUG book of 23 documents. So if people could turn to page 34, MIPUG 24 book of documents. 25

1 (BRIEF PAUSE) 2 3 MR. ANTOINE HACAULT: Sir, this was a response by Manitoba Hydro which explained why there 4 5 was an increase up to a hundred and forty (140) years 6 from a hundred (100) years. 7 But my question is: In this answer, 8 there is a fair amount of detail with respect to a 9 departure from the hundred and forty (140) years with respect to three (3) specific plants, the first being 10 11 Point du Bois, agreed? 12 MR. LARRY KENNEDY: That's correct, sir. 13 14 MR. ANTOINE HACAULT: The second being 15 Grand Rapids, and the third being Laurie River, correct? 16 17 MR. LARRY KENNEDY: That's correct, 18 sir. 19 MR. ANTOINE HACAULT: So this 20 componentization and further detail with respect to 21 those plants is useful both for the ASL method and ELG 22 method, correct? 23 MR. LARRY KENNEDY: I -- I'm going to 24 hopefully maybe un-confuse the question a little bit. 25 The -- the selection of the life -- or the lifespan

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2011

2012 date, as discussed in this IR response, isn't related 1 to componentization. It's related to the -- the 2 selection, if you will, of the economic life of the 3 plants or the lifespan of all the accounts within the 4 5 plant, irregardless of how they were componentized --6 or, regardless of how they were componentized. MR. ANTOINE HACAULT: But it does 7 assist in refining the whole depreciation study and in 8 9 coming to a more accurate estimate of depreciation, 10 correct? 11 MR. LARRY KENNEDY: Absolutely, sir. 12 So it's -- it's another very vital component. It's 13 just not quite as inter -- inte -- integrated with the 14 componentization as I thought I understood in your 15 question. 16 17 (BRIEF PAUSE) 18 19 MR. ANTOINE HACAULT: And it's more 20 accurate because an investment in the spillway of Grand 21 Rapids is not depreciated in the same way as a more 22 recent plant like Limestone, correct? 23 MR. LARRY KENNEDY: Correct. 24 25 (BRIEF PAUSE)

2013 MR. ANTOINE HACAULT: Could I turn all 1 parties to page 47 of the book? That's Tab 5E. 2 3 4 (BRIEF PAUSE) 5 6 MR. ANTOINE HACAULT: Now, this is page 7 10 from the consolidated Integrated Financial Forecast '12. Do you see that, sir? 8 9 MR. LARRY KENNEDY: Yes. 10 MR. ANTOINE HACAULT: Okay. And 11 although it's shown in a graphical way for the years 12 2013 to about 2027, we've got a decade of substantial 13 new capital additions to Hydro's assets, correct? 14 15 (BRIEF PAUSE) 16 17 MR. LARRY KENNEDY: Generally, yes, 18 sir. I will point there's a little chunk of gas in 19 here that is not related to the Hydro assets. But 20 other than that, I agree with you. 21 MR. ANTOINE HACAULT: Thank you for 22 that clarification. So although we have a lot of 23 information going forward on capital expenditures, you 24 haven't been asked to give this Board any information 25 as to how changing after, this many years, from ASL to

ELG, how that will impact Manitoba ratepayers; as a 1 comparison, ASL without salvage and ELG without 2 salvage. 3 4 5 (BRIEF PAUSE) 6 7 MR. LARRY KENNEDY: I'm going to start, and I think Mr. Warden may -- may be able to correct 8 9 whatever I -- I am incorrect on here, because I -- I was not provi -- I was not asked to provide an opinion 10 11 necessarily of the -- of the impact of ELG given large 12 capital expenditures. I'll give it now. 13 The -- I view that it -- it's 14 appropriate. It's appropriate because these large 15 capital expenditures will be depreciated in accordance 16 with, A) the accounting standards that are expected to 17 be implemented at that time; and, secondly, will 18 recognize the interim retirement activity that will 19 occur between the date of these expenditures and the 20 planned -- planned closure dates of the plant. 21 I do believe the Company, in 2011, 22 provided a long-term outlook using the average service 23 life. I do think the Company also recently provided a 24 long-term outlook that has included the use of the 25 equal life group. I believe -- and this is where I'm -

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2014

2015 - I'm afraid I -- I may go astray a bit. I believe 1 that both of those forecasts include versions of a --2 of the large capital program that -- that we're 3 alluding to her. 4 5 So you would have the impact, I think, 6 over the course of a couple of documents, of the -- the impact of the ASL over this large capital program, and 7 you have the impact with the ELG rates over the large 8 capital program. 9 10 The -- the use of the -- the ELG because, as I said a few minutes ago, I -- I firmly 11 12 believe it is appropriate, given this -- even this 13 level of capital expansions. 14 MR. ANTOINE HACAULT: Sir, before you 15 gave your fairly lengthy answer, I asked whether or not 16 we had a calculation of the impact of ASL without 17 salvage. And I haven't seen anything on the record 18 that shows us an apples-to-apples comparison. 19 Do you know of any? 20 21 (BRIEF PAUSE) 22 23 MR. LARRY KENNEDY: Sir, I was just 24 confirming that I didn't think it was in anywhere that 25 -- that I provided and therefore probably not on the

2016 record. And my -- my colleagues to my -- my left have 1 indicated that -- the same, that we don't think we've 2 provided anything without salvage with the ASL method 3 on -- on the long term, going forward. 4 5 MR. ANTOINE HACAULT: And in fact, 6 Wuskwatim as presented over the long range, including 7 up to, was it 2034, is all on the ASL method, correct? It hasn't -- any estimates for Wuskwatim showing us 8 what the deficiencies and revenues are or are not have 9 all been done on ASL? 10 11 MR. LARRY KENNEDY: That'd be correct, I do point out that the ASL estimates -- I --12 sir. 13 I'll agree with your -- your assumption that we have 14 not provided any -- anything with ELG at Wuskwatim. 15 Those -- those estimates have all been provided, given 16 the ASL method -- or procedure. 17 THE CHAIRPERSON: I'm a little bit 18 confused. So the -- the -- when we look at the CEF for 19 the future years, for the next twenty (20) years or so, 20 those were prepared on the basis of -- of ASL, or --21 MR. VINCE WARDEN: No, the -- the current financial forecast -- that is, the one most 22 23 recently submitted to this Board, we've referred to as 24 IFF12 -- that's based on ELG. 25 THE CHAIRPERSON: ELG, okay. So -- so

2017 IFRS being a bit of a wildcard here in terms of what 1 they will do with respect to rate-regulated assets, we 2 might have to look at -- in the future look at a 3 revised CEF which assumes ASL going forward. Is that -4 5 - am I --6 MR. VINCE WARDEN: Yes, that is a 7 possibility. As you know, we did push it out beyond the -- beyond the test years, one (1) year beyond the 8 9 test years. If IFRS is deferred again we would very 10 likely continue to defer the implementation of ELG net salvage removal until IFR -- IFRS was implemented. 11 12 MR. RAYMOND LAFOND: I heard the 13 answer. You would defer implementing ELG without the 14 net salvage value element or component. But would you 15 defer actually applying ELG? 16 MR. VINCE WARDEN: Yes, Mr. Lafond, 17 that is -- that is my expectation at this point. I 18 think we in -- indicated earlier -- excuse me -- that 19 would be a policy decision. But that would seem to be 20 -- at this -- where we sit today to be the most 21 reasonable approach going forward. 22 MR. RAYMOND LAFOND: Can I ask a few 23 more questions? Essentially, when I look at the -well, a couple of questions. Firstly, in principle, 24 25 Mr. Kennedy, when you -- when you indicate that ELG is

2018 an appropriate method based on the example shown to us 1 on page -- Roman numeral II-38 of Volume -- Volume IA 2 or Appendix 5.7. That example, firstly, would lead to 3 believe that it is more accurate in the sense that ASL, 4 without the many components, was a very rough estimate 5 6 at the time, and now with computers we can actually be 7 more accurate. 8 Am I correct in doing that? So -- which 9 would mean not only is it appropriate, but more 10 appropriate? 11 MR. LARRY KENNEDY: Mr. Lafond, I -- I agree with you. In fact, you're agreeing with really 12 13 the author of "Mass Property Depreciation throughout North America," Mr. Robley Winfrey. He stated in -- in 14 15 1935 -- in Bulletin 155, I apologize, that the equal 16 life group, or at that time was known as the unit 17 summation, is the only correct math -- or, 18 mathematically correct method. 19 All other methods are -- are, if you 20 will, a bit of a compromise. That's my words. His 21 words were it was the only correct method. He goes on further in the document to describe the -- the 22 23 precision and the accuracy of the equal life group 24 would normally only be compromised for the sake of the 25 reduction in the number of calculations.

2019 1 Remember, and that was done in 1935 before the -- the advent of -- of the Apple computer, 2 where we can run these things fairly quickly. The --3 the -- so I -- I'm totally agreeing with you with your 4 premise, that the equal life group is the more accurate 5 6 method for the determination of the depreciation 7 expense. 8 MR. RAYMOND LAFOND: And based on that, 9 why would Manitoba Hydro simply use the IFRS 10 implementation as a guideline to implement the new policy, rather than implementing a policy with more 11 12 accurate numbers, with -- with the advent of computers, 13 regardless of -- of IFRS? 14 Mr. Lafond, I'll MR. LARRY KENNEDY: 15 start and then -- then I think the Company can answer 16 why -- what they base their policy decisions on. The -- I think it's pretty much undisputed amongst 17 18 depreciation professionals that the equal life group 19 procedure is more accurate. 20 As you note in our -- even in our simple 21 example, there is a -- that accuracy comes with perhaps 22 more precision in the distribution of the depreciation 23 expense. And unfortunately, the -- the impacts related 24 to the customer bill sometimes override the ability to 25 -- to implement the -- the accuracy of this -- of this

procedure. 1 2 And -- and again, I'll let the Company witnesses speak to the -- to the reason of their 3 4 policies. 5 MR. VINCE WARDEN: I think there's --6 well, there's two (2) major reasons why we would wait 7 until the impl -- take advantage of the implementation 8 of IFRS. The first is that if were to simply move to 9 ELG from ALS -- ASL, we would be -- that would be a change in accounting policy, which would mean 10 11 retroactive restatement and all the complications that 12 go with restatement. The -- the second reason is rate 13 So if -- if we look at the im -- the impacts 14 impacts. 15 -- as we talked about earlier, the net impacts of 16 implementing IFRS on op -- on net income are relatively 17 minor. In fact, I think that's demonstrated -- if you 18 wanted to turn to that -- that original document, we --19 we had with re -- it is in Manitoba Hydro -- Hydro Exhibit 15 we show the net inco -- net income impact as 20 21 being \$5 million for the -- for the year. And that 22 would be approximately the impact going forward. 23 There are a lot of net implications of 24 that though, that if we were to imp -- implement ELG on 25 its own, there would be an increase in depreciation of

2021 \$36 million per year. So we're looking at taking 1 advantage of IRS -- IFRS to -- such that we can 2 implement all at once and with a -- with minimal impact 3 4 on ratepayers. 5 MR. RAYMOND LAFOND: Thank you. When 6 we talk about reinstatement of -- or, restatement, rather, of financial statements, that would only apply 7 in terms of the annual report for the previous year and 8 9 not many years back, correct? 10 MR. DARREN RAINKIE: No, Mr. Lafond. 11 It would be -- you'd have to restate back as far as you 12 could practically go. Of course, in restating, you 13 always restate the comparable year, but you also have 14 to make a retained earnings adjustment right up to the 15 comparable year. 16 MR. RAYMOND LAFOND: Okay. Therefore, 17 that brings me to my other question, which is: As we 18 saw in -- on page 278 of the book of documents, 19 essentially, moving to the ELG method increases costs 20 by \$32 million, \$32.3 million. 21 When looking at the example that was 22 given us today, which I referred to earlier, the 23 increased costs would be due to, I imagine, two (2) reasons. Firstly, for not having depreciated enough in 24 25 -- for the old assets and really in the new assets it's

2022 using the comp -- the actual lifespan of the different 1 components rather than just saying a hundred (100) 2 years for the whole power station. 3 4 Am I correct? 5 MR. LARRY KENNEDY: No, that -- that's 6 exactly correct, sir. The -- the increase is really 7 derecognition of those early retirements. 8 Now, in our -- in the Manitoba Hydro 9 rebuttal in Section 2.2.2, I think it is, we -- we provide a chart that says, If you were to use the 10 average service life procedure and book the losses of 11 12 retirement in accordance with -- with the schedule, the 13 Iowa curves, et cetera, one would actually come to the 14 exact same spot. In other words, the increase in 15 depreciation expense using the equal life group 16 procedure offsets the losses on retirement that were 17 incurred on those early losses. 18 Now, that -- that's in a -- in a pretty 19 perfect world, when everything happens in exact 20 accordance. But that -- that's the type of impact. So 21 you are correct in your assumption that the -- the 22 equal life group procedure matches that -- that profile 23 better and reduces the need for the -- the entry for losses on retirement, which is, in the good old world 24 25 of pre-IFRS, that could -- the aud -- the auditors,

1 through the regulated accounting treatments, would 2 allow you to book those into the accumulated 3 depreciation account.

In the new world of IFRS, you're no 4 5 longer allowed to do that. Those have to go to the income statement. Thus, it is a fairly large stimulant 6 to say, Well, if I'm going to end up with the -- the 7 losses on -- the losses on retirement being booked to 8 9 income when they occur, why would I not use the -- the 10 more precise and accurate method of the equal life group and not have to deal with those losses and end up 11 12 in generally the same spot?

MR. RAYMOND LAFOND: For accounting purposes, if Manitoba Hydro moved to the ELG method, I ve seen the impact of 34 million -- or, \$32 million per year.

Is it because the understated depreciation of the first years is apportioned to the balance of the lifespan, or would that portion be attributed directly to retained earnings, in terms of adjustments?
MR. LARRY KENNEDY: Thank you for that,

23 sir. I -- I neglected to answer the first part of your 24 question in my -- my -- my previous answer. You're 25 correct. Part of that bump of that \$32 million is a

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2023

2024 reflection that under the equal life group procedure, 1 in a number of categories and at certain ages, we have 2 not yet recovered enough of those -- of that 3 accumulated depreciation. So that under-recovery is 4 5 being transferred and recovered over the estimated 6 remaining life of the assets. 7 MR. RAYMOND LAFOND: Thank you. 8 MR. DARREN RAINKIE: Mr. Lafond, 9 there's one (1) other aspect that I thought I'd mention, I think that you'd appreciate as a 10 professional accountant, is that as you probably 11 12 gathered through these proceedings, there's very 13 different accounting policies that have been applied to 14 rate-regulated entities over the years, over the 15 decades. And one (1) of the things that the 16 International Accounting Standards Board did do for 17 this sector is allow an exemption where you can freeze 18 your net book value at the date that you transition 19 over to IFRS. So I would think most utilities -- it's 20 21 almost impossible to go back through all of the 22 practices that we have had over the years and how they 23 differ between what you see in other year -- other 24 industries and in rate-regulated entities and restate. 25 So one (1) of the things that the

2025 International Board did give us a couple years ago when 1 -- when they -- when they stopped the rate-regulated 2 project was an exemption, a drag -- what we call the 3 net book value drag-over that we can take that at the 4 start of IFRS without making all of the adjustments 5 6 going back, which is really a difficult and convoluted 7 thing to do. 8 So, as much as possible, we're trying to 9 protect that as we move forward, you know, both for 10 book purposes and then for regulatory purposes. If you start to restate, what are you going to do with that 11 12 amount? It just throws another -- you know, another 13 complication on this whole -- this whole thing. 14 So as Mr. Warden alluded to, I think 15 we're -- we're looking at all these changes on a 16 perspective basis, trying to manage the impact with the 17 customers through careful selection of accounting 18 policies that also work for rate-setting purposes. And 19 -- and that's just maybe some additional insight into 20 what we're -- how we're -- what we're trying to do to 21 manage this whole issue. 22 MR. RAYMOND LAFOND: I understand that, 23 and I think quite well. The only thing in my mind is the fact that Manitoba Hydro, the more it generates 24 25 power to export and the more it builds for export

2026 purposes, the greater portion of it is not regulated. 1 So, in actual fact, it's getting to be -- there's 2 getting to be a -- a larger and larger proportion of 3 the generation and of the sales that is not regulated 4 5 and, therefore, the regulated aspect in term -- the 6 accounting principles for reg -- regulated utilities 7 still applies, but not for all of the utility. 8 MR. DARREN RAINKIE: The criteria --9 unless the International Board changes it, and then who 10 But the criteria of applying rate-regulated knows. accounting is that your rates are set by a regulator 11 12 and you have a reasonable expectation of -- of 13 recovering your costs. 14 So those are the only criteria to 15 actually apply it. And I -- and I think, as we go 16 forward, first and foremost, we're a utility that's 17 here to serve the needs of Manitobans. And as we 18 talked about, as Mr. Cormie talked about, as part of 19 having a hydraulic system is having, in most years, a 20 fairly large surplus of energy that you can sell. 21 So I wouldn't want to call our export 22 revenues a byproduct, but our export -- our -- our main 23 mandate is to serve Manitobans. The export revenues are there. They help to keep rates low. They help to 24 25 pay for new generating stations. And so I still think

we can apply rate-regulated principles, even if our 1 export revenue is increasing over time. I think it 2 still makes sense, if you like, if you think about what 3 Manitoba Hydro's core mandate is and why we do exports. 4 5 MR. RAYMOND LAFOND: Thank you. 6 THE CHAIRPERSON: Normally, we would have taken a break by now, but I'm concerned about Mr. 7 Kennedy having to take a plane and the amount of 8 9 questions we have. 10 So I wonder, Monsieur Hacault, could you 11 give us an idea of how much more time we'll need of Mr. 12 Kennedy? 13 MR. ANTOINE HACAULT: It isn't my 14 expectation, given some of the discussions we have 15 gotten into went a little bit further from the actual 16 questioning, that I'll be able to finish by 4:30. My preference would be that I be able to continue tomorrow 17 18 morning. I know that that would change the flight 19 arrangements of this witness, but it's a very important 20 issue that we're dealing with, and I think we need to 21 understand it. 22 That's why a couple of times, while 23 although I let Mr. Kennedy continue to answer, I 24 interrupted. I said, Continue to answer, but be 25 mindful.

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2028 1 MR. LARRY KENNEDY: My -- my challenge is I have a board meeting tomorrow morning. The -- I -2 - we're bringing people into Calgary from Harrisburg, 3 Pennsylvania. And so it's not only my travel schedule 4 5 we're -- we're impacting upon; it's -- it's those of 6 some of my colleagues out of -- out of the United States. I'm -- I'm also a little bit worried about 7 booking flights at this time of year. I had a hard 8 time getting tonight's flight. 9 10 THE CHAIRPERSON: I wonder if we -- you 11 know, rather than take a break, I'm prepared to --12 assuming that my fellow Board members are of the same 13 mind, I'm prepared to continue going until -- you were 14 planning on leaving here at what time, Mr. Kennedy? 15 MR. LARRY KENNEDY: My -- my flight 16 leaves at 6:30 tonight, so --17 THE CHAIRPERSON: So --18 MR. LARRY KENNEDY: -- I'll leave it 19 your -- your guys' more experienced hands, in terms of 20 how long it would take me to get to the airport. My --I still have to --21 22 MS. PATTI RAMAGE: We -- we will have 23 to be done by 4:30 to get Mr. Kennedy to the airport. 24 THE CHAIRPERSON: Okay. Well, let's --25 let's keep going then, please. Let's try to maintain

2029 the Board members' questions, including myself, to a 1 2 minimum. 3 CONTINUED BY MR. ANTOINE HACAULT: 4 5 MR. ANTOINE HACAULT: During this 6 discussion, there was -- let me preface. Mr. Kennedy, 7 first, you indicated that, based on estimates, you couldn't do an ELG calculation for Wuskwatim, correct? 8 9 MR. LARRY KENNEDY: I could not. We --10 we could do one based on estimates, sir, yes. In fact, I thought we had taken an undertaking to do that for --11 12 specifically for Wuskwatim. 13 MR. ANTOINE HACAULT: And we have no 14 idea how and if, with respect to other items in the 15 IFF, the EL -- the ELG was calculated -- with respect 16 to ELG? For example, Keeyask, Conawapa. 17 MR. LARRY KENNEDY: I have to admit to 18 being a bit confused back. If I can borrow one (1) 19 minute here. 20 MR. ANTOINE HACAULT: We can take those 21 further to the panel, but you have no idea, sir? You 22 weren't -- you didn't participate in any of the 23 calculations in the IFF leading to any ELG 24 calculations? 25 MR. LARRY KENNEDY: I had provided the

2030 initial ELG calculation. The -- the company took those 1 calculations and extended them forward through the 2 forecast period, sir. 3 4 MR. ANTOINE HACAULT: Sorry, did you 5 have estimates for Keeyask and Conawapa? 6 MR. LARRY KENNEDY: No, I did not. 7 MR. ANTOINE HACAULT: Bipole 3? Did you have any estimates for Bipole 3 for --8 9 MR. LARRY KENNEDY: I did not, sir. 10 MR. ANTOINE HACAULT: Okay. 11 12 (BRIEF PAUSE) 13 14 15 MR. ANTOINE HACAULT: Sorry. You see a 16 bit of silence because I'm trying to prioritize my questions, because there's no way I can ask them all by 17 18 4:00/4:30. Maybe could we just take a five (5) minute 19 break so I can maybe take -- do that? 20 THE CHAIRPERSON: Absolutely. 21 22 --- Upon recessing at 3:11 p.m. 23 --- Upon resuming at 3:20 p.m. 24 25 MR. BOB PETERS: Mr. Chairman, if I

I've had an opportunity over the break to speak 1 might. to counsel and we recognize that there's a time element 2 at play here, and I guess we were unaware of a -- of a 3 pressing Board meeting for Mr. Kennedy for tomorrow. 4 5 But that said, I've suggested that Mr. Hacault consider 6 going right through 4:30, or as late as Hydro can --7 can be pushed, to get him to the airport on time, and that any remaining areas of questions that aren't asked 8 9 by Mr. Hacault at this time he provide them as written 10 Information Requests, and that they be responded to by Mr. Kennedy as soon as possible. 11

And once Mr. Hacault gets the responses hack he can decide whether he will make a request or a motion for Mr. Kennedy to come back to Winnipeg early in the new year, and hopefully that compromise will -will work for the parties. So I think that's satisfactory to Manitoba Hydro, and I'll leave it to Mr. Hacault to determine.

19 THE CHAIRPERSON: We have to adjourn at 20 4:30 because we're going to lose a Board member at 4:30, so we should keep that in mind, please. 21 22 MR. ANTOINE HACAULT: Thank you. 23 Obviously, I'd like to reserve my rights to -- to ask questions. We have interrogatories and there's -- they 24 25 are useful, but it doesn't pre -- present the same

interaction as -- as the Board has seen. You know, 1 when you get an -- an answer, sometimes immediately you 2 have a follow-up question that you wouldn't have had 3 based on your first question. 4 5 So my preference would have been, if Mr. 6 Kennedy -- because it looks like we're going to have to 7 extend in the first days with respect to revenue requirements in January in any event. If we could 8 9 arrange for the completion of my cross-examination at that time, it would still be within the revenue 10 requirements portion. I leave that request on the 11 12 table and we'll see how things develop. Thank you. 13 And we'll try to deal with that 14 undertaking issue by way of emails or correspondence. 15 I said we'd deal with it during the break, but 16 obviously that's not an option right now. 17 18 CONTINUED BY MR. ANTOINE HACAULT: 19 MR. ANTOINE HACAULT: Mr. Kennedy, I'm 20 going to take you through some questions with respect 21 to como -- componentization. And, firstly, I'd like to 22 take you to the schedules that you currently have in 23 the Hydro studies that you have done with respect to 24 assets other than generation. That would be at Roman 25 numeral III-10 I have as a note here, and that can be

2033 found in the Appendix 5.7. And that's in the 1 schedules, so we're looking for the schedules with all 2 the little details and Roman numeral II -- or III-10. 3 MR. RAYMOND LAFOND: Roman numeral II 4 5 or Roman numeral III? 6 MR. ANTOINE HACAULT: III. Roman numeral III-10. 7 8 CONTINUED BY MR. ANTOINE HACAULT: 9 10 MR. ANTOINE HACAULT: So, with respect 11 to transmission, with your recommendation and with 12 Hydro's cooperation -- that's at the top -- their 13 accounts number 2000F up to 2000M, you have six (6) 14 componentization categories on transmission, correct? 15 MR. LARRY KENNEDY: That's correct. 16 MR. ANTOINE HACAULT: And then, again, this is non-generation. You have, if I've counted 17 18 right, another fifteen (15) for substations, correct? 19 MR. LARRY KENNEDY: I'll assume you 20 counted correct. That looks about right. 21 MR. ANTOINE HACAULT: And another 22 fifteen (15) for distribution? 23 MR. LARRY KENNEDY: That's correct, 24 sir. Again, I'm -- I'm trusting your counting. 25 MR. ANTOINE HACAULT: And, finally,

2034 another three (3) for meters. So we've got, if my math 1 is right, about thirty-nine (39) sub-categories with 2 respect to non-generation --3 MR. LARRY KENNEDY: That --4 5 MR. ANTOINE HACAULT: -- matters? 6 MR. LARRY KENNEDY: That would be correct, sir. In addition, there's -- on page Roman 7 numeral III-11, another tenish (10ish) under the 8 9 category of communication, and --10 MR. ANTOINE HACAULT: So we'd bring up 11 to forty-nine (49) now? 12 MR. LARRY KENNEDY: And then we have 13 the motor vehicles where we have six (6) or eight (8) -14 - or six (6) or seven (7) plus buildings, and then the 15 general equipment. So if we -- if we take the general plant categories of general plant out, you'd have the 16 17 motor vehicles and communication tied to your previous 18 count. 19 MR. ANTOINE HACAULT: Okay. So we've 20 got about seventy (70), seven-zero (7-0), 21 componentized, subject to check? 22 MR. LARRY KENNEDY: Yeah, subject to your arithmetic, yes. 23 24 MR. ANTOINE HACAULT: Yeah. And then 25 if we go to thermal generation and we back up for that,

2035 that's Roman numeral III-9 at the top of the page --1 2 MR. LARRY KENNEDY: I have that, sir. 3 MR. ANTOINE HACAULT: -- we have about a dozen categories, such as for Selkirk? 4 5 MR. LARRY KENNEDY: Again, I'll -- in 6 that neighbourhood. I haven't counted them here. MR. ANTOINE HACAULT: Yeah. And then 7 if we go to general infrastructure; that's backing up a 8 9 page; that's Roman numeral-VIII. For general infrastructure that's at the bottom: provincial roads, 10 11 town site building. We have four (4) categories there? 12 MR. LARRY KENNEDY: That's correct, 13 sir. 14 MR. ANTOINE HACAULT: And then for 15 generation -- see if we look at Limestone, I think I 16 counted fourteen (14). 17 MR. LARRY KENNEDY: Yeah. 18 MR. ANTOINE HACAULT: Some of them 19 there's twelve (12)? It depends. 20 MR. LARRY KENNEDY: That's correct, 21 sir. 22 MR. ANTOINE HACAULT: Okay. And then 23 as we discussed, each of these sixteen (16) generating 24 stations has its own lifespan, correct? 25 MR. LARRY KENNEDY: Yes, there's

2036 separate calculations made for each of the -- each of 1 the stations. 2 3 MR. ANTOINE HACAULT: And each has its own variance calculations shown in Schedule 2, correct? 4 5 MR. LARRY KENNEDY: That's correct, 6 sir. MR. ANTOINE HACAULT: And each has its 7 own probable remaining life shown in Schedule 2, 8 9 correct, sir? 10 MR. LARRY KENNEDY: That's correct. MR. ANTOINE HACAULT: And each has a 11 corresponding depreciation related to those ages, as 12 shown in Schedule 1? 13 14 MR. LARRY KENNEDY: Each has its 15 corresponding depreciation rate. I -- think that's 16 what you're -- yes. 17 MR. ANTOINE HACAULT: And my quick 18 addition is that there's about a -- 4.7 billion of 19 total original costs of hydraulic gen -- generating plant. That's found at the bottom of III-18. 20 21 MR. LARRY KENNEDY: At the bottom of 22 page III-8. 23 MR. ANTOINE HACAULT: Oh, sorry. 24 MR. LARRY KENNEDY: Yeah. 25 MR. ANTOINE HACAULT: Roman Num --

2037 Roman Number III-8. 1 2 MR. LARRY KENNEDY: Yes. It's four 3 point seven (4.7), yes. MR. ANTOINE HACAULT: Yeah. And that's 4 5 about 40 percent of the total assets, if we go to the 6 end? 7 MR. LARRY KENNEDY: T think that's correct, sir. I think at one (1) time I read it was 38 8 9 percent, yes. 10 MR. ANTOINE HACAULT: Yeah, somewhere 11 in that range? 12 MR. LARRY KENNEDY: Yes. 13 MR. ANTOINE HACAULT: Now, I went 14 through all of these because I wanted to have an idea 15 of the number of components that we have at Manitoba 16 Hydro and where the components fall in the mix. I'm 17 now going to take you through Newfoundland. 18 Now, earlier I think you said there was 19 much more componentization in Newfoundland, and I'm 20 going to take you some -- through some documents related to that. 21 22 Firstly, could you confirm that you 23 completed the 2011 depreciation study for Newfoundland 24 Hy -- Hyd -- Hydro and that Gan -- Gannett Fleming 25 acted as technical experts for the utility in the

2038 recent proceeding on depreciation? 1 2 MR. LARRY KENNEDY: Correct. 3 MR. ANTOINE HACAULT: Okay. And please 4 confirm you were -- I assume you were the lead 5 consultant again? 6 MR. LARRY KENNEDY: I was. MR. ANTOINE HACAULT: You were the 7 superstar. And could you confirm that Newfoundland 8 9 Hydro, in that proceeding, adopted the ASL approach for all the assets? 10 11 MR. LARRY KENNEDY: With the exception 12 of some general plant assets where we used amortization accounting, generally that's correct. 13 14 MR. ANTOINE HACAULT: Okay. But no 15 ELG? 16 MR. LARRY KENNEDY: No ELG, yes. 17 MR. ANTOINE HACAULT: And would you be 18 able to list the componentization that Newfoundland 19 Hydro had, or would you need to have your -- would it assist in looking at some material? 20 21 MR. LARRY KENNEDY: I -- I think you provided some material this morning that -- that 22 23 provides that listing, sir. 24 MR. ANTOINE HACAULT: Okay. So we can 25 go to Tab 9 of the MIPUG book of documents, please. It

2039 starts at page 137. 1 2 MR. LARRY KENNEDY: And I have that, sir. 3 4 MR. ANTOINE HACAULT: Now, could you 5 confirm that this was an Information Request in that 6 hearing? 7 8 (BRIEF PAUSE) 9 10 MR. LARRY KENNEDY: I think so. Ιt 11 appears to be the response that we prepared to CA-MLH-12 59 (phonetic) another --13 MR. ANTOINE HACAULT: And when you say 14 "we", Gannett Fleming prepared the response and it was 15 prepared under your direction. Is that correct? 16 MR. LARRY KENNEDY: I would agree 17 largely that's the case. We may have consulted with 18 Newfoundland Hydro in terms of some of it. But this --19 this schedule was prepared by Gannett Fleming, yes. 20 MR. ANTOINE HACAULT: Okay. Now, had 21 you prepared -- prepared a 2005 study for the plant in service for Newfoundland Hydro up to December 31, 2004? 22 23 MR. LARRY KENNEDY: I prepared two (2) 24 prior studies ay Newfoundland Hydro. The dates are 25 escaping me. I think one (1) was in the '04 time-

frame, and one (1) was in the '07 time-frame. 1 2 MR. ANTOINE HACAULT: And could you confirm that in both of those proceedings, Gannett 3 Fleming had recommended ELG as being superior? 4 I did. 5 MR. LARRY KENNEDY: 6 MR. ANTOINE HACAULT: And neither of 7 those two (2) studies were implemented by Newfoundland Hydro, correct? 8 9 MR. LARRY KENNEDY: I don't think so. 10 I'm not exactly sure how the process worked there in 11 terms -- with relation to those studies. My 12 understanding is they had continued the use of what was 13 known as the sinking fund method through the -- the 14 implementation -- the proposed implementation of the 15 current study. 16 MR. ANTOINE HACAULT: So your recollection is correct -- consistent with my 17 18 understanding that they did not implement your recommendations of ELG --19 20 MR. LARRY KENNEDY: They --21 MR. ANTOINE HACAULT: -- correct? 22 MR. LARRY KENNEDY: I don't think they 23 -- I don't think they ever took it to the Board. There 24 -- there was a series of a circumstance and such that 25 the implementation, the proposed implementation,

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2041 continued to be delayed for -- for a variety of 1 reasons, many of which I do not know. The bottom line 2 is, the -- the end result is -- is your assumption is 3 4 correct, sir. 5 MR. ANTOINE HACAULT: And in this 6 interrogatory, which was prepared under your direction, sir, you gave two (2) reasons as to why Gannett Fleming 7 had changed its recommendation, and instead of 8 9 recommending ELG, it was no recommending ASL, correct? 10 11 (BRIEF PAUSE) 12 13 MR. ANTOINE HACAULT: I direct your 14 attention to the last paragraph on page 138 of the book 15 of documents. It starts: 16 "In preparation of the current 17 depreciation studies, two (2) factors 18 were noted by Gannett Fleming." 19 And then it continues to say that in the 20 end of the paragraph -- first paragraph in -- on page 21 139, and I'm quoting: 22 "Given these two (2) factors, Gannett 23 Fleming did not view that matching of 24 the depreciation except -- expense to 25 the consumption of service value of

2042 assets inherent in the ELG 1 2 calculations was as necessary in the 3 current study. Also, given the widespread acceptance of ASL 4 5 procedure, Gannett Fleming agreed with Hydro that ASL was an 6 7 appropriate procedure." 8 Do you see that, sir? 9 MR. LARRY KENNEDY: That's -- that's 10 correct, sir. And one needs to understand that the --11 some of the context here. Man -- Newfoundland Hydro, 12 historically, had booked gains and losses straight to 13 the income. They weren't following the -- the more 14 traditional regulated treatment of booking gains and 15 losses to the -- to the balance sheet. 16 And secondly, Newfoundland Hydro applies 17 the depreciation life to each specific asset within 18 their company. They do not follow group accounting or 19 group -- group depreciation practices. 20 So because they're applying a life to 21 each and every asset, they -- they -- they're almost 22 doing equal life group to the extreme even though the 23 rates were calculated under an average service life. 24 MR. ANTOINE HACAULT: Okay. Part of 25 your answer indicated that they were identifying each

1 specific asset. Am I correct, sir, that they don't 2 identify each turbine, each building; they group them, 3 sir?

4 MR. LARRY KENNEDY: They do not, sir. 5 They have -- they make forty thousand (40,000) separate 6 depreciation calculations in their system. We provide 7 a life estimate for -- at the category level, but they apply that life to each of their forty plus thousand 8 (40,000) assets that's in their system, and calculate a 9 10 gain and a loss on each of those forty thousand 11 (40,000) assets.

MR. ANTOINE HACAULT: So those lifes (sic) are applied to each group of assets that fall within those identified numbers? So if you've got -if you could just let me finish my question, sir -- a powerhouse; if you have more than one (1) powerhouse, you would add them in that category, apply the same depreciation?

19 MR. LARRY KENNEDY: We would -- we 20 would develop a life for all powerhouses, apply that 21 life to each individual powerhouse within the system. 22 They may have thirty (30) or forty (40) powerhouses to 23 which that one (1) life estimate was applied to. They 24 would likewise do a monthly calculation of depreciation 25 expense for each and every powerhouse, thereby knowing

1 the precise accumulated depreciation on each and every 2 asset within their system, or each and every 3 powerhouse.

4 Therefore, when they -- when they retire 5 their asset, they have a precise net book value in 6 which they can calculate the gain and loss and take that gain and loss to the income statement. 7 8 So they're -- they're applying -- their -- their method is -- is quite different, such that 9 10 that allowed me to -- to suggest that the use of the average service life in their circumstance in the 11

manner that they apply it was appropriate for the

13 International Financial Reporting Standard

14 requirements.

12

15 MR. ANTOINE HACAULT: Now, sir, you've 16 just said that each different powerhouse has a separate 17 calculation. I took you through the sixteen (16) different examples which each has a very specific 18 19 calculation and even modified for certain assets, 20 correct, sir? And that's what Manitoba Hydro is also 21 doing, correct? 22 MR. LARRY KENNEDY: Newfoundland and 23 Labrador Hydro does it to a much more intense level.

24 They do it, in fact, for each generating unit within a 25 site. And they do it, in fact, for each pole top

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2045 transformer. They do it, in fact, for each insulator 1 within their system. They do it at that precise of a 2 level. 3 4 MR. ANTOINE HACAULT: Okay. Could we 5 go to the table that's marked as part of Tab 9, sir? 6 MR. LARRY KENNEDY: I have that. 7 8 (BRIEF PAUSE) 9 10 11 MR. ANTOINE HACAULT: So if I go to 12 page 141 I find powerhouse P-10. Do you see that, sir? 13 MR. LARRY KENNEDY: I see that, sir. 14 MR. ANTOINE HACAULT: Manitoba Hydro, 15 you've decided to chose a specific power -- curve with 16 respect to the powerhouses, correct? 17 MR. LARRY KENNEDY: Yes. 18 MR. ANTOINE HACAULT: And in 19 Newfoundland you also chose a specific curve, and it is 75-R3, correct, sir? 20 21 MR. LARRY KENNEDY: That's correct, 22 sir. 23 MR. ANTOINE HACAULT: And there's no 24 lifespan here? 25 MR. LARRY KENNEDY: There was not.

2046 MR. ANTOINE HACAULT: So that in 1 Manitoba we've actually gone into more detail. You've 2 actually considered the lifespan of specific 3 facilities, like Laurie River, like Pointe du Bois, and 4 5 Grand Rapids, I believe. 6 MR. LARRY KENNEDY: And -- and that's 7 definitely correct, sir. The -- the Newfoundland and Labrador Hydro study did not isolate by site a specific 8 9 lifespan. 10 MR. ANTOINE HACAULT: So, sir, there 11 was more detail done in the depreciation with respect 12 to the power houses for Manitoba Hydro than there was 13 in Newfoundland, correct, sir? 14 MR. LARRY KENNEDY: I think -- I think 15 it's different. I think in the circumstance of 16 Newfoundland and Labrador Hydro we -- we looked at that 17 and the impact of -- of applying that to -- and I can't 18 remember the precise number, but we analyzed it in 19 total. In the case of Manitoba Hydro we analyzed and 20 came up with a common life estimate that the -- the 21 Iowa curve, and -- and then specifically looked at each 22 site to determine the -- the lifespan. 23 We did not do that next step in the 24 circumstance of Newfoundland and Labrador Hydro. No, 25 we did not. But what we do recognize there is that

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

Newfoundland applies, in the case of the powerhouse,
 the -- the remaining life of forty-five-point-three
 (45.3) years to each individual asset within that group
 of assets.

5 In the circumstance of Manitoba Hydro, 6 once we -- we break out that powerhouse estimate to a site, Laurie River or Pointe du Bois, that -- that life 7 is applied at a -- at a more global level to all the 8 9 investment within that account at that site. So one 10 (1) -- ones got more detail in terms of the -- the grouping, being Manitoba Hydro, being powerhouses at 11 12 Laurie River.

The Newfoundland one is a little bit -bit different level of detail, where they say, We're going to apply that life estimate to all -- each individual investment within the powerhouses throughout their complete system.

18 I wouldn't -- both -- both have their 19 uniqueness. Both have -- both companies have the 20 reasons in which I think the -- the approach is 21 appropriate. At the end of the day the Newfoundland 22 system, they -- they're challenged with now having to 23 do over forty thousand (40,000) individual monthly 24 depreciation calculations. Manitoba Hydro is doing in 25 the neighbourhood of a hundred.

2048 MR. ANTOINE HACAULT: You finished 1 you're answer, sir? I'm just -- I -- I --2 3 MR. LARRY KENNEDY: I'm done. 4 MR. ANTOINE HACAULT: -- know you want 5 to answer. I'm being mindful of the time. I want to 6 make sure you've completed. Have you completed? 7 MR. LARRY KENNEDY: I have. 8 MR. ANTOINE HACAULT: Okay. Now 9 subject to check, can you confirm that Newfoundland has only broken -- I shouldn't say only -- has a hundred 10 and thirty-six (136) categories of assets? 11 12 MR. LARRY KENNEDY: I think it's a 13 hundred and thirty-seven (137) but we're within one (1) 14 of each other, so I'll take that, subject to check. 15 16 (BRIEF PAUSE) 17 18 MR. LARRY KENNEDY: I'm sorry --19 MR. ANTOINE HACAULT: There's --20 there's a hundred and thirty-seven (137) categories, 21 but five (5) are empty; do you agree? 22 MR. LARRY KENNEDY: Going -- and that's 23 -- that's fair, yes. 24 MR. ANTOINE HACAULT: Okay. And would 25 you accept that there's another thirty-one (31) that

2049 has less than a million dollars of assets in it? 1 2 MR. LARRY KENNEDY: I would accept that. I'm -- I'm a little bit surprised it's only 3 thirty-one (31), quite honestly. 4 5 MR. ANTOINE HACAULT: But all these 6 smaller items wouldn't have a huge impact, correct? 7 MR. LARRY KENNEDY: That's correct. 8 MR. ANTOINE HACAULT: And my review is 9 that there's about nine (9) to ten (10) categories account for over fifty thou -- 50 percent of 10 Newfoundland Hydro's original costs, correct? 11 12 MR. LARRY KENNEDY: I'd agree, sir. 13 There -- there -- remembering they're a little bit 14 different organization than this company is, in that 15 most of their investment -- and remember their 16 investment's 1.8 million as compared to 14 billion --17 I'm sorry, 1.8 billion rather than the 14 billion, and 18 of that it's largely generation. There's an -- another 19 regulated utility in the province of Newfoundland that does the predominance of the distribution service. 20 21 MR. ANTOINE HACAULT: And for the 22 generation, you said they haven't actually done a 23 specific analysis for -- for the plant as we have for 24 Grand -- Grand Falls and Laurie River, as I understand 25 it?

2050 1 MR. LARRY KENNEDY: By site. That's correct, sir. 2 3 MR. ANTOINE HACAULT: So there may be facilities that are falling apart like the cement in 4 5 Grand Falls, and -- and that's not reflected in this 6 analysis, sir? 7 MR. LARRY KENNEDY: I -- I wouldn't want to put on a public record of the condition of 8 9 somebody else's facilities categorizing them as falling apart. I like my clients too much for that. 10 11 MR. ANTOINE HACAULT: There may be some 12 issues like Grand Falls happening in some of these 13 facilities, but they wouldn't have been analyzed or noted, correct? 14 15 MR. LARRY KENNEDY: Not on a sitespecific basis. Not on a site-specific basis... 16 17 MR. ANTOINE HACAULT: The largest item 18 that I've seen is dams, dikes, and weirs at 351 19 million. That's on page numbered 140 in our book of documents. 20 21 MR. LARRY KENNEDY: I think that's correct, sir. I think it's dams and dikes. The -- the 22 23 weirs aren't -- it's category D-01. 24 MR. ANTOINE HACAULT: Okay. Thank you. 25 So that would be an item that would have some influence

in what happens? 1 2 MR. LARRY KENNEDY: Yes. 3 MR. ANTOINE HACAULT: And that con -and that's because it constitutes about 19 percent of 4 5 all the assets? 6 MR. LARRY KENNEDY: I'll take your 7 arithmetic, subject to check. 8 MR. ANTOINE HACAULT: Thank you, sir. 9 10 (BRIEF PAUSE) 11 12 MR. ANTOINE HACAULT: Now, in the studies that you had done in ELG in 2007 or '09, as you 13 14 recall, I'm suggesting they were closer to three 15 hundred and fifty (350) accounts that were analyzed, compared to a hundred and thirty-six (136) in ASL? 16 17 MR. LARRY KENNEDY: I can't remember 18 the number. I -- I did strongly recommend to New --19 Newfoundland and Labrador Hydro that they have gone overboard with componentization for their history. I 20 remember in 2000 -- I quess it would have been 2006 or 21 '7, I sat in -- in the office of their CFO and said: 22 23 Like, you're creating way too much work for yourself 24 with this level of componentization. It isn't 25 required.

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 They had some assets down into the fifteen (15) and twenty dollar (\$20) level that they 2 were breaking up. And so I did suggest to them that 3 they, rather than get more granular at that point, that 4 5 they ought to consider some consolidation. 6 MR. ANTOINE HACAULT: So you went from 7 three hundred and fifty (350) accounts that were listed in your ELG and they went and they've continued with 8 9 what we've shown at pages 140, 141, which is a hundred 10 and thirty-six (136)? The number actually went down, 11 correct, sir? 12 MR. LARRY KENNEDY: That's correct, 13 sir. And at the time I used the equal life group, I 14 did advise them that they did not need anywhere near 15 that level of account structure for the -- for the use 16 of the ELG or the ASL method, for that matter. 17 We may have gone even smaller had they -18 - in this case, over the period of the second study to 19 the study that was just recently heard, they had gone 20 through an account review. And we may have gone a little bit further had we continued to recommend that -21 22 - the equal life group in this -- in this process. 23 The -- their -- their circumstance 24 though was rather unique and that they apply that rate 25 to each and every individual asset. So this grouping

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 concept is -- is a whole different matter in their
2 circumstance.

There -- there was a lot of controversy 3 in that hearing as to whether that should even be 4 5 allowed, in -- in terms of applying a rate to each 6 individual asset within the system. They stopped the depreciation where each individual assets hits a net 7 book value of zero, which is not necessarily consistent 8 9 with the traditional regulatory treatment. 10 So they -- they were really applying 11 depreciation on a unit by unit almost a nonstandard 12 regulatory practice. So the -- the comparison while --13 while somewhat further that they are a -- a regulated 14 utility that generates electricity predominantly with 15 hydraul -- hydraulic -- hydro facilities, the -- one 16 needs to understand the -- the manner in which they -they do their accounting. And it's very different 17 18 there than it is here. 19 MR. ANTOINE HACAULT: And the 20 accounting and the number of categories is set out in 21 the schedule that I've shown to you, sir? 22 MR. LARRY KENNEDY: The number of 23 categories. The accounting is not, sir. 24 MR. ANTOINE HACAULT: Okay. And it's

25 the same depreciation rate and remaining life that's

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2054 applied to that entire account, irrespective of whether 1 2 there might be some variations in there, sir? 3 MR. LARRY KENNEDY: That same remaining life is applied to each and every asset within each and 4 5 every account. 6 MR. ANTOINE HACAULT: Now, in the pages 7 140 going to 143 there is some highlighted sections. I think I -- there's about fifteen (15) of them. And 8 9 what I tried to do is to identify hydro related assets. Now, I may have missed some. I'm looking at page 140. 10 11 Would the gates and generators also be 12 included in there --13 MR. LARRY KENNEDY: Yes. As -- as I 14 look through this list, sir, you've missed quite a 15 few, actually. 16 MR. ANTOINE HACAULT: Okay. Well, that 17 shows you that you're a better man than I am there, but 18 ___ 19 MR. LARRY KENNEDY: I would say I know 20 their assets a little bit better than -- than you do. 21 MR. ANTOINE HACAULT: Yeah. 22 MR. LARRY KENNEDY: I wouldn't go 23 further than that. 24 MR. ANTOINE HACAULT: But of the ones 25 that I had picked up, I had picked up over 800 -- over

2055 800 million which represented getting close to half of 1 the 1.85 billion in assets. 2 3 MR. LARRY KENNEDY: That may very well 4 be correct, sir. 5 MR. ANTOINE HACAULT: Yeah. Now, 6 moving back to hydro, would you accept that if we don't group hydro plants together a single largest asset is 7 the HVDC serialized equipment at 646 million, or about 8 9 5.3 percent of Hydro's assets, subject to check? 10 MR. LARRY KENNEDY: I haven't looked at it, sir, but my -- my colleagues to my left are telling 11 12 me that seems reasonable, so I'll take that, subject to check. 13 14 MR. ANTOINE HACAULT: Thank you. It's 15 in the study. 16 MR. LARRY KENNEDY: Okay. 17 MR. ANTOINE HACAULT: That's where I 18 took the numbers. 19 MR. LARRY KENNEDY: There you go. 20 Thank you, sir. 21 22 (BRIEF PAUSE) 23 24 MR. ANTOINE HACAULT: And that would 25 compare to Newfoundland where dams/dikes are about 19

percent, I think we agreed to, of the 351 million? 1 2 MR. LARRY KENNEDY: Yes. I mean -again, sir, they're very different systems. The -- the 3 Newfoundland system has a -- while it has a 4 5 transmission system, it's much different than the 6 Manitoba transmission system. 7 You'll notice -- staying on dams and dikes, Account D-O1, you'll notice that an original 8 9 cost of 351 million that organization, given their 10 prior depreciation practices being sinking fund, have 11 less than \$2 million on plants that are traditionally 12 seventy (70) to eighty (80) years old. 13 They -- they had some very significant issues that -- that we -- we needed to deal with in the 14 15 study, so we had to undertake a number of very specific actions. And one (1) of the rea -- one (1) of the 16 reasons is the move to ASL caused a dramatic cost 17 18 increase. And move -- the move form the sinking fund 19 to ELG would have been even way, way more significant. 20 So there -- there was some very unique circumstances in 21 the -- in that study. 22 MR. ANTOINE HACAULT: So the move to 23 ASL didn't cause as much of a problem that ELG would 24 have caused. Is that -- did I understand that right? 25 Well, we -- that MR. LARRY KENNEDY:

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2057 was a very contentious proceeding as well, sir, and 1 even the move to ASL was -- was accepted by the 2 intervening community. I think your colleague to your 3 -- to your right was very familiar with that. 4 5 At the end of the day, the -- the company proposed the average service life. 6 That -- the use of average service life wasn't contested. I would 7 venture to guess that, had we proposed the equal life 8 9 group, it would have been very contested in that 10 proceeding. 11 So, I mean, we were trying to, as -- as 12 Manitoba Hydro does, implement accounting policies in a 13 manner that you have a -- a correct result but still 14 have an ability to -- to be reasonable to the toll-15 payers and have a reasonable opportunity for approval 16 of the regulator. 17 MR. ANTOINE HACAULT: Sir, is that 18 rephrased in -- in your language in that -- at page 19 139, the last paragraph? 20 That's the response to the IR which was 21 done under your direction, and I'm quoting at line 12, 22 page 139 of our book of documents: 23 "The implementation of the ELG 24 procedure would significantly 25 increase the revenue requirement for

2058 1 depreciation expenses compared to ASL 2 method." 3 And that was so, sir, even though we had all of these -- how many thousands did you say --4 5 specific details and com -- como -- componentization? 6 MR. LARRY KENNEDY: Over forty thousand 7 (40,000) individual assets. We had a hundred and thirty-seven (137) accounts, by your count. 8 9 MR. ANTOINE HACAULT: And, sir, then, even at that high extreme level, as you described it, 10 your conclusion is that there is a significant 11 difference between ELG and ASL, correct, sir? 12 13 MR. LARRY KENNEDY: Well, in the case of Newfoundland and Labrador Hydro, they were so far 14 15 under-depreciated, as Board member Lalond (sic) alluded 16 to prior to our break, that when you're that far behind, you have an awful lot to catch up on. 17 18 In the circumstance in Newfoundland 19 Hydro, we looked at an account that had \$351 million of 20 investment; they had \$2 million of accumulated 21 depreciation from many plants that are -- are very 22 aged. They were in very dire straights. 23 Now, I agree, had -- the moved to equal 24 life group would have been even larger, but the 25 circumstance of being that far under-depreciated is --

is a rather unique circumstance that they faced. 1 2 MR. ANTOINE HACAULT: So, again, sir, maybe I'm not understanding it, but as I understood 3 your previous testimony, you said, If we had the 4 5 sufficient level of componentization in ASL for 6 Manitoba Hydro, to the extent we have at Newfoundland, 7 we'd come to exactly the same result as ELG. But now you've said otherwise. 8 9 MR. LARRY KENNEDY: No, sir, I've not 10 said otherwise. In fact, what I've said is that the circumstances are very different. Newfoundland had 11 12 historically been booking gains and losses to the 13 income statement; Manitoba Hydro has not. So the --14 the -- the same result will often occur if you look at 15 the calculation of those gains and losses going to the income statement rather than to the balance sheet. 16 17 I think it's very difficult to take 18 practices and conclusions from one (1) regulated 19 utility, especially a utility that had some very unique 20 depreciation issues, and try to extend that over to the 21 other. I will -- I will agree with you, sir, that the 22 annual accrual expense of the equal life group, as --23 as Mr. Lalond (sic) and I were -- were talking this 24 morning -- this afternoon, will be higher in the early 25 years, and particularly after implementing, and

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

1 particularly if you are behind. That's true.
2 Now, in the case of Newfoundland and
3 Labrador Hydro, they treat their gains and losses
4 differently than has this company historically, so
5 their accumulated depreciation circumstance was very
6 different.

7 So I'm taking umbrage with the -- with the allegation that you can lift a conclusion from that 8 9 company and bring it directly to here. I will agree, and -- and I'll say this again: The annual accrual 10 11 expense -- in the years closely following the 12 implementation of the equal life group, the annual 13 depreciation accrual all by itself will be higher, but you will have far lesser amounts of losses on 14 15 retirement to book to the income statement. In the 16 circumstances of Newfoundland and Labrador Hydro, they've got -- they're going to have losses no matter 17 18 what method we took because they are so far behind. 19 MR. RAYMOND LAFOND: Can -- can I 20 clarify something? If I heard correctly, they are not 21 using ASL, or were not using ASL, but were using this 22 sinking-fund method, correct? 23 MR. LARRY KENNEDY: That's correct, 24 sir. 25 MR. RAYMOND LAFOND: So that means that

> DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada

2061 the first years of depreciation, it's like the payment 1 of a mortgage; they're using the principal amount of 2 depreciation. In the first year, of course, there's 3 hardly any principal; in the last year, it's all 4 5 principal, or just about. So, therefore, the 6 depreciation would have been very minimal at the 7 beginning and very large in the last years, correct? 8 MR. LARRY KENNEDY: That's absolutely 9 correct. 10 MR. RAYMOND LAFOND: So the issue here 11 is comparing moving -- Newfoundland moving from AS --12 from sinking fund method to ASL and the difference 13 rather than sinking fund method to ELG; as opposed to here in Manitoba, it's moving from ASL to ELG. 14 There's 15 no such thing as sinking fund method applicable here? 16 MR. LARRY KENNEDY: That's -- that's 17 correct, sir. 18 19 CONTINUED BY MR. ANTOINE HACAULT: 20 MR. ANTOINE HACAULT: So in either way 21 is it correct that we're comparing the ASL to ELG along 22 the steps? 23 MR. LARRY KENNEDY: I'm sorry, I -- I'm 24 lost in that question. 25 MR. ANTOINE HACAULT: We're not

2062 comparing, in this proceedings, moving from the sinking 1 fund to ASL, correct? 2 3 MR. LARRY KENNEDY: Oh, that's correct, 4 sorry. Yes. 5 MR. ANTOINE HACAULT: In this 6 proceedings, it's moving from ASL to ELG, correct? MR. LARRY KENNEDY: Correct. At the 7 time of the adoption of the IFRS, yes. 8 9 MR. ANTOINE HACAULT: And the reason 10 the implementation of the ELG procedure would increase the revenue requirement is because it is one (1) step 11 12 further in increasing revenue compared to the ASL method? 13 14 MR. LARRY KENNEDY: Of just the annual 15 depreciation expense component. Once you look at the 16 forecast of losses on retirement you become more equal. 17 MR. ANTOINE HACAULT: And you've 18 explained a couple times that it depends on the 19 specific analysis. And you have never conducted that 20 specific analysis to date, correct, sir? 21 The componentization of ASL to Manitoba 22 Hydro, it's speculative for you at this point, without 23 actually having the numbers, as to where that would 24 lead us, if it would lead us to the same result as the 25 ALG?

2063 MR. LARRY KENNEDY: 1 In terms of the number of components and what we would recommend as 2 componentization under ASL, you are correct; we have 3 not -- we have not got there. I can only provide this 4 5 Board my -- my opinion on the basis of being around 6 this -- this industry for a long time, that -- I -- I would view it -- it would be equal or -- or very close 7 to it, or definitely into that direction. 8 9 MR. ANTOINE HACAULT: But you don't 10 know that until you would do an actual calculation, because you don't know how much weight there is to new 11 12 assets, et cetera? 13 MR. LARRY KENNEDY: I would -- I would 14 agree with that. We have not done the analysis. 15 MR. ANTOINE HACAULT: And until that 16 analysis is done, it's premature to conclude that you 17 would come to a different conclusion than that what you 18 said at line 12, that ELG significantly increases the 19 revenue requirement for depreciation expense as 20 compared to the ASL? 21 MR. LARRY KENNEDY: Well, again, 22 remembering that quote was unique to the circumstances 23 of -- of Newfoundland and Labrador Hydro. I -- I don't 24 know. I haven't got the evidence. I've not done the 25 analysis, but I do have an opinion and my opinion is

2064 that they -- it would move very much that way. 1 2 MR. ANTOINE HACAULT: Is it fair, sir, for other places where you've done the analysis, that 3 ELG was generally higher than ASL? 4 5 6 (BRIEF PAUSE) 7 8 MR. LARRY KENNEDY: I'm -- I'm taking a 9 second or two (2) just to try to remember where I've done the analysis and the results of such analysis. I 10 11 don't know that we've done the analysis in the level of trying to forecast the losses on retirement and what 12 13 that would look like if it's equalized. So I'm -- I'm 14 not sure we've done the -- that analysis with any 15 utility where we -- -- we have -- when we've moved them 16 from ASL to equal life group. 17 I haven't taken any from equal life 18 group to ASL, so. 19 MR. ANTOINE HACAULT: Sir, maybe I'll -20 - I can refresh your memory. For Yukan -- Yukon, did 21 you change it from ELG to ASL? Yukon Energy. 22 MR. LARRY KENNEDY: Oh, okay, yes. In 23 the circumstances of -- of a Yukon Energy Corporation 24 study --25 MR. ANTOINE HACAULT: Sir, yes or no,

and then you can explain. 1 2 MS. PATTI RAMAGE: Mr. Hacault, he can -- if you would allow the witness to answer. 3 MR. LARRY KENNEDY: We -- we had 4 5 originally prepared that study using equal life group. 6 The -- the company there requested me to move to average service life. The difference there was we had 7 8 -- at that time we're not contemplating the 9 introduction of the International Financial Reporting Standards, so we did not undertake the -- the massive 10 11 level of componentization that would be required to, in 12 my view, adopt the International Accounting Standards. 13 14 CONTINUED BY MR. ANTOINE HACAULT: 15 MR. ANTOINE HACAULT: Thank you, sir. 16 The answer, ultimately, was: Yes, you did move from 17 ELG to ASL in that circumstance? 18 MR. LARRY KENNEDY: We did, but not 19 trying to implement ASL with the IFRS. I think that's a very significant difference, sir. 20 21 MR. ANTOINE HACAULT: I'd like to take you to page Roman numeral III-19. That's the schedules 22 23 to your depreciation study. 24 25 (BRIEF PAUSE)

2066 MR. ANTOINE HACAULT: I have mine 1 tabbed at the ASL page -- or sorry, at -- so, I'll back 2 up. Could we all turn to -- and I don't think it makes 3 a huge difference, but page 8 of Schedule 2 to the ASL 4 5 study. It's the very last page of that study. 6 THE CHAIRPERSON: Which binder are we 7 in, Monsieur Hacault? 8 MR. ANTOINE HACAULT: It's Appendix 5.7. The first study in that appendix is the ASL 9 10 study, and it's the last page of the study. 11 12 (BRIEF PAUSE) 13 14 MR. ANTOINE HACAULT: Have people found 15 that page? Have you found it, Mr. Kennedy? 16 MR. LARRY KENNEDY: I have page III-8, 17 sir. 18 19 CONTINUED BY MR. ANTOINE HACAULT: 20 MR. ANTOINE HACAULT: Now I'd like to 21 understand specifically the line items at 9000K, that's computer equipment; and 9000M, that's hot water tanks. 22 23 Page 8, Schedule 2, the ASL study, the very first one. 24 MR. LARRY KENNEDY: I'm sorry, sir, I -25 - I had the wrong document in front of me.

2067 MR. ANTOINE HACAULT: The bottom right-1 hand number on that page is six million nine-six-nine 2 (6,969,000), so page 8. 3 4 MR. LARRY KENNEDY: Okay, sir. I do 5 have that now. 6 7 (BRIEF PAUSE) 8 9 MR. ANTOINE HACAULT: Again, page 8, 10 the bottom right-hand corner; it's six million ninesix-nine-two-nine-five (6,969,295). Has everybody 11 12 found it? 13 MS. PATTI RAMAGE: Mr. Hacault, was 14 that Roman numeral III-8, because it's not --15 MR. ANTOINE HACAULT: No, simply eight 16 (8). Page 8. It's the first study. ASL study. 17 18 (BRIEF PAUSE) 19 20 MR. ANTOINE HACAULT: Yes, this 21 document is about twenty (20) pages in, or so. There 22 was a letter dated January 13, 2012, to which was 23 attached what I consider the... 24 25 (BRIEF PAUSE)

2068 MR. ANTOINE HACAULT: Yeah, you -- if 1 you found the other page 8 you can put a finger there 2 because the number -- these numbers appear twice. But 3 has -- has everybody found page 8? 4 5 MR. LARRY KENNEDY: I have it, sir. 6 CONTINUED BY MR. ANTOINE HACAULT: 7 MR. ANTOINE HACAULT: Six-nine-six-nine 8 9 (6,969) in the bottom right-hand corner? 10 MR. LARRY KENNEDY: I do. 11 MR. ANTOINE HACAULT: Okay. And on 12 that page if you could highlight -- the two (2) line 13 items I have some questions about are the computer equipment; that's line number 9,000-K. And then the 14 15 line number 9000M, hot water tanks. 16 Have people found that? 17 The total original cost for the computer 18 equipment item is 48 million. Are we -- is everybody 19 following? And to the further right of that column 20 there's an indication: 21 "Probable remaining life two-point-22 five (2.5) years." 23 Have you located that, Mr. Kennedy? 24 MR. LARRY KENNEDY: I do have that, 25 sir.

2069 MR. ANTOINE HACAULT: Okay. 1 And it shows an annual true-up of four point three-seven-five 2 (4.375), so a little bit \$4 million that's required to 3 true-up that line item, in your opinion, sir? 4 5 MR. LARRY KENNEDY: That's -- that's 6 correct, sir. 7 MR. ANTOINE HACAULT: And could you explain the two point five (2.5) years? 8 9 MR. LARRY KENNEDY: The two point five 10 (2.5) years is the composite remaining life for the 11 investment that wasn't in service as at December 30 --12 or, as at March 31st, 2010. 13 MR. ANTOINE HACAULT: And if we go to 14 the hot water line, that's a smaller item, but hot 15 water tanks, \$4.5 million, approximately, and there's a probable remaining life of two point one (2.1) years. 16 17 Again, that is for that asset category 18 what, sir? That is the -- the 19 MR. LARRY KENNEDY: 20 probable remaining life for the investment in service 21 as at March 31st, 2010. 22 So the true-up MR. ANTOINE HACAULT: 23 for that number is about seven hundred and sixty 24 thousand dollars (\$760,000), is that correct --25 MR. LARRY KENNEDY: That's --

2070 MR. ANTOINE HACAULT: -- per year? 1 2 MR. LARRY KENNEDY: That's correct, 3 sir. 4 MR. ANTOINE HACAULT: Okay. And how do 5 I get the seven hundred and sixty thousand dollars 6 (\$760,000) per year? Where -- what do I do? Is that the formula at the very top: Eight (8) -- eight (8)7 equals five (5) times seven (7)? 8 9 MR. LARRY KENNEDY: Five (5) divided by seven (7), sir? Yes. 10 11 MR. ANTOINE HACAULT: Or, divided by 12 seven (7). 13 MR. LARRY KENNEDY: So it would be the 14 one million, five ninety-five, one ninety-one 15 (1,575,191) divided by two point one (2.1). 16 MR. ANTOINE HACAULT: And it's that 17 same mathematical calculation with respect to the 18 computer equipment. Under the accumulated depreciation 19 variance, we have ten million, nine hundred and thirty-20 seven thousand, nine sixty-seven (10,937,967), correct? 21 MR. LARRY KENNEDY: That's correct, 22 sir. 23 MR. ANTOINE HACAULT: And that number 24 gets divided by two point five (2.5)? 25 MR. LARRY KENNEDY: That's correct,

1 sir. 2 MR. ANTOINE HACAULT: And that gives us the four million, three seventy-five, one eighty-six 3 (4,375,186), correct? 4 5 MR. LARRY KENNEDY: Yes. 6 MR. ANTOINE HACAULT: So in two (2) to two and a half (2 1/2) years, this is saying that we've 7 got to collect back about 10.2 million? There's ten 8 9 point nine (10.9) for computer equipment and another one point five-nine (1.59) for hot water tanks. 10 11 MR. LARRY KENNEDY: That's correct, 12 sir. And -- and this is one of the challenges we face 13 with short-life assets that have had, maybe in the 14 past, a life change. And if you look at the computer 15 equipment, the -- a technological account such as this, 16 we -- we've experienced some very large swings in 17 average service life estimates. 18 We had, at one (1) time in this account, 19 some -- some equipment that was depreciated as -- over 20 a number of years, over fifteen (15) years. That -that's now been reduced. And we can... 21 22 We're now depreciating the computer 23 equipment, for example, over five (5) years. We're 24 amortizing that, in this case, over five (5) years, and 25 the hot water tanks over -- over six (6) years. If you

2072 look at the schedule, your page 8 that you'd taken us 1 to previously, these accounts are very under-2 depreciated at this point in time. 3 4 The problem is these are short-lived 5 assets, five (5) and six (6) year assets. And so when 6 you have a five (5) or six (6) year asset that is very 7 under-depreciated, your -- your period over which you can attempt to true that up becomes -- becomes quite 8 9 limited. 10 MR. ANTOINE HACAULT: Am I right in 11 understanding that this was implemented in March 2011? 12 MR. LARRY KENNEDY: I think that's 13 correct, sir, yes. And one (1) of the things we have to consider as well in these kind of accounts, if we've 14 15 had even -- for -- if our prior life estimate was out 16 by even a year, you're going to have very significant 17 losses on retirement. And in fact the -- the computer 18 equipment accounts had seem some very losses of --19 losses -- losses on retirement that are -- really short 20 changed or really reduced that accumulated depreciation 21 account. 22 With those losses on retirement in there 23 that -- in -- in part, the -- the fact that the technology changes causes us to go to shorter life 24 25 estimates now result in a very under-depreciated

2073 position, as compared to the theoretical accumulated 1 2 depreciation balance. 3 MR. RAYMOND LAFOND: Is this computer equipment major equipment or includes every desktop and 4 5 laptop of every employee at Manitoba Hydro? 6 MR. LARRY KENNEDY: I'm just gong to 7 confirm, but I'm pretty certain it's the latter, sir. 8 9 (BRIEF PAUSE) 10 11 MR. LARRY KENNEDY: Just -- our -- our 12 famous Ms. -- Ms. Hooper was -- was helping me out here 13 with this. The -- it includes all the computers, the 14 desktops, laptops. It also includes a lot of the 15 multifunctional printing devices. The -- the term 16 "computer equipment" has -- has taken on a new meaning in the last five (5) years, in terms of what we used to 17 18 call office furniture and equipment is now very much 19 computer equipment and -- and this account contains some of that equipment. 20 21 22 CONTINUED BY MR. ANTOINE HACAULT: 23 MR. ANTOINE HACAULT: So the first 4 24 million or so was in 2011 to 2012 fis -- fiscal year. 25 Is that correct?

2074 1 MR. LARRY KENNEDY: Yeah, that would be correct, sir, yes. 2 3 MR. ANTOINE HACAULT: And in the current year -- fiscal year of March '12 to '13, that 4 5 would have been the second recuperation of that amount? 6 MR. LARRY KENNEDY: Yeah, that's co -that's correct, sir. 7 8 MR. ANTOINE HACAULT: Okay. Now, this 9 is a depreciation study, which gives depreciation rates 10 and true-up provisions going forward. Is that correct? I'm trying to understand how this item is brought 11 12 forward or amended. MR. LARRY KENNEDY: So if I -- if I 13 14 understand your question, sir, and -- the -- as at 15 March 31st, 2010, this was the position of these 16 accounts. Is -- I'm not sure if your question is: How 17 do we fix this going forward, or how do we fix it in 18 the, for example, in the -- in the next year or two 19 (2), given that these have life estimates of -- of 20 perhaps -- remaining life estimates of as short as two point one (2.1) years? 21 22 Is -- I'm -- I'm trying to paraphrase 23 your question, sir, so I understand it. 24 MR. ANTOINE HACAULT: Well, I -- I am 25 too trying to understand. This is a depreciation study

2075 on the long-term assets, fifty (50) some years. It's 1 easy to know what's going to happen in the next years. 2 3 Now, in IFF12, what depreciation rates 4 were put with respect to those items? 5 6 (BRIEF PAUSE) 7 8 MR. ANTOINE HACAULT: That can be 9 answered by Mr. Rainkie, if he has the knowledge. 10 11 (BRIEF PAUSE) 12 MR. LARRY KENNEDY: Sir, I -- I was 13 14 just -- given -- given your concern and the -- and the 15 line of cross that -- that we went through -- and I --16 I understand your concern -- this is -- this is an 17 issue that we face with -- with this type of true-up 18 period within these -- these test year periods. 19 I was just caucusing with my colleagues 20 to see if -- to see if they would support me in an 21 approach where I say I could -- we could recalculate that rate once -- based on the last -- current year's 22 23 position to see if it would be something different that 24 would be more fair to use. 25 Or I would suggest that the -- the

2076 Company could look at -- and I would do this by way of 1 an undertaking, so we could think about it a bit -- but 2 for the periods beyond would be the 2013 year -- twenty 3 (20) -- forward to use the more whole life rate rather 4 5 than the rate that isn't -- isn't impacted by the true-6 up calculation. 7 MR. ANTOINE HACAULT: And my question What was used? My concern was that -- and I've 8 was: 9 just taken two (2) examples -- is that if we're 10 applying these high true-up provisions going forward in 11 IFF based on the recommended depreciation rates, that 12 we're skewing results here. 13 So my question was: How is it dealt 14 with in IFF for the two (2) test years, and the second 15 test year is '11 -- '13/'14, when there shouldn't be 16 anything for true-up anymore? 17 18 (BRIEF PAUSE) 19 20 MR. ANTOINE HACAULT: I had hoped it 21 wasn't going to be a tough question, but it appears we're not too sure whether we've included \$5 million 22 23 extra depreciation in each of the next twenty (20) 24 years in IFF. 25

2077 1 (BRIEF PAUSE) 2 3 MR. LARRY KENNEDY: Sir, I think I would prefer that, given some uncertainty up here in 4 5 terms of -- of all that would work, I would -- I would 6 make two (2) comments. One (1) is that in the long term, the -- the rate's applied against a balance. And 7 as -- as these assets, this is an amortized account. 8 9 Once the -- once the period's fin -- is expired, we 10 would apply a rate to an adjusted balance. 11 But I think you bring to light a 12 question that I would rather take by way of undertaking 13 and to respond proper and to ensure that the rates are 14 right and fair. And I'd rather do that by way of 15 undertaking than try to do that on the fly up here on the stand. 16 17 MR. ANTOINE HACAULT: But I wasn't 18 asking you. You didn't prepare the IFF12. It's the 19 two (2) gentlemen beside you. Mr. Rainkie and Mr. 20 Warden, I understand, prepared the IFF12, and they are 21 here today. 22 Do they know, today, whether there's an 23 extra \$5 million or so put in each of the next twenty 24 (20) years? 25 MR. VINCE WARDEN: Mr. Hacault, we're -

2078 - we're talking about short-lived assets and whether 1 the true-up is carried forward into the subsequent 2 years of the forecast. And I think that's what Mr. 3 4 Kennedy agreed we would have to confirm by way of an 5 undertaking. 6 MR. ANTOINE HACAULT: So the persons present today from Manitoba Hydro need to answer that 7 by way of undertaking. Is that --8 MR. VINCE WARDEN: Yes. That's what we 9 10 just said. 11 MR. ANTOINE HACAULT: The undertaking 12 would be, as I understand it, to determine whether, for 13 line items 9000K, being computer equipment, and 9000M, 14 being hot water tanks, whether the annual provision for 15 true-up continues in each year of IFF12 in the 16 projections. 17 18 --- UNDERTAKING NO. 41: Manitoba Hydro to determine whether for line items 19 20 9000K, being computer 21 equipment, and 9000M, being 22 hot water tanks, the annual 23 provision for true-up 24 continues in each year of 25 IFF12 in the projections

1 MR. LARRY KENNEDY: That's... 2 CONTINUED BY MR. ANTOINE HACAULT: 3 MR. ANTOINE HACAULT: I think I may 4 5 have the ability to go through one (1) other area 6 before we let you go take your taxi. And that is at 7 Tab 8, sir, of our document book; specifically, page 126 in my copy that's hole-punched. But it's the 8 9 Wuskwatim Power Limited partnership. It's extracting out that portion of the IFF11-2, and I think we 10 received an update for IFF12. But I think we can work 11 12 from this one. 13 I direct you to the line on depreciation 14 and amortization. Has everybody found that? Page 126. 15 The line on depreciation amortization in 2012, a number 16 is shown as one (1), and then in 2013, it's twenty-17 three (23). Does everybody see that? 18 Do you see that, Mr. Kennedy? MR. LARRY KENNEDY: I do see that, sir. 19 20 MR. ANTOINE HACAULT: Now if we go down 21 to page 127 on the depreciation line and amortization, 22 we'll see that it continues to be twenty-five (25) 23 right up to 2032. So on page 126 the depreciation 24 amortization as of 2014 starts at twenty-five (25). 25 That would be million. And that continues to 2032.

> 1-800-663-4915 or 1-403-276-7611 DIGI-TRAN INC. Serving Clients Across Canada

2079

2080 I had understood the answer of Manitoba 1 Hydro to be that IFF12 showed the ELG procedure as of 2 the 2014 date. Was that response -- did I understand 3 4 that correctly? 5 6 (BRIEF PAUSE) 7 8 MR. VINCE WARDEN: Yes, Mr. Hacault, 9 for purpose of reflecting the impact on retained earnings of the imple -- implementation of IFRS, 10 11 2014/'15 is the -- is the first year. 12 MR. ANTOINE HACAULT: Okay. So given 13 that it is the first year, does this statement show the ELG procedure or the ASL method, sir, after 2014? 14 15 MR. DARREN RAINKIE: I think we went 16 through that this morning, I think, that Mr. Kennedy gave us an ASL rate, and that's what's embedded in this 17 -- in this calculation. 18 19 MR. ANTOINE HACAULT: But I understand what Mr. Kennedy said that he gave you. My question 20 21 was -- because I understood Manitoba Hydro evidence to 22 be that it changed to ELG method as of 2014. 23 MR. DARREN RAINKIE: Sorry --24 MS. PATTI RAMAGE: Mr. Hacault, can you 25 find a reference for that evidence?

2081 1 MR. DARREN RAINKIE: Sorry, let's just -- can -- can I -- can I just clarify? Are we talking 2 about IFF11-2 that we have open here, or are we talking 3 about IFF12 first? And then we'll answer the question. 4 5 MR. ANTOINE HACAULT: Okay. With 6 respect to IFF2 (sic), it was marked '13/'14, correct? 7 MR. DARREN RAINKIE: That's right, and I think through the Information Requests and the pre-8 9 asks, we indicated that Wuskwatim was the one (1) exception to the application of ELG in the -- in the 10 11 forecast. I think we went through that this morning 12 and in the pre-ask questions. 13 MR. ANTOINE HACAULT: So it's --14 Manitoba Hydro hasn't followed the recommendation of 15 Mr. Kennedy to only -- so ASL for the -- until the next 16 depreciation study is produced, it's shown the average 17 service life for that plant for all financial purposes, 18 including the agreement, for the next twenty (20) 19 years? 20 MR. DARREN RAINKIE: Well, this is --21 this is a forecast at this point in time, and that was 22 the rate that we had. That was the only rate that we 23 had at this point in time, so that's what's in there. But we update this forecast every year. And certainly 24 25 if we do different calculations or a -- or a new

forecast, we would update the -- the forecast 1 accordingly. 2 3 MR. ANTOINE HACAULT: Now, why would 4 you do Bipole 3 on ELG in your forecasting but not 5 Wuskwatim? 6 7 (BRIEF PAUSE) 8 9 MR. VINCE WARDEN: Mr. Hacault, you have to realize that with -- in our financial 10 forecasts, that we use simplifying assumptions for 11 12 purposes of putting the forecast together. And the 13 objective is, of course, to recover the costs of that 14 asset over -- over its useful life. So, you know, 15 whether it's ELG or ASL, it -- it for forecasting 16 purposes, is not going to make a lot of difference. 17 And, sir, I think MR. LARRY KENNEDY: 18 it's -- one (1) -- one (1) important consideration with 19 regard to Bipole 3 is that in the circumstance of 20 generating equipment, as we just went through a few 21 minutes ago, we -- we site -- we develop rates specific to each site. In the circumstances -- at least at this 22 23 point in time, the circumstances are such on the 24 transmission facilities that -- that we don't do that. 25 It -- they're considered to be more mass property

2083 assets such that all the assets in the account are --1 are treated within one (1) calculation. 2 3 So at this point we -- we haven't 4 developed a site specific or a -- a facility-specific 5 depreciation rate for any of the transmission 6 facilities. 7 8 (BRIEF PAUSE) 9 10 MR. ANTOINE HACAULT: I don't know if 11 you're going to agree with the general proposition, but 12 if we add Bipole 3 in an ELG method, won't it up all 13 the category, because there's a major present-day 14 dollar as opposed to historical daughter -- dollar 15 being put at a higher depreciation rate into that asset 16 category? 17 Sir, I think --MR. LARRY KENNEDY: 18 well, once we -- we're probably within the realm of 19 having done another -- or, I'll be doing another depreciation study specifically before Bipole 3 goes 20 21 in. 22 The -- what you're suggesting is 23 something that may warrant consideration as part of 24 that study, in terms of do we develop a separate rate 25 for Bipole 3 at that time? And -- and once we get

2084 there have a better -- at least once we have an idea of 1 -- of the -- seeing what that impact would be, it may 2 very well be that it may make sense to -- to sub --3 4 sub-componentize, if you will, or -- or make a separate 5 calculation specific to that -- that very large asset. 6 That's always -- as we've done here with 7 generation equipment, that's -- that's always an ability. This company historically had -- had, for 8 9 example, broken out the -- the HVDC asset separately. 10 And so it is something that -- that is common -commonly done in studies. And in fact it's some 11 12 precedent to here. 13 So where we would be at that point in 14 time, I'm not sure. But I -- I do agree with your 15 premise that it's going to have an influence and then 16 that influence should be reviewed at the appropriate time and that would be during the -- the completion of 17 18 the next depreciation study. 19 THE CHAIRPERSON: I'm going to have to 20 intervene here. We did make a commitment to you, Mr. 21 Kennedy and others, that we would adjourn at 4:30. So 22 I apologize that we couldn't -- we couldn't get all of 23 the questions in before -- before the end of the day. 24 But in any case, I want to wish you the 25 compliments of the season and best wishes for 2013 to

1 you and your family and -- and have a safe trip back to 2 Calgary.

2085

3 MR. LARRY KENNEDY: Thank you, sir. And to all the -- to all in the room the same 4 5 compliments of the season. I do appreciate the 6 indulgence of the Board and -- and the intervening community for allowing me to make by board meeting 7 tomorrow. It's my -- my privilege to be -- that's my 8 9 first board meeting, and I'm actually challenged with hosting it. So I do thank -- I do thank the indulgence 10 11 from all in the room and -- and whatever we can do to -12 - to complete this cross-examination I will try to 13 ensure my schedule can accommodate it. 14 Thank you. THE CHAIRPERSON: Do we 15 have any business to attend to before we adjourn for 16 the day? 17 18 (BRIEF PAUSE) 19 20 MR. BOB PETERS: I think the only point 21 left, Mr. Chairman, is that if Mr. Hacault chooses, he 22 may advance written Information Requests through to Mr. 23 Kennedy through Ms. Ramage. And in any event, he's 24 asked that there be an opportunity to reschedule and 25 that'll be discussed as well to see if we can have him

```
2086
   keep his schedule open for January 7. That's the week
 1
 2 the Board comes back, so we'll -- we'll work with Ms.
 3 Ramage on that.
                   THE CHAIRPERSON: Thank you. Good
 4
 5
   evening to everyone and we'll see each other again
   tomorrow morning at nine o'clock, you're -- except for
 6
 7 Mr. Kennedy.
 8
 9
   --- Upon adjourning at 4:30 p.m.
10
11 Certified Correct,
12
13
14
15
16 Cheryl Lavigne, Ms.
17
18
19
20
21
22
23
24
25
```

PUB - MANITOBA HYDRO GRA 12-19-2012

2 Page 2087 of 2162

IOD MANIIOB	A IIIDI(O GI(A	12 19 2012	1age 2007 0.	
\$	\$4 2069:3	1 1821:15	2008:20	2049:16,17
\$1 1842:15	\$ 4.5 2069:15	1825:23	2010:13	1.85 2055:2
\$1,112,361,0		1828:7,10	2017:8	
00 1967:3	\$40 1954:13	1836:14	2024:9,15,	1/2 2071:7
	\$400 1893:23	1838:12	25 2029:18 2036:13	1:00 1938:17
\$1,800 1862:8,11	1945:4	1840:17 1841:21	2030:13	1:04 1938:21
	1946:16	1851:17	2039:25	10 1867:20
\$1,944,153	\$5 1984:17	1857:4	2040:1	1881:22
1964:4	2020:21	1858:11	2043:16,23	1941:7
\$10 1959:8	2076:22	1863:2	2047:10	1944:15
\$10,000	2077:23	1875 : 1	2048:13	1948:5
1919:5	\$50,000	1876:17,20	2056:16	1956:8
\$100,000	1918:25	1878:23	2059:18 2062:11	1959:1,2,7
1834:19	1919:3	1880:10 1885:4	2071:18	,13,15
1875:1,2	\$500 <i>,</i> 000	1891:8	2072:13	1961:14,17 1969:12
1919 : 18	1919:14,17	1895:6	2077:6	1969:12
\$14 1911:12	,22	1896:19,25	2079:5,16	1990:8
	\$550 1892:15	1902:2	2081:9	2004:11,15
\$16 1911:13	\$56,703,000	1911:23	2082:18	,17 2010:8
\$16,000	1979:13	1913:18	2083:2	2013:7
1854:13	\$7,462,376	1920:7,8	1,575,191	2049:9
1855 : 13	1980:25	1922:24,25 1926:11,25	2070:15	10,937,967
\$18,950		1933:7	1.1 1820:16	2070:20
1968:8,16	\$760,000 2069:24	1934:3,7	1963:4	10.2 2071:8
\$1800	2069:24 2070:6	1935:23	1.176	10.9 2071:9
1853 : 25		1939:5	1970:24	
\$2 1959:7	\$900,000	1943:4	1.3 1971:3	10:30
2056:11	1866:9	1946:2,3,1		1876:22
2058:20	\$9000 1854:7	6 1947:2,9,1	1.33	1882:1
\$20 2052:2		8 1951:3	1962:1,7,2 1 1969:24	10:45 1882:2
\$201 1965:19	0	1954:10,14	1970:5,9,2	100 1870:25
	000D 1814:11	1957:15	2 1972:15	1881:10,11
\$25,000	1855:4	1959:24	1973:14,16	,12
1869:24	1888:8,18	1960:8	1978:19	1925:22
\$3,500	00A 1814:10	1961:25	1982:16	1926:17 1954:1
1876:8	1888:7,17	1962:11 1963:1,4	1983:2	1959:6
\$32 2021:20	00D 1851:19	1963:1,4	1986:5	1962:1
2023:15,25	04 1883:16	1966:10	1.46	2011:6
\$32.3	2039:25	1968:11,13	1962:13,22	2022:2
2021:20	05 1850:5	1969:16	,24 1963:11	101 1896:25
\$351 2058:19	1851:3,5	1970:4	1963:11	1024 1939:6
\$36 2021:1	1953:14	1978:13 1979:21	1.463 1963:6	
	07 2040:1	1979:21		104 1925:21 1926:18
\$360,000		1981:1	1.50 1981:23	1920:18
1863:7	09 1995:3,5	1985:2,5,1	1.51 1978:15	
\$369 1863:5	2051:13	6 1986:3,6	1.59 2071:10	106 1841:15
\$370 1852:12	1	1993:19	1.8	107 1844:16
	<u>⊥</u>	2001:20		

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2088 of	E 2162
1930:5	130 1893:14	2004:16	1929:23	1998 1815:19
10ish 2034:8	1308 1940:8	2020:20	1930 : 18	19th 1813:7
11 1831:22	133 10(0,01	2033:18,22	1931:11	1818:14,19
1949:2	133 1962:21	2052:2 2054:8	1932:23 1935:9	1st 1940:14
2076:15	135 1829:16	2054:8	1935:9	ISC 1940.14
	1830:1		1937:7,20	
11/'12	136 2048:11	152 1852:20	1959:14,16	2
1902:20	2051:16	1853 : 9		2 1812:6
11-75-D	2052:10	155 2018:15	1924 1877:22	1814:17
1976:15	137 2039:1	15-foot	1935 1900:14	1817:7 1818:24
12 1826:14	2048:13,20	1845:3	2018:15	1819:9
1845:3	2058:8	16 1000.4 0	2019:1	1822:13
1911:14	138 2041:14	16 1828:4,8 1991:24	1937 1814:23	1837:5,17,
2010:9		2035:23	1939 1813:8	18,21
2013:8	139 2041:21	2033:23		1838:15,18
2035:19	2057:19,22		1940	,21
2057:21	14 1856:14	16,000 1855:8	1813:9,10	1840:18
2063:18 2074:4	2035:16		1940s	1842:17
	2049:16,17	170 1929:2	1834:13	1876:17
12:00	140	1810 1810:24	1950 1845:2	1877:22
1938:20	1928:7,13	1813 1812:3	1877:22	1893:1,7 1895:13,18
120 1961:1	1929:5,24		1950s 1845:6	1896:11
1977:3	1930:19	1814 1812:4	1857:10	1911:24
125 1840:19	1931:12	1817	1875:8	1913:1,7
1871:1	1932:24	1813:3,4		1914:17
1928:25	1933:1,3,5	1818 1813:7	1951's	1922:3,4,6
1929:11	,6,8,19 1934:1,4,1		1877:22	1923:18
1930:14	7,18,20	1819 1812:12	1952	1930:17
1931:1	1935:8,21	1840 1814:7	1877:8,19	1933:22
1980:15	1936:22	1888 1814:13	1878:1	1934:8,18
125-R4	1947:1,10,		1953 1932:7	1935:20
1867:5,9	12 1956:12	1890 1814:16	1955	1936:14
1868:20	1960:18	19 1810:23	1834:18,20	1937:5,17 1939:10,19
1869:8	1961:2	1848:2,19	1958 1815:7	1941:15
126	1976:24	1933:17		1942:24
2079:8,14,	2011:5,9	1959:14	1970s	1946:13,19
23	2050:19	2051:4	1835:5,22	1951:12
127 2079:21	2052:9 2054:7,10	2055:25	1906:17	1960:16
		1911	1980 1834:25	1961:7
1282 1939:18	141 2045:12	1878:12,18	1980s 1835:6	1964:5,13
13	2052:9	1883:24	1906:17	1966:10,24
1826:16,23	143 2054:7	1885:6	1988 1815:15	1976:19
1911:14	14A 1939:19	1959:6		1979:3 1986:3
1930:23		1912 1812:13	1990s	1986:3 1988:4,6
2067:22 2074:4	15 1813:8	1923 1814:20	1853:16	1989:16
	1842:21 1856:14	1877:7	1913:16	1997:16
13/'14	1925:2	1878:19	1991 1969:19	1999:9,10
2076:15	1939:6,14	1879:13	1981 : 22	2001:20
2081:6	1990:9	1883:13,15	1993 1969:19	2008:18

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2089 of	E 2162
2009:16	2000s	0 1896:11	1810:8	1940:7,16
2010:14	1913:16	1898:10	2013/'14	240 1965:20
2020:6	2001	1899:1	1939:21	05 1000 7
2021:23	1880:12,15	1928:11	1987:9	25 1836:7
2036:4,8		1968:12	2014 2079:24	1851:11,22
2039:23	2003	1969:21		1852:8 1860:4
2040:7	1883:4,12, 16	1981:7,9,2	2080:3,14, 22	2079:22,24
2041:7,17, 22 2064:9	1884:4,22,	1 1983:8		
22 2064:9 2066:4,23	23	1984:1 2001:18	2014/'15	26 1819:17
2068:12	1885:2,24	2001:18	2080:11	1820:17
2071:6,7	1886:6,25	2069:12,21	2027 2013:12	1854:3
2074:19	1889:17	2003:12,21	2031 1967:15	1860:5
2076:9,14			2031 1907:13	27 1851:23
2077:6,19	2004 2039:22	2011 1880:12	2032	1860 : 5
	2005 1831:9	1883:9,21	2079:23 , 25	278 2021:18
2,100 1900:5	1832:12,16	1984:16	2034 2016:7	
2.06 1981:21	1833:9,14,	2008:2,3,1		2s 1965:8
1982:19	23 1834:9	4 2014:21 2037:23	205 1897:9	
1985:21	1836:12	2037:23	2063	3
1986:11	1848:3,23	2073:24	1814:21,23	3 1842:2,4
2.1 2069:16	1849:2,13		1930:6,13,	1844:20
2070:15	1880:12	2011/'12	19	1846 : 19
2074:21	1941:19	1903:14	1931:3,9	1848:20
2.2.2 2022:9	1953:11	1968:19	1933:17	1858:2
	2039:21	2012 1810:23	1934:12	1861 : 10
2.5 2068:22	2006 2051:21	1813:7	1936:9,11	1880:13
2069:8,10	2007 1843:1	1818:14,19	1937:7,9,2	1895:18,21
2070:24	2051:13	1940:14	1,25	,24
2.68 1978:8	2008 1815:18	1984:16,23	2078 1816:8	1906:10,15
2.94 1964:8	1994:18	2067:22	2086 1810:24	,24
	1998:8,17,	2073:24	1812:15	1929:23 1939:4
20 1865:10	23	2079:15	21	1959:4
1867:3,24		2012/13	1865:18,21	1962:19
1870:4,15	2009 1815:22	1810:8	1877:3	1970:14
1919:1,2,1	1837:15	2012/'13	1879:4	1971:22
5 1943:12	1838:14	1939:21		1981:20
1981:8 1990:10	1991:19 1994:13,15	1941:14	2-12 1848:4	2007:11
2004:17	1994:13,15	2013 1814:23	2131 1960:25	2011:10
2016:19	1998:1	1930:22,25	1981:8	2030:7,8
2067:21	1999:11,22	1930:22,23	22 1925:4	2034:1
2076:4,23	2000:7,12	1933:9,17	1993:11	2082:4,19
2077:24		1934:12		2083:12,20
2081:18	2009/2010	1935:10,11	23 1813:9	,25
2000 1815:22	1837:9	1936:9,23	1865:11	3,000 1876:7
1842:25	2010 1826:24	1937:9,24	1939:17	
2051:21	1832:13	1983:12	1940:1 2079:17	3,035,196
	1842:13	2013:12		1978:1
2000F	1843:6	2076:3	24 1813:10	3,500
2033:13	1845:21	2079:16	1851:10,18	1817:12
2000M	1859:17	2084:25	1854:25	3.2 1844:23
2033:13	1877:7,8,2	2013/14	1869:14,23	

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2090 o	£ 2162
3:11 2030:22	1939:12	4.7 2036:18	1848:1	1,12,20
3:20 2030:23	350 2051:15	2037:3	1851:10	1935 : 20
	2052:7	4:00/4:30	1865:11	1936:8,17,
30 1828:22 1853:12	351 2050:18	2030:18	1871:9,12	18,22
1956:8	2056:1,9	4:30 2027:16	1874:3 1877:3	1944:16 1947:2,13
1990:10		2028:23	1879:5	1956:5
2043:22	36 1814:17	2031:6,20,	1885:6,7	2049:10
2069:11	1896:5,6 1915:3,4	21 2084:21	1891:4	2075:1
30.5	1937:16	2086:9	1892:11	50,000
1852:17,25	1939:24	40 1815:20	1894:5	1890:4
1853:17	1940:5	1818:11	1896:5	
31 1925:10	369 1853:10	1829:21	1898:9	50/60
1927:7		1954:13	1905:16	1846:24
2039:22	369,000	2000:9	1907:8,9	500,000
2048:25	1863:5	2037:5	1908:4 1915:3,4	1873 : 15
2049:4	37 1815:3	2043:22	1913:3,4	50s 1834:13
31st	1907:8	40,000	1925:10	525,000
2069:12,21	1940:14	2043:5,9,1	1940:24	1843:8
2009:12,21	1958:15	1 2047:23	1947:22	
	1991:24	2058:7	1948:5	53
32 1844:16	38 1815:8	400 1810:21	1951:3	1842:13,14
32-R2	1907:8	1892:25	1959:20	54.5 1867:19
1828:22	1908:4	1893 : 6	1972:19	552
33 1814:3	1988:17	1894:25	1984:10,25	1944:13,22
1817:13	2037:8	1949:24,25	1987:18 2004:11	55-R3
1840:6	39 1815:16	1950:13,19	2004:11 2030:18	1827:12,16
1928:3	1998:20	400,000	2048:21	
1929:21,22	2034:2	1872:2,9	2070:8,9	58
330 1810:21		41 1816:3	2071:23,24	1967:18,24
2005:19	4	1924:24	2072:5,6	58.7
331 2005:19	4 1813:3	2078:18	2073:17	1967:10,13
	1817:9 , 16	45 1905:18	5.3 2055:9	1981:3
332 2005:20	1842:2,4	45.3 2047:3	5.7 1941:10	59 2039:12
333 2005:21	1844:20		1942:10	594 1944:5
334 2005:23	1846:20 1858:2	47 2013:2	1948:10	5B
335 2005:24	1923:25	48 2068:18	1960:1	2010:18,22
	1963:24	48,000	2018:3	
336 2005:25	1969:24	1966:5	2033:1	5C 1924:21
34 1814:8	1973 : 17	49 1825:5	2066:9	5E 2013:2
1817:23	1978:22	49 1825:5 2034:11	50	5x7 1835:2
1888:14	1993:19,20	2007.11	1824:24,25	
1891:5 1894:4	1995:10		1825:17	6
2010:22,23	1996:8 2035:11	5	1827:16	6 1819:14
2010:22,23	2073:23	5 1824:6	1931:2,10	1823:5,8,1
		1826:16,23 1828:4	1932:8 1933:11,12	4,20,22
34-R3 1827:7	4,375,186 2071:4	1829:12	,14,15,20,	1824:7
35 1814:14		1831:21	21	1828:8,10
1890:14	4.375 2069:3	1846:20	1934:7,8,1	1855:13
1891:5				1867:15

PUB - MANIT	OBA HYDRO GRA	12-19-2012	Page 2091 of	E 2162
1882:12	12 2086:1	8.5 1853:23	9000M 1816:5	2012:11
1940:22	70 1847:11	1862:9	2066:22	2030:20
1959:21	1862:13	80 1820:21	2068:15	2061:8
1960:8	1884:16	1824:16	2078:13,21	ac 1984:2
2033:13	2034:20	1855:11,18	92 1973:6	
2034:13,14	2056:12	1884:16	93 1976:14	accelerated
2071:25 2072:5,6	7-0 2034:20	1919:15		
		1970:21	95 1843:15	accept
6,969 2068:9		2056:12	1977:21	1824:5
6,969,000	1841:25	800 2054:25	1978:13	1848:2,5,1 4
2067:3	70ish 1869:2	2055:1	97 1979:7	4 1866:7,20
6,969,295	71 1855:19	801 1817:21	97th 1855:9	1878:11,13
2067:11	71.5 1854:11	808 1866:18	98 1981:14	1891:15
6.3	73 1824:20	80s 1835:5		1902:24
1894:17,19)		A	1904:15 1917:18
6.7 1894:11	74.88	82 1831:24	a.m 1817:1	1950:22
	1972:20	85 1965:12	1882:1,2	1959:22
6:30 1935:3 2028:16	75 1825:19	86 1966:23	abandoned	1996:9
60 1825:18	1856:4 1870:10	86.5 1862:12	1974:24	2003:8
1831:8	1881:10		ability	2048:25
1847:10	1961:8,24,	87 1969:2,11	1844:17	2049:2
1855:18	25 1967:8	88 1969:17	1846:11	2055:6
1956:6	1970:3,4	885,711	1847:1	acceptance
60-R2	1971:19,23	1866:20	1861:13	1946:17
1828:25	1980:16		1876:13	2042:4
	75-R2	89 1970:15	1918:14	accepted
60s 1834:13	1855:24		2009:23	1849:17,25
63 1930:23	1856:11,15	9	2019:24	1850:12
646 2055:8	,22 1977:8	9 1830:3	2057:14	1897:4
65.5 1854:5	1980:2	1924:8	2079:5 2084:8	1919:21 2057:2
	75-R3	1940:24		
653 1817:10	2045:20	1990:8 2001:18,25	able 1844:3	Accessory
66	79 1928:7	2038:25	1874:7	2005:23
1822:15,21		2045:5	1913:6 1935:2	accommodate
1824:18		2049:9	1952:21	2085:13
66.5 1867:20) 8	9,000-K	1953:21	accordance
	8 1813:4	2068:14	1974:2	1941:17
7	1817:21,25		1986:2	1942:5
7 1818:15	1855:17	9:03 1817:1	1987 : 1	2014:15
1829:14	1867 : 15	90	2014:8	2022:12,20
1840:17	1934:4	1843:15,19	2027:16,17	according
1841:14	1935:22	1970:19	2038:18	1919:2
1866:2	2034:13	900,000	absent	1925:19
1886:17	2066:4,23	1843:23	1844:25	1926:4
2006:3	2067:3,9,1 6 2068:2,4	1866:12,21	absolutely	accordingly
2034:14	2070:7	9000K 1816:4	1875 : 10	2082:2
2051:22	2072.1	2066:21	1914:3	account
2070:8,10,	2079:7	2078:13,20	1990:7	1814:10,11

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

1836:21 20 1839:15 ,2 1851:19 20 1855:4,24 20 1856:5 acco 1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	57:12 65:12	1972:15 1973:13 1977:23 1978:14 1982:1 1985:8 2059:22 2060:10,13	accurately 1872:19 1992:2 achieved 1940:13	16 2008:18 2022:1 2026:2 2027:15 2063:10
1839:15 ,2 1851:19 20 1855:4,24 20 1856:5 acco 1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	3 57:12 65:12 unts 14:4 31:17	1977:23 1978:14 1982:1 1985:8 2059:22	1992:2 achieved 1940:13	2026:2 2027:15
1851:19 20 1855:4,24 20 1856:5 acco 1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	57:12 65:12 unts 14:4 31:17	1978:14 1982:1 1985:8 2059:22	achieved 1940:13	2027:15
1855:4,24 20 1856:5 acco 1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	65:12 unts 14:4 31:17	1982:1 1985:8 2059:22	1940:13	
1856:5 acco 1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	unts 14:4 31:17	1985:8 2059:22	1940:13	2063:10
1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	14:4 31:17	2059:22		
1857:18 18 1858:12 18 1859:25 18 1864:16 ,2	14:4 31:17			actually
1858:12 18 1859:25 18 1864:16 ,2 1869:4 ,2	31:17	2060.10 13	acknowledge	1837:11
1859:25 1864:16 1869:4 ,2		2000.10,13	1817:5	1842:17
1864:16 ,2		accruals	1818:3	1851:23
1060.		1908:21	1882:6	1857:15
	37:5,16,	1909:8	acquired	1872:8,23,
10.70.5	,18,22		1883:3	25 1879:24
1000.1	38:15,19	accrue	1889:12	1900:15
7 10	1,22	1972:18,22		1912:13
1076.7	39:3,5,1	accrued	acquisition	1924:21
10/0.13	18,25	1891:19	1814:16	1931:24
100/05	40:7	1892:4,15,	1884:20	1933:25
2023:3	48:23	23 1965:23	1885:11,12	1942:14
2017.9	50:18	1972:22	1889:1,15,	1963:1
2049:10 18	56:10	1973:7,8	20	1964:4
2052:15,20	59:10	1979:11,22	1890:5,11,	1968:11
2054.1 5	81:16,17		17	1982:25
2056:8 18	93:9,10,	accum	acronym	1983:2
2058:19		1892:14	1842:9	1988:3
2071.15 10	21:14,19	accumulated		1995:9
2072:21		1891 : 19	across	2017:15
2073:19 19	25 : 25	1892:3,14,	1865:2	2018:6
2077:8	26:10	23 1893:22	1916:10,12	2022:13
2083.1	48:14	1945:17,23	ACSR 1830:3	2026:15
	50:16,17	1966:3,7,1	acted	2046:2,3
	97:15	4,25	1913:13	2049:22
2024:11 20	03:8	1979:17,24	2037:25	2052:10
20	06:14,23	2023:2		2054:15
accounting	07:1	2024:4	actions	2062:23
1839:6 20 1857:11 20	09:9	2044:1	2056:16	2085:9
1857:11 1872:3	12:4	2058:20	activity	actuan
1900:9 20	33:13	2060:5	2014:18	actuar 1900:16
1900:9 20	51:15	2070:18	actual	
1902:18 20	52:7	2072:20	1839:11	actuarial
6,21 20	58 : 8	2073:1	1851:8	1885:4
1922:22 20	72:2,14,	accuracy	1857:3	1899:20
1922:22 18	2074:16	1910:23	1870:1	1900:1,11,
	unt's	2018:23	1874:21	25
	09:11	2019:21,25	1885:19	1901:5,10
1995.19		accurate	1886:22	1902:9,16
1996.10 22 ACCO		1846:12	1887:8	1903:3
2014:16	03:4	1846:12	1919:22	1904:6
2020:10 accr	ual	1936:6	1926:4,8	actuarial-
	08:25	2012:9,20	1940:12	determined
	50:8	2012:9,20	1946:12	1903:9
	63:12	2019:5,12,	1949:3	
	70:15,20	19 2023:10	1979:17	actuarials
,	71:2	IJ 2023.IU	1984:2,15,	1900:12,15

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2093 of	2162
,17	2007:6	1905:25	1 1843:3	1831:9
Actuarians	2025:19	adopting	1844:4,17,	1832:11,1
1900:16	additions	1917:21	24 1845:10	1840:3,4
	1848:22	1995:8	1852:17,19	1841:11,2
actuaries	1853:11	2007:19	1853:12,17	,25
1848:12	1877:17		,23	1842:4,10
1849:23	1906:8	adoption	1854:4,10	1851 : 20
1899:16,25	1932:23	2062:8	1855:18	1852:1,20
1900:17,19	1969:1,18	advance	1860:7	1853:25
1901:21	1971:24	2085:22	1862:5,9,1	1854:7,13
1903:24	1971:24		1,20	14 1855 : 2
1904:7		advantage	1863:5	1856:1,7
actuary	2013:13	2020:7	1867:18	1858:16
1901:9	addressing	2021:2	1870:14,18	1867:5,6
	1819:22	advent	,20	1869:19
1903:3		2019:2,12	1871:15	1879:25
add 1859:8	adjourn	2019:2,12	1877:14	1892:5
1931:21,22	1881:23	adverse	1886:16	1893:13,1
1933:9	2031:19	1939:11	1887:16	,17,18
1937:1	2084:21	advice	1888:10,21	1894:25
1946:8	2085:15	1818:11	1931:2	1899:21
1951:24	adjourning		1931.2	
1964:8	2086:9	1939:22	aged 1836:10	1906:1,2
2043:17		advise	1837:16,20	1907:20
2083:12	adjusted	2052:14	1838:1	1908:23
2003.12	1872:4		2058:22	1909:9
added 1875:2	1883:8,9	advised	1045 0	1976:20,2
1935:14	1916:20	1976:1	ages 1845:8	2011:11
1940:22	2077:10	advising	1862:22	2042:5
adding	adjustment	1991:19	1981:24	2056:1
1866:15	1985:22	. .	1982:2	2078:4
1885:11	1985:22	advisors	2024:2	agreeing
	2021:14	1957:2	2036:12	1823:10
1932:16	2021:14	advocating	aggressively	1829:7
1986:14	adjustments	1943:10	1842:25	2018:12
addition	1880:16			2010:12
1836:25	2023:21	affected	ago 1842:2,4	
1878:6	2025:5	1955:15	1844:21	agreement
1883:15	admit	afraid	1869:22	2081:18
1934:19		2015:1	1885:7	agreements
1936:18	1822:18		1911:24	1939:10
1947:11	1918:7	afternoon	1919:1	
1962:20	2029:17	1819:21	2015:11	Ah 1933:19
1992:15	adopt	1935:3	2025:1	ahead
2005:12	1827:23,24	1938:5,23	2082:21	1863:23
2034:7	1829:6	1939:4	agreed	1864:2
2036:18	1992:10	1952:8,17	-	
	2065:12	2059:24	1820:3,4,2	1933:9
additional		against	4 1822:1	1952:25
1882:10	adopted	1959:13,15	1823:6,24	1968:16
1939:11	1983:20		1824:20	2010:19
1960:10	1989:20	2077:7	1825:1,2	airport
1974:1	1996:16	age 1814:13	1826:1	2028:20,2
1992:8	2038:9	1836 : 9	1827:1,2,1	2031:7
2002:24	adopters	1841:5,6,1	2,19	
	auopters		1828:17,22	Alberta

PUB	-	MANITOBA	HYDRO	GRA	12-19-2012

Page 2094 of 2162

PUB - MANIIOBA		12-19-2012	Page 2094 01	
1895:21	1842:12	1909:2	23 1871 : 18	2009:13
	1898:23	1917:14,16	1878:19	2021:8
ALG 2062:25	1905:11	1934:10,24	1879:14	2059:22
allegation	1913:12	1944:1,23	1883:16	2060:10,12
2060:8	1914:6	1945:19,21	1897:23	2062:14
all-	1918:5	,23	1898:11,13	2069:2
exclusive	1927:23	1947:24	,20,24,25	2078:14,22
1878:5	1930:11	1948:13	1899:19	
	1954:20	1951:2	1900:13,25	answer 1838:7
allocating	1961:15,22	1954:1	1928:10,11	1858:9
1920:23	1966:24	1964:1,24	1974:25	1860:19
allocation	1969:4	1965:24	1975:2,3,5	1863:22
1920:8	1974:12	1966:6	2049:23	1876:5
1921:22	1982:10,17	1970 : 20	2050:6	1884:3
1926:10	2014:9	1971:2,18	2062:19,20	1897:16
	2017:5	1972:22	2063:14,16	1904:18
allow	2018:8	1973:7,8	,25	1906:5
1946:10	2022:4	1977:22,24	2064:3,10,	1911:8,24
2023:2	2043:1	1984:15	11,14	1916:10
2024:17	2054:17	2003:18	analysts	1917:9
2065:3	2072:10	2011:8	1862:24	1918:9
allowed	2074:24	2025:12		1920:16
2023:5	amended	2027:8	analyze	1922:1,7,1
2044:10	2074:12	2061:2	1831:14	3,24,25
2053:5		2074:5	analyzed	1926:15,24
allowing	amending	amounts	2046:18,19	1932:11
2085:7	1888:8	1857:2	2050:13	1958:7
	America	1874:22	2051:15	1959:10
allows	2003:10	1920:23	analyzing	1969:2
1996:17	2018:14	1925:19	1837:25	1983:7
Alloy 1830:3	American	1946:19		1992:12
alluded	1871:15	1971 : 20	Anderson	2002:14
2025:14	2007:12	1997:6	1811:14	2010:17
2023:14		2007:6	anecdotal	2011:7
	amongst	2060:14	1846:22	2015:15
alluding	1995:21,22	analysis	annual	2017:13
1910:9	2019:17	1817:11	1816:6	2019:15
2015:4	amortization	1830:17	1894:9	2023:23,24
already	2038:12	1831:18	1908:21	2027:23,24
1968:11	2079:14,15	1848:20	1909:8	2032:2
1992:15	,21,24	1849:24	1923:11	2042:25
2000:20	amortized	1859:19,25	1945:21	2048:2,5
ALS 1907:19	1930:12	1860:6,8,1	1959:3	2065:3,16
2020:9	2077:8	3,14,16,17	1964:1	2078:7
		,21,24	1965:4,14	2080:1
Alternativel	amortizing	1861:11,14	1966:22	2081:4
y 1987:19	2071:24	,15,16,24	1970 : 15	answered
alternatives	amount	1862:1,17	1972 : 15	1922:1
1996:20	1868:3	1863:12,24	1973:13	1958:8
am 1820.12	1870:7	1864:1,3,8	1977 : 23	2075:9
am 1829:13	1879:13	,18	1978:24	answering
1831:20 1840:20	1884:23	1867:11	1979 : 16	1899:14
1040:20	1901:19,23	1868:9,16,	1985 : 7	

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

2 Page 2095 of 2162

PUB - MANITOBA	A HIDRO GRA	12-19-2012	Page 2095 01	L Z16Z
1916:1	24	1	2051:3,8,1	1974:20
1994:20	24 1961:6,13,	1 2000:14,15	2 2052:6	1974:20
2007:15	19	2001:2,12,	2053:19,24	2004:7
answers	1962:5,10,	17,24	2054:6,16,	2005:13
1838:11	16	2002:18	21,24	2015:17
1911:24	1963:9,22	2003:23	2055:5,14,	2016:3,14
	1964:19	2004:9	17,24	2076:16
anticipated	1965:3,7,1	2005:1,15	2056:22	anywhere
1912:14	2,17,22	2007:2,14	2057 : 17	1956:8
anticipating	1966:2,11,	2008:15	2058:9	2015:24
1999:19	21	2010:16,21	2059:2	2052:14
2002:16	1967:7,16,	2011:3,14,	2061:19,20	1010 04
Antoine	23	19	,25	ap 1910:24
	1968:4,9,1	2012:7,19	2062:5,9,1	apart
1811:12	7,24	2013:1,6,1	7	2050:4,10
1812:13	1969:9,16,	0,21	2063:9,15	
1912:22,23	22	2015:14	2064:2,19,	apologies
1913:20	1970:2,13,	2016:5	25	1832:23
1914:2,7,1	18	2027:13	2065:14,15	apologize
3 1915:1,8	1971:7 , 17	2029:4,5,1	,21	1818:10
1916:13	1972:4,17	3,20	2066:1,8,1	1828:10
1917:8,20	1973:1,5,1	2030:4,7,1	4,19,20	1831:24
1918:8,11,	2,18,21,25	0,15	2067:1,9,1	1838:11
22	1974:6,12	2031:22	5 , 20	1876:12
1919:11,25	1975:1,9	2032:18,19	2068:1,7,8	1877:2
1920:14	1976:11,18	2033:6,9,1	,11	1892:1
1921:25	,22	0,16,21,25	2069:1,7,1	1912:14
1923:23	1977:2,6,1	2034:5,10,	3,22	1947:5
1924:13,18	0,20	19,24	2070:1,4,1	1999:20
,19	1978:4,12,	2035:3,7,1	1,16,23	2018:15
1925:9,17	18,22	4,18,22	2071:2,6	2084:22
1926:1,14	1979:2,6,1	2036:3,7,1	2072:10	
1927:18	0,16	1,17,23,25	2073:22,23	apparent
1928:2	1980:9,13,	2037:4,10,	2074:3,8,2	1997:11
1929:18	20 1981 : 13	13	4 2075:8	appear
1930:3,10	1982:5,9,1	2038:3,7,1	2076:7,20	1949:14
1931:19	5,21	4,17,24	2077:17	2068:3
1938:2,3,1	1983:6,25	2039:4,13,	2078:6,11	
3 1940:20	1984:13	20	2079:3,4,2	appearance
1941:3,4,2	1985:18	2040:2,6,1	0	1887:24
0 1942:7	1986:1,10,	6,21	2080:12,19	APPEARANCES
1943:17	20	2041:5,13	2081:5,13	1811:1
1944:11	1987:8,14	2042:24	2082:3	appeared
1945:25	1988:8	2043:12	2083:10	1850:17
1946:1	1991:6,7,1	2044:15	anybody	1855:22
1952:15	8	2045:4,11,	2004:23	
1953:3,4,1	1992:1,11	14,18,23		appearing
5	1993:4,13,	2046:1,10	anymore	1916:21
1954:17,24	17,18,25	2048:1,4,8	2076:16	1917:5
1955:5,20	1994:8,19	,19,24	anything	appears
1957:8,20,	1995:6	2049:5,8,2	1868:4	1915:19
23	1996:4,13	1	1948:15	2039:11
1959:18,19	1998:6,13	2050:3,11,	1950:15	2076:21
1960:7,15,	1999:7,8,2	17,24	1000.10	

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2096 o:	£ 2162
appended	applied	2023:18	April 2008:3	1941:11,13
1891:7	1822:11	appreciate	area 1827:25	1942:8
appendix	1856:19	1946:14	1853:8	1943:22
1818:11	1886:22	1949:8	1876:18	1944:19,21
1829:21	1887:8	2024:10	1905:17	1946:4
1941:10	1908:12	2085:5	1941:4	1951:14,17
1948:10	1959:12		2002:9,20,	1959:25
1960:10	1974:3	appreciated	21,22	1961 : 23
2018:3	2024:13	1919:24	2003:25	1969:5,14
2033:1	2043:13,23	appreciation	2003:23	1971:18
2066:8,9	2047:8	1919:20	2004.1	1972:4
2000:0,9	2054:1,4			1975:11,15
apple	2077:7	approach	2079:5	1977 : 7
1966 : 10		1907:20,22	areas 1889:1	1979:18,23
2019:2	applies	1910:24	2003:15	1982:17
	1915:14	1916:14	2005:1	1983:24
apples	1916:10	1974:21	2031:8	1986:7,8
1938:5,6	1956:16	2017:21	aren't	1989:10,20
1943:20	2026:7	2038:9		1990:25
1944:1,8	2042:16	2047:20	1857:9	1996:16
1946:19	2047:1	2075:21	1899:4	2000:17,25
1966:4,9,1	apply	approaches	2031:8	2008:19
0	1870:24		2050:23	2010:3
apples-to	1919:14	1950:7	arithmetic	2010:3
1944:7	1921:12,16	appropriate	1985:10	2013:25
1946:18	,18 1950:8	1825:25	2034:23	2013:23
	1952:2	1876:21	2051:7	2014.2
apples-to-	1987:10	1880:8		2016:3,7,1
apples	2021:7	1885:9	arrange	0,12,16,20
1943:21	2026:15	1909:15,20	2032:9	2017:4
1962:11	2020:13	,23	arrangements	2017:4
2015:18	2043:8,17,	1910:14,25	2027:19	
applicable	2043:8,17, 20 2044:12	1911:20		2020:9
1896:25	20 2044:12 2047:15	1938:14	arrive	2038:9
1916:3		2014:14	1953:7	2041:9
1917:7	2052:24	2015:12	arrived	2042:4,6
1918:21	2077:10	2018:1,9,1	1873:2	2051:16
1922:20	applying	0 2042:7	1967:8	2052:16
1923:4	1815:10	2044:12	. 1000 00	2056:17,23
1970:12	1842:23	2047:21	art 1896:20	2057:2
2061:15	1886:5	2084:16	1897:8,12,	2058:1,12
2001.13	1931:8		17,22	2059:5
Applicant	1943:11	approval	1904:1,12,	2060:21
1945:8	1985:7	2057 : 15	17,22	2061:12,14
application	1988:10,20	approved	ASL 1891:9	,21
1810:7	1989:10	1941:19	1892:8,12	2062:2,6,1
1941:10	2017:15		1893:20,21	2,21
	2026:10	approximate	1907:23	2063:3,20
1948:11	2042:20	1889:19	1907:23	2064:4,16,
1949:14	2042:20	approximatel	21 1909:7	18,21
1953:10,12	2044.8	y 1855:8	1932 : 17	2065:17,19
2081:10	2053:5,10	—		2066:2,4,9
applications	2076:10	1900:4	1934:22	,23
1917:6		2020:22	1935:9,19	2067:16
	apportioned	2069:15	1938:5,11	2080:14,17

Serving Clients Across Canada

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2097 of	E 2162
2081:15	1839 : 10	1921 : 22	1981:10	1898:25
2082:15	1873:21	assigned	2006:18	attributed
aspect	1875 : 12	1856:3,11,	2028:12	1904:12
1948:22	1883:3,7,1	15 1926:3	assumption	2023:20
2024:9	0,15		1841:10	
2024:5	1884:20	assist	1981:6	aud 2022:25
	1889:12	1818:12	1989:24	audit
aspects	1897:20,25	1877:9	2016:13	1902:20
1991:23	1911 : 12	1902:23	2022:21	1903:5
assessing	1921 : 15	2005:16	2041:3	1993:1
1842:22	1922:10,11	2012:8		1995:10,11
	1925 : 5	2038:20	assumptions	1996:1
assessment	1927 : 21	assistance	1841:9	1997:3,7,8
1820:22	1928:11,25	1952:23	1935:13	2003:6,17
1823:4	1929 : 11	associated	2082:11	2006:25
asset	1930:17 , 20		astray	2007:5
1823:23	,25	1814:15	2015:1	di b d
1829:22	1957 : 16	1853:15	attached	audited
1830:8	1974:4	1887:15		1905:4
1835:2	1986:15,19	1889:2	1827:5,6	auditing
1885:2,12,	2002:3	1890:4,10, 16	1951:5 2067:23	1904:25
13,17	2003:1,7,1	-	2067:23	1996:21
1887:3,4	2,16	1893:20,21 1894:8	Attachment	auditor
1909:17,25	2005:5	1094:0	2001:20	1902:8,25
1911:10,11	2013:13,19	Association	attempt	1903:1
,16,18	2017:2	1815 : 19	1876:4	
1917:12,24	2021:25	1994:18	1974:22	auditors
1921:19	2024:6	1998:18,24	2072:8	1902:6,13
1925:6	2032:24	assume		1903:6,13
1926:5	2037:5	1848:10	attend	1904:5
1930:14	2038:10,12	1911:11	1881:23	1992:13,19
1931:21	2042:1	1930:21	2085:15	,21,23
1933:20	2043:9,11,	1936:2	attendance	1995:22,24
1934:1	13 2044:19	1954:2	1994:23	2006:9
2002:8	2047:4	1958:3		2022:25
2005:12	2048:11	1983:11	attended	audits
2042:17,21	2049:1	2033:19	1995:10	1905:6
2043:1	2051:5	2038:4	attention	author
2044:2,5	2052:1		1820:16	2018:13
2047:3	2053:7	assumes	1826:12	
2052:25	2054:9,20	2017:4	1833:8	availability
2053:6	2055:2,9	assuming	1852:8	1832:25
2054:4	2058:7	1814:22	1891:4	available
2055:7	2063:12	1846:3	1892:8	1814:5
2069:17	2071:13	1853 : 16	1894:4	1815:13,15
2072:6	2072:5 2075:1	1899:24	1896:16	1830:8,9
2082:14	2075:1	1910:6	1897 : 7	1831:7
2083:15	2078:1	1911:25	1899 : 1	1832:17
2084:5,9	2078:1 2083:1	1937:8,23	1907 : 8	1836:11,14
assets		1957 : 13	1908:4	1837:7,13
1823:6	asset's	1967:21,24	1924:20	1840:1,2,9
1832:19	1909:11	1968:9	2041:14	,10,24
1837:25	1910:20	1979:25	attracted	1846:16

	BA HYDRO GRA	12-19-2012	Page 2098 of	2102
1853:21	2065:7	1867 : 16	1872:10	1860:7
1854:16	2071:17	Bands	basis	1862 : 5
1856:24	2081:16	1877:7,8	1834:17	1877:14
1878 : 8	awake 1941:6	10//:/,0	1834:17	1878:3
1952 : 13	1994:10	bar	1844:13	1913:9
1983:9	1994:10	1820:18,21	1863:13	1925:10
1988:12,14	aware	1822:21,24		1931:25
,24 1989:2	2006:11,12	1855:10,18	1904:20 1916:6	1985:23
1993:8	awash	barcode		1995:5
2004:23	1899:25	1873:25	1921:16	1998:5
Avenue	1900:4,11,		1932:10 1934:2,5	2061:7
1810:21	15	barcoded	1934:2,5	behalf
1010:21		1843:20	1947:10	1913:13,25
average	away 1869:4	barcoding	1949:24	1917:5
1819:25	1998:11	1873:23	1951:2	1943:3
1822:13	awful	1000.10	1959:3	
1823:19	2058:17	bars 1822:13	1960:3	behind
1824:17,19		Bas 1834:18	1978:7	2058:17
,24	ay 2039:24	b		2060:1,18
1825:17,25		base 1880:15	1990:15	believe
1827:19	В	1911:19	2016:20	1817:4
1828:21	ba 1885:15	1957:4	2025:16	1818:7
1829:2		2019:16	2050:16	1819:17
1830:10	background	based	2063:5	1844:15
1832:12	1941:8	1821:17	bear 1865:16	1845:3
1883:10	backing	1823:3	beats 1820:9	
1892:17	2035:8	1831:12	Deals 1020:9	1850:24
1898:19		1833:15	became	1882:22
1907:21,22	backwards	1846:16	1836:1,6	1905:23
1925:19,21	1883:8,9	1861:18	1875 : 10	1909:14
1926:3,11,	baited	1871:3	1975 : 25	1925:1
13	1882:23	1872:7	1997 : 11	1938:24
1927:6,8,1		1881:17	beck 1900:2	1939:12
0,17,22	balance	1883:5	Deck 1900.2	1940:3,14
1928:19	1836:2	1884:22	become	1952:18
1929:11	1903:9	1887:1	1870:23	1960:1
1933:7,18,	1904:4	1904:5,6	1925 : 6	1984:17
24 1939:23	1909:3	1931:8	1946:3	1997:20
1941 : 17	1920:12	1951:3	2007:17	2014:21,25 2015:1,12
1970:3	2023:19	1957:4	2062:16	
1971:19 , 22	2042:15	1959:3	becomes	2018:4
1972:10,19	2059:16	1972:15	1853:7	2046:5
1983:3	2073:2	1988:2	1946:5	believed
1990:3,18	2077:7,10	1989:18	2072:8	1925:20
1992:20	ballpark	1994:6		belong
1995:15	1876 : 8	2016:24	bedtime	1873:5
1996:25	1890 : 7	2018:1	1820:8,10	
2008:7	band 1845:4	2019:8	beg 1981:18	beneficial
2010:1	1877:12,18	2029:7,10	begin 1000-0	1830:25
2014:22	1878:3,6,1	2032:4	begin 1998:2	benefit
2022:11	8	2075:22	beginning	1836:23
2042:23	8 1883:13,16	2076:11	1830 : 14	1837:23
2044:11			1852:17 , 19	1846:20
2057:6,7	banded	basic	1854:4,10	1010.20

UB - MANITOB	A HYDRO GRA	12-19-2012	Page 2099 of	2162
benefited	1944:21,24	1972:14	1916:11,12	1958:1
1968:11	1955:16	1974:21,24	1924:5,20	1959:5
benefits	1959:7	1975 : 18	1938:15	2011:11
1904:4	2036:18	1981 : 19	1939:4	2046:4
1909:1	2049:16,17	1984:1	1942:8	2047:7
1995:19	2055:2	1985:3,6	1944:7,12,	Bois-related
2009:2	billion-	1993:6	25	1886:16
	dollar	1994:16,17	1946:2,6,1	
beside	1944:3	1996:21	1 1952:16	book 1880:5
2077:19		2003:13	1959:20	1907:7
best 1815:13	binder	2004:20	1970:8	1923:12
1846:15	1882:12	2006:6,22	1993:9,10	1924:5,6,2
1861:15,18	1924:7,9,2	2007:3	2004:18	1,13
1863:23	5 1993:9	2009:12	2013:24	1927:7
1864:2,12,	2066:6	2011:24	2016:23	1940:23
18,24	binders	2015:1	2024:16	1959:20
1865:4	1882:17	2016:17	2025:1	1966:7
1868:21		2017:1	2026:9	1979:7,17
1869:2	Bipole	2018:20	2028:2,12	18
1870:15	2030:7,8	2027:15	2029:1	2010:22,24
1956:22	2082:4,19	2028:7	2031:4,20	2013:2
1976:9	2083:12,20	2029:18	2032:1	2021:18
1988:13,25	,25	2030:16	2040:23	2022:11
2084:25	bit 1819:15	2047:13,14	2058:15	2023:2
	1852:4	2049:3,13	2063:5	2024:18
better	1853:6,7	2052:21	2085:6,7,9	2025:4,10
1837:1,2,1	1854:6	2054:20	2086:2	2038:25
2 1838:3,4	1856:9	2069:3	boards	2041:14
1846:10	1857:13	2076:2	1916:22	2044:5
1889:11	1866:8	black		2050:19
1890:6	1871:4	1820:20	Board's	2053:8
1910:23	1881:6	1820:20	1942:22	2057:22
1914:14	1892:2	1022:13	Bob 1811:2	2060:15
1917:23	1898:12	blind	1818:7	2079:7
1929:19	1899:15	1822:18	1882:9	booked
1984:1	1906:18	blocks	1909:12	1883:5,11
2008:24	1910:19	1981:11	2030:25	1886:20
2022:23	1910:19		2085:20	1891:18
2054:17,20	1912:13	blue 1819:15		1892:3,13
2084:1	1917:4	1924:8	Bois 1814:9	22
beyond	1918:10,13	blunt	1878:10,20	1917:14,10
1870:20	1919:9	2009:11,23	1880:4	1944:20
2017:7,8	1928:3		1882:24	1990:4
2076:3	1929:19	board	1883:3,15	2023:8
	1932:6,12	1810:3,13,	1884:4,16	2023:8
big-site-	1937:1	14,15,16,2	1885:2,17,	
type	1942:15	0 1811:2	18,20	booking
2003:12	1945:1,8	1838:9	1886:8,12	2028:8
bill 2019:24	1947:22	1878:4	1887:15,20	2042:14
	1947:22	1892:10	1888:6,16,	2059:12
billion	1952:2	1902:12	25 1889 : 3	books
1865:21	1953:9	1913:2,18	1917 : 13	1997:16
	1 1 2	1014.14	10000	- J J I U
1911:12,13 1943:25	1970:7	1914:14 1915:2	1926:6	2009:16

2 Page 2100 of 2162

	A HIDRO GRA	12-19-2012	Page 2100 OI	2 + 0 2
boring	breakdown	1993:15	1989:12,13	Byron 1811:7
1994:10	1986:22	1994:3,22	2048:10	1812:12
borrow	breaking	1999:16	2084:9	1818:9,21
2029:18	1933:4	2001:4,15	brought	1819:5,6
	2052:3	2003:21	1872:23	1820:5,9,1
bottom		2004:3	2074:11	4 1821:22
1829:15	breakout	2007:21	husha	1822:7,12,
1840:19	2006:10	2011:1	bucks 1829:10	19,22,25
1841:15 1852:18	breath	2012:17,25	1829:10	1823:21
1908:5	1882:23	2013:4,15	budget	1824:4,14,
1908:5	Bridges	2014:5	1976:7	22
1924:24,25	2006:1	2015:21	build 1874:1	1825:3,10,
1962:19		2030:12	1899:5,7	14,22
2035:10	brief 1825:8	2039:8 2041:11	1928:22	1826:5,9,2
2036:20,21	1826:18	2041:11 2045:8	1954:13	1 1827:3,11,
2041:2	1832:5	2045:8	1956:24	15,22
2067:1,10	1834:5	2048:18		1828:2,6,9
2068:9	1845:16	2051:10	building	,12,13,19,
	1846:1	2053:22	1919:6,9,2	,12,13,19, 24
bought	1851:13	2065:25	3 1956:8	1829:5,9,1
1845:6	1858:6	2066:12	2035:11	8,25
1874:22,25	1865:13	2067:7,18,	2043:2	1830:6
1887:3	1866:24	25 2073:9	buildings	1831:4,19
1918:25	1878:25	2075:6,11	1956:5,7	1832:7
brackets	1879:7 1884:8	2076:18	2034:14	1833:7,22
1961:15	1889:5	2077:1	builds	1834:7
brand 1845:4	1891:1	2080:6	2025:25	1838:10,20
1956:9	1893:3	2082:7		1839:16,23
	1894:21	2083:8	built	1840:14,15
brands	1905:20	2085:18	1853:16	1841:7,13,
1845:7	1912:3	briefly	Bulletin	19,23
break	1914:11,24	1928:16	2018:15	1842:3,7,1
1860:19	1915:6,16	1920:10	bump 2023:25	2
1876:21	1918:1	bring	-	1843:6,10,
1879:10,17	1924:16	1871 : 22	bunch	18
,21 1880:9	1926:21	1917:1	1997:24	1844:1,8,1
1882:10	1927:1	1961:20	burden	2,22
1883:1	1932:3	2034:10	2010:13	1845:11,14
1891 : 15	1943:6	2060:9	business	,18 1846:3
1912:24	1946:22	2077:11	1905:4	1847:14,25
1927:13	1951:8	bringing	1996:4	1848:8,18
1938:15	1952:17	2028:3	2006:16	1849:1,20
1942:22,24	1964:17	brings	2007:4	1850:21
1952:10,17	1965:1	1960:25	2085:15	1851:6,16,
1972:5	1966:19	2021:17		22
2027:7	1968:22		buy 1885:4,6	1852:3,14,
2028:11	1971 : 15	broader	buying	22
2030:19	1972:24	1871:23	1885:12	1853:13,20
2031:1	1974:10,16	broadly	buys 1885:2	1854:2,9,1
2032:15	1975:7	1917:6	_	5,22
2047:6	1987:6,22		byproduct	1855:2,7,1
2058:16	1991:4,11	broken	2026:22	5,20
		1964:12		1856:2,13,

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB -	MANITOBA	A HYDRO GRA	12-19-2012	Page 2101 of	2162
20		2	1949:24	2059:15	1900:19 , 22
185	8:8,24		1951:19	2063:10	1923:2
185	9:4,13,	C	1952:2	2070:17	1994:18
24	1860:18	ca 1901:13	1963:20,25	2076:6	1998:17 , 23
186	3:21	Ca 1901:13	1964:21,24	2080:18	capital
186	4:15	cabinets	1965:8,23	2083:2	1832:25
186	5:6,15,	1835:1	1970 : 16	2084:5	
24		CAC 1811:7	1977:22,24	calculations	1857:6,22 1873:18,20
186	6:6,14,	1813:5	1979:11,22		1874:23
17			2029:15	1814:18,22	1875:11,12
186	7:1,7	1818:13,15	2042:23	1899:4 1901:25	1920:22
186	8:19	,17 1819:14	calculating		
186	9:3		—	1904:6	2013:13,23
187	6:11,25	1826:15,23	1920 : 16	1932:12	2014:12,15
187	7:1,5	1828:4	calculation	1933:6,16,	2015:3,7,9
	8:9,17	1829:12,14	1815 : 9	24 1934:24	,13
	9:3,19,	1831:21	1823:3	1937:6,8,1	capitalizati
	1880:7	1840:17 1841:14	1827:23	8,23 1942:19	on 1857:5
188	2:21,22	1841:14	1829:6		1875 : 19
188	3:18,23	1848:1 1851:9	1862:18	1943:24 1946:9	capitalize
188	4:2,10	1865:11	1887 : 18	1948:7	1875:16
188	6:11	1877:2	1894:9	1948:7	
188	7:13	1879:5	1905:11	1953:14	capitalized
188	8:3,23,	1891:3	1920 : 17	1963:25	1857:7 , 22
24		1892:10	1934:3	1970:25	1875 : 21
188	9:10,18	1894:5	1938:5	1976:14	1886:23
189	0:1,9,2	1896:5	1942:9	1979:3,8,1	captures
0,2	1	1898:9	1946:5	8 1981:11	1937:9
189	1:3,12,	1905:16	1949:3	1984:3,14	
25		1907:8	1950:18,21	1986:3	car
	2:7,20	1908:4	1961:20	1987:17	1884:24,25
	3:12,18	1915:3,4	1962:17,18	1990:24	1885:1,5,6
	4:1,7,1		1963:5,11,	1991:8	cards
4,2		CAC-6	13	2018:25	1835:2,9
	5:3,19	1826:10	1964:6,7	2029:23,24	care 2007:24
	6:3,8,1	CAC-7 1813:5	1965:13	2030:2	
5		1818:17	1966:12,25	2036:1,4	careful
	7:5,21	1831:20	1970:14,21	2042:2	1985:3,7
	8:4,22	calculate	1971:1	2043:6	2025:17
	9:13,23	1966:3	1977:13 1979:24	2047:24	carried
	0:18	2043:9	1979:24 1980:4	2081:25	2078:2
	1:3	2044:6	1982:4,23	Calgary	carry
	2:2,22		1984:7	2028:3	1983:14
	4:9	calculated	1984:7	2028:3	1903:14
	5:15,22	1824:24	21 1987:20	2003:2	carrying
	6:3	1837:19	1988:10,19	CA-MLH	1997:13,14
	7:6,12,	1891:19	1990:3	2039:11	case 1823:10
23	8.3 10	1892:3,14,	2008:12	Canada	1832:20
	8:3,10,	23 1894:16	2008:12	1871:15	1858:19
19	0.5.24	1907:17	2013:10	2006:12,19	1863:4
	9:5,24	1908:7	2029:8	2007:11	1867:13,14
	1:7,22	1923:3	2043:24		1868:16
191	2:5,9,1	1941:16	2043:24	Canadian	1874:9
		1944:21	2044:17,19	1815:18	±0,1.0

PUB - N	ANITOBA	HYDRO GRA	12-19-2012	Page 2102 o:	£ 2162
1903		1897 : 7	certified	1938:16,23	changes
	:15,16	cause	1905:1	1940:18	1896 : 20
1926	:16	2056:23	2086:11	1949:22	1897:8,11,
1929	:6		certitude	1952:24	13,14,18,1
1942	:13	caused	1844:5	2016:17,25	9,22
1950	:4	1857:3	1044.5	2027:6	1924:1,2
1954	:21	1880:16	cetera	2028:10,17	1926:5
1983	:13	2056:17,24	1830:4	,24	1972:10,18
1987	:10	causes	1852:1	2030:20	1976:23
1991	:14	1859 : 5	1875 : 17	2031:19	1981:1
2039	:17	1896:23	1956:7,14	2066:6	1994:1
2046	:19	1910:20	1965:20	2084:19	2025:15
2047	:1	2072:24	2022:13	2085:14	2026:9
2052	:18		2063:12	2086:4	2072:24
2058	:13	causing	CFO 2051:22	challenge	changing
2060	:2	1850:8,19		1835:20	1858:21
2071		caution	Chair 1817:8	2028:1	1981:23
2084	:24	1859 : 6	1818:22		2013:25
cases	1841.3	1864:16	1865:8,25	challenged	
	1011.0	CEF 2016:18	1869:20	2047:22	characteriza
catch		2017:4	1876:11	2085:9	tion
2058	:17	2017:4	1880:8	challenges	1904:14
catego	ries	cement	1890:22	1839:4	characterize
-	:9,10	2050:4	1902:12	1840:23	1913:24
1992		certain	Chairman	2006:9,18	
2002	:8	1820:1	1810:14	2071:12	characterizi
2003	:24	1868:5	1872:13	-h	ng 1899:18
2006	:3	1884:23	1882:10	chance	charged
2024	:2	1887:7	1932:22	1883:1	1875:12
2033	:14	1895:8,9	1934:15	change	- 1
2034	:16	1896:17	1938:13	1846:14,17	chart 2003:4
2035	:4,11	1917:14	1939:2	1871 : 11	2022:10
2048	:11,20	1920:19	1940:21	1872 : 10	chartered
2049		1954:1	1952:15	1901:18	1914:4
2053	:20,23	1966:9	1958:24	1902:1	chatted
		1969:6	2030:25	1917:4	1928:15
catego		1981:7	2085:21	1926:2,4	1995:3
on 1	992:4	2024:2	CHAIRPERSON	1927:11	2008:6
catego	rizing	2044:19	1817:3	1932:16	2010:4
2050	:9	2073:7	1818:2,6	1953:22	
catego	rv		1869:6,13	1967:21	check 1824:5
1856		certainly	1871:25	1989:24	1827:4
1925		1834:11	1873:12,22	2020:10	1829:19,22
1925		1849:1	1875:22	2027:18	1848:3,5
2034		1895:13	1879:1	2064:21	1866:7,10,
	.) :7,17	1898:23	1880:10,21	2071:14	21
2045		1904:3	,24	changed	1878:11,14
2050		1946:2,14	1881:21	1875:19	1887:8
	:13,16	2081:24	1882:4,18	1973:3	1891:6,15
		Certainty	1912:18	1980:14	1896:10
caucus	-	1844:10	1924:10	2041:8	1901:18
2075	:19	Certificate	1932:14	2072:20	1948:19
caught		1812:15	1936:1	2080:22	1978:9,11
		TOTC.TO			2034:21

PUB - MANIT	OBA HYDRO GRA	12-19-2012	Page 2103 of	E 2162
2048:9,14	1885:10	1967:12,17	1893 : 6	1971 : 22
2051:7	1901:13	1980:7	1950:9,19	1973:17
2055:9,13	1909:21	2001:13	1955:16	1976:19
checking	1911:21	2013:22	2055:1	1981:20
1901:15	1916:2	clarifies	2063:7	2068:19
	1945:19	1931:13	closely	com 1893:7
cheek 2007:3	1979.23	clarify	1874:12,19	1980:16
chemical	1990:22 2040:24	1876:20	2060:11	1992:14
1821:6	2040:24	1880:2	closer	2003:1
Cheryl	2046:15,24	1887:19	1885:21,25	2058:5
2086:16	2047:5	1914:3	1944:3	combination
choice	2052:23	1957 : 9	2051:14	1964:5
1835:8	2053:2	1986:17	closure	combine
	2058:18,25	2060:20	2014:20	1877:18
choices	2059:1	2081:2		
1835:15	2060:5	clarity	CMA 1914:4	combines
choose	2065:17	1814:12	co 1874:15	1893:19
1953:20	2082:19	1888:9,20	2074:6	comen 1992:5
chooses	circumstance	1985:14	coincide	comes
2085:21	s 1831:16	classes	1874:13	1837 : 15
chose	1846:14	1876 : 6	colleague	1861:22
1906:10	1850:18	clean	2057:3	1863 : 16
2010:3	1856:17	1830:15		1870 : 11
2045:15,19	1904:8		colleagues	1948:12
chosen	1909:20 1910:25	clean-up	1889:7 1985:17	1950:9
1849:17	1910:25	1983:11	2007:12	1955:17
1930:4	2010:13	1984:5	2016:1	2019:21 2086:2
Christmas	2056:20	clear	2028:6	
1942:22	2059:11	1834:12	2055:11	comfortable
1942:22	2060:16	1857:8	2075:19	1896:1
	2063:22	1860:4	collect	coming
chronology	2064:23	1874:21 1914:3	2071:8	1873 : 1
1993:21	2082:22,23	1914:3		1985:12
chunk	cited	1943:9	collected	2012:9
2013:18	1819:24	1992:25	1843:2	commencing
Churchill	1914:17,18		collecting	1817:1
1955:11	City 1811:16	clearly 1910:7	1842:17	comment
1958:4	1895:15,16		1868:11	1992:18
circa		client	colour	
1838:14	civil	1846:9	1820:11	comments
	1881:18 1925:11	1852:15	1822:18	1909:25 1951:25
circled	1926:16	1877:9	1824:16	2077:6
1833:13	1928:10,11	1902:4,23	column	
1896:20 1962:13	2005:5	clients	1823:19	commission
1962:13		1995:23	1860:6	1896:25
1979:13	clarificatio	1998:10	1862:4,5	1906:7
	n 1856:10 1869:7	2050:10	1877:14	1913:19 1915:22
circumstance	1869:7	close	1928:6	2003:4
1857:18 1869:22	1953:9,16	1869:9,10	1962:12	
1009.22		1892:25	1969:24	commitment

PUR	_	MANTTORA	HYDRO	GRA	12-19-2012
EOD		MANIIODA		GIVA	$\perp 2 \perp 2 \perp 2 \perp 2 \perp 2$

Page 2104 of 2162

		A HIDRO GRA	12-19-2012	Page 2104 0.	
208	4:20	1830:16,24	1870:3	2010:17	2000:6,11,
		1831:3	1889:20,23	2037:23	21,24
commo	-	1837:8,24	1908:15,20	2048:6	2002:7,15,
184	7:11	1883:6	1909:7		24
commo	n	1884:20,23	1980:17	completion	2003:9,19,
183	4:15	1885:2,10	2049:16	1976:3	24 2007:6
	9:16,18	1886:7	2051:16	2032:9	2009:25
	6:20	1905:1	2058:1	2084:17	2011:20
	4:10	1911:1	2062:12	complex	2012:2,14
		1916:16,17	2063:20	1853:8	2032:21
commo	-	1921:6,10,	2003:20		2032:21
	9:16	11 1941:19		compliance	2037:19
	6:17	1952:1	comparing	1902:9	2038:18
208	4:11	1953:7	1966:14	1903:21	2051:20,24
commu	nicated	1975:19,21	2061:11,21	complicated	2051:20,24
200	7:18	,25	2062:1	1932:6,12	2059:5
		,23 1977:17	comparison	1935:15	2062:21
	nicatio	1977:17	1850:9	1957:19	2062:21
	906:7	2000:22,24	1908:6	1958:2	2063:3
203	34:9,17		1935:19		
commu	nities	2009:9,11, 22,24	1938:8,12	complicates	componentize
195	5:15	•	1943:21,22	1919:8	d 1980:17
		2010:7,11	,23	complication	1987 : 16
commu	-	2014:21,23	1944:2,8	2025:13	2003:2
	5:19	2019:15	1944:2,8		2012:5,6
	6:1,22	2020:2	,19	complication	2034:21
	7:3,8	2030:1	,19 1957:15	s 2020:11	
	3:6,17	2042:18	1957:15	complies	components
	6:25	2049:14	1962:11	1898:15	1836:17
	7:5	2057:6			1893:8
	57 : 3	2060:4,9	1978:19	compliments	1925:13
208	5 : 7	2065:6	2014:2	2084:25	1926:16
como	1927:19	2076:1	2015:18	2085:5	1986:23
203	2:21	2084:8	2053:12	comply	1989:12,13
	58 : 5	company's	comparisons	1905:12	2018:5
		1830:18	1938:11		2022:2
comp	2022:1	1905:4	1975 : 10	component	2037:15,16
compa	nies	1918:19	compensation	1962:14	2063:2
182	4:9	1990:1	1954:20	1999:12	composite
183	5:6,15		1955:14	2000:17	1925 : 20
190	6:1	compar	1955.14	2012:12	1932:8
191	6:19	1992:5	1957:14	2017:14	1981 : 10
191	7:5	comparable	complete	2062:15	2069:10
	8:16	2021:13,15	1974:25	componentali	
	1:14,16		1977:12	ze 1992:14	composition
	2:14	compare	2047:17		1821:7
	3:2,22	1838:2	2085:12	componentiza	1897:20
	5:12	1936:9	completed	tion	compression
	2:25	1946:4	1836:8	1815:21	2003:13
	3:6	1951:11	1836:8	1836:16	
	6:19,24	1957:10		1927:20,21	comprise
	7:19	2055:25	1974:24	1987:1	1847:21
		compared	1976:6	1989:24	comprising
compa	-	1846:21	1982:10	1990:16,21	1822:8
182	4:10	1864:20	2002:5	1992:5,9	
182	24:10		2002:5	1992:5,9	

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB -	MANITOBA	A HYDRO GRA	12-19-2012	Page 2105 of	E 2162
compr	comise	1917:1	1 1832:9	1946:6	1815:7
194	5:2	2053:1	1834:2	confusion	1958:12,21
201	8:20	concepts	1838:16	1861:22	constructing
203	31 : 15	1941:23	1840:22	1941:22	1957:11
compr	comised		conductor's		
-	8:24	conceptually	1841:6	conjunction	construction
	+ -	1963:10	conference	1990:19	1908:13
compu		concern	1994:17	cons 1910:19	1954:4 1956:6
	4:6 6:4,9	1898:6	1995:17	2009:3	1958:5
	87:19	2075:14,16		conservative	1959:2
	39:14	2076:8	confidence	1869:16	1982:10
	0:2,11	concerned	1844:13,14		1983:13
	5:22	2027:7	1846:5	consider	
	9:13		1847:2	1998:14	consult
	0:7,12,	conclude 2063:16	confident	2031:5	1904:7
	1851:4	2063:16	1846:11	2052:5	consultant
		conclusion	1905:12	2067:23 2072:14	2038:5
compu		2058:11	confirm		consulted
	.6:4	2060:8	1838:5	considerable	2039:17
	9:20	2063:17	1851:4	1943:13	
-	9:2 6:22	conclusions	1864:23	consideratio	consulting
	58:13,17	1831:9	1878:4,23	n 1871:7	1898:5
	0:13,17	1850:25	1887:9	1896:18	1902:25
	1:9,14,	2059:18	1907:18	2082:18	1903:3
	2072:17	concrete	1940:21	2083:23	consumers
	3:3,16,	1926:6	1941:9	considered	1967 : 25
19	5.57107		1945:2,5,1	1831:2	consumption
-	8:13,20	condition	1	1927:22	1920:10
		1829:22	1950:14,22	2046:3	2041:25
-	iterizat	1830:8	1960:12	2040:3	
ion		1842:23	1991:7		Con't 1815:1
18/	2:19	1883:10	2037:22	consistent	1816:1
compu	iterized	1887:2	2038:4,8	1817:20	contains
183	34 : 14	2050:8	2039:5	1831:15	2073:19
183	5:14	conduct	2040:3	1901:9	contemplatin
compu	iters	1902:8,13	2048:9	1915:10	g 2065:8
-	8:6	conducted	2073:7	1916:6 1978:7	-
	9:12	1907:19	2078:4	2002:13	contentious
	3:13	2062:19	confirmed	2040:17	2057:1
compu	ting		1943:11	2053:8	CONTENTS
-	4:14	conductor	1960:14		1812:1
		1825:15 1828:16	1991:16	consolidated	contested
	.831:1	1828:16	confirming	2013:7	1995:25
	30:22	1839:8	1940:25	consolidatio	2057:7,9
	54:4	1840:25	1969:7,14	n 2052:5	
	3:13	1841:4,9	2015:24	constant	context
205	51:3		confused	1933:7	1909:16
Conaw	apa	conductors	2016:18		1910:12
202	9:16	1820:2	2016:18 2029:18	constitutes	1912:1
203	30 : 5	1825:5,16		2051:4	1917:5
conce	pt	1826:1	confusing	constructed	1918:18 2042:11
	-	1830:3,4,1			2042:11

UB - MANITOB	A HYDRO GRA	12-19-2012	Page 2106 of	£ 2162
contexts	contracts	1840:19	1884:5	1973:9,10,
1914:16	1939:9	1841:16	1891:11	15 1974:4
continue	contrary	1851:10	1892:6,11,	1976:24,25
1868:14	1938:6	1854:4,25	16 1893:24	1977:4,5,8
1954:2		1865 : 18	1894:12	,9,14,15
1977:2	contrast	1879 : 4	1895 : 23	1978:1,2,9
1994:20	1917:10	1896:9	1899:24	,15,16,20,
1996:24	1918:23	1924:22,25	1906:9,14	21,25
2017:10	1920:1	2067:10	1908:1,9,1	
2027:17,23	1933:18	2068:9	1	,8,14,15,1
,24	1974:7	corporate	1913:22,24	
2028:13	contrasted	1858:14	1914:5,21,	1980:11,15
	1919:12		22	,17,18
continued		Corporation	1917:16,24	
1812:12	<pre>contrasting 1920:7</pre>	1832:10	1919:5 , 18	6,17
1819:5	1920:7	2064:23	1920:3	1982:11,24
1828:12	contribute	Corporation'	1925:7,8,1	
1840:14	1958:5	s	4,15,23,24	
1871:10	control	1907:9,16	1926:6,7	1986:7,9,1
1876:25	1948:20	correct	1927:24	6
1879:19			1928:1	1987:2,3,1
1882:21	controls	1823:8	1929:25	1,12
1888:23	1915:10,14	1825:21	1930:2,8	1988:14
1890:20	controversy	1826:8	1932:1	1989:6
1924:18	2053:3	1827:6,10,	1941:11,20	1990:7
1938:2		13,14,17,2 0	,25 1942:1	1991:1,15,
1941:3	conversation	1828:1,18,	1944:14	17,21
1945:25	1865:20	23	1954:20	1994:13
1953:3	1891:21	1829:3,4,6	1960:21,22	2007:7
1959:18	1895:6	1830:11	,23	2011:12,16
1991:6 1993:17	conversation	1832:14	1961:4,11,	,17,22
1993:17	s 1989:8	1840:20	12,15,22	2012:10,22
2000:14	2010:8	1841:2	1962:4,7,8 ,14,15,24	,23 2013:13
2029:4	conversion	1842:13	,14,15,24 1963:15	2013:13
2029:4	1910:19	1848:6	1963:15	2014:8 2016:7,11
2032:10	1911:2	1849:4	,21	2018:8,17,
2040:12		1851:1,21	1965:5,6,9	18,21
2041:1	convoluted	1852:2,9,1	,10,14,16,	2021:9
2052:8,21	2025:6	3,21,23	20,21,24,2	2022:4,6,2
2061:19	cooperation	1853:5,18	5	1 2023:25
2065:14	2033:12	1854:1,8,1	1966:7,8,1	2029:8
2066:19	1000-7	8,21	5	2023:14,15
2068:7	copy 1998:7	1855:6	1967:4,5,1	,18,20,23
2073:22	2079:8	1856:3,21	0,11,19,20	2034:7
2079:3	cor 1899:24	1859:7	1968:1,14,	2035:12,20
	core 1900:6	1864:5	20	,24
continues	2027:4	1865 : 23	1969:4,12,	2036:4,5,9
1816:7		1866:1,5	19,21,25	,10 2037:8
2041:19	Cormie	1867:8	1970:6,17	2038:2,13
2078:15,24	2026:18	1875:5,6	1971:1,5,2	2039:15
2079:22,25	corner	1878:16	5	2040:8,17,
continuing	1826:16	1879:16	1972:1,7,2	2010.0,17,
1976:2	1829:15	1883:25	2	2041:4,9

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2107 of	£ 2162
204	12:10	1916:6	2035:6,16	2075:15	1886:1,5,1
204	13:1	1920:22	counterparti	cross-	0 1928:24
204	4:20,21	1921:22	es 1939:10	examinatio	1929:7,8,9
204	15:16,20	1923:10,15		n	,17
,21		1925:5,6	counting	 1812:12,13	1930 : 18
	16:7 , 13	1926:10	2033:24	1819:5	1931:2,3,4
204	19:6,7,1	1943:16	couple	1905:24	,7,24,25
1		1949:21	1819:10	1912:22	1933 : 13
	50:2,14,	1954:15	1846:19	2032:9	1961:8,22,
22		1955:12,21	1850:18	2085:12	24
	52:11,12	1956:19	1857:3		1967:9,14
	55:4	1959:1,3,6	1883:18	cru 1909:8	1977:7,8
	57:13	,7,12	1885:3	current	1980:2
	58:12	1965:19	1899:14	1841:20	2045:15,19
	50:22,23	1973:7	1908:2,17	1843:11	2046:21
	51:7,9,1	1976:2	2005:9	1883:5	curve-
7,2	52:2,3,6	1977:22 1986:4	2007:16	1885:21	fitting
			2015:6	1903:13	1863:24
, 7 ,	53 : 3	2009:15 2056:9,17	2017:24	1905:9	1864:1,3
	59:6,24	2068:17	2025:1	1940:10	curves
	70:2,20,	2000.17	2027:22	1944:12	1826:25
20		cost-	2062:18	1989:10	1828:16
	71:4,11	effective	coupled	1990:16	1851:19
	2:13	1976:9	1831:5	2002:6	1854:24
	3:25	costs		2016:22	1855:5
	74:2,7,1	1873:8,13,	course	2040:15	1867:4
	2081:6	20 1875:20	1859:5 1872:13	2041:16	1870:24
	36:11	1876:3	1901:6	2042:3	1891:9
		1943:13	1902:21	2074:4	1899:7,20
	S3:23	1953:24	1903:14	2075:22	1928:19,20
196	53:23	1954:10,14	1919:7	currently	,22
corre	ection	1955:6,18,	1943:10	1941:18	2022:13
197	70 : 11	24 1956:13	2015:6	1942:10	customer
corre	ections	1957 : 10	2021:12	1944:18	2019:24
	94:1	1959:16	2061:3	2032:22	
		1984:5	2082:13	curve	customers
	ectly	1995:8	covered	1827:8,25	1824:11,13
	58:25 50:20	1997:1	2005:2	1828:21	2025:17
	30:20 30:4	2021:19,23		1852 : 6	cut 2010:22
		2026:13	crack	1860:12,16	cute 1849:9
	esponden	2036:19	1880:19	,17,22	
	1891 : 7	2049:11	creating	1861:20,23	cutoff
203	32:14	2082:13	2051:23	1862:1,15	1930:4
corre	espondin	counsel	credit	1863 : 19	cutting
g	-	1811:2		1864:7,13	1930:6
_	36:12,15	2031:2	1873:4	1868:1	CV 1913:11
		count	criteria	1869:8,10,	1914:3
	1872:16	2034:18	2026:8,10,	16,22	1914:3
	73:7,9	2058:8	14	1870:3,10,	
	75:11,16		cross	12,14	cycle
	1876:9	counted	1890:23	1871:1,3,1	1902:20
	35:10	2033:17,20		1 1885:22	
191	5:12				

JB - MANITOB	A HYDRO GRA	12-19-2012	Page 2108 of	2162
	1854 : 16	2062:20	1881:8	2017:9
D	1856 : 24	2080:3	1913:21	deficiencie
D-01 2050:23	1857 : 14	dated 1813:6	2013:12	2016:9
dam 1955:8	1858:4,13	1818:14,18	decades	
1959:4	1859:5	2067:22	2024:15	deficient
2005:21	1860:2	4		1873 : 20
	1861:10	dates	December	define
dams 1865:9	1864:19	1840:23,24	1810:23	1911:15,1
1881:7,14	1867:17,21	1883:20	1813:6	defined
2005:6	1872:7	2014:20	1815:18	1820:23
2050:18,22	1879:23,25	2039:24	1818:14,18	
2056:7	1880:3	daughter	1940:13	Definite
dams/dikes	1967 : 15	2083:14	1994:18,24	1881:1
2055:25	database	day 1922:14	1998:17,22 2039:22	definitely
darn 1950:18	1837:1,14	1923:7	2069:11	1830:16,2
darn 1950:10	1842 : 9	1959:12	2069:11	1831:10
DARREN	1843:4,5,8	1975:21	decent	1832:21
1812:8	,11	1980:1,6	1952:6	1833:5
1819:1	1846:24	2009:20	decide	1847:19
1902:11	1883 : 2	2010:5,10	2031:13	1864:22
1903:7	1949:4	2047:21		1868:17
1925:8	databases	2057:5	decided	1870:25
1968:20	1837:10	2084:23	1977:17	1877:11
1996:3,6	1838:6	2085:16	2045:15	1881:3,12
1999:4			decimal	13,14
2021:10	1887:23	days 1817:11	1862:10	1908:16
2024:8	1947:20	1841:24		1910:2
2026:8	1949:4	1842:3	decision	1918:16
2080:15,23	date 1814:20	1875 : 7	1819:25	1923:21
2081:1,7,2	1844:25	2005:9	1975:10	1945:12
0	1874:13	2032:7	1976:1	1949:10
De maral	1878:18,20	deadline	2007:18	1952:6,12
Darryl	1880:5	1976:5,7	2017:19	1955:17
2001:19	1883:7,12,	19/0:5,/	decisions	1969:21
data 1814:4	17 1884:22	deal 1909:3	1975:23	1989:21
1820:24	1885:5,19,	1916:20	2019:16	
1821:25	20	1984:21		2046:7 2063:8
1827:5	1886:5,10	2023:11	decline	2005:0
1835:10,17	1928:23	2032:13,15	1852:23,24	definition
1836:13,14	1929:15	2056:14	1853:9	1842:5
,20,25	1930:4	dealing	1906:5	1859:14
1837:6,13,	1931:16	1921:17	declining	1896:23,2
16,18	1937:7,21	1954:18	1910:17	1897:4,9
1838:1,3,4	1955:16	2027:20	1981:23	7 1911:1
,17,23	1960:25	2027.20		1914:18,
1839:11,19	1971:21	deals	Deer 1895:15	1915:9,1
1840:1,8	1972:3,11	1995:13	defer	19 1916 : :
1841:5	1983:5,22	dealt	2017:10,13	1917:22
1849:6,23	1988:2	2076:13	,15	1918:4,1
1850:1,3,4	2008:1			21
,23	2012:1	debate	deferral	1920:2,5
1851:24	2012:1	1995:18	1997:15	1922:3
1853:21	2024:19	decade	deferred	1923:4,5
	2024.10		1875:15	,

UB - MANITOB	A HYDRO GRA	12-19-2012	Page 2109 of	E 2162
, 8	1931:23	1945:16 , 17	2072:20	1814:18,21
definitional	1983:2	,21,23	2073:2	1830:23
1898:3	2008:20	1946:7,9,1	2074:9,25	1910:24
	2012:21	2,20	2075:3	1937:4,6,8
definitions	2014:15	1949:3	2076:11,23	,17,22
1914:17	2021:24	1951:2,19	2079:13,15	1942:18
1918:23	2071:19	1962:2,20	,21,23	1948:11
1922:4,6	2072:3	1963:15,17	2081:16	1992:22
1923:19	depreciating	,19	2083:5,15,	1993:2
degree	2071:22	1964:1,21	20 2084:18	details
1844:13		1965:23	derecognitio	1815:8
1845:21	depreciation	1966:3,7,1	n 1997:1	1974:1
1858:19	1823:13	4	2022:7	1981:15
1901:21	1833:15	1967:1,19		1988:10,18
	1835:21	1972:5,18	deriving	2033:3
degrees	1846:7	1979:11,24	1899:20	2058:5
1900:8	1847:12,16	1982:19	desc 1911:15	
1901:1	1848:13	1984:11		determinatio
delayed	1849:24	1991:21,23	describe	n 1825:24
2041:1	1891:19,20	,24	1844:23	1918:5
4	1892:3,4,1	1994:10	1847 : 15	1920:8
demean	4,15,23,24	1996:18	1899:19	2019:6
1847:18	1896:18	1999:12,23	1981:19	determine
demographics	1897:4,23	2000:16	2018:22	1816:3
1840:20	1899:5,17	2002:2	described	1844:24
dama 1 dah	1901:5	2008:19	1874:12	1863:17
demolish	1902:9,14	2009:13,20	2058:10	1873:4
1955:22	1903:20	2010:15		1916:15
demolishing	1904:1,13	2012:8,9	describing	1917:12
1956:14	1906:11	2018:13	1909:14	1935:22
1957:16	1907:17	2019:6,18,	Description	1953:14
demonstrated	1908:6,11,	22 2020:25	1813:2	2031:18
2020:17	14,25	2022:15	1814:2	
2020:17	1909:23	2023:3,18	1815:2	2046:22
Denise	1914:15,20	2024:4	1816:2	2078:12,1
1811:16	1915:9	2036:12,15		determined
departure	1916:4,15	2037:23	designation	1953 : 11
2011:9	1918:6,16,	2038:1	1914:8	2007:17
2011:9	20 1919:15	2041:17,24	desktop	dotomining
dependant	1920:2,3,5	2042:17,19	2073:4	determining
1967:14	,15,18,20	2043:6,18,		1840:23
depends	1921:5,18	24 2044:1	desktops	1978:24
1992:23	1922:16	2046:11	2073:14	1992:3
2035:19	1923:2,9,1	2047:24	detail	develop
2062:18	2,13	2053:7,11,	1834:9	1830:17
2002:10	1931:24,25	25 2056:10	1867:3	1835:24
depr 1892:4	1933:1,2,1	2058:1,21	1899:12	1837:9
depre	5,21	2059:20	1960:10	1839 : 10
1951:19	1934:13,21	2060:5,13	2006:22	1933:14
	1935:7,10	2060:5,15	2011:8,20	2032:12
deprecia	1936:3,8,1	2061:1,3,6 2062:15	2046:2,11	2043:20
1933:15	0 1943:22		2047:10,14	2082:21
depreciated	1944:1,2,2	2063:19		2083:24
1919:1,23	0,21	2065:23	detailed	
1)1)·1/20	U, Z I	2070:18		developed

PUB -	MANITOBA	A HYDRO GRA	12-19-2012	Page 2110 of	2162
1827	7:19	2065:7,20	2075:23	2063:8	displays
1828	3:21	2066:4	2081:25	directly	1877 : 25
1829	9:2	2082:16	differential	2023:20	dissimilar
1830	0:14	differences	1948:2	2023:20	2003:3
1833	3:19	1861:21	1949:9,10		
1834	4:13	1921:23		disagreement	distinction
1835	5:23	1946:7	differently	2006:25	1860:20
1838	B:6		1916:15	disclosure	1861:24
1871	1:3	different	2060:4	1922:15,18	distinguish
1900	0:13	1823:23,24	difficult		1863:25
2083	3:4	1824:1,7	1823:2	discovered	
develo	oping	1826:14	1839:10	1872:2,8	distributed
	D:10	1847:4	1958:7	discuss	1817:7
1842		1850:15,16	2025:6	1918:15	distributing
	4:12	1856:18	2059:17	diamaaad	1920:21
		1858:22		discussed	
	opment	1876:5	difficulty	1831:18	distribution
	0:24	1885:13	1971:8	1856:17	1820:1
1955	5:12	1898:1	Digest	1872:17	1823:6,17
1990	5 : 5	1914:16	1861:4	1891:18	1829:22
2000	5:16	1915:10,14	1928:17	1894:3	1830:7
2008	3:4	1916:25		1908:1	1831 : 16
device		1917:18	dikes	2012:1	1832:22
	3:16	1920:17	1865:10	2035:23	1839:3,13
	3:16	1921:2,7,2	2050:18,22	2085:25	1840:21
		1	2056:8	discussing	1848:20
2073	3:15	1922:8,9,1	diminish	1898:12	1849:3
devote	e	3 1923:19	1971:23		1881:14,19
1898	3:11	1926:2,3,8		discussion	1889:2,14
die 1	968:10	,9,12,13	dire 2058:22	1818:13	1892:24
ure 1	00.10	1931:7	direct	1819:21	1893:8,13,
diffe	r	1932:25	1820:16	1848:21	20 1894:8
2024	4:23	1933:2	1826:11	1852:4	1982:25
diffe	rence	1934:12	1891:4	1863:23	1983:18
	9:20	1955:1,3	1905:23	1865:8	2002:24,25
	L:18	1963:2,7	1907:7	1869:5	2003:6,7
1892		1966:15	1909:13	1884:12	2006:24
	L:9,20	1975:14	1915:25	1892:2,21	2007:1
	5:23	1982:1	1925:3	1898:24	2019:22
	2:11	1986:23	1983:17	1912:16	2033:22
	3:25	1987:2	2041:13	1952:17	2049:20
	4:20	1990:12	2079:13	1995:21	diverge
1945		2006:3		1996:14	-
	5:4 5:16	2022:1	directed	1997:20	1960:6
-		2024:13	2001:18	2029:6	divergent
	1:12,13 3:19	2024:13	directing	discussions	1995:25
		18 2046:15	1833:8	1848:11	diversion
	2:21	2047:14	1852:8	1994:15	1955:11
):21,23	2049:14	1908:4	1994:15	
	4:8,17	2049.14		2027:14	1958:5
1980		2056:3,5	direction		diversity
1988		2058:3,5	2039:15	dispersion	1939:9
1995			2041:6	1827:18	divide
	3:12	2060:6	2057:21	1829:1	arvide
2063	1:12	2063:17			

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2111 of	E 2162
1970:4,22	1862:8	1974:8	1911 : 10	2032:15
divided	1863:7	1978 : 6	driven	2084:17
1934:3,7	1868:5	1989:18,19	1856:23	dwelling
2070:9,11,	1874:22	1991:8	1867:9	1867:2
15,24	1878:2	1992:15	1924:1	
	1919:16,21	2016:10		dynamic
dividing	1943:25	2019:1	drivers	1975:18
1923:10	1979:13	2028:23	1892:24	
division	2052:2	2032:23	drop 1862:14	E
1900:7,8	2083:14	2046:11	_	earlier
	dollars	2048:3	dropped	1872:18
D-01 2056:8	1834:19,21	2049:22	1996:16	1878:20
document	,22	2051:13	du 1814:9	1909:10
1829:20	1853:24	2057:21	1878:10,20	1929:12
1882:11	1854:6,13	2063:14,16	1880:4	1958:25
1891:6	1862:11	,24	1882:23	1974:20
1901:13,14	1865:21	2064:3,10,	1883:3,15	1982:3
1973:19	1866:9	11,14	1884:4,16	2017:18
1976:9	1869:24	2083:19	1885:2,17,	2020:15
2001:8,10	1870:5	2084:6,11	18,20	2021:22
2004:25	1875:1,2	dozen 2035:4	1886:8,12,	2021:22
2018:22	1876:7	dozen 2033.4	16	
2020:18	1879:12	Dr 1835:22	1887:15,19	early 1875:7
2066:25		draft	1888:6,15,	1905:25
2067:21	1885:10	1974:21	25 1889:3	1908:15,22
2079:7	1918:25	1999:12,14	1917:13	,25
	1919:3,4,1	,22 2001:9	1926:6	1909:1,8
documentatio	4,18		1956:21	1913:16
n 1858:14	1944:22,24	drafts	1958:1	1985:5
1901:8	1949:13	1974:13	1959:5	1997:10
1948:25	1955:16	drag 2025:3	2011:11	1998:1
documents	1964:4	_	2046:4	2022:7,17
1817:5	1967:2	drag-over	2047:7	2031:14
1818:3	1968:8,16	2025:4		2059:24
1836:17	1980:25	dramatic	due 2021:23	earnings
1882:5,13	1982:25	2056:17	duplicate	2021:14
1891:6	2049:1		1953:25	
1924:6,12,	2069:24	dramatically		2023:20 2080:10
14,23	2070:5	1875:20	duplicated	
1927:7	done 1823:11	drastic	1955:7	ease 2010:13
1940:23	1830:23	1862:6,20	1957 : 14	easier
1959:21	1846:4	draw 1861:24	duration	1947:22,23
2004:20,22	1862:3		1826:10,11	
2010:23,24	1900:24	1894:4	durant an ar	easiest
2015:6	1903:5	drawing	during	1935:1
2021:18	1907:3	1896 : 15	1830:12	easily
2021:10	1929:21	1924:19	1876:14	1952:19
2038:25	1938:5	drawn	1883:1	
2030:23	1950:3,15	1860:20	1886:15	easy 1930:21
2050:20	1952:7,9,1	TODOTEO	1887:16	2004:24
2057:22	9 1954:2	dredge	1908:22	2075:2
	1962:17	1839 : 17	1909:8	economic
dollar	1970:21	drill	1989:8	2012:3
1855:13	1972:6		2029:5	

	BA HYDRO GRA	12-19-2012	Page 2112 of	2102
educated	1907 : 18	1995 : 8	emails	1838:5
2004:8,20	electric	1996:15,17	2032:14	enhancemer
education	1832:22	2000:18	embedded	2003:10
1899:10	1895:15,16	2002:12	2080:17	
	,17 1897:1	2007:19		enlighten
effect	2005:23	2008:19	emphasis	1949:23
1909:15,18		2009:5	2002:20	ensure
1928:13	Electrical	2011:21	empirical	1859 : 11
1940:11	1815:19	2014:1,2,1	1867:10	1863:12
effort	1994:18	1	empirically	1879:11,
1921:8	1998:17,24	2015:8,10		1949:4
1949:16	electricity	2016:14,24	1837:13	2077:13
1976:2	2053:14	,25	employed	2085:13
eight	electronic	2017:10,13	1814:7	ensuring
1855:17	1835:6	,15,25	1840:3,12	1948:25
1866:18		2020:9,24	employee	1940.23
1867:15	element	2021:19	2073:5	enter
1934:4	2017:14	2023:14		1862:17
1934:4	2031:2	2029:8,15,	employing	1922:21
1967:10,13	elements	16,23	1895:10,20	entered
2034:13	1819:22	2030:1	empty	1873:7
2034:13	1820:1	2038:15,16	2048:21	1942:23
2007:15	1822:8	2040:4,19		
2070:7		2041:9	enabled	entire
eighteen	eleven	2042:1	1844:4	1971:18
1853:24	1866:19	2051:13	1955:11	2054:1
1862:8,11	1949:2	2052:8,16	encompass	entirely
1968:7 , 15	ELG 1891:20	2056:19,23	2005:5	1858:15
eight-eight	1892:4	2057:23	energy	1867 : 12
1972:20	1895:8,20	2058:12	1896:24	1868:22
	1905:24	2059:7	1915:21	entities
eighty	1906:8	2061:13,14 ,21	1939:8	1921:17
1820:21	1908:8,12,	,21 2062:6,10	2003:3	2024:14
1824:16	20		2026:20	
1855:11,18	1909:6,14	2063:18 2064:4,21	2020.20	entry
1884:16	1941:24	2065:17		2022:23
2056:12	1943:23		engagement	envelope
eighty-five	1944:4	2080:2,14, 22 2081:10	1994:12,15	1950:18
1866:19	1946:20	2082:4,15	1995:4	1951:1,
eighty-six	1951:13	2082:4,15	engineer	1952:3
1862:12	1966:12		1956:15,19	
2071:3	1974:8,13,	ELG-type		environme
	22	1938:11	engineering	1910:7,
either	1975:3,11,	eliminate	1823:12	13,16
1838:5	15	1863:9	1900:6,10	1921:4
1898:6	1977:8,12,		1914:8	environme
1902:4	24 1978:23	else 1855:3	engineering-	1921:24
1909:3	1979:19	1870:13	style	onvicion
2061:20	1981:14	else's	1821:20	envision
EL 2029:15	1983:20	2050:9	engineera	1916:2
	1984:4,7		engineers	equal
elaborate	1986:12,14	elsewhere	1900:5	1906:17
1898:14	1990:25	1960:20	enhance	1907:1,

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2113 of	2162
190	9:22	2068:14,18	1825 : 25	15	1905:23
191	.0:8,13,	2070:18	1827:7,19	2029:7,10	1909:13
18,	20	2071:9,15,	1828:21	2030:5,8	1910:11
191	1:5,20	19,23	1831:12	2071:17	1913:14
193	32:9,20,	2072:18	1841:20,24	2072 : 25	1924:6,11
	1933:10	2073:4,16,	1843:24	2074:19,20	1925 : 3
	34:9	18,19,20	1844:4,24	et 1830:4	2063:24
	35:9	2078:13,21	1846:12,15	1851:25	2080:21,25
	36:7,10,	2082:20	1847:3,5,7	1875:17	evident
	1942:5	2084:7	,9 1856:4	1956:7,14	1946:3
	57:25	equity	1871:9	1965:20	1948:1
	31:7,19	1915:11	1876:9	2022:13	evolved
	32:1,23	1916:16,17	1898:19,20	2063:12	1993:6
	34:12	1917:24	1948:5	eth 1848:19	1993.0
	92:10	1918:4,5,1	1949:25 1950:15		ex 1830:10
	95:12,20	5		evaluated	exact
	97:6,16, 1998:3	era 1867:20	1951:1,18 1988:2	1825:1	1843:14
	1998.3	1868:6	2012:9	evaluation	1845:12
	0:20,22		2012:9	1918:17	1875:4
)3:1	Ernst	2018:3		1889:23
	08:6,11	1903:12	2045:7,25	evening	1910:4
	09:10	escaping	2047:6,15	2086:5	2022:14,19
	0:11	2039:25	2072:15	event	
	4:25	ESL 1936:2		1994:12	exactly 1867 : 25
	8:15,23	EST 1930:2	estimated	2032:8	1875:4
	9:5,18	especially	1819:25	2085:23	1887:7
	22:15,22	2059:19	1830:10	eventually	1971:2
	23:10	essence	1832:12	1873:16	2022:6
202	24:1	1824:22	1842:15	1954:11	2040:10
204	2:22	1865:1	1891:8		2059:7
205	52:13,22	1906:20	1894:11,15 ,24 2002:3	everybody	
205	57 : 8	1964:14	,24 2002:3 2024:5	1915:3 1969:1	examination
205	58 : 23	essentially		2067:11	1983:17
205	59 : 22	1907:15	estimates		examined
206	50:12	1947:7	1815:14	2068:4,18 2079:14,17	1849:2
206	52:16	1951:13	1829:2		examining
	53:7	1959:1	1830:2	everyone	1961:11
	54:16,17	1982:10	1832:11,13	1817:4	
206	55 : 5	1989:12	1833:14	1855:3	example
equal	ized	2017:23	1841:9	1865:16	1814:19
206	54:13	2021:19	1845:20 1846:6,13,	2086:5	1845:12
equal	e	establish	1646:6,13, 14	everything	1862:7
_	0:8		1847:13,20	1967:24	1878:10 1913:1,6
		1872:6 1920:10	,21,24	1985 : 22	1913:1,6
equat		1949:25	1850:6	2022:19	1915:11
191	9:10		1881:10,12	everything's	1917:13
equip	oment	established	,13	1940:4	1919:18
	6:5	1869:16	1904:21		1926:5
	05:24,25	estima	1950:12	evidence	1929:20
	34:15	1846:6	1967:21	1830:22	1931:20,22
205	55 : 8	estimate	1988:13,25	1850:15	1932:15,23
206	56 : 22	estimate	2016:8,12,	1898:16	1936:6
			/		10000

PUB -	MANITOBA	A HYDRO GRA	12-19-2012	Page 2114 of	2162
193	37:6,19	1938:7	1908:4	expenditure	experienced
194	47 : 16	excluded	1915:3,4	1873:18	1869 : 11
19	53 : 19	1821:24	1939:12,14	1884:19	2028:19
19	54:25		,24	expenditures	2071:16
195	55 : 8	excluding	1940:1,5,1	1833:1	experiences
195	56 : 22	1942:15	4,16,22		1957:5
195	58:2	exclusive	1993:11	1983:12,14 1987:25	1957:5
195	59 : 15	1868:18	2020:20		expert
19	50 : 10		exhibits	1988:2,3	1913:14
19	73:1,2	exclusively		2013:23	1918:6
198	39:9	1827:5	1812:3	2014:12,15	expertise
200	03:14	1828:20	1813:1	,19	1918:6
203	18:1,3	excuse	1939:4	expense	1918:0
	19:21	1819:23	exist	1906:12	experts
	21:21	1832:8,10	1997:25	1907:17	1831:3
	29:16	1848:18		1908:14,25	1837:24
	71:23	1943:4	existing	1923:3,12	1860:10
	74:18	2017:18	1956:12	1985:2,3	1903:14,18
	84:9	201/.10	exp 1918:5	1996:18	,21,25
		exemption	expand	2009:14	2037:25
exam		2024:17	1911:13	2010:15	expired
	10:5,6,1	2025:3	1911:13	2019:7,23	-
0,1		exercise	expansions	2022:15	2077:9
	13:5	1836:16	2015:13	2041:24	expiring
	30 : 17	1860:12	expect	2043:25	1873:21
	34:18	1863:20	1819:8	2059:22	explain
193	36:14		1826:11	2060:11	-
200	09:8	1864:13,14 1868:9,22		2062:15	1844:13
	44 : 18		1846:4,5,1	2063:19	1853:6
20	76:9	1871:24 2010:2	8 1861:7 1884:15		1917:9
exca	vation	2010:2		expensed	1953:5
	55:9	exhibit	1886:21	1857 : 7	1959:22
		1813:2	1901:8	expenses	1995:7
exce		1817:13,16	1909:6	1971:24	2008:15
193	36:1	,22,23,25	expectancy	2058:1	2065:1
	34:4	1818:15,17	1830:2		2069:8
	41:24	1819:14	1972:12	expensive	explained
208	36 : 6	1826:23		1956:11,14	2011:4
exce	otion	1828:4	expectation	experience	2062:18
-	38:11	1831:21	1857:24	1821:17	
	81:10	1840:17	1885:14,17	1848:11	explaining
		1841:14	1886:3,4,9	1850:9	1925:3
exce	-	1848:1	2017:17	1857:3,4	1931:21
183	18:12	1851:10	2026:12	1869:9,17	explains
183	19:13	1865:11	2027:14	1870:1,5	1843:18
182	26:23	1879:5	expected	1871:5,11,	
182	29:20	1882:12,16	1982:2	14,19,21,2	explanation
183	30 : 1	1891:3	1995:15	3	1928:4
184	48 : 3	1892:11	2014:16	1877:8,18	1984:16
18	96:11	1894:5		1878:3	2002:1
exce		1896:5	expecting	1878:3	exploratory
	44: 2	1898:9	1911:13		1997:20
		1905:16	expended	1899:16	
excl	ude	1907:8	1886:7	1900:1	explore
		± 00 / • 0		1956:4	1887:14

PUB - MANITOR	BA HYDRO GRA	12-19-2012	Page 2115 of	2162
1997:17	1934:24	2046:4	1896 : 17	falling
exploring	extensively	2050:4,9,1	2041:17,22	2050:4,9
1998:2	1820:6	3 2053:15	facts	Falls
		2082:24	1879:17	1883:14
export	extent	2083:6	1927:4	1929:20,21
1939:21	1815:12,14	facility	1974:19	,22
2025:25	1832:20	1926:17	2008:16	1930:11
2026:21,22	1833:4	1929:20		1932:17,24
,23 2027:2	1850:24	1955:20	failing	1959:14
exports	1857:15	1957:10,12	2007:24	1973:2
1940:12	1859:2	1982:6	fair 1847:15	2049:24
2027:4	1886:18		1885:8	2050:5,12
d	1887:5,10	facility-	1888:12	
exposed	1890:8	specific	1893:12	familiar
1863:3,5 1877:17	1905:5	2083:4	1897 : 5	1849:22
10//:1/	1913:13	facing	1898:12	1859:20
exposure	1921:5	1976:5,7	1902:22	1895:9,25
1865:20	1973:4	fact 1830:25	1906:18	1899:4
1884:15,21	1988:12,13		1908:20	1900:25
exposures	,23 1989:1	1844:16 1849:5	1909:5	1902:5
1851:25	1992:4		1912:13	2057:4
1852:11,19	2059:6	1850:3 1860:5	1917 : 15	family
,25 1862:4	external	1864:23	1919:12	2085:1
1863:2	1902:6,7,2	1872:8	1945:8	famous
1877:13	5 1903:5	1874:21	1949:21	1836:18
1884:14,19	extra	1874:21	1956:1,2	2073:12
	1948:12	1884:22	1971 : 13	2073:12
expressed	2007:4	1886:2	1996:13	fancy
1887:17	2076:23	1903:17	2010:14	1900:19
expressing	2077:23	1930:13	2011:8	fast 1991:15
1902:16		1931:8,16	2048:23	
extend	extract	1954:15	2064:2	faster
1819:25	1924:21	1971:20	2075:24	2007:24
1819:25	extracting	1982:3	2077:14	fat 1832:25
1861:17	2079:9	1984:10	fairly	favour
1870:21		1985:22	1867:23	1906:19
2032:7	extreme	2010:3	1913:24	1900:19
2059:20	1928:5 2042:22	2016:5	1914:19	FCC
		2018:12	1931:14	1906:6,20
extended	2058:10	2020:17	1934:24	FCC's
2030:2	eye 1859:10	2025:24	1952:19	1906:22
extending		2026:2	1992:2	
1822:1	F	2029:10	2003:9	fear 1904:10
1832:19	face 2006:18	2044:24,25	2015:15	feasible
1880:14	2071:12	2045:1	2019:3	1835:4
1928:13	2075:17	2059:10	2023:6	February
extends		2072:17,23	2026:20	2001:18,25
1988:4	faced	2084:11	fall 2008:2	
	1922:14	factors	2037:16	Federal
extensions	2059:1		2043:13	1896:24
1881:3,19,	facilities	1831:17		1906:7
20	1871:16	1858:24 1871:7	fallen	1915:21
extensive	1881:7	10/1:/	1876:14	2003:3
CAUCHDIVE				

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2116 of	2162
feel 1819:11	1936:8,17,	1830:7,20	1841:19	fiscal
1846:11	18,22	1911:23	1852 : 10	1968:19
2003:17	1947:2,12	1973:6	1857 : 9	1985:23
fellow	1956:5	1982:13	1878:1,12,	1988:4
2028:12	1964:3	2008:3	14 1896:16	2073:24
	1967:9,13	finally	1908:17	2074:4
Fellows	1968:7,15	1830:19	1914:18	fit 1836:18
1900:18	2049:10	1940:6	1918:7	1860:16
fence	2051:15	2033:25	1920:9,23	1861:15,18
1913:17	2052:7		1923:3,14,	,21
	2075:1	financial	20 1928:9	1863:23
FERC	fifty-eight	1857:20	1929:22	1864:2,12
1897:15,25	1967:17,24	1873:8	1939:5	13,18,24
2003:24	1981:2	1902:14,17	1941:15	1865:5
2004:23		1903:2	1945:20	1867:25
2006:22	fifty-six	1911:3	1947:5	1868:21
FERC-	1979:12	1922:15,18	1953:16	1869:21
regulated	fifty-two	1984:18	1958 : 6	1869:2
1897:1	1944:13	2013:7	1960:8,12	1870:15
		2016:22	1965:18	
Fernandes	figure	2021:7	1968:7	1922:24,2
1811:5	1820:16	2044:13	1986:3	fits
1938:25	1822:15	2065:9	1993:18	1871:4,6
1939:1,16	1824:19	2081:17	1995:18	fitting
1940:3	1836:17	2082:10	1999:11	1833:5
fewer	1844:15,23	fine 1895:5	2001:25	
2003:11	1847:9	TTHE 109010	2002:11	1860:16
	1855:8	finger	2011:10	1861:23
field	1856:4	2068:2	2020:8	1862:1
1860:10	1919:20	finish	2023:18,23	1863:19
1901:20	1920:11	1890:23	2026:16	1864:7,10
fifteen	1990:21	2027:16	2029:7	14
1842:21	figures	2027:18	2032:4,7	five 1843:7
1856:14	1815:12	2043:15	2041:20	1846:20
1990:9		finished	2061:1,3	1852:25
2004:16	1946:9	1819:21	2066:9,23	1854:5,11
2033:18,22	1988:12,23	2048:1	2067:16	1862:12
2052:2	file	finite	2073:23	1871:9 , 12
2052:2	1901:8,14	1927:13	2080:11,13	1873:14
2071:20	1939:3		2080:11,13	1874:3
	1941:12	firm 1850:23	2085:9	1885:6,7
fifty	1942:8	1862:24		1919:13,1
1825:17	filed	1900:4,6	firstly	,21
1867:18	1941:10	1901:1	1961:22	, 1930:14
1890:4	1941:10	1911:1	1969:25	1944:4,13
1918:25	21 1993:23	1917:22	2017:24	1947:22
1919:3		2007:13	2018:3	1948:5
1931:10	files 1888:1	firmly	2021:24	1951:3
1932:8	filing	2015:11	2032:21	1972:19
1933:11,12	1835:1		2037:22	2004:11
,14,20,21	1994:7	firms	first-year	2030:18
1934:7,8,1		1997:11,14	1984:24	2048:21
1,12,20	fin 2077:9	first 1817:8		2068:22
1935:20	final	1833:9,23	fis 2073:24	2069:8,9
	TTUGT	1000.9,20		2009.0,9

PUB -	MANITOBA	. HYDRO GRA	12-19-2012	Page 2117 of	E 2162
207	0:8,9,1	2037:24	forecast	1930:19	five
4,2	4	2039:14,19	1873:18	1931:12	1867 : 19
207	1:23,24	2040:4	1952:4	1932:24	four-six
207	2:5,6	2041:7,18,	2013:7	1933:1,3,5	1962:13,22
207	3:17	23 2042:5	2016:22	,6,8,19	
fire	fifty-	Fleming's	2030:3	1934:1,3,1	,24 1963:11
two	-	1856:21	2062:16	7,18,20	1903:11
	4:22	1000:21	2064:12	1935:8,21	four-six-
194	4:22	flight	2078:3	1936:22	three
five-	ish	1953:6	2081:11,21	1947:1,10,	1963:6
187	0:17	1994:21	,24	12 1954 : 13	fourteen
five-	nine	2027:18	2082:1,12	1956 : 12	1856:14
_	1:10	2028:9,15	formanation	1960 : 18	2035:16
_		flights	forecasting 2082:4,15	1961:2	2033:10
five-		2028:8	2082:4,15	1965:20	frame
197	8:15		forecasts	1976:24	2007:25
five-	zero	flip 1831:25	2015:2	2011:5,9	2008:3,6
	1:22	1841:14	2082:11	2043:5,8,1	2040:1
		1907:7	foremost	0,22	frank 2009:5
fix 2	2074:17	1925:9	1857:10	2047:23	
fixed	L	1928:2	2026:16	2058:6	frankly
192	0:21,24	1960:16		forty-eight	1898:4
	3:10	1966:23	forgot	1966:5	1976:6
		1970 : 18	1999:19	1900:2	1995:22
fixtu		1981:13	form 1915:23	forty-five-	freeze
	0:2	flipped	1917:2	point-	2024:17
	7:1	1854:2	2056:18	three	
	2:9			2047:2	friend
	4:2	flipping	formal	forty-four	1852:4
	8:15	1974:7	1995:4	1964:3	1876:12
184	6:7	flood	formalistic		1886:12
Flem	1826:6	1954:18	1916:7	forty-nine	1891:14
Flemi	20	flooding	for some h	2034:11	1894:3
	9:24	flooding 1818:10	format	forward	1907:13
	9:24 6:7,12	1954:23	1830:15	1857:19,21	2005:15
	7:4	1954:25	1948:9,18	,24	Friends
	1:23	1900:10	forms 1916:8	1873:13	2009:7
	2:10	flow 1841:10	formula	1975:22	Friend's
	3:12	2009:19	1918:17	1990:2,19	1950:14
	1:25	flows	1947:9	2013:23	1950:14
	3:22	1940:10	1963:2,3,8	2016:4	front
	4:16		1964:12,15	2017:4,21	1819:15
	8:11	fly 1930:24	2070:7	2020:22	1841:15
	0:25	1935:1		2025:9	1924:8
	1:22	2077:15	formulas	2026:16	1936:3
	1:7	focussing	1916:12	2030:2	1949:5
	9:25	1833:9,23	forth	2074:10,12	1996:17
	1:7	1860:23	1975:19	,17	2066:25
	4:25	1889:13		2076:4,10	front-
	7:19		fortieth	2078:2	loading
	· • ± >	follow-up	1931:17		1995:8
	0.13	1000 10			
196	0:13 9·11	1883:19	forty	foundations	
196 199	0:13 9:11 2:5	1883:19 1932:15 2032:3	forty 1928:6,13	1956:7	front-loads

PUB - MANITOB.	A HYDRO GRA	12-19-2012	Page 2118 o:	£ 2162
1946:20	Gannet	2034:15,16	generators	2015:12
full 1835:1	1833 : 12	2035:8,9	2005:8,23	2016:15
1968:13	1853 : 21	2038:12	2006:12	2021:22
1975:2	1856 : 21	2083:11	2054:11	2027:14
1987:10	Gannett	generally	generic	2041:22
2001:25	1819:24	1823:15	1821:16	2042:3
	1826:6	1897:4		2056:9
fully 1814:5	1827:4	1899:3	gentlemen	2074:19
1840:1,9	1831:23	1908:20	1902:12	2075:14
1846:21	1832:10	1916:9,23	2077:19	2077:4
1928:4	1851:24	1919:9	geographic	2080:12
1968:1	1854:16	1921:17	1823:24	gives
function	1858:11	1922:7	1824:1	1927:22
1853:1	1860:25	1932:10,13		1962:1
fund 2040:13	1871:22	1950:1	gets 1931:24	1973:12
	1891:6	1970:10	1932:5	2071:2
2056:10,18 2061:12,13	1899:25	1975:17	1935:14	2074:9
	1901:7	1993:2	1952:22	
,15 2062:2	1904:25	2003:2	1962:17	giving
fundamental	1907:19	2013:17	2031:12	1824:24
2008:16	1960:13	2023:12	2070:24	1831:11
funding	1999:11	2038:13	getting	1837:23
1832:25	2002:5	2064:4	1843:24	1889:8
	2037:24		1846:23	1934:4
funny	2039:14,19	generates	1847:19	1951:4
1942:16	2040:3	2025:24	1863:13	global
1992:24	2041:7,18,	2053:14	1864:6	2047:8
furniture	22 2042:5	generating	1866:12	goal 1922:25
2073:18		1815:6	1869:14	-
future	gas 1895:17 2013:18	1853:15	1927 : 19	goal's
	2013:18	1927:21	1938:4	1921:7
1925:5	gates	1929:5	1941:5	gone 1884:4
1967:21 1989:19	2054:11	1956:16,20	1975:14	1905:7
1990:4	gather	1958:11,19	2007:11	1925 : 17
2016:19	1996:5	2005:14	2010:14	1969:15
2017:3		2026:25	2026:2,3	1990:20
2017.5	gathered	2035:23	2028:9	1998:11
	2024:12	2036:19	2055:1	2046:2
G	gee 1942:16	2044:24	given 1837:3	2051:19
GAC 1811:9	gen 2036:19	2082:20	1839:4	2052:17,19
gain 1846:10	gen 2030:19	generation	1846:17	,20
2043:10	general	1893:10	1864:18,25	gong 2073:6
2044:6,7	1810 : 7	1940:13	1870 : 18	
	1849:25	2002:10,20	1871:13 , 14	Gosselin
gains 1997:1	1899:9	2003:11,15	,15	1810:14
2042:12,14	1912:25	2004:1,15	1878:17	gotten
2059:12,15	1913:8	2005:3	1896:18	2027:15
2060:3	1917:6	2026:4	1926:9	
game	1941:8	2032:24	1928:3	government
1847:12 , 16	1952:23	2034:25	1961:23	1916:22
Gan 2037:24	1959:10	2035:15	1986:22	graduate
Gail 2007:24	1971:1	2049:18,22	1987:2	1835:22
Gange 1811:9	1986:2,13	'	2014:11	

PUB - M	IANITOBA	HYDRO GRA	12-19-2012	Page 2119 of	5 2162
grand		1921:18	growing	3 1915:1,8	18
1883:	:14	1925:25	1911:18	1916:13	1971:7 , 17
1959:	:14	1932:9,20,	growth	1917:8,20	1972:4,17
2011:	:15	25 1934:9	1910:17	1918:8,11,	1973:1,5,1
2012:	:20	1935:9	1910:17	22	2,18,21,25
2046:	: 5	1936:10,20	guarantee	1919:11,25	1974:6,12
2049:	:24	1942:6	1902:18	1920:14	1975:1,9
2050:	:5,12	1981:20	gue 1917:18	1921:25	1976:11,18
granted	4	1982:1,23	-	1923 : 23	,22
1926:		1984:12	guess 1819:7	1924:11,13	1977:2,6,1
		1992:10	1835:5	,18,19	0,20
granula	ar	1995:13,20	1842:25	1925:9,17	1978:4,12,
2052:	: 4	1996:9	1872:3,6	1926:1,14	18,22
graph 1	1860.9	1997:6,16,	1873:22	1927:3 , 18	1979:2,6,1
		21 1998:3	1874:9	1928:2,16	0,16
graphic		2000:21,22	1879:23	1929:18	1980:9,13,
2013:	:11	2002:17	1880:11	1930:3,10	20 1981:13
graphs		2003:2	1895 : 17	1931:19	1982:5,9,1
1820:	•18	2008:6,11	1900:17,23	1938:2,3,1	5,21
		2009:10	1935 : 18	3	1983:6,25
grave 1	1968:5	2010:11	1953:8	1940:19,20	1984:13
great		2014:25	1966:11	1941:3,4,2	1985:18
1862:	14	2018:16,23	1968:4	0 1942:7	1986:1,10,
1867:		2019:5,18	2004:8,20	1943:8,17	20
1883:	-	2022:15,22	2006:15	1944:11	1987:8,14,
1895		2023:11	2007:4	1945:1,25	24 1988:8
	20,21	2024:1	2031:3	1946:1	1991:6,7,1
,22	,	2042:18,19	2051:21	1952:15	8
1930:	• 1 1	,22	2057:8	1953:3,4,1	1992:1,11
	16,24	2043:2,13	guessing	5	1993:4,13,
1973:	-	2047:3	1873:1	1954:17,24	17,18,25
		2052:13,22	2004:13	1955:5,20	1994:8,19
greater		2055:7		1957:8,20,	1995:6
1844:		2057:9	guideline	23	1996:3,4,6
1846:		2058:24	2019:10	1959:18,19	,13
2003:		2059:22	guidelines	1960:7,15,	1998:6,13
2004:		2060:12	1989:14,20	24	1999:7,8,2
2026:	:1	2064:16,18		1961:6,13,	1
greenf	ield	2065:5	guilty	19	2000:14,15
1953:			1860:11	1962:5,10,	2001:2,12,
1954:		grouping	guys 2028:19	16	17,24
1956:		1859:25	5 -	1963:9,22	2002:18
		1925:11		1964:19	2003:23
grey 20	007:9	2047:11	H	1965:3,7,1	2004:9
group		2052:25	Hacault	2,17,22	2005:1,15
1846:	:23	groups	1811:12	1966:2,11,	2007:2,14
1857:	:11	1921:14	1812:13	21	2008:15
1893:	:7,9,1	1933 : 11	1882:11,13	1967:7,16,	2010:16,21
	06:18	1950:2,11,	1886:12	23	2011:3,14,
1907:	:1,4,2	13,17	1907:14	1968:4,9,1	19
	09:22	1981:7	1912:19,22	7,24	2012:7,19
	:8,13,	1999:13,23	,23	1969:9,16,	2013:1,6,1
18,20		2000:17	1913:20	22	0,21
	:6,20		1914:2,7,1	1970:2,13,	2015:14
	,			± <i>J</i> / U • <i>Z</i> , ± <i>J</i> ,	2013.14

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2120 o:	£ 2162
201	16:5	2064:2,19,	1846:3	1872:4	1958:25
202	27:10,13	25	1874:12	1898:5	1968:10
202	29:4,5,1	2065:2,14,	1876:4	1948:25	HELD 1810:19
3,3	20	15,21	1889:22	1950 : 15	
20	30:4,7,1	2066:1,7,8	1890:1,6,1	1990:20	help 1833:11
0,1	15	,14,19,20	2 1912:15	2000:22	1852 : 14
20	31:5,9,1	2067:1,9,2	Hall's	2013:24	1862:1
2,	18,22	3,15,20	1846:4,21	2015:17	1864 : 7
	32:18,19	2068:1,7,8	3	2035:6	1883:2
	33:6,9,1	,11	hand 1829:13	2049:22	1913:5
	16,21,25	2069:1,7,2		2055 : 10	1914:14
	34:5,10,	3,22	1851:2	2063:24	1931:20
	,24	2070:1,4,2		2064:17	1946:18
	35:3,7,1	1,16,23	1877:7	2083:3	1985:17
	18,22	2071:2,6	1928:6	having	2026:24
	36:3,7,1	2072:10	2004:21	1834:25	helpful
	17,23,25	2073:22,23		1837:12,24	1838:13
	37:4,10,	2074:3,8,2	² handle	1839:13	1858 : 9
13		4 2075:8	1885:3	1848:11	1860:18
	38:3,7,1	2076:7,20	2009:15	1873 : 14	1904:10
	17,24	2077:17,25	hands	1946:17	1911:9
	39:4,13,	2078:6,11	0000 10	1983:22	1912:16
20	40 0 6 1	2079:3,4,2	-	2021:24	1951 : 22
	40:2,6,1	0	handwriting	2026:19	helping
6,2	41:5,13	2080:8,12, 19,24	1961:7	2027:8	1970:8
	42:24	2081:5,13	happen	2047:22	2073:12
	43:12	2081:3,13	1826:13	2062:23	
	44:15	2082:3,9	1888:2	2083:19	helps 1874:1
	45:4,11,	2085:20	1935:4	head 1866:13	Here's
	,18,23		1937:2	1895:14	1935 : 7
	46:1,10	hairs 2007:	9 2075:2	1896:1	1980:5
	48:1,4,8	half 1865:22	happens	1935:1	he's 2085:23
	9,24	1876 : 15	1932:7	2004:6	
	49:5,8,2	1943:25	1933:23	2007:9	hesitant
1	,-,	1944:24	1965:3	heading	1918:14
20	50:3,11,	2010:5	1966:2	2005:17	hesitation
	,24	2055:1	2022:19		1942:13
20	51:3,8,1	2071:7	2051:1	hear 1874:21	high 1834:9
2 2	2052:6	Hall 1812:10) h amma	heard	1860:24
20	53:19 , 24	1819:3,7,2	парру	1943:19	1861:7
	54:6,16,	0 1833:11	1998:12 2001:10	1958:25	2058:10
21	,24	1837:10		2017:12	2076:10
20	55:5,14,	1840:16	hard 2004:25	2052:19	
17	,24	1841:1,12,	2028:8	2060:20	high/low
20	56:22	17,18,22	hardly	hoaring	1939:23
	57 : 17	1842:1,5,1	_	hearing 1876:14	higher
	58:9	1,16		1945:22	1908:14,17
	59:2	1843:9,13,	Harrisburg	1945.22	,21,25
	61:19,20	21	2028:3	2010:9	1909:8
,2		1844:6,10,	Hat 1895:17	2010:9	1934:9
	62:5,9,1	15	hate 2004:6	2053:4	1944:16
7		1845:1,13			1963:14,17
20	63:9,15		haven't	hearings	

PUB - MANITOBA HYDRO GRA 12-1	_9-	2012	2
-------------------------------	-----	------	---

2 Page 2121 of 2162

	A HIDRO GRA	12-19-2012	Page 2121 of	
,21	Hooper	1866:9,12,	hundreds	14,18
1982:8,9	1836:19	18,19,20	1824:11,13	1891:8
2059:24	1883:2	1870:22,25	1837:4	1902:8
2060:13	2073:12	1872:1,9	1839:7,8	1903:6
2064:4		1873:14	1905:8,9	1917:10
2083:15	hope 1871:20	1874:25		1937:16
	1891:14	1875:2	Huper	1939:3,7,1
highlight	1931:13	1876:7	1836 : 19	9
2068:12	hoped 1960:2	1881:10,11	HVDC 2055:8	1940:8,11
highlighted	2076:20	1900:5	2084:9	1954:25
1965:18		1919:13,16		1958:15
1969:11	hopefully	,17,21	Hy 2037:24	1987:18
1976:19	1831:25	1925:21,22	Hyd 2037:24	1988:9,17
2054:7	1847:2	1926:17,18	_	1991:20
	1888:5	1927:6,23	hydraul	1992:13,17
highway	1913:5	1928:6,12,	2053 : 15	,18 1993:7
1876:1	2011:24	1320.0,12,	hydraulic	,18 1993.7 1994:23
historic	2031:15	1929:1,4,1	1927:20	1994:23
1835:11	hosting	0,12,24	1940:9,13	1998:2,20
1858:4	2085:10	1930:5,14,	2005:18	2000:7,9
1939:20		1950.5,14,	2006:12	2000:7,9
	hot 1816:5	1931:1,11,	2026:19	2002:9,16,
historical	2066:22	16 1932:24	2036:19	20 2003:25
1858:13	2068:15	1933:1,2,5	2053:15	2004:14
1860:2	2069:14			2004:14
1872:7	2071:10,25	,6,8,19	hydro 1810:6	2005:2,14
2083:14	2078:14,22	1934:1,3,1 7,18,19	1811:4	2008:19
historically	hotly	1935:8,21	1812:6	2008:2,10
1857:6,15	1995:25	1936:21	1814:3,8,1	2008.2,10
1858:1,15	hour 1876:16	1947:1,10,	4,16,17	2013:19
1859:1	HOUL 10/0:10	12 1954:1	1815:3,8,1	2019:9
1922:17	hours	1956:12	6,20 1816:3	2020:19
2042:12	1943:12	1960:12		2022:8
2059:12	1952:10	1961:1,2,2	1817:9,13, 22	2023:14
2060:4	1957:3	5 1964:3		2025:24
2084:8	2010:9	1965:19	1818:5,24	20231:6,17
history	house	1967:1,2	1819:23	2032:23
1838:8	1918:25	1968:7,15	1824:10	2032:23
1923:22	1919:13	1976:24	1825:24 1826:3,6	2038:9,19
2051:20		1977:3	1826:3,6	2039:18,22
	houses	1979:12	1833:5	,24 2040:8
hit 1880:2	2046:12	1980:15,24	1840:6	2042:6,11,
1991 : 15	huge 1873:12	,25	1840:8	16
hits 2053:7	2049:6	2011:5,6,9	1870:19	2044:20,23
	2066:4	2022:2	1874:17	2044:20,23
hole-punched		2047:25	1875:12,14	2046:8,12,
2079:8	hundred	2048:10,13	1879:23,25	16,19,24
hone 1961:7	1821:19	,20	1879.23,23	2047:5,11,
honost1.	1834:19	2051:15,16	1882:8	24 2051:19
honestly	1841:24	2052:7,9	1883:4	2053:15
2006:6,7	1843:7,23	2052:7,5	1888:14	2054:9
2049:4	1853:24	2069:23		2055:6,7
honesty	1862:8,11	2009:23	1889:11,12	2055:0,7
1895:24	1863:4,6	20/0.3,13	,20 1800.5 11	2058:14,19
			1890:5,11,	2000:14,19

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2122 of	E 2162
2059:6,13	2077:14	2079:10	II-38 2018:2	2051:6
2060:3,16	idea 1917:23	2081:3	III 2033:5,6	2055:12
2062:22	1946:6	IFF12 1816:8		2060:10
2063:23	1953:18,21	1817:20	III-10	2064:19
2073:5	1954:6	1939:20	2032:25	2066:2
2078:7,18	1956:15	1940:11	2033:3,7	2083:19
2080:2,21	1986:2,13	1951:11	III-11	illustrate
2081:14	2027:11	2016:24	2034:8	1913:2,6
hydroelectri	2029:14,21	2075:3	III-18	1931:20
c 1853:14	2037:14	2077:18,20	2036:20	im 2020:14
Hydro's	2084:1	2078:15,25		
1841:20	iden 1895:11	2079:11	III-19	I'm 1817:12
1939:5,17,	1964:7	2080:2	2065:22	1818:21
22		2081:4	III-8	1822:3,14
1940:5,6	identical	IFF2 2081:6	2036:22	1823:1,9
2013:13	1915:23	1051 10	2037:1	1824:1
2027:4	identificati	IFFs 1951:12	2066:16	1825:12
2033:12	on 1874:11	IFR 2017:11	2067:14	1826:12,21
2049:11	identified	IFRS 1858:21	III-9 2035:1	1829:7,10
2055:9	1849:10	1898:15,18		1844:6,8,2
	1849:10	1903:18	I'11	2
	1940:23	1903:18	1878:10,23	1847:8,11,
I	1940:23	1942:4	1894:4	12,23,25
IA 2018:2	1973:17	1977:18	1899:14	1848:2
I'd 1823:25	1976:14	1983:20	1902:24	1849:8,9,1
1826:15	1993:9	1989:11,20	1905:25	0,22 1850:15
1829:12	2043:14	1990:2,19,	1908:5	
1848:10		23 1991:20	1911:9	1851:6,7
1849:7	identify	1992:10,24	1917:18	1855:2,12 1859:8
1854:24	1814:8,14	1996:10,23	1918:6	1860:10
1856:25	1845 : 9	1997:12,25	1928:16,17	1861:3
1866:11	1850:2	2002:2	1929:19	1865:15
1876:3	1860 : 24	2006:8,13,	1936:4,5,2	1869:14
1879:9,16	1872 : 20	17 2007:19	0 1937:3,5	1876:11,12
1887:7	1888:6,14	2009:2,18,	1941:8	1880:18,20
1896:4	1890:10,14	23	1953:16,18	,21,24
1911:19	1895:11	2010:12,14	1959:22	1883:8,22
1914:14	1896:17	2017:1,9,1	1968:4	1886:21
1919:2,19	2043:2	1	1978:10	1887:7
1923:24	2054:9	2019:9,13	1984:20 1992:24	1890:21
1987:14	identifying	2020:8,16	1992:24	1891:4
1993:5	1850 : 1	2021:2	2010:17	1895:1,25
1998:9	1895 : 21	2023:4	2010:17 2014:12	1896:1
1999:25	2042:25	2024:19	2014:12 2016:13	1897:16
2001:10,17	IFF	2025:5	2010:13	1898:22
2004:6	2029:15,23	2062:8	2019:14	1901:20
2024:9	2029:15,25	2065:19	2020:2	1903:4
2031:23	,24	2080:10	2027:18	1905:12
2032:21		II 2033:3,4	2028:18	1906:4,14
2049:12	IFF11		2031:17	1909:15
2065:21	1951:12,19	II-2 1896:12	2035:19	1910:3
2066:20	IFF11-2	1914:17	2033:3	1911:25
			2010.11	

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2123 of	E 2162
193	12:25	13 2030 : 16	2020:20,22	1997 : 23	2073:4,13,
193	13:4	2032:19	2021:3	2006:8,13	14
193	16:1	2033:24	2022:20	2014:17	including
193	18:3,10,	2037:16,19	2023:15	2017:11	1830:3
11,	,13	2040:10	2025:16	2040:7	1831:6
192	20:6,19	2041:21	2046:17	2072:11	1852:15
192	21:6	2048:2,3,5	2049:6	implementing	1892:18
	23:24	,18	2080:9	2010:12	1896:19
	24:10,19	2049:3,17	2084:2	2017:13	1978:7
	26:23	2051:14	impacted	2019:11	2016:6
	27:19	2054:10	2076:5	2020:16	2029:1
	28:4	2057:21		2059:25	2081:18
	30:6	2059:3	impacting		
	32:11	2060:7	2028:5	implications	inclusive
	33:4,19,	2061:23	impacts	2020:23	1940:24
20		2064:8,13	1857 : 18	important	inco 2020:20
	34:1,25	2066:24	2019:23	1832:15	income
	35:10,12	2073:6,7	2020:14,15	1838:8	1909:4
	36:12,24	2074:11,16	impl 2020:7	1847:21	1920:12
	38:10	,22	_	1931:6,14	1923:12
	40:25	2084:14,19	imple	1944:6	2020:16,20
	41:4,6	2085:9	2080:10	1945:22	2023:6,9
	43:17,18	imagine	implement	2027:19	2042:13
, 23		2021:23	1835:9	2082:18	2044:7
	45:22	immediate	2009:2,23	impossible	2059:13,16
	47:4 48:17	1906:11	2019:10,25	2024:21	2060:15
	49:19		2020:24		
	50:13	immediately	2021:3	Improvements	incorrect
	54:8	1955:13	2040:18	2005:20	2014:9
	56:6,15	2032:2	2057:12	inadvertentl	increase
	61:4,20	imp 2020:24	2065:19	y 1883:20	1996:17
	66:9	impact	implementati	include	2009:13
	73:24	1862:10,20	on 1907:4	1925:13	2011:5
	76:12	1873:13	1911:5	1939:19	2020:25
	79:21	1878:19	1942:4	1946:10	2022:6,14
	83:25	1888:25	1977:18	1966:13	2056:18
198	84:3,13	1889:9	1990:19	1971:9	2057:25
	85:16	1893:15	1997:12	2005:7,8	2062:10
199	92:18	1906:11	2002:2,16	2015:2	increased
199	99:8	1907:5	2009:18	· · · 1 · 1 · 1	1833:1
200	04:13,18	1913:3	2017:10	included	1959:2
200	05:9	1929:3	2019:10	1872:17	2003:18
200	06:11,12	1935:22	2020:7	1877:13	2021:23
,1	7 2007:2	1940:9	2040:14,25	1941:11,18 2014:24	increases
200	08:16	1949:11	2057:23		2021:19
202	11:23	1951:1,18	2060:12	2054:12 2076:22	2063:18
202	14:7,25	1972:19	2062:10		
	15:1	1981:25	2080:10	includes	increasing
	16 : 17	1986:14	implemented	1962:9,13	2027:2
	19:4	2008:19	1902:20	1965:24	2062:12
	23:7	2014:1,11	1968:18,19	1966:5	incur
	27:7	2015:5,7,8	1990:2	1967:14	1955:19
202	28:7,11,	,16		1973:8	

PUB - MANITOB	A HYDRO GRA 1	2-19-2012	Page 2124 of	2162
incurred	1867:13,21	influencing	2030:1	1841:3
1954:10	1881 : 7	1862:23	initially	1864:21
1955:18,24	indicative	inform	1970:20	1874:14,1
1959 : 16	1853:10	1831:7		1883:14
1987:25		1031:/	input 1823:5	1884:17
1988:3	individual	information	1862 : 6	1897:15
2022:17	1921:15,19	1815:3	inserted	1931:11
incurrence	2043:21	1821:8,10	1882:17	1937:7,8,
1943:15	2047:3,16,	1825:16,23	1924:4	0,24
	23 2052:25	1830 : 9		1959 : 13
indeed	2053:6,7	1831:2,5,6	inside	1971 : 20
1868:19	2058:7	,13	1882:11	installing
indicate	indulgence	1832 : 16	insight	1935:11
1815:20	1981:18	1834:8,10	1831:5	
1821:18	2085:6,10	1835 : 12	1851 : 8	instance
1850:6		1837 : 2	1879:22	1934:17
1851:3	industries	1842:18	2025:19	1956:4
1882:9	1825:1	1843:3	insightful	instances
1889:19	2024:24	1846:10,16	1989:22	1839:13
1929:9	industry	,22 1847:1	1909:22	
1934:16	1820:24	1850:5,15,	inspecting	instead
2000:9	1821:3,4,5	16,17	1842:21	1826:6
2002:19	,9,11,12,1	1864:11	instal	1873:14
2017:25	4,16,24,25	1868:7,10,	1833:25	1944:22
	1822:5,6,1	25		1972:20
indicated	3	1870:18,19	install	1973:13 1982:15
1895:8	1824:17,25	1879:24	1835:18,25	2041:8
1913:9	1831:6	1886:17	1836:14,24	2041:8
1928:25 1992:20	1832:18	1927:14	1837:6	Institute
	1834:15	1939:20	1839:11	1900:19
2008:10 2016:2	1838:2	1944:7	1841:3	instructed
	1850:9,23	1949:18	1861:6	1977:12
2017:18 2029:7	1870:24	1952:22	1876:9	
2029:7	1871:2,14	1958:16	1883:7	instruction
2042:25	1906:9	1974:1	installation	1976:12
2001:9	2063:6	1983:23	1833:17,25	insulator
indicates	industry-	2010:6	1835 : 11	2045:1
1906:15	wide	2013:23,24	1840:23	
indicating	1881:5	2031:10	1844:5,25	insulators
1936:13		2039:5	1849:5	1839:9
1946:15	infer	2081:8	1897 : 19	Insurance
	1860:12	2085:22	1931:6,15	1902:6
indication	infinity	information-	1947 : 11	1903:1
1824:2	1865:2	collecting	1959 : 16	inte 2012:1
1868:3,12		1868:8	installation	
1870:8	inflation	infrastructu	s 1834:10	integrated
1885:1	1959:3			1842:10,1
1969:10	influence	2035.8 10	installed	2012:13
1999:22	1886:10	2035:8,10	1814:4,19,	2013:7
2068:20	1929 : 15	inherent	23 1834:19	intended
indications	1972:2,11	2042:1	1838:17,23	1823:23
1830:18	2050:25	initial	1839 : 19	1994:9
1832:23	2084:15,16	1996:14	1840:1,8	
		100011		intense

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2125 o	E 2162
2044:23	1867:16	1981:9	1879 : 16	1980:14
inter	intervene	2012:20	1881 : 23	2029:14
2012:13	2084:20	2047:9,16	1887:25	2049:6
	2004.20	2049:15	1900:17	2066:21
interaction	intervening	2058:20	1924:21	2068:13
2032:1	2057:3	2069:11,20	1948:23	2075:4
interchangea	2085:6	investment's	1984:18	2078:13,19
bly	Intervenor	2049:16	1990:17	iterative
1912:6,8	1993:10		2012:1	1861:19
interest	Intervenors	involve	2027:13	
	1913:17	1942:14	2051:24	it'11
1995:2	1912:17	involved	2076:5	1845:11
interesting	interview	1826:3	ISO 1904:25	it's
1995:18	1852:20	1904:19,20	1905:2	1821:4,9,2
interim	interviews	,21	isolate	5
2014:18	1830:13	2007:10		1823:1,11,
		Iowa	2046:8	12 1832 : 15
internal	introduced	1827:7,12,	issue	1833:3
1831:3	1913:10	16 1828:22	1850:8,19	1834:15
1837:23	introduction	1831:8	1898:23	1841 : 6
Internationa	1858:21	1835:22	1905:10	1843:3
1 1857:20	2065:9	1855:24	1911:8	1845:3
1911:2	inventoried	1856:4,15,	1916:14	1847:9,12,
2024:16	1843:16	22 1860:17	1919:8	15,18,19,2
2025:1	1844:3	1861:20	1926:6	0 1849:16
2026:9	1872:15	1867:5,9	1941:7	1858:3
2044:13	1873:11	1868:20	1950:4	1859 : 22
2065:9,12	1874:15	1869:4,8	1954:18,23	1861:10
interrogator	10/4.10	1885:22	1991:20	1864:5
-	inventory	1886:10	2025:21	1865:2
ies 2031:24	1842:15	1899:6	2027:20	1868:3,4
2031:24	1843:1,22	1900:14,21	2032:14	1872:14
interrogator	1844:4	1933:13	2061:10	1874:16,24
y 1969:3	1872:4,6,1	1977:8	2075 : 17	1882:15
2041:6	0,11	2022:13	issues	1885:23
interrupted	1873:10	2046:21	1903:19	1890:3
2027:24	1874:1,23	IPM 1842:9	1922:15	1894:11
	1875:3	1843:5	1991 : 25	1897:1,24
intersect	1880:17		1996:25	1904:22,23 1905:7
1855:16	invested	IR 2012:1	2050:12	1905:7
intersects	1884:23	2057:20	2056:14	1909:19 1910:3,18,
1855 : 11	investment	irregardless	2059:20	1910:3,18, 19 1917:6
interval	1814:19	2012:5	item 1968:1	1919:23
1852:17	1834:16	irranative	1969:18	1920:5
1854:5,10	1885:24	irrespective 2054:1	2005:19	1920:5
1860:7	1886:3,6,7	2004:1	2050:17,25	1923:9,10,
1862:5,20	,8 1887:9	IRS 2021:2	2068:18	11
1867:18	1911:19	ish 1870:23	2069:4,14	1924:6,7,8
1877:14	1929:1,13		2074:11	,24
1886:16	1931:10,11	isn't 1821:3		1925:20
1887:16	1933:10	1844:19	items 1816:4	1927:3
	1937:6,19	1860:14	1831:18	1929:7,23
intervals		1863:14	1972:5	

PUB - MA	NITOBA	HYDRO	GRA	12-19-2012	Page 2126 c	f 2162
1931:5	,11,	2056:	5	21	1823:7,25	1877:1,4,1
14		2059:	17	1844:6,10,	1824:8,21	1
1932:1	1,13	2061:	1,4,1	15	1825:2,11,	1878:15,22
1934:1	0,15	4		1845:1,13	12,21	1879:9
,24		2062:	6,22	1876:4	1826:2,8,1	1880:1,18,
1935:2	0	2063:		1889:22	2,20	23 1881:1
1943:2		2064:		1890:6,12	1827:2,3,9	
1944:1			5,8,1	January	,14,20,24	1883:19,22
1945:5		0		1929:23	1828:14,18	
1947:1	8,22		10,14	1994:13,15	,23	1884:5,11,
,23		,16		1995:3	1829:4,7,1	
1948:1		2070:		2032:8	0,11,16,17	
1949:2	,20,	2073:		2067:22	,24	1888:11,12
21	1.0	2075:		2086:1	1830:5,12	1889:7,16
1950:9	,⊥∪,	2077:		Jenpeg	1831:10,19	
13	1.0		8,9,1	1940:9	,24	13,22
1952:6 1956:7		6	13,16		1832:3,14 1833:21	1892:6,16 1893:5,17,
1958:7			15,18	Jensen	1834:3,11	24
1957:4			11,15	1835:22	1838:18,25	
1960:1		2084:		job 1846:4	1839:21	18
1963:2				1857:12	1840:4,16	1895:1,8,1
1964:2		I've 18		jointly	1845:18,24	
19 196		1876:		1952:21	1846:8	1896:4,6,1
1971:2		1896:		1952:21	1847:17	3,22
1972:9		1899:		journey	1848:6,10,	
1975:2		1903:		1998:5	16,25	1898:9,17
1976:2		1917:		judgment	1849:7	1899:2,22
1977:6		1935:		1831:8	1850:2	1900:3,21
1979:2		1943: 1959:		1856:23	1851:1,15,	1901:12
1981:2	3	1939:		1867:8	21	1904:1,10,
1985:1	0	1974:		1871:4	1852:2,7,1	16 1905:22
1993:1	9	1976:		1904:19,21	3,21	1906:2,13
1999:2		1905.		1951:5	1853:5,18	1907:11,21
2001:2	0	2023:		jump 1863:23	1854:1,8,1	,25
2004:1	4,24	2023:			4,20	1908:9,16,
2005:8		2033:		jumping	1855:1,6,1	
2006:8		2050:		1864:2	2,16	1909:10,19
2012:2		2053:			1856:1,8,1	
19 201		2059:		K	6,25	1911:17
2014:1		2063:		Keeyask	1858:17	1912:7,10,
2019:1		2064:	9	2029:16	1859:2,7,2	
2021:2		2076:	8	2030:5	2 1860:3	1913:5,10,
2024:2				Kennedy	1861:3	15,23
2026:2		J		1812:9	1864:4,22	1914:6,9,2
2027:1 2028:4		JAMES		1815:17	1865:16,23	
2028:4		1812:	10	1819:2,7,1		1916:18
2037:2		1812:		0,13,16,17		1917:17
2048:1			1,12,	,20	1868:24	13
2048:1		18,22		1820:4,7,8		
2049.3			1,5,1	,13,19,25	1872:22	1919:0,19
2053:1		1,16	-, ~, ±	1822:3,9,1		1922:5
2055:1			9,13,	7,20,23	1876:19	1925:15,24
	-	1010.	J I 1 J I	.,20,20	1010.10	

PUB - MANITO	BA HYDRO	GRA 1	2-19-2012
--------------	----------	-------	-----------

2 Page 2127 of 2162

IOB MANIIOB	A IIIDIQ GIA		Tage ZIZ/ 01	-
1926:7,23	16,21	2034:4,6,1	2072:12	1876 : 8
1927:3,25	1979:1,4,9	2,22	2073:6,11	Tahuadau
1928:15	,15,20	2035:2,5,1	2074:1,6,1	Labrador
1930:1,8,1	1980:12,18	2,17,20,25	3 2075:13	2044:23
5	1981:4,17	2036:5,10,	2077:3	2046:8,16,
1932:5,21	1982:8,20,	14,21,24	2078:4	24 2051:19
1934:23	22 1983:10	2037:2,7,1	2079:1,18,	2058:14
1935:24	1984:9,20	2	19	2060:3,16
1936:4,15,	1985:25	2038:2,6,1	2080:16,20	2063:23
19 1937:13	1986:8,16	1,16,21	2081:15	lack 1834:10
1938:9	1987:3,12	2039:2,10,	2082:17	1857:4,14
1941:9,12	1989:21	16,23	2083:17	1861:12
1942:1,12	1991:1,13,	2040:5,9,2	2084:21	1871 : 10
1943:11	22	0,22	2085:3,23	lacking
1944:25	1992:7,16	2042:9	2086:7	1838:24
1945:18	1993:5,24	2043:4,19	Kennedy ' s	1839:19
1946:15	1994:5,14,	2044:22	-	
1947:4,14	22 1995:9	2045:6,13,	1818:11 1925:12	ladies
1948:8	1996:19	17,21,25	1925:12	1902:12
1950:1	1998:9,15,	2046:6,14	Kettle	Lafond
1951:23	22 1999 : 18	2048:3,7,1	1856:7	1810:15
1952:18	2000:2,19	2,18,22	key 1846:13	1828:5,7,1
1953:4,8	2001:6,22	2049:2,7,1	-	0 1874:20
1959:10,21	2002:13,22	2	Kinectrics	1875:13,22
1960:5,14,	2004:5,12	2050:1,7,1	1819:14,22	1876:1
22	2005:4	5,21	1820:6,15,	1934:14
1961:4,12,	2006:5	2051:2,6,1	22 1821:3	1935:18
17	2007:8,23	7 2052:12	1825 : 16	1936:12,16
1962:3,8,1	2008:22	2053:22	Kinet	1937:11
5,25	2010:19	2054:3,13,	1819:22	1944:9
1963:16	2011:12,17	19,22	knee 1867:23	1945:15
1964:11,22	,23	2055:3,10,	knee 1867:23	1946:24
1965:6,10,	2012:11,23	16,19	knowledge	1947:6
15,21,25	2013:9,17	2056:2,25	1838:23	1948:4
1966:8,16	2014:7	2058:6,13	1897:22	1949:10
1967:5,11,	2015:23	2059:9	1902:7	1950:25
20	2016:11	2060:23	1903:5	1951:10
1968:2,6,1	2017:25	2061:8,16,	1906:4	1956:3
4	2018:11	23	1916:11	1957:2,22
1969:6,13,	2019:14	2062:3,7,1	2075:9	1958:23
20	2022:5	4	known	1989:4,21
1970:1,6,1	2023:22	2063:1,13,	1815:12,15	1990:23
7	2027:8,12,	21	1833:18	1993:11
1971:5,12	23	2064:8,22	1834:1	2017:12,16
1972:1,8	2028:1,14,	2065:4,18	1901:21	,22
1973:3,10,	15,18,23	2066:15,16	1988:11,13	2018:11
15,20,23	2029:6,9,1	,24 2067:4	,23 1989:1	2019:8,14
1974:5,18	7,25	2068:5,10,	2018:16	2021:5,10,
1975:4,12	2030:6,9	23,24	2040:13	16 2023 : 13
1976:17,21	2031:4,11,	2069:5,9,1		2024:7,8
,25	14	9,25		2025:22
1977:5,9,1	2032:6,19	2070:2,9,1	L	2027:5
5	2033:15,19	3,21,25	labour	2033:4
1978:2,10,	,23	2071:5,11	1875:16,20	2060:19,25

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB – MANITOBA HYDRO GRA 12-19-201	1
------------------------------------	---

2 Page 2128 of 2162

			idge zizo ol	
2061:10	1815:17	1878:15,22	1935:24	1987:3,12
2073:3	1819:2	1879:9	1936:4,15,	1989:21
	1820:4,8,1	1880:1,18,	19 1937:13	1991:1,13,
Lalond	3,25	23 1881:1	1938:9	22
2058:15	1822:3,9,1	1882:25	1941:12	1992:7,16
2059:23	7,20,23	1883:22,25	1942:1,12	1993:24
land	1823:7,25	1884:5,18	1944:25	1994:5,14,
1919:8,20,	1824:8,21	1886:18	1945:18	22 1995:9
23 2005:19	1825:2,12,	1887:21	1947:4,14	1996:19
	21	1888:12	1948:8	1998:9,15,
language	1826:2,8,2	1889:7,16	1950:1	21 1999:18
2057:18	0	1891:11,22	1951:23	2000:2,19
languages	1827:2,9,1	1892:6,16	1953:8	2001:6,22
1921:21	4,20,24	1893:5,17,	1959:10	2002:13,22
laptop	1828:18,23	24	1960:5,14,	2004:5,12
2073:5	1829:4,7,1	1894:6,12,	22	2005:4
	7,24	18	1961:4,12,	2006:5
laptops	1830:5,12	1895:1,13,	17	2007:8,23
2073:14	1831:10	23	1962:3,8,1	2008:22
large	1832:3,14	1896:6,13,	5,25	2010:19
1847:21	1833:21	22	1963:16	2011:12,17
1870:5,6	1834:3,11	1897:13,24	1964:11,22	,23
1913:13	1838:18,25	1898:17	1965:6,10,	2012:11,23
1948:13,14	1839:21	1899:2,22	15,21,25	2013:9,17
1983:13	1840:4	1900:3,21	1966:8,16	2014:7
2003:16	1845:24	1901:12	1967:5,11,	2015:23
2010:7	1846:8	1904:16	20	2016:11
2014:11,14	1847:17	1906:2,13	1968:2,6,1	2018:11
2015:3,7,8	1848:6,16,	1907:11,21	4	2019:14
2023:6	25 1849:7	,25	1969:6,13,	2022:5
2026:20	1850:2	1908:9,16,	20	2023:22
2061:7	1851:1,15,	24	1970:1,6,1	2028:1,15,
2071:16	21	1909:10,19	7	18
2084:5	1852:2,13,	1910:2	1971:5 , 12	2029:9,17,
largely	21	1911:17	1972:1,8	25
1834:23	1853:5,18	1912:7,10	1973:3,10,	2030:6,9
1907:5	1854:1,8,1	1913:15,23	15,20,23	2033:15,19
1913:15,21	4,20	1914:6,9,2	1974:5,18	,23
1991:24	1855:1,6,1	2 1915:18	1975:4,12	2034:4,6,1
2039:17	2,16	1916:18	1976:17,21	2,22
2049:18	1856:1,8,1	1917 : 17	, 25	2035:2,5,1
	6,25	1918:3,10,	1977:5,9,1	2,17,20,25
larger	1858:17	13	5	2036:5,10,
2026:3	1859:2,7,2	1919:6,19	1978:2,10,	14,21,24
2058:24	2 1860:3	1920:4,19	16,21	2037:2,7,1
largest	1861:3	1922:5	1979:1,4,9	2
1839:4	1864:4,22	1925:15,24	,15,20	2038:2,6,1
1893:7,13	1865:23	1926:7,23	1980:12,18	1,16,21
2050:17	1866:4,11,	1927:3,25	1981:4,17	2039:2,10,
2055:7	15,22	1928:15	1982:8,20,	16,23
	1867:6,12	1930:1,8,1	22 1983:10	2040:5,9,2
Larry	1868:24	5	1984:9,20	0,22
1810:16	1869:12,19	1932:5,21	1985:25	2042:9
1812:9	1877:4,11	1934:23	1986:8,16	2043:4,19

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2129 o	£ 2162
204	4:22	1857:2	2018:3	1872:24	2000:6,10,
204	5:6,13,	1874:8	2038:4	1885:11	21,24
17,	21,25	1881:8	2062:24	length	2002:6
204	6:6,14	1884:3	leading	1834:25	2003:3,8
204	8:3,7,1	1895:2	1953:17	1911:8	2006:20
2,1	8,22	1928:12	2029:23		2009:25
204	9:2,7,1	1958:23		lengthy	2010:14
2		1970:11	leads 1956:3	2015:15	2015:13
	0:1,7,1	1972:21	leaning	less 1848:12	2043:7
5,2		1990:24	2000:20	1862:25	2044:23
	1:2,6,1	1999:4	leaning	1863:2	2045:3
	052:12	2002:14	leaping	1866:9	2047:8,14
	3:22	2010:5,8	2000:3	1890:3	2051:24
	4:3,13,	2041:14	Learned	1917 : 17	2052:2,15
19,		2057:19	1852:4	1920:22	2058:10
	5:3,10,	2061:4,7	least	2006:25	2059:5
16,		2066:5,10	1820:10,11	2049:1	2064:11
	6:2,25	2073:17	1849:8	2056:11	2065:11
	8:6,13	2075:22	1861:20	lesser	li 1853:14
	9:9	late 1910:20	1871:6	1909:2	liabilities
	0:23	1913:16	1872:9	1997:6	
	51:8,16,	1985:9	1876:16	2060:14	1903:10 1904:6
23		2031:6	1908:14,17		
	2:3,7,1	lately	1913:18	Lethbridge	life 1820:22
4	0 1 10	1898:5	1916:11	1895 : 16	1823:3,20
	3:1,13,		1922:17	let's	1825:15,17
21	4:8,22	later 1880:5	1937:13	1854:22	,18,19,25
	5:4,18	1882:14	1975:4	1865:7	1827:19
	5:4,10 6:16,24	1952:8	1986:13	1878:10	1829:2
	57:4	1953:16	1997 : 15	1884:13	1830:2,11
	8:5,10,	1971:20	2000:23	1911:11	1831:12
200	0.0,10,	1972:5	2001:7	1930:16,20	1832:12,23
	9:5,9,1	1976:13	2082:22	1938:16	1847:10
9,2		1985:6,9	2084:1	1960:5,12	1849:15
	0:2,9,1	1994:16	leave	1976:11	1850:6
	1,25	latter	1886:12	2028:24,25	1852:9,16
	1:5,11	2073:7	1935:2	2081:1	1859:23
	2:12	Laurie	1937:2	letter	1861:21 1863:1
	3:6,11	1929:6	1938:15	2001:18	1867:24
	4:1,6,1	2011:15	1944:19	2002:1	1871:5
	075:13	2046:4	2007:12	2067:22	1877:6
207	7:3	2047:7,12	2028:18	1	1881:3,13
207	9:1,19	2049:24	2031:17	lettering	1884:25
208	2:17		2032:11	1924:23	1885:13,17
208	3:17	Lavigne	100000	level	1886:3,4,9
208	5:3	2086:16	leaves 1952:8	1815:21	1887:6
last	1819:21	lawyer	2028:16	1834:9	1892:18
	0:6	1852:15		1853 : 11	1898:19
	1:1	LDCs 1824:7	leaving	1860:24	1906:18
	9:14		2028:14	1862:22	1907:1,4,2
	0:18	lead	led 1995:4	1990:16	2 1908:22
	2:7	1963:14,16		1992:9,22	1909:1,9,1
		,20,25	ledgers	1993:1	

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2130 o:	£ 2162
1,2	22	2036:8	lifespans	1965:18	1871 : 4
	10:8,13,	2042:17,20	1880:14	1968:1	1915:25
	,20	,22,23		1969:18	1928:3
193	11:5,20	2043:7,8,2	lift 2060:8	1977:4,11	1929:19
192	25:19	0,21,23	light	2041:2	1932:5,11
192	28:14,19	2044:11	1967 : 25	2057:21	1952:2
192	29:8,10	2046:20	2077:11	2063:18	1953 : 9
193	30:21	2047:2,7,1	likely	2066:21	1972:14
193	32:8,9,2	5	1841:6	2068:12,14	1974:24
0,2		2052:13,22	1864:24	,15	1981:19
	33:3,5,7	2053:25	1874:16	2069:4,14	1985:3
,10	0,18,21,	2054:4	1887:22	2075:15	1993:6
24		2057:6,7,8	1911:17	2078:13,19	1996:11,21
	34:2,5,6	2058:24	2017:10	2079:13,15	
	1935:9	2059:22	1 : 1	,21	2006:22
	36:7,10,	2060:12	likewise	lines	2011:24
	1941:17	2064:16,17	2043:24	1917:21	2013:18
	42:5	2065:5,7	Limestone	1925:2	2016:17
	55:7,23	2068:21	1853:14	1961:21	2027:15
	57:13	2069:10,16	1954:25	1977:21	2028:7
	67:9	,20	1957:12,16	list	2033:3
	70:3	2071:14,17	1958:2,6	1812:3,4	2047:13
	71:19,22	2072:15,24	1960:9,18	1813:1	2049:3,13
	72:10,12	2074:19,20	1976:15	1813:1	2052:21
,19		2076:4	2012:22	1814:1	2054:20
	80:14	2081:17	2035:15	1815:1	2069:3
0,2	81:7,8,1	2082:14	limitation	1823:15,16	live 1929:1
	82:1,23	lifes	1850:1,3,4	2038:18	1968:9
	83:3	2043:12	,13	2054:14	lives 1820:1
	84:12	lifespan	limitations		1833:2
	90:3,11,	1814:20	1824:16	listed	1881:4,15
18	50.57117	1856:19	1849:23	2052:7	1902:21
-	92:10,21	1885:20	1850:23	listing	1926:3
	95:12,16	1928:5,23		1814:3	living
,20		1929:3,15,	limited	1839:18,25	1847:18
	96:25	24 1930:4	1857:2	1840:7	
	97:6,16,	1931:8,9,1	2072:9	2005:16	11 1903:13
	1998:3	0 1934:20	2079:9	2006:2,22	load 1817:11
200	00:20,22	1937:7,21	line 1816:4	2038:23	1835:12
200	02:3,17	1960:19,25	1841:3,5	lit 1928:3	
200	03:2	1961:3	1848:20	1:+	loaded
200	08:6,7,1	1967:15	1852:11	literally	1835:17
	2009:10	1972:3	1855 : 11	1837:4	loading
	10:1,11	1976:23	1865 : 2	1905:8,9	1835:18
	11:25	2011:25	1874:18	little	1849:15
	12:3	2012:4	1923:9,13	1818:12	lobbying
	14:23,25	2022:1	1925:2,4	1835:2	2007:5
	18:16,23	2023:19	1929:22	1848:11,12	
	19:5,18	2035:24	1933:15	1853:6,7	locate
	22:11,15	2045:24	1939:21	1855:10	1855:21
,22		2046:3,9,2	1961:6,14	1856:9	located
	23:10	2	1962:2	1857:13	2068:23
202	24:1,6		1963:12	1858:3,12	

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2131 of	2162
locat	ion	2064:12	2009:16	1826:3,6	24 2056:6
192	26:9,11,	2072:17,18	maintenance	1831:23	2057:12
13		,19,22	1833:2	1833 : 5	2059:6,13
locat	ione	lost 1895:2	1842:10,19	1840:6	2061:14
	23:24	2061:24	,20	1841:20	2062:21
-			,20 1857:6,22	1842:8	2073:5
	24:1	lot 1821:6	1037.0,22	1870 : 19	2078:7,18
	6:11,12	1830:21	Maitre	1874 : 16	2080:1,21
,14	ł	1836:20,24	1940:19	1875:12 , 14	2081:14
locat	ion's	1843:2	major	1879 : 22	Manitobans
192	26:9	1862:25	1867:23	1882:7	2026:17,23
lon	2007:10	1879:23	1905:3	1883:4	2020:17,23
		1900:1	1954:10,14	1888:14	manner
long	1820:15	1945:7	1955:6,12	1889:11	1858:20
183	88:7,11	1947:23	2020:6	1890:14	1889 : 17
187	4:8	1949:6,20	2020:6	1891:8	1897:14,19
194	2:17	1952:10	2073:4 2083:13	1902:6,8	1899:7
196	58:10	1957 : 18		1903:1,6	1901:25
200)5 : 9	1995:21 , 23	majority	1912:1	1920:11
200	07:10	2002:24	1835:16	1915:12	1921:11
201	.6 : 4,6	2013:22	1844:17	1917:10	1922:9
202	28:20	2020:23	1868:4	1937:16	1976:10
206	53:6	2053:3	majors	1939:3,5,7	1995:13
207	7:6	2058:17	1900:9	,17,19,22	2044:12
1		2073:14	1900:9	1940:4,6,8	2053:16
longe	32:23	2082:16	man 2042:11	,11	2057:13
			2054:17	1958:15	
-	15:7	low 2026:24	manage	1967:25	manual
	31:13,15	lower	2025:16,21	1987:18	1875:7,9
	2:13	1931:23,24	2023.10,21	1988:9,17	manufacture
	57:17	1964:21,23	manager	1991:19	1821:8
	31:2	1981:5	1903:19	1992:13,17	1840:24
202	23:5	lunch	mandate	1993:7	
long-	term		2026:23	1994:23	manufacturer
201	4:22,24	1912:24	2027:4	1996:14	1821:21
207	5:1	1938:18		1998:2,20	manufacturer
1	2031:20	1947:8	mandated	2000:7,9	's 1874:14
Tose	2031:20	1948:2	1906:20,21	2000:17,5	manufacturin
loss	1909:3		Manitoba	2002:15	
191	.6 : 4,5	М	1810:3,6,2	2002:15	g
192	20:25	magnitude	2 1811:4,7	2011:4 2014:1	1821:5,11
192	21:21	1839:5	1812:6	2014:1 2019:9	1822:1,5
192	23:17	1945:3,6,1	1813:6	2019:9	1921:10
204	3:10	1 1950:24	1814:3,8,1	2020:19	March
204	4:6,7	1952:1,6	4,17	2022:0	1968:12
losse	as	2008:25	1815:3,8,1	2025:14	1983:8
	97:1		6,20	2025:24	1995:5
	22:11,16	main 2026:22	1816:3	2027:4	2069:12,21
	2,24	maintain	1817:9,13,	2031:17	2072:11
	23:8,11	1857 : 12	22	2037:13	2074:4,15
	2:12,15	1872 : 25	1818:5,14,	2044:20 2045:14	margin
	59:12,15	2028:25	18,24	2045:14 2046:2,12,	-
	59:12,15 50:3,14,	maintaining	1819:23	2046:2,12, 19	1951:21
		maintaining	1825:24	-	mark 1845:4
1/	2062:16		1020.21	2047:5,11,	

PUB - MANITOBA HYDRO GRA 12-19-201	2
------------------------------------	---

2 Page 2132 of 2162

EOB MANIIOBZ	A IIIDKO GRA	12 19 2012	Fage 2152 0.	
marked	1832:11	1856 : 17	1967 : 12	1895:16
1817:13,22	mataniala	1857:6,15	1970:7,8	meet 1898:21
1818:15	materials	1858:19,25	1984:21	meet 1898:21
1829:15	1813:5	1864:10	1985:16	meeting
1896:8	1818:13,17 1821:7	1871 : 11	1994:9	1923:4
1962:18		1876:17,21	1997:23	2028:2
2045:5	1891:13,23	1878:2	1998:10	2031:4
2081:6	1892:9 1897:15	1883:19	2004:16	2085:7,9
market	1898:8	1886:13	2007:25	meetings
	1899:12	1888:7	2008:23	2008:10
1847:12	1934:16	1890:22	2011:24	
1917:1,15,	1960:21	1904:11	2025:19	megawatts
22	1965:13	1917:3	2030:18,19	1817:12
1919:12,13	1962:13	1919:13,23	2059:3	member
1921:3	math 2018:17	,24	2064:19	1810:15,16
marks	2034:1	1922:2,12	2071:13	2031:20
1909:16	mathematical	1926:1,4,1	mean 1846:9	2058:15
Martin	1962:18	8 1933:25	1846:9 1847:13,18	
1994:25	2070:17	1945:1	1847:13,18 1849:17	members
2001:19		1952:5	1849:17	1890:23
2001.19	mathematical	1953 : 20		1895:6
mass 1839:6	ly 1964:14	1972:13	1869:10,15	1902:12
2003:8	2018:18	1979:22	1873:23	1915:1
2006:23	mathematics	1983:11	1874:5	1944:12
2018:13	1900:8	1990:8,9	1875:24	1945:1
2082:25	1901:2	1996:20	1876:1	1946:2
massacre		2006:15	1903:8	1952:16
1927:19	matter	2007:12	1912:1	1959:20
	1921:12	2008:3,5,2	1945:6	1961 : 20
massive	1923:24	3 2014:8	2005:11	1993:8
2065:10	2052:16	2015:1	2010:4	2028:12
match	2053:1	2039:17	2018:9	2029:1
1948:20	2060:17	2043:22	2020:10	memories
	matters	2050:3,11	2056:2	1872:23
matches	1881:22	2052:17,20	2057:11	
1911:6	1912:25	2054:10	meaning	memory
2022:22	2034:5	2055:3	1878:6	1839:2,18
matching		2079:4	2073:16	2004:19
1860:12	maximum	2083:23	meaningful	2005:10,17
1941:23	1820:19,22	2084:2,3	1946:11	2006:6
2041:23	1823:3,19	2085:22	1940.11	2007:23
material	1824:17	maybe 1824:2	means	2064:20
1831:7	1825:18	1833:4	2004:25	mention
1868:3	1928:14		2060:25	1849:18
	may 1818:8	1875:15	meant 1856:9	1999 : 2
1870:7 1873:2	1819:9,11	1879:12 1906:17	1883:24	2024:10
1873:2	1833 : 11	1906:17	1897:11,18	mentioned
1876:8	1834:20	1922:24	1924:11	1940:25
1935:6	1838:10	1934:15	1942:2	
1935:6	1842:22,23	1935:19		merit
1958:8	1847:4	1944:25	mechan	1910 : 22
2038:20,22	1849:12,17	1952:9,19	1835:13	merits
	1850:25	1956:25	Medicine	1909:14
materially	1851 : 16	TA21:2		

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOBA	A HYDRO GRA	12-19-2012	Page 2133 o:	£ 2162
1910:8,18	2060:18,22	1999:10	2077:23	1811:12
2009:22	2061:12,13	miles 1839:8	2079:25	1882:12
meters	,15		mind 1857:10	1907:9
2034:1	2062:13	Miller	1869:6	1924:5
	2080:14,22	1811:10	1916:13	1940:22,23
method	2083:12	million	1937:14	1949:17
1814:7	methodologic	1841:21	1953:5	1959:20
1836:2,5,6	ally	1842:15	2001:1	1984:10
,9 1837:20	1841:8	1843:25	2005:2	1993:8,19
1839:20		1852:12,20	2025:23	2010:22,23
1840:2,11	methodologie	1853:10	2028:13	2038:25
1849:14,17	s 1988:6	1863:5	2031:21	MIPUG-5
,19	methodology	1868:5		1815:10
1850:7,12	1908:8	1870:4	mindful	1988:11,21
1851 : 4		1873:16	1994:20	
1898:11,15	methods	1876:2	2027:25	MIPUGs-15Q
,25	1842:24	1892:15,25	2048:5	1969:3
1899:19,20	1946:13	1893:6,14,	mind-set	Miscellaneou
1908:8	1989:16	23	1906:23	s 2005:24
1909:22,23	2018:19	1894:11,17		
1920:7,8,2	MH 1993:12	,25	mine 1876:14	misleading
1		1921:10	2066:1	1943:20
1923:9,14	MH-33 1813:3	1945:4	minimal	missed
1936:2	1817:16	1946:16	2021:3	1824:3
1947:2	MH-34 1813:4	1949:24,25	2061:6	1879 : 12
1951:3	1817:25	1950:14,19	minimum	1947:4
1969:5	MH-35 1813:8	1954:13	-	1949:1
1971 : 18	1939:14	1959:6,8	1825:17	2054:10,14
1972:4	1939:14	1964:2,9	2029:2	
1974:8,13	MH-36 1813:9	1965:19	minor 1984:5	missing 1849 : 6
1977:8,12,	1940:1	1967:1	1985:22	1849:0
24 1978:23	MH-37	1970:22	2020:17	misspoke
1981:14	1813:10	1977:25	minus	1826:5
1982:17	1940:16	1978:9	1961:17	1828:9
1983:24		1979:12	1966:10	1883 : 20
1986:12,14	mic 1961:5	1980:24	1969:11	1907:24
1989:10	1991:15	1984:17		mix 1904:23
1995:8	Michael	2020:21	minute	2037:16
1996:15,16	1811:14	2021:1,20	1926:25	
,17 2000.17 19	microphone	2023:15,25	2029:19	mixes
2000:17,18	1912:20	2049:1,16	2030:18	1823:24
2008:21		2050:19	minutely	MKO 1811:14
2010:12	mid 1845:6	2055:1,8	1849:2	moskin-
2011:21,22	1855 : 17	2056:1,9,1	minutes	mocking 1876 : 13
2016:3,7,1	middle	1	1857:2	
6	1833:13	2058:19,20	1857:2	mod 1910:10
2018:1,18, 21 2019:6		2067:2,10	1879:17	model
2021:19	midship	2068:18	1881:22	1861:25
2021:19	1974:25	2069:3,15	1947:23	1864:9
2023:10,14 2040:13	midst	2070:14,19	2015:11	1877:25
2040:13	1927:11	2071:3,8	2013:11	1887:1
2044:9 2052:16		2073:24		1935:17
2052:16	midway	2076:22	MIPUG	1948:23
2030.2				

PUB - MANITO	BA HYDRO GRA	12-19-2012	Page 2134 of	2162
1949:3	mortality	2073 : 15	d 1869:24	21 2048:9
models	1814:6	multiplicati	1870 : 4	2049:11,19
1864:6,7	1836:5,9	ons 1987:1	2035:6	2051:19
1877:24	1837:19		2047:25	2055:25
1905:4,11,	1839:14,20	multiply	neither	2056:4
12	1840:2,11	1963:4	2040:6	2058:14,18
1942:15,17	1845:23	1985:1,20	2040.0	2059:6,11
1963:1	1849:14	municipal	Nelson	2060:2,16
	1850:7,12,	1916:21	1955:4,6,1	2061:11
modest	18 1851:4		2,17,22	2063:23
1854:5,11	montanao	municipal-	1957:10	newly-
1855 : 22	mortgage	owned	1958:4	-
modified	2061:2	1895:9,20	net 1880:5	discovered
1974:21	motion	myself		1872:1
	2031:14	-	1892:19	nice 1830:15
2044:19		1902:5	1908:7	• • • • • • • • •
moments	motor	1903:18	1940:10	night 1820:6
1852:7	2034:13,17	1906:23	1941:18	1821:1
	mouth	1996:1	1942:6	nine 1843:23
money	1904:11	2029:1	1950:7	1854:6
1884:19,23	1906:22		1951:16	1866:9,12,
1886:7		N	1955 : 21	20 1964:2
1945:9	move 1860:15	namely	1958:24	1968:7,15
1953:19	1864:2	1896:11	1961:14	1990:8
Monsieur	1868:21	1997:1	1962:9	2049:9
1912:19	1870:22	1997.1	1963:5,18,	2045:5
2027:10	1890:21	NARUC	20 1966:13	2007:10
2066:7	1923:24	1820:10	1969:5,11	2070:19,20
	1933:9	nature	1971:3	
monthly	1963:24	1837:3	1977:11,13	2086:6
2043:24	1983:20		,19 1978:8	nine-six-
2047:23	2020:8	1858:25	2008:12	nine
months	2025:9	1954:15	2017:10,14	2067:2
1949:2	2056:17,18	neat 1830:15	2020:15,16	
1949.2	,22 2057:2		,20,23	nineteen
moral 1844:5	2064:1	necessarily	2024:18	1959:14
morning	2065:6,16	1821:4,10	2024:10	ninety
1817:4,5,8		1837:13	2023:4	1944:4
1818:3,5	moved	1838:3	2053:7	
1829:8	1832:20	1874:24	2000.1	ninety-five
1829.8	2023:14	1949:13	network	2070:14
1902:11	2058:23	1971:11	1820:2	ninety-one
	2064:15	2014:11	Newfoundland	2070:14
1915:20	moving	2053:8	2037:17,19	
1928:18,21	1863:24	necessary		ninety-six
1937:1	1891:23	1935:19	,23 2038:8,18	1977:25
1946:25	1906:19	1955:19		nod 1817:13
1947:15	2021:19	2042:2	2039:18,22	
2027:18	2055:6		,24 2040:7	None 1882:7
2028:2		negative	2042:11,16	non-
2038:22	2061:11,14	1892:19	2044:22	generation
2059:24	2062:1,6	neglected	2045:19	2033:17
2080:16	MPI 1903:8	2023:23	2046:7,13,	2034:3
2081:11	multifunctio		16,24	
2086:6		neighbourhoo	2047:1,13,	non-precise
	nal			

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2135 of	E 2162
1950:23	1962 : 5	occasions	1844:1	1873:23
non-	np	1908:2	1845:14	1885 : 6
regulated	1811:10,14	1913:17	1855 : 20	1887:3
1921:3,4	,16	1971:22	1868:2,12	2021:25
		occur	1871 : 2	2022:24
nonstandard	Num 2036:25	1868:14	1878 : 17	2056:12
2053:11	number-	1877:23	1880:7	olden
nor 2000:25	crunching	1942:4	1881:21,23	1841:23
1070.04	1871:24	1983:12	1885 : 16	1842:3
norm 1870:24	numeral	1995:15	1886:11	
normal		2014:19	1891 : 25	older
1863:14	1896:12 1914:17	2023:9	1902:2	1883:17
1871 : 1	2018:2	2059:14	1904:9	1885:13
normally	2018:2		1912:9	1929:20
1921:15	2032:25	occurred	1930:10	oldest
1922:16	,7 2034:8	1853:11	1931:19	1883:13
1983:12	2035:1	1855:18	1932:21	onerous
2018:24	2065:22	1862:11	1938:16	1839:17
2027:6	2067:14	1869:18	1957:20	
		1877:19 2008:1	1960:4,7,1	ones 1843:16
North	numeral-VIII		5 1961:13	1869:14
1871:15	2035:9	o'clock	1963:9	1903:23
2003:10	numerical	2086:6	1970:13	1911:9
2018:14	1843:11	October	1975:1 1976:11	2047:10
northern	1924:25	1878:12	1978:11	2054:24
1843:17		1982:14	1978:12	one-seven-
note 1887:22	numerous		2013:10	six
1943:2	1856:6	odd 1821:20	2015:10	1970:23
2019:20		Odette	2021:16	Ontario
2032:25	0	1811:5	2028:24	1823:6
	object	1939:1,16	2030:10	1831:6
noted	1947 : 17	1940:3	2034:19	
2041:18	objective	office	2035:22	onto 1860:8
2050:14	2082:13	1903:15	2038:3,14,	1879 : 16
notes 1839:2		1935:13	24 2039:20	op 2020:16
nothing	observation	2008:5	2042:24	
1956:13	1971:13	2051:22	2045:4	open 1851:11
1976:22	obviously	2073:18	2048:8,24	2081:3
	1846:10		2050:24	2086:1
notice	1853 : 19	offsets	2053:24	operating
1920:20	1876 : 5	2022:16	2054:16	1817:19
1970:9	1926:11	Oh 1824:8	2055:16	1833:1
1972:8,14	1937:2	1828:9	2064:22	operational
1973:17	1945:8	1883:22	2067:4	1830:13,18
1981:23	2031:23	1955:2	2068:11	1838:4
2002:25	2032:16	1984:9	2069:1	1857:9
2006:21 2007:9	occasion	2036:23	2070:4	operationall
	1907:3	2062:3	2074:8	y 1830:23
2056:7,8	1913:18	2064:22	2080:12	Y 1030:23
noticed		okay 1817:3	2081:5	opinion
1916:21	occasionally	1818:6	old	1871:12
nowhere	1860:11	1822:12,22	1872:9 , 24	1902:17
nownere			10,2,9,21	

PUB - MANITO	BA HYDRO GRA	12-19-2012	Page 2136 o:	£ 2162
1904:20	1901:6	2014:22,24	1820 : 17	1981:14,19
1992:25	organization	output	1824:6	1993:18,19
2002:23	1923:1	1901:15	1825 : 5	1999:9,10
2014:10	2049:14		1826:16,23	2001:25
2063:5,25	2056:9	outputs	1828:4	2010:22,23
2069:4		1901:24	1829:14	2013:2,6
opinions	organization	overall	1830:1	2018:2
1996:1	s 1906:19	1824:23	1831:22	2021:18
	1920:13	1825:24	1832:2	2034:7
opportunity	original	1856:5	1840:18,19	2035:1,9
1820:6	1826:25	1892:12,13	1841 : 15	2036:22
1821:1	1828:15	1927:17	1844:16	2039:1
1911:3	1833:16,25		1848:1,4,1	2041:14,20
1997:22	1851:18	overboard	9 1849:8	2045:12
2006:16	1852:9,16	2051:20	1851:10,11	2050:19
2031:1	1854:24	overhauls	,18,22,23	2054:10
2057:15	1855:5	1857:6,21	1852:8,18	2057:18,22
2085:24	1867:4	overhead	1854:3,25	2065:22
opposed	1873:7,9		1865:18,21	2066:2,4,5
1831:8	1877:6	1825:15 1828:16	1867:3,24	,10,15,16,
1925:22	1879:11,24		1869:14,23	23
1934:22	1885:5,9	1830:11	1870:4,15	2067:2,3,9
1944:3	1936:17	1832:8,9 1834:2	1877 : 3	,16
2008:21	1959:12	1834:2	1879:2,4	2068:2,4,1
2061:13	1965:19	1840:21	1894:4	2 2072:1
2083:14	1972:6	1040.21	1896:5,6,1	2079:7,14,
option	1973:7	override	1 1905:18	21,23
2032:16	1977:22	2019:24	1906:14	pages
2032:10	2020:18	oversimplify	1908:4	1810:24
options	2036:19	ing	1914:16	1860:4
2008:18	2049:11	1986:21	1915:2,3,4	1865 : 10
2009:4	2056:8		1924:24	1891:5
oranges	2068:17	over-skewing	1925:10	1892 : 10
1966:4,9,1	originally	1863:8	1927:7	1907:8
7	1884:17		1928:3,9 1929:21,22	1924:24
order	1930:18	P	1939:6,18	1962:17
1906:24	2065:5	p.m	1940:8	1966:12
1908:24		1938:20,21	1959:24	1969:14
1945:2,6,1	others	2030:22,23	1960:8,16	1974:7
1 1949:5	1850:23	2086:9	1961:21	1978:6
1950:23	1852:15	P-10 2045:12	1962:18	1985:11
1952:6	1877:10		1964:2	1993:21
1954:13	1957:5 2084:21	pa 1828:6	1965:12	2052:9
1989:22	2004:21	1841:14	1966:23	2054:6
1990:14	otherwise	1983:21	1969:2,11,	2067:21
	2059:8,10	page 1812:2	17	paid 1815:4
orders	ought 1994:1	1813:2	1970:14 , 15	1958:10,17
1857:11 2008:25	1998:2	1814:2	,19,25	Pambrun
	2052:5	1815:2	1973:6	1811:16
ordinarily	outage	1816:2	1976:14,20	
1860:25	1940:9	1817:10,14	1977:21	panel
	エジュレ・ジ	,21	1978:13	1810:13
ordinary	outlook	1819:17	1978:13	1812:6

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2137 o:	£ 2162
1818:10,24	1915:2	2028:22	2014:5	2023:16
1819:12	1926:17	2065:2	2015:21	2070:1,6
1826:22	1932:9,15,	2067:13	2030:12	percen
1829:12	18 1960:9	2080:24	2039:8	1980:2
1831:25	1962:6	PAUSE 1825:8	2041:11	
1859:16	1969:18	1826:18	2045:8	percent
1876:23	1973 : 19	1832:5	2048:16	1824:24,25
1890:23	1977:4	1834:5	2051:10	1836 : 7
1895:6	2002:21	1845:16	2055:22	1842:13,14
1898:9	2003:25	1846:1	2064:6	1843:15,19
1943:19	particularly	1851:13	2065:25	1846:24
2029:21	1903:16	1858:6	2066:12	1860:6
panels	1910:15	1865:13	2067:7,18,	1862:7,13
1952:13	1995:14	1866:24	25 2073 : 9	1863:2
	2059:25	1878:25	2075:6,11	1919:2,3,1
paper	2060:1	1879:7	2076:18	5,16
1818:10		1884:8	2077:1	1933:22
1835:23	parties	1889:5	2080:6	1934:8
paper-based	1924:5,20	1891:1	2082:7	1935:20
1834:23	1946:11	1893:3	2083:8	1941:7
	2013:2	1894:21	2085:18	1944:16
papers	2031:16	1905:20	pay 1829:10	1956:8
1821:6	partly	1912:3	2026:25	1959:1,2,8
paperwork	1877:23	1914:11,24		,13,15
1857:8,16	1906:21	1915:6,16	payers	1961:18
paragraph	1922:9	1918:1	2057:15	1969:11
1833:10,13		1924:16	payment	1970:9
1896:16	partner	1926:21	2061:1	1972:16
2001:25	1993:1	1927:1		1973:9,13
2001:25	partners	1932:3	payments	1983:2
2041:14,20	1995:11	1943:6	1955:14	2037:5,9
	partnership	1946:22	peak 1817:11	2049:10
parameters	1984:19	1951:8	peer 1831:17	2051:4
1979 : 25	2079:9	1964:17	-	2055:9
1980:6,10		1965:1	peers 1850:9	2056:1
paraphrase	party 1974:2	1966:19	Pennsylvania	percentage
2074:22	past 1873:11	1968:22	2028:4	1822 : 10
	1875:15	1971:15		1847 : 22
partially	1889:13	1972:24	pension	1861:5,6,8
1864:5	1929:14	1974:10,16	1904:4	1862:19
participate	1957:4	1975:7	people	1864:20,21
2029:22	2071:14	1987:6,22	1857 : 9	1870 : 6
particular	nath 1000-04	1991:4,11	1861:23	1889:19,25
1827:8	path 1996:24	1993 : 15	1900:5,7,2	1920:25
1853:23	Patrick	1994:3	4	1934:21
1853:25	2005:16	1999:16	1901:1,19	1950:8
1858:12	pattern	2001:4,15	1941:5	1953 : 19
1859:5	1857:25	2003:21	2010:23	1954:7,9
1864:16		2004:3	2028:3	1959 : 11
1867:2	Patti 1811:4	2007:21	2066:14	1961:16
1876:18	1817:6,18	2011:1	2068:16	1963:12
1892:10	1818:4	2012:17,25	per 1935:20	1980:3
1892:10	1882:7	2013:4,15	2021:1	percentages
1071.10			2021.1	

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2138 of	2162
186	51 : 7	1933:16	,24	plane 1952:8	plants
191	.8:15	1934:17	phase-in	2027:8	1870:20
	1:18	1935:11,17	1906:10,16	planned	1885:21
	7:9	1941 : 15		2014:20	1886:1
195	53:7,10,	1942:3	phase-ins		1955:3,5,1
11		1944:10	1907:3	planning	8 1990 : 6
perce	entile	1947:1,10	phone	1990:12	2011:10,21
-	55:10	1948:3	1903:17	2028:14	2012:4
		1952:4	1994:25	plant	2055:7
perce		1968:3	phonetic	1814:22	2056:11
186	52:4	1983:16	2039:12	1836:1,18	2058:21
perfe	ect	1997:10		1848:22	play 2031:3
202	22:19	2030:3	phrase	1857 : 12	
perfo	ormed	2052:18	1859:19,20	1861:5,6,9	playing
	33:6	2072:7	physical	1862:19	1847:11,12
	94:10	2075:18	1955:23	1863:3,5	please
		periods	1957:13,16	1864:20,21	1952:25
perha	-	1866:2		1870 : 6	1953:5
	9:13,16	1934:11	physically	1872:17,18	1989:6
	20:18	2075:18	1887:25	,24	1999:25
	24:5,13	2076:3	pick 1840:17	1873:6,8	2028:25
	32:19	period's	picked	1877 : 17	2031:21
	37 : 10	2077:9	2054:25	1881 : 15	2038:3,25
	51:11			1883:14	plot 1859:23
	52:15	permit	picking	1886:3,23	1870:14
	57:4,5	1906:7	1886:2	1887:2	
	58:14	person	picture	1889:1	plots 1860:8
	53:22	1848:9	1869:15	1906:8	plotted
	7:9			1933:13	1867:22
	9:20	persons	pictures	1935:14	1869:23
	80:8	1848:13	1820:11	1936:17	1870 : 3
	81:9 84:10	2078:6	piece	1937:8,23	plotting
		perspective	1825:23	1947:11	1860:6,15,
,24)5:17 , 23	2025:16	1985:8	1953:25	21
	2:25	Peter	pipelines	1956:11,12	
	2:23	1811:10	2003:14	1982:2	plus 1881:12
	9:22			1983:1,4,1	1934:19
	57:8,23	Peters	placed	9,21,23	1962:21
	58:1,9	1811:2	1831:15	1984:23	2034:14
	58:17	1818:7	1858:2,3,1	1985:1,4,8	2043:8
	95:7	1852:5	2 1874:5	,21 1986:4,12	pocket
	9:21	1865:8	1875:4	1986:4,12	1950:4
	4:20	1876:12	1985:13	1991:24	noint
		1882:9	1986:19	2005:25	point 1821:23
perio		1894:3	placement	2012:5,22	1823:8
	54:12	1895:7	1877:7,12	2012:3,22	1824:9
	57:14,15	1907:13 1909:12	1878:18	2014:20	1837:8
	7:16,25	1909:12	1883:12,16	2034:10	1843:16
	06:10		1884:15	2038:12	1846:17
	3:16	2030:25 2085:20	places	2039:21	1847:23
	9:22		1876:6	2039:21	1849:12
	20:22,24	phase	2064:3	2081:17	1852:25
193	30:13	1906:15,21	2007.3		1002.20

PUB -	MANITOBA	A HYDRO GRA	12-19-2012	Page 2139 of	E 2162
18	54:5,11	2052:4	1875:16 , 17	2008:11	potentially
18	55 : 17	2062:22	,24,25	2017:19	1873 : 14
18	62:12,16	2069:2,8,9	1876:3,10	2019:11,16	power
18	64 : 9	,16	2044:25	2020:10	1956:16
18	71:8,13	2070:15,24	poles	pool 1909:17	2005:24
18	74:6	2071:9,10	1814:15	1910:1	2022:3
18	76 : 20	2072:3	1820:2	1911:10,12	2025:25
	80:2	2074:21	1826:25	,16,18	2023:23
	85:4,24,	2081:21,23	1832:8		2046:12
25		2082:23	1834:2,20,	pop 1895:24	2079:9
	94:2,18	2083:3	21 1837:4	popularized	
	00:23	2084:13	1838:15	1836:1	powerhouse
	07:2	2085:20	1839:7	populated	1955:8
	10:4,9	Pointe	1841:5,11,	1846:21	2043:16,21
	21:13	1814:9	21,25		,25
	25:3	1878:10,20	1842:18	population	2044:3,16
	27:15	1880:4	1843:15,20	1846:24	2045:12
	29:16	1882:23	1844:2,18,	1863:15	2047:1,6
	31:6,14,	1883:3,15	19	1889:21	powerhouses
	1934:4 35:21	1884:4,13,	1845:2,5,8	1899:9	2005:7
	35:21 46:2	15	,9,20,21	Portage	2043:20,22
	40:2 55:25	1885:2,17,	1846:6	1810:21	2045:16
	62:1,6,1	18,20	1847:10	portion	2047:11,16
	20,21,22	1886:8,12,	1872:1,2,7	1835:24,25	practical
,2		16	,9,10,13,2	1863:1	- 1928:12
	63:4,6,1	1887:15,19	0,21	1946:10	
1	00.1/0/1	1888:6,15,	1873:10,15	2023:19	practically
-	67:10 , 13	25 1889:3	,16	2026:1	1844:18 2021:12
	69:24	1917:13	1874:3,7,2	2032:11	2021:12
	70:5,7,2	1926:6	2	2079:10	practice
2,		1956:21	1875:1,2,5		1839:5
	71:2	1958:1	,11	portions	1849:25
19	72:20	1959:5	1876:2,6	1952:18	1850:22
19	73:14,16	2046:4	1881:19	portrayed	1851:8
19	78:15,19	2047:7	1889:14,19 ,21,25	1821:14	1901:7,11
19	81:2,21,	points	,21,23 1890:4,10,	positi	1902:5
22		1856:18	15 1921:10	1978:24	2053:12
19	82:16,18	1858:10			practices
	83:10	1860:15	polices	position	2024:22
	85:20	1861:10	1857:5	1984:4	2042:19
	86:5,11	1864:19	policies	2073:1	2056:10
	90:20	1975:24	1857 : 19	2074:15	2059:18
	92:3	pole 1832:8	2020:4	2075:23	practitioner
	96:7,23	1837:11	2024:13	possibility	s 1899:17
	97:5,19	1841:3	2025:18	2017:7	
	00:20	1842:10,14	2057:12	possible	pre 1993:7
	04:8	,15,19,21	policy	1861:20	2001:20
	07:17	1843:1,8	1875:13,19	1936:7	2031:25
	11:11	1844:24	1975:20,21	1937:4	2081:8
	13:18 16:12	1845:10	,23 1976:1	1948:6	preamble
	16:12 17:17	1873:23,25	1977:17	2025:8	1994:17
	17:17 37:3	1874:13	2007:18	2031:11	pre-ask
20	51:5				Pre ask

PUB - MANITOBA	A HYDRO GRA	12-19-2012	Page 2140 of	2162
1907:9,14,	prelim	2078:7	1928:10	2072:15
16	1944:17	presentation	1978 : 6	prioritize
1984:10,25	preliminary	1815:17	2021:8	2030:16
1987:18	1944:17	1828:15	2023:24	
1993:19	1974:17	1994:23	2034:17	privilege
2001:20	19/4.13	1995:1,7	2059:4	2085:8
2081:12	premature	1996:8	previously	pro 1859:16
Pre-asks	2063:16	1998:7,16,	1815:7	-
1993:10	premise	21	1958:12,20	probable
	2019:5		2072:2	1967:9 2036:8
precedent	2084:15	present-day		
2084:12		2083:13	price 1921:4	2068:21
precise	premium	presented	primarily	2069:16,20
1847:10	1815:4	1825:16	1853 : 1	probably
1945:11	1956:23	1994:17	1856:23	1836:7
1950:9,10,	1958:10,17	2009:6	1867 : 9	1863:9
15 1952:5	preparation	2010:6	primary	1869:16
1974:23	1830:22	2016:6	1868:17	1870:11
2004:6	1849:14	presenting	1869:20	1872:4,5
2008:1	1950:5	1826:24	1892:24	1876 : 15
2009:1	1953:22,24	1913:14		1887:24
2023:10	1954:16		prime 1911:3	1895:4
2044:1,5	1955:9	Presently	principal	1897 : 25
2045:2	2001:9	1843:13	2061:2,4,5	1942:21,23
2046:18	2041:16	press		1951:20,25
precision	preparatory	1921:11	principle	1954:15
2018:23	1957:13		2017:24	1956:18,21
2010:23	1958:3	pressing	principles	1959:7
		2031:4	1902:18	1968:11
predominance	prepare	pressure	1989:11	1990:3,10,
2049:20	2077:18	1910:21	2026:6	17 2008:13
predominantl	prepared	1911:24,25	2027:1	2015:25
y 1822:4	1831:23	1912:1	printing	2024:11
- 1823:17	1977:16	pressures	1921:11	2083:18
1839:12	2016:20	1922:23	2073:15	problem
1881:18	2028:11,13	1922:23	2073:13	1848:16
2002:9,19	2039:11,14	presumably	printouts	1888:4
2003:7	,15,19,21,	1879:23	1860:4	2056:23
2053:14	23 2041:6	pretext	prior 1842:1	2072:4
nreemat	2065:5	1959:23	1844:20	problems
preempt 1907:13	2077:20		1845:4,5,6	1997:24
	preparing	pretty	1875:8,9	1 7 9 1 • 2 4
preface	1927:12	1869:9	1928:10	proce
2029:6	1957:12	1874:19	1942:21	1874:11
prefer		1941:6	1948:2,15	procedure
2077:4	preponderanc	1946:3,5	1949:12	1892:4,8,1
	e 1913:25	1947:24	1989:18	3,18
preference	prescribed	1952:6	1993:22	1893:20,21
2027:17	1990:24	2019:17	1994:7	1901:6
2032:5		2022:18	1995 : 15	1906:1,18
pre-IFRS	present	2073:7	2039:24	1907:1,4
-	1843:22	previous	2056:10	
2022:25	2031:25	1830:24	2030.10	1910:8

PUB -	MANITOB	A HYDRO GRA	12-19-2012	Page 2141 o:	£ 2162
194	2:6	2052:22	1872:15	1935 : 25	providing
194	4:19	produced	1873 : 10	1936:20,25	1864:8
195	9:25	1891:6	1926:25	1937:5 , 16	2004:18
196	1:23	1960:13	property	1939:7	province
198	1:20	2081:16	1839:6	1958:15	1840:22
198	3:3,24		1916:23,24	1967:12	1840:22
198	4:12	Production	1910:23,24	1984:7	1999:5
199	2:10	2005:18	1919:7	1987 : 15	2049:19
199	5:20	profess	2003:8	1988:9 , 17	2049:19
200	2:17	1849:2	2005:8	1990:13,15	provincial
200	3:2		2018:13	1998:7,12,	2035:10
201	6:16	profession	2018:13	16,20	provision
201	9:19	1901:10	2002:25	2000:4,5	1816:6
202	0:1	professional	proportion	2001:10,11	1892:18
202	2:11,16	1871:4	2026:3	2010:14	1892:18
,22	2024:1	1901:10	proposal	2014:10	1965:4
	2:5,7	1904:19	1952:25	2022:10	
	7:24	2024:11		2031:9	1978:14,24 2078:14,23
206	2:10		proposed	2043:6	2078:14,23
	0:2,14	professional	1924:2	2063:4	provisions
		s 2019:18	2040:14,25		1942:6
-	dures	profile	2057:6,8	provided	2074:10
	1:10,20	1841:11	proposition	1817:10	2076:10
190	2:10	2022:22	2083:11	1818:12	PUB/MH
proce	ed	2022.22		1859:16	1939:19
181	8:22	program	proprietoria	1882:11	1939:19
	5:11	1842:10,19	1 1864:6	1891:7,14	PUB-1
201	0:17	,20 1843:1	1901:18	1896:24	1831:23
		1846:21	1905:2	1906:14	public
_	eding	2015:3,7,9	pros 2009:3	1910:5,6,1	1810:3,20
	2:25	programs	PIOS 2009.5	0,11	1902:6
	0:4	1833:2	protect	1939:8,23	1902:0
	8:1,9	1842:17	2025:9	1960:10	1905:9
205	7:1,10	1861:16	proved	1965:8	1915:9
proce	edings	1901:15,24	1830:25	1974:2	1993:10
188	2:5			1976:8	2004:22
191	4:20	project	provi	1981:15	2050:8
191	7:11	1903:19	2014:10	1984:10,25	
193	8:17,24	1908:13	provide	1987:17	pull 1831:21
202	4:12	1955:11	1814:3,12,	1989:9	pulled
204	0:3	2025:3	17	1992:16	2005:16
206	2:1,6	projected	1815:3,8,1	1999:9,11,	
		1817:19	6 1839:18	14	pulling
proce			1840:6	2000:1,7,2	1881:4
	2:20	projections	1847:3	3 2008:17	purchase
	7:16	1816:8	1861:15	2010:10	1876:9
	9:23	2078:16,25	1865:4	2014:22,23	
	1:19	projects	1870:8	2015:25	purchased
	1:22	1983:13	1888:9,20	2016:3,14,	1845:1
	5:3		1898:14	15 2029:25	1874:16
	5:13,17	1080.7	1920:4	2038:22	purchasing
,18		1989:7	1927:14	provides	1884:24
	2:15	2077:13	1928:17	2038:23	
	7:11	properly	1934:25	2000.20	pure 1869:2
204	0:10				

PUB - MANITOBA HYD	RO GRA 12-19-2012
--------------------	-------------------

2 Page 2142 of 2162

PUB - MANITUBA	III DILO GILA	12-19-2012	Page ZI4Z O.	
1908:24		2012:15	quite	1984:21
	Q	2021:17	1823:17	1991:16
purely	qualificatio	2023:24	1858:18	1996:3,6
1938:11	-	2032:3,4	1869:15	1999:4
purest	n 1821:12	2032:3,4		2008:23
1860:13	1823:18		1885:8	
1000.13	qualificatio	2061:24	1906:16	2021:10
purple	ns 1905:6	2074:14,16	1932:6	2024:8
1822:14		,23	1942:14	2026:8
1823:1	qualifier	2076:7,13,	1947:17	2075:9
	1936:25	21 2077:12	1948:11	2077 : 19
purpose	1943:1	2080:20	1976:6	2080:15,23
1848:14		2081:4	1995:22	2081:1,7,2
1902:24	quantificati	questioning	2001:9	0
1912:11	on 1939:8		2006:6,7	Ramage
1922:5	1988:5	1925:18	2012:13	-
2080:9	quantify	2027:16	2025:23	1811:4
	1940:9	questions	2044:9	1817:6,18
purposes	1940.9	1819:9	2049:4	1818:4
1839:24	question	1848:9	2049:4 2054:14	1882 : 7
1902:15,16	1828:3	1876:17		2028:22
1916:23	1848:15	1883:19	2072:8	2065:2
1918:20	1849:21		quotation	2067:13
1922:4,18	1880:10,19	1886:13	1909:16	2080:24
1923:21	1889:11	1899:14		2085:23
1929:8	1895:2,4	1904:25	quote	2086:3
1930:21	1902:3,24	1913:2,10	2063:22	
1945:13	1904:17	1953 : 17	quoted	ran 1949:3
2010:15		1994:10	1821:2	range
2023:14	1910:22	2007:15	1879:13	1841:21
2025:10,18	1911:23	2017:23,24	1897:2	1843:23
2026:1	1916:1,10,	2027:9	1097:2	1852:11,20
2020:1	22 1918:9	2029:1	quotes	
2082:12,16	1921 : 25	2030:17	1898:3	1853:24
2082:12,10	1926:24	2031:8,24		1854:12
push 2017:7	1927:15	2032:20	quoting	1863:7
muched	1930:16	2068:13	2041:21	1869:2
pushed	1931:18	2000:13	2057:21	1870 : 17
2031:7	1932:14,15	2081:12		1893:23
pushing	,22	2004:23	R	1894:24
1866:17	, 1946 : 25	quibble	R2 1856:5	1944:3,24
	1947:5,7	1897:10	LT TOIDII	2004:10,14
puts 1873:25	1949:15,19	quibbling	R4 1928:24	,15 2016:6
1904:11	1956:4,10,		Dailware	2037:11
putting	18	1972 : 13	Railways	
1864:17		quick	2006:1	ranging
1871:7	1958:6,24	1905:17	Rainkie	1900:8
1896:2	1959:11	2036:17	1812:8	rapidly
	1964:25		1819:1,7	1907:7
1909:15	1969:8	quicker	1872:5	
1948:15,24	1984:22	1968:10	1902:3,11,	Rapids
2082:12	1985 : 15	quickly		2011:15
puzzled	1989:5,22		23 1903:7	2012:21
1970:20	1992:8	1866:16	1904:11	2046:5
1996:11	1999:19,24	1941:7	1912:7,15	
1990.11	2002:11,19	1989:23	1925:1,4,8	rate 1810:7
	2011:7,24	2019:3	1953:21	1859:19,25
			1968:18,20	1860:5,8,1

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2143 of	E 2162
3,14,17,21	1916:7,8,1	1833:18	2024:7	8 1931 : 9
,23	2	1835:17	2025:22	1946:18
1861:11,14		1838:8	2027:5	1948:6,24
,15,16,24,	ratepayers	1839:17	2033:4	1956 : 18
25 1862:17	2014:1	1857:7	2060:19,25	1963:7
1864:8	2021:4	1871:23	2061:10	1992:25
1867:11	rate-	1879:9,15,	2073:3	1994:16
1868:9,16	regulated	16 1909:21	1010.0	1995:17,18
1871:18	1917:4	1921:14,18	re 1810:6	2004:19
1898:11,13	1918:19	1947:19	1853:1	2009:17
,15,20,23,	1920:1,18	1977:13	1873:21	2010:6
25 1899:19	1921:5,9,1	1978:11	2020:19	2018:12
1900:7,13	4 1922:14	2008:25	rea 2056:16	2021:25
1912:1	2017:2	2019:11	reached	2022:6
1916:6,7	2024:14,24	2021:7	1853:12,17	2025:6
1917:6	2025:2	2022:2	1872:18	2053:10
1919:15	2026:10	2028:11		2072:19,20
1921:15,18	2027:1	2049:17	Readers	realm
1933:7,16,	rates	2052:4,24	1861:4	
21 1934:8	1815:10	2059:1,16	1928:17	2083:18
1935:10	1908:7,11	2061:13	readily	reason
1936:8,10,	1933:2	2076:4	1840:24	1858:1
21 1946:7	1935:7	2077:12,14		1910:5
1949:3,10	1941:13,16	ratio	reading	1947 : 17
1952:2	,23 1942:5		1820:8,10	1977 : 10
1962:20	,23 1942:3 1946:12	1862:6,13	1824:3	1997:22
1963:12	1947:1	ratios	1845:10	2020:3,13
1969:23	1948:3	1918:15	1899:11	2062:9
1970:10,11	1949:9	Raymond	1994:6	reasonable
,15	1950:8	1810:15	ready 1817:4	1859:12
1972:8,15	1952:1	1828:5,7	1818:21	1870:12
1973:13	1971:10	1874:20	1912:19	1871:9
1974:3	1972:6	1875:13,22	1938:24	1885:16
1978:14	1982:24	1934:14	real 1870:1	1902:17
1981:20,22	1984:11,14	1935:18	1917:23	1951:21
1982:2,8,9	1987:2,17	1936:12,16	1944:1	1952:25
,16,19	1988:10,20	1937:11	1944.1	2017:21
1983:2,20	2015:8	1944:9		2026:12
1984:24	2026:11,24	1945:15	realize	2055:12
1985:1,11,	2042:23	1946:24	1873 : 19	2057:14,15
12 1987:10	2074:9	1947:6	2082:10	-
2020:13	2075:3	1948:4	really	reasonablene
2036:15	2076:11	1950:25	1835:7	ss 1859:11
2052:24	2077:13	1956:3	1839:6	reasons
2053:5,25	2082:21	1957:2	1849:10,20	1832:24
2075:22		1958:23	1861:25	1858:3,11
2076:4,5	rate's	1989:4	1862:24	1921:6
2077:10	1972:11	1990:23	1863:16,19	1997:21
2080:17	2077:7	1993:11	1864:13	2020:6
2081:22	rate-setting	2017:12,22	1869:10,23	2021:24
2083:5,15,	2025:18	2019:8	1899:10	2041:2,7
24	rather	2021:5,16	1913:7	2047:20
rate-making	1821:16	2023:13	1923:7,8,1	2056:17
	1021.10			

		12-19-2012	Page 2144 of	-
rebuild	2014:18	1980 : 10	Red 1895:15	refinement
1954:3	2031:2	recomponenti	redi 1858:14	1933 : 25
1956:11,20	2046:25	ze 1990:5		refining
rebuttal	recognized		redid	2012:8
1910:11	1984:18	reconstructi	1953:25	
2022:9	1996:24	ng 1815:5	redo 1964:20	reflect
reca 1943:18	recognizing	1958:10,18	redoing	1823:23
reca 1943:18	1824:15	reconvene	1957:15	1827:17
recalculate	1849:22	1942:24		1873:9 1883:10
2075:21	1853:20	record	reduce	1884:22
recall	1860:20	1851:5	1906:11	1890:24
1891:17,21	1863:25	1864:23	reduced	1940:12
1892:1	1892:9	1879:16	2071:21	
1897:8	1901:4	1896:2	2072:20	reflected
1898:16	1902:4	1927:5		1887 : 11,
1902:15	1917:2	1935:6	reduces	2050:5
1903:23	1929:11,13	1940:21,25	2022:23	reflecting
1909:18	1986:18	1941:1	reduction	2080:9
2051:14		1945:6	2018:25	
	recollection	1948:16,18	reference	reflection
received	1944:14	1974:20	1825:5	2024:1
1831:2	2000:16	1985:13,14	1848:19,21	reflective
1906:18	2040:17	1990:17	,24 1849:4	1883 : 13
1992:18	recommend	2004:7,19	1854:19,20	1885 : 12
1994:24	1906:24	2015:17	2080:25	reflects
2079:11	2051:18	2016:1		1829:1
receives	2052:21	2050:8	referenced	1981:6
1885:18	2063:2	recorded	1875:8	
recent	recommendati		references	refresh
1889:13	on 1983:19	1886:20 1889:17	1821:2,20	2064:20
1971:24	1997:19	1009:17	1822:11	refreshing
2012:22	1997:19	records	1877:12	2005:17
2038:1	2010:10	1836:1,10,	1993:7	
	2033:11	11,21	1999:10	refund
recently	2041:8	1842:14	referred	1968:1
2014:23	2081:14	1843:8	1843:5	reg 1923:2
2016:23		1872:17 , 18	1849:14	2026:6
2052:19	recommendati	1873 : 6	2016:23	regard
receptive	ons 1826:4	1874 : 6	2010:23	1828:3,1
1997:8	2002:14	1875:7 , 9		1855:24
recessing	2040:19	recover	referring	1888:6
1882:1	recommended	2082:13	1834:1	1908:6
1938:20	1815:21		1842:9	2082:19
2030:22	1906:25	recovered	1872:23	
	1983:23	2024:3,5	1879:4	regarding
recognition	2000:6,10	recovering	1897:22	1892:2
1916:4	2002:7	2026:13	1945:15,16	2009:18
1917 : 3	2040:4	rectangular	2006:4	regardless
recognize	2076:11	1855:10	refine	1930:13
1923:17		T000:T0	1889:10	2012:6
1963:5	recommending	recuperation		2019:13
1972:10	2041:9	2074:5	refined	
	recommends		1836:3	regards

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2145 o:	£ 2162
1814:9	1889:14,19	1845:22	2017:11	1858:21
1888:15	1894:15	1868:22	remove	1859 : 1
regions	1897 : 25	remain	1951:16	1944:23
1823:16	1939:9,11	1959:8	2008:12	reporter
	1946:25			1839:25
Regis	1947:7	remainder	removing	1888:4
1810:14	1954:20	1869:5	1942:11	
regul	1999:21	remaining	renovating	reporting
2006:19	2000:17	1843:16	1956:5	1850:22
regulated	2004:14	1932:8	repeat	1857:20
1897:3	2012:1,2	1933:3,5,2	1891:23	1858:23 1877:23
1916:18	2013:19	1		1911:3
1921:16	2019:23	1934:5,6,2	repeated	2044:13
1923:2,22	2036:12 2037:21	1 1961:2	1960:1	2044.13
1997:14	2054:9	1967:9	rephrased	
2006:19		1972:9	2057:18	reports
2023:1	relates	1977:3	replace	1821:20,21
2026:1,4,5	1957 : 9	1981:10	1873:14,21	1901:5
,6 2042:14	relating	2024:6	1875:24	1903 : 17
2049:19	1826:25	2031:8	1955:17,22	represent
2053:13	relation	2036:8	1959:4	1877 : 10
2059:18		2047:2		1884:19
regulation	1869:9 2040:11	2053:25 2054:3	replaced	1927 : 8
1915:9		2068:21	1874:7	representati
	relative	2069:10,16	1954:12	ve 1828:1
regulator	1869:17	,20	replacement	1861:8
2026:11	1932:19	2074:20	1832:25	
2057:16	relatively		1873:13	representati
regulators	1889:13	remains	1925:6	ves
1899:4	1989 : 23	1967:24	1963:18	1995:11
regulatory	1990 : 15	remedial	replacing	represented
1896:25	2020:16	1842:23	1873:16	1855 : 9
1914:20	relevance	remember	1942:10	1913 : 18
1915:10,14	1831:15	1834:24	1957 : 17	2055:1
,21	1868:7,12	1849:10	report	representing
1918:17		1899:15	1823:10,11	1824:12,17
1922:18	reliable	1910:1,3	,12 1824:3	,18
2003:4	1858:16	1996:7	1826:24	1913 : 21
2010:15	reliance	2008:4,24	1829:21	represents
2025:10	1858:4,12	2019:1	1830:2,8,1	1820:21
2053:9,12	relied	2046:18	3,17,20	1823:19
reinstatemen	1825:24	2049:15	1845:21	1863:2
t 2021:6	1826:3,7	2051:17,21	1859 : 18	1877:16
	1839:20	2064:9	1896:11	1961:16
reiterate 1858:10	1851 : 24	remembering	1898:10,12	reproduced
	1860:1	1850:11	1899:1,3,1	1915:2
relate	rely 1827:4	1975 : 18	0,11,12	
1918:14	1828:20	2049:13	1914:16	repu 1829:1
related	1863:15	2063:22	1920:1	request
1814:10	1870:2,13	removal	2021:8	1943:18
1888:7,17		2009:15	reported	1945:20
	relying			

PUB - I	MANITOBA	A HYDRO GRA	12-19-2012	Page 2146 o	f 2162
1947		1945:20	1936:13	1923:11	1853:23
1949	9:8,12	rerunning	1939:5,14,	results	1855:14 , 22
1974	1:1	1946:16	17	1831:11	1856 : 24
1987	7:14		1940:1,7,1	1833:16	1857:3,4,1
2031	L:13	reschedule	6	1837:22	1,14
2032	2:11	2085:24	1984:1,10,	1850:4	1858:4,13,
2039	9:5	reserve	25 1985 : 20	1859:9,10	15
reques	tod	2031:23	1993:19,20	1863:8	1859:19,25
1951			,22 2011:4	1871:17	1860:2,5,8
2065		Reservoirs	2012:1	1887:1	,13,14,17,
2065	0:0	2005:21	2039:11,14	1942:18	21,23
Reques	sts	residual	2057:20		1861:10,11
2031	L:10	1919:4,16	2080:3	1989:15	,14,16,24,
2081	:8			2064:10	25
2085	5:22	respect	responses	2076:12	1862:8,13,
requir		1815:11	1817:7	resume	17
-		1902:18	2031:12	1882:5	1864:1,8,1
1901		1913:3,11	restate	1938:17	8 1865:25
requir	red	1927:20	1988:9	Resumed	1867:10,17
1895	5:4	1967:8,25	2021:11,13		,21
1954	1:11	1976:15,23	3 2024:24	1812:6,7,8	1868:9,16,
1992	2:21	1977:4	2025:11	,9,10	23 1869:17
2000):25	1983:7		1818:24,25	1870:1,5
2002	2:23	1988:11,22	2 restatement	1819:1,2,3	1871:11,18
2010):1	1991:20,22	2020:11,12	resuming	1877:17,19
2051	:25	2002:11,12	2021:6	1882:2	,22
2065	5:11	2007:15,19	e restating	1938:21	1878:2,7
2069	9:3	2008:17	2021:12	2030:23	1886:19
		2011:8,10,			1887:6
requir		20 2017:2	restore	retain	1898:11,13
1812		2029:14,15	1956:11	1903:2	,15,20,23,
1818		2032:7,20,	, restoring	retained	25 1899:19
1847		23 2033:10	1956:5	2021:14	1900:13
1997		2034:3	restriction	2023:20	1997:2,7
2057		2045:16	1999:3	2080:9	2014:18
2062		2046:11	1999:2	retainer	2022:12,16
2063	3:19	2070:17	result	1993:6	,24 2023:8
requir	rements	2075:4	1860:7 , 17	1993:0	2060:15
1857	7:19	2081:6	1863 : 13	retire	2062:16
1906	5:12	respond	1865:3	1925:5	2062:16
1923	8:6	=	1867:2	1929:12	2004.12
2032	2:8,11	1989:23	1908:21	1933:13	
2044	1:14	2077:13	1909:7	2044:4	,22
		responded	1926:12	retired	retirements
requir		2031:10	1964:14	1834:20	1814:10
1949		response	1997:6	1834:20	1833 : 17
2002	2:2	1813:3,4,8	2009:12	1864:20	1834:1,22
requir	ring		2041:3	1864:20	1835 : 12
2006	5:9	,9,10 1817.8 16	2057:13	10/9:12	1848:22
reread	.	1817:8,16,	2059.7 14	retirement	1851 : 25
		25 1831:22	2062:24	1827:5,18	1853:2,22,
1829	0:∠∪	1833:10	2072:25	1829:1	24
rerun		1907:9,16		1835:10,24	1854:6,11,
1942	2:15	1925:12	resulting	1836:2,20	17
		1927:12			

PUB -	MANITOBA	A HYDRO GRA	12-19-2012	Page 2147 of	E 2162
185	57:16,23	1830:23	2049:24	1863:19	1965:24
,25	5	1859:9	riverbed	RT 1856:5	1966:6,13
185	58:22	1862:3	1953:24		1969:5 , 11
186	51:12	1896:23	1953.24	run 1878:5	1971:3 , 10
186	52:17,18	1902:8,14	1955:9	1933:25	1973:8
,19	9,23	1903:20		1934:5	1974:4,14,
186	53:8,14	2002:6	riveting	1942:14,17	22,23
186	56 : 3,8	2049:8	1819:21	1947:22	1975:3,5,1
186	58 : 5	2052:20	road	1948:23	1,15,16
186	59 : 25	reviewed	1954:12,13	2019:3	1977:11,12
187	1:10	1901:9		running	,13,19
187	2:25	1905:2,13	roads	1851:23	1978:8
	73:1	2009:25	2005:25		1979 : 11
	7:25	2084:16	2035:10	rural	1981:14
	36:15		Robley	1823:17	1988:20
	37:10,15	reviews	2018:14	1875 : 25	1991:8
,16		1903:1	rock 1955:9		2008:8,12
	38:7,16	1905:10	IOCK 1933.9	S	2014:2,3
	9:2	revised	Roman	safe 2085:1	2015:17
	34:11	1817:19	1896:11	sake 2018:24	2016:3
	31:6,11	1832:11	1914:17	Sake 2010:24	2017:11,14
	32:3	1857:19	2018:2	sal 1964:7	salvage/no
	95:14	1925:12	2032:24	sales 1939:9	1913:3
202	22:7	2017:4	2033:3,4,5	2026:4	
retir	ring	right-hand	,6 2034:7		sample
186	59:9	1820:18	2035:1,9	salvage	1864:19
		1826:16	2036:25	1815:9	1867:10
	Dactive	1829:15	2037:1	1873:2	sat 2051:22
202	20:11	1840:19	2065:22	1892:19	satisfactory
retur	rn	1841:15	2067:14	1908:7	1888:11
181	9:13	1854:25	room 1834:25	1913:3	2031:17
186	55 : 9	1865:18	2010:9	1920:22	
191	5:11	1877:8	2085:4,11	1925:5	satisfy
191	.6 : 7 , 16	1879:4	rough	1938:7	1989:11
193	39:8	1896:9	rough 1943:24	1941:7,11,	save 1945:7
rever	nue	1924:22,25	1943:24 1948:4	18,24	
	2:6	2067:10	1948:4	1942:6,9,1	saw 1824:2
-	8:24	2068:9	1949:25	1,16	1909:21
	7:22		2018:5	1943:23	1928:10
-	06:12	rights		1944:13,15	1982:25
	39:21	1934:13	roughly	,19,23 1946:5,8,1	2021:18
	40:11	2005:19	1892:15		scenario
	27:2	2031:23	1893:14	0 1948:23	1943:15
	32:7,10	rigour	1894:17	1950:7	1957 : 15
	57:25	1921:8	round 1845:2	1951:16 1953:7 9	scenarios
	52:11,12	River 1929:6	1939:19	1953:7,9 1955:21	1975:14
	53:19			1955:21	1976:3
		1955:4,6,1 1,12,17,22	rounding	1958:24 1959:8	
rever		1,12,17,22	1862:10	1959:8	schedule
	.6:9	1957:10	1970:10		1891:8
202	26:22,23	2011:15	routine	1962:9,14 1963:5,20	1896:25
revie	≥w	2011:15 2046:4	1862:1	1963:5,20 1964:6,8,2	1942:8
182	26:4	2046:4 2047:7,12	routines		1946:4
		204/:/,12	routines	0,23	

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2148 of	2162
1952:12	2000:3	1822:4	1858:13	1915:12
1959:24	2001:24	2003:17	1860:13	1916:4,5,6
1962:6,9	2002:18	seeming	1870 : 17	1920:10,25
1965:8	2011:14	2007:24	1996:21	1921:22
1969:5	2020:13	2007:24	1997:7	1923:17
1974:3	2052:18	seems 1871:8	2018:4	1925:19
1977:16	2064:9	1944:18	2027:3	1928:19
1979:3	2074:5	1952:24	2084:3	1929:23
2022:12	2076:14	1989:7		1933:7,18,
2028:4		2055:12	separate	24 1941:17
2036:4,8,1	second-	seen 1832:18	1843:2	1981:9
3 2039:19	largest		1917:22	1982:13
2053:21	1893 : 9	1833:6	1933:6,15	1983:3,4
2066:4,23	second-last	1871:14	2036:1	1984:23
2072:1	1884:3	1881:9	2043:5	1985:2,21,
2085:13		1913:4	2044:16	23
2086:1	secondly	1960:20	2083:24	1986:4,12,
	1832:18	1968:13	2084:4	19 1987:16
schedules	1857 : 5	1980:14	separately	1990:3,18
1941:21	1858:20	1985:11	2084:9	1992:21
1948:9,10	1887 : 17	2015:17		1992:21
1973:22	1888:9	2023:15	September	1995:18
2032:22	2014:17	2032:1	1815 : 22	
2033:2	2042:16	2050:18	1999:11,22	2008:7
2065:22	section	segments	2000:7,12	2010:1
science	1827:12	1839:15	serialized	2014:22
	1841:5		2055:8	2022:11
1904:17,22	1948:10	segregating		2039:22
screwed	2022:9	1964:7	series	2041:25
1992:5	2022.9	select	1990:8	2042:23
se 1936:2	sections	1831:8	2008:9	2044:11
BC 1990.2	1840:25		2040:24	2049:20
season	1841:10	selected	seriously	2057:6,7
2084:25	1849:11	1823:5,15	1831:1	2065:7
2085:5	2054:7	1824:6,18	1001.1	2069:11,20
sec 1943:4	sector	1825:1	serve	2071:17
Sec 1943.4	2024:17	1928:20	1823:20	2081:17
second	2024:17	selection	2026:17,23	sets 1997:16
1838:21	seeing	1823:22	serves	2009:16
1840:17,18	1832:21	1827:12,16	1944:14	
1845 : 19	1833:3	1828:25		setting
1862:9	1881:3,12,	1855:23	service	1948:23
1865 : 10	15,18	1856:23	1819:25	seven
1877 : 3	1897:8	1867:5	1825:25	1841:24
1885:19	1922:22	2011:25	1827:19	1866:2,19
1886:14	1981:5	2011:23	1829:2	1886:17
1890:24	2084:2	2012:3	1830:11	1930:5
1905:18	500 1001-14		1832:12	1967:10,13
1923:5,6,8	seem 1831:14	Selkirk	1871 : 16	1979:12
1939:16	1881:11	2035:4	1878:11	1980:24
1941:21,24	1943:24	sell 2026:20	1889:24	1981:3
1942:2	2003:8	JELL 2020;20	1892 : 18	2006:2
1984:22	2017:19	send 1857:10	1898:19	2006:2
1985:6,15,	2072:18	sense	1902:21	2034:14 2037:3
19 1987:9	seemed	50.150	1907:21	2031:3
±, ±,,,,,				

מוזמ		MANTHODA			12-19-2012
FUD	_	MANIIODA	HIDKO	GRA	12 - 19 - 2012

Page 2149 of 2162

		HIDRO GRA	12-19-2012	Fage 2149 01	2102
2069:	23	2059:16	shows 1960:8	1958:9	1843:8
2070:			1961:14	1985:10	1844:1,14,
0,12,2		sheets	1962:19	1989:9	23 1845:12
		1920:12	1963:10	2019:20	1846:7
seventi		she's 1888:5	2015:18		1847:25
1870:	16	- 1	2013:10	simplifying	1848:4,7,1
seventy		short 1895:5	2069:2	1935 : 13	6,24
1847:		1896:4		2082:11	1849:21
1854:		2072:19	sic 1907:20	simplistic	1851:7,15,
1870:	16	2074:20	2043:13	2009:8	18
1884:		shorter	2058:15		1852:12,16
1929:		1868:1	2059:23	simply	,22
2034:		1886:3,4,9	2081:6	1836:10	1853:6,17
2056:		2072:24	sided	1847:23	1854:3,23
		shortfall	1840:18	1949:19	1855:4,9,1
seventy				1950:7	5,22
1825:		1980:21,22	signal	1951:4	1856:7,20
1870:		short-life	1861 : 12	2019:9	1858:9
1881:		2071:13	significance	2020:8	1859:13,17
1961:		short-lived	1861:2	2067 : 15	,21
25 19		2072:4	1862:25	simulated	1860:19
1970 :		2072:4		1836:1,2	1863:24
1971 :	-		significant		1864:3
1980:		shortly	1862:22	Singh	1865:22
2071:	3	1874:17	1901:19,23	1817:14	1866:3,10
seventy	-four	showed	1921:9	single	1867:4,8,1
1972:		1910:6,7	1947:24	2055:7	2
	1	2080:2	2056:13,19	sinking	1877:3,10
seventy			2058:11	2040:13	1878:14,21
1869:	2	showing	2065:20	2040.13	1879:3,20
seventy	-nine	1928:11	2072:16	2061:12,13	1886:22
1928:	7	1963:12	significantl	,15 2062:1	1887:13,22
1929:	6	1969:5	y 1929:14		1888:4
seventy	-076	1971:21	2057:24	sinking-fund	1889:17
1855:		2016:8	2063:18	2060:22	1891:10,20
		shown	silence	sir 1820:10	1892:12,17
seventy	-six	1815:10	2030:16	1821:13,23	,20
1980:	25	1887:6	2030:10	1822:16	1893:11,25
seventy	-	1929:22,24	similar	1823:8,18,	1894:2,11,
three		1961:7	1830:19	24	13
1824:		1964:1	1841:6,11	1824:4,20	1895:4,22
		1965:24	1892:20	1825:6,20	1896:9,20,
seven-z		1966:23	1915:23	1826:7,20	21
2034:2	20	1969:23	1957 : 12	1829:19,23	1897:6,12
shape		1970:14	1963:13	,25	1898:4
1827:	18	1971:11	1989:15,16	1830:4,7	1899:13,21
1829:		1988:10,21	2009:10	1832:2,7,1	,24 1901:3
1871:		2013:11	simp 2009:8	5	1904:13,16
		2018:1	_	1833:8,20,	1905:17
sheet 1		2036:4,8,1	simple	24 1834:8	1906:5
1904:		3 2052:9	1918:24	1838:11,22	1907:10
1909:		2053:21	1932:6	1839:16	1908:5,8,1
1924:		2079:16	1936:6	1840:3	1,20
2042:1	15	2081:16	1938:10	1842:12	1909:5,12,
		2002.20		1042.12	T202:2, TZ,

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

.2 Page 2150 of 2162

PUB - MANITO.	BA HYDRO GRA	12-19-2012	Page 2150 of	2162
18,25	2033:24	2085:3	sixteen	1967:12
1910:1	2034:7		1828:8	1994:16
1911:8,15,	2035:2,13,	sit 1904:7	1854:12	
22	21	2017:20	1855:8,13	slightly
1912:1,6	2036:6,9	site 1815:5	2035:23	1883:17
1920:15,20	2037:8	1953:22,23	2033:23	1898:1
1921:3	2038:23	1954:12,16		1916:25
1925:16,25	2039:3	,19	sixty	1921:2
1926:23	2041:4,7	1956:9,20,	1825:18	1922:8,13
1930:9,16	2042:8,10	24,25	1847:10	1926:12
1931:6,18	2043:1,3,4	1957:11,16	1855 : 17	1931:7
1935:25	,15	1958:11,19	1863:7	1963:2
1945:14	2044:15,20	2003:16	1956:6	small
1963:23	2045:5,12,	2005:13	2069:23	1823 : 17
1965:11	13,20,22	2035:11	2070:5	1858:19
1966:1	2046:7,10,	2044:25	sixty-five	1889:23,24
1967:6,21	13 2048:2	2046:8,22	1854:5	1894:2
1971:6	2049:12	2047:7,9		1927:11
1972:9	2050:2,6,2	2050:1,15	sixty-nine	1970 : 10
1973:11,16	2 2051:8	2082:21,22	1863:4	1973:4
1974:5	2052:11,13	2083:4	sixty-one	1993:9
1975:5,9	2053:21,23		1967:2	
1977:1	2054:2,14	sited		smaller
1978:3,17	2055:4,11,	2003:16	sixty-seven	1981:9
1979:5	20 2056:3	sites	2070:20	2006:6
1980:19	2057:1,17	1954:25	sixty-six	2049:6
1981:5,17	2058:3,9,1	site-	1822:15,21	2052:17
1984:13	2	specific	1824:18	2069:14
1986:17	2059:2,9,2	2050:16	sixty-six-	smooth
1987:4,13	1 2060:24	2030:10	point-five	1826:25
1991:2	2061:17	sitting	1867:19	1828:15
1993:22,24	2062:20	2008:4		1851 : 18
1994:6,9,1	2064:2,19,	six	sixty-three	1852:5
9	25	1823:5,8,1	1930:23	1854:24
1998:8,12,	2065:15,20	4,20,22	sixty-two	1855 : 5
14	2066:17,24	1824:7	1980:24	1860:16,22
1999:8,18	2067:4	1828:8,10		1867 : 4
2001:12,23	2068:5,25	1855:13	size	1907:5
2002:12	2069:4,6,1	1867:15	1824:2,12	1997 : 12
2003:23	8	1894:18	1864:19	smoothing
2004:13	2070:3,10,	2033:13	1876:5	1868:21
2006:4	22	2034:13,14	1985:4	1000:21
2007:14	2071:1,12	2067:2,10	sizes	snappers
2008:14	2072:13	2071:25	1823:23	1895 : 5
2010:16	2073:7	2072:5,6	1824:7	1896:4
2011:3,13,	2074:2,7,1			1905 : 17
18 2012:11	4,23	Six-nine-	skewed	software
2013:8,18	2075:13	six-nine	1863:13	1865:4
2015:14,23	2077:3	2068:8	skewing	1901:18
2016:12	2079:7,19	six-nine-	1850:4,25	1902:1
2010:12	2080:14	two-nine-	2076:12	1905:2,9
2023:23	2082:17	five	alcon 1041-C	-
2029:10,21	2083:17	2067:11	sleep 1941:6	Soldier
2029:10,21	2000.17	2007:11	slight	1810:16
2000.019				

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOR	BA HYDRO GRA	12-19-2012	Page 2151 of	2162
solid	1942:16	1925 : 4	stable	1835:6,21
1997:18	1957:18	1952 : 22	1909:16,25	1837:11,1
solidified	source	1959 : 21	1910:7,12,	1880 : 15
1975:25	1898:6	1983:24	13	1915 : 20
	1899:10	1984:14	1911:10,16	1935:8
solve	1905:3	2004:14	staff	1973 : 22
1997:23		2029:12	1830:19	1975:4,14
somebody	space	2046:21	1913:19	19,24
2050:9	1996:11	2066:21		1994:13,1
	speak	2079:7	stage	1997:5
somehow	1837:10	2083:20	1872:18	2008:2
1879:12	1966:4	speculative	1983:22	starting
somewhat	2020:3	2062:22	1989:5	1834:24
1860:11	2031:1		stand	1837:9
1868:1		spend	2077:16	1864:9,13
1946:24	speaking	1820 : 15		1870:7
1958:7	1879 : 22	1825:3	standard	1878:19
2053:13	1925:2	spending	1875:24	1881:6
	1952:20	1952:10	1914:19	1883:13
somewhere	specialist	1992.10	1991:23	
1945:4	1903:3	spent	1992:24	1925:2
2037:10		1837:24	2003:9	1936:22
sorry	specialized	1984:15	2044:13	1972:2
1825:12	1903:16	spillway	standards	1982:16
1826:12	specific	1814:12	1857:20	starts
1850:16	1840:25	1853:15	1901:10	1870:23
1855:12	1886:8	1854:19	1902:10	1932:10
1883:22	1927:20	1855:4,24		1971:23
1895:1	1929:16	1859:18	1911:3 1922:22	1972:12
1896:7	1934:10,13	1860:1		2039:1
1924:10	1935:10	1888:9,19	2014:16	2041:15
1947:4	1947:18		2024:16	2079:24
1959:21	1990:11	1960:9,17	2065:10,12	
1961:5	2011:10	1976:15	standpoint	state 1834:
	2011:10	2012:20	1872:3	1835:22
1968:17 1973:24	2042:17	spillways	stapled	1900:14,2
		1851:19		stated
2030:4,15	2044:18	1852:6	1851:17	2018:14
2036:23	2045:15,19	1854:21	start 1817:4	
2048:18	2046:3,8	1856:11,22	1864:10	statement
2049:17	2049:23	1870:10	1878:18,20	1821:17
2061:23	2050:16	1986:22	1884:12,14	1833:12,2
2062:4	2056:15	2005:11	1922:22	1843:19
2066:2,24	2058:5		1931:1	1902:15
2080:23	2062:19,20	spoke	1938:24	1909:4
2081:1	2082:21	1911:23	1960:5	1920:12
sort 1835:4	2083:4	spot 1862:21	1965:13	1956 : 18
1873:3	2084:5	1864:10	1982:7,18	1992:2
1875:25	specifically	1931:7	1984:20	2002:4,12
	1840:20	2022:14	1986:14	2023:6
sorts	1848:4	2023:12	2014:7	2044:7
1903:14	1880:4		2014.7	2059:13,1
sounds	1891:8	squares	2025:5,11	2060:15
1823:9	1911:6	1861 : 21		2080:13
1020.0	1711.0		started	

statements	1870:2	1931:2	2032:23	substation
	10/0:2	1951:2	2032:23	1893:11
1817:19	statistician	stopped	2039:24	1893:11
1873:9	s 1848:12	2025:2		substations
1902:17	1849:22	2053:6	2041:17	1892:25
1903:2	1899:16	atona	2051:13	1893:14,2
1984:18		stops 1860 : 14	2084:11	1894:15
2021:7	statistics	1860:14	stuff	2033:18
States	1900:9	story 1955:3	2001:10	
2006:8,16	1901:2,20	straight	at1 a	subtract
2028:7	status	1865:2	style	1930:23
	1843:11	1923:8,13	1823:12	1966:6
statical	atovina	1933:15	1950:18,21	suddenly
1831:11	staying		1952:1	1872:2
stating	1841:14	1962:1 2042:12	sub 1856:9	1873:15
1944:10	1851:9	2042:12	1892:25	
1949:19	2056:7	straight-	1966:24	sufficient
	steadfast	line	2084:3	1945:5
station	1997:3	1963:14,17		2059:5
1815:6		,19	sub-accounts	sugges
1853:15	step 1819:11		1856:6	1999:12
1927:14,16	1861:17	straights	sub-	
1929:16	1863:20	2058:22	categories	suggest
1956:21	1867:23	stress	2034:2	1817:22
1958:11,20	1960:8,16	1847:8		1818:15
2005:14	1961:7,21	2001:7	sub-	1826:2
2022:3	1962:19		componenti	1839:1
stations	1963:24	stretches	ze 2084:4	1876:16
	1970:14	1929:13	subject	1881:21
1927:9,10,	1973:6	stretching	1824:5	1900:12
17 1929:5	1976:19	1823:1	1824:5	1908:5,12
1956:16	1978:22	1906:4		1915:18
2026:25	1979:21		1829:18,22	1916:9
2035:24	2046:23	strongly	1848:2,5	1922:19
2036:2	2062:11	1906:25	1866:7,10,	1923:1
statistical		2051:18	21 1876:22	1952:16
1838:4	step-by-step	structure	1878:11,13	1996:19
1845:20	1960:3	1954:3	1891:5,15	2044:10
1846:6	steps	2052:15	1896:10	2052:3
1860:25	2061:22	2052.15	1978:9,11	2075:25
1861:1,18	at an	structures	2034:21,22	
1862:3	step-up	1881:18	2048:9,14	suggested
1864:12,24	2005:10	2005:20	2051:7	1849:13
-	Sticking	studied	2055:9,12	1893:8
statisticall	1896:3	1848:23	submitted	1899:15
y 1827:18		1040.25	2016:23	1915:20
1828:20	stimulant	studies		1983:17
1829:2	2023:6	1830:24	subscribes	1985:13
1833:19	stimulated	1835:21	1923:8	1998:1
1835:24	1995:20	1836:8	subsequent	1999:12,2
1836:9		1848:13	1962:17	2000:5,16
1837:7,14,	stipulation	1899:17	2078:2	2009:21
20	1951 : 15	1941:9	2010:2	2031:5
1838:1,6	stop 1862:25	1967:22	substantial	
1864:17	1929:7,17	1976:6	2013:12	suggesting
	,	1977:7		1817:12

1822:4 1824:6 1827:7,17 1840:21 1842:13 1849:4 1851:7 1852:10,23	<pre>support 1819:24 2075:20 supporting 1813:5 1818:13,17 suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1880:18 1883:8 1897:16 1901:20</pre>	2049:3 survey 1820:23 1821:14,25 1824:9,12 Survival 1860:7 surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19 1852:6	1848:20 1849:3 1881:20 1895:17 2056:3 T tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	1845:2,3,1 0 1874:15 tagging 1874:11,12 tags 1845:9 tail 1928:22 1929:4 taking 1818:10 1898:23 1923:10 1942:22 1966:4
1824:6 1827:7,17 1840:21 1842:13 1849:4 1851:7 1852:10,23 1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	2075:20 supporting 1813:5 1818:13,17 suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	1820:23 1821:14,25 1824:9,12 Survival 1860:7 surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	1881:20 1895:17 2056:3 T tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	<pre>tagging 1874:11,12 tags 1845:9 tail 1928:22 1929:4 taking 1818:10 1898:23 1923:10 1942:22</pre>
1827:7,17 1840:21 1842:13 1849:4 1851:7 1852:10,23 1854:18 1856:3,22 1866:2 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	<pre>supporting 1813:5 1818:13,17 suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16</pre>	1820:23 1821:14,25 1824:9,12 Survival 1860:7 surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	1895:17 2056:3 T tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	1874:11,12 tags 1845:9 tail 1928:22 1929:4 taking 1818:10 1898:23 1923:10 1942:22
1840:21 1842:13 1849:4 1851:7 1852:10,23 1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1813:5 1818:13,17 suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	1821:14,25 1824:9,12 Survival 1860:7 surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	2056:3 T tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	1874:11,12 tags 1845:9 tail 1928:22 1929:4 taking 1818:10 1898:23 1923:10 1942:22
1840:21 1842:13 1849:4 1851:7 1852:10,23 1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1813:5 1818:13,17 suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	1824:9,12 Survival 1860:7 surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	T tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	<pre>tags 1845:9 tail 1928:22 1929:4 taking 1818:10 1898:23 1923:10 1942:22</pre>
1849:4 1851:7 1852:10,23 1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1818:13,17 suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	Survival 1860:7 Surviving 1862:4,7,1 9 1965:19 1977:22 Survivor 1826:25 1828:15,21 1851:19	<pre>tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2</pre>	<pre>tail 1928:22 1929:4 taking 1818:10 1898:23 1923:10 1942:22</pre>
1851:7 1852:10,23 1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	<pre>suppose 1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16</pre>	1860:7 surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	<pre>tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2</pre>	1929:4 taking 1818:10 1898:23 1923:10 1942:22
1852:10,23 1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1903:10 sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	<pre>surviving 1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19</pre>	<pre>tab 1882:16 1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2</pre>	taking 1818:10 1898:23 1923:10 1942:22
1854:18 1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	<pre>sure 1824:1 1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16</pre>	1862:4,7,1 9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	1924:4,8,1 4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	1818:10 1898:23 1923:10 1942:22
1856:3,22 1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1826:22 1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	9 1965:19 1977:22 survivor 1826:25 1828:15,21 1851:19	4,21 1925:10 1959:20,21 1960:8 2010:18 2013:2	1818:10 1898:23 1923:10 1942:22
1866:2 1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1844:6 1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	1977:22 survivor 1826:25 1828:15,21 1851:19	1925:10 1959:20,21 1960:8 2010:18 2013:2	1898:23 1923:10 1942:22
1867:8 1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1855:3 1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	survivor 1826:25 1828:15,21 1851:19	1959:20,21 1960:8 2010:18 2013:2	1923:10 1942:22
1890:3 1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1863:15,22 1865:16 1879:10 1880:18 1883:8 1897:16	1826:25 1828:15,21 1851:19	1960:8 2010:18 2013:2	1942:22
1892:11 1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1865:16 1879:10 1880:18 1883:8 1897:16	1826:25 1828:15,21 1851:19	2010:18 2013:2	
1906:9 2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1879:10 1880:18 1883:8 1897:16	1828:15,21 1851:19	2013:2	1466.1
2051:14 2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1880:18 1883:8 1897:16	1851:19		2021:1
2083:22 suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20	1883:8 1897:16		2038:25	2060:7
<pre>suggestion 1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20</pre>	1897 : 16	LOJZ.O	2045:5	2064:8
1853:4 suggests 1825:17 suits 1945:13 1958:13 sum 1861:20		1854:24	2079:7	2004.0
<pre>suggests 1825:17 suits 1945:13 1958:13 sum 1861:20</pre>	1001.20	1855:5		talk 1852:6
1825:17 suits 1945:13 1958:13 sum 1861:20	T ANT: SA	1861:20	tabbed	1885 : 22
1825:17 suits 1945:13 1958:13 sum 1861:20	1903:21	1862:6	2066:2	1918:17,19
<pre>suits 1945:13 1958:13 sum 1861:20</pre>	1917 : 19	1867:4	table 1812:1	1919:7
1945:13 1958:13 sum 1861:20	1918:3	1891:9	1849:15	1952:14
1958:13 sum 1861:20	1920:6,7	1899:20	1852:9,16	1994:25
sum 1861:20	1921:7	1928:20,24	1859:23	2021:6
	1922:23	1928.20,24	1861:21	talked
	1926:24	24	1863:1	1836:19
summarize	1927:4	1967:9,14	1867:24	1881:6
	1928:4	1980:2	1877:6	1900:13
1866:1	1936:12	1900.2	1887 : 7	1903:24
1942 : 17	1938:4	Susan	1952:20	1995:12
summarized	1948:16,19	1835:22	1960:3,12	2005:6
1830:15	1954:9	suspect	1962:24	2009:14,17
	1960 : 17	1857:13	1963:25	2010:4
summarizing	1974:19	1882:13	1964:20,23	2020:15
1948:24	1976:8		1965:4	2026:18
summary	1980 : 7	swings	1969:23	
1949:7	1985:16,19	2071:16	1971 : 11	talking
1993:20	1991:14	system	1978:23	1874:2
1999:9	1992:18	1835:13,14	1981:2	1941:22
summation	1996:9	1895:15,16	2032:12	1944:4
2018:17	1998:15	2026:19	2045:5	1955:21
2018:17	2007:5	2043:6,9,2	tables	1956:6
summer	2040:10	1 2044:2	1827:6	1958:12
1982:11	2048:6	2045:2	1887:12	1970:8
2008:1	2064:14	2047:17,22	1899:6	2008:25
summerish	2074:16	2053:6	1919:2	2009:1
2008:13	2076:22	2056:4,5,6	1945:20	2059:23
	2084:14	systems	1943.20	2078:1
superior	surplus	1823:18		2081:2,3
2040:4	2026:20	1832:22,23	tabs 1924:7	talks
superstar	乙U乙肉:乙U	1834:14,23	1940:24	1011 10
2038:8	2026:20 surprised			1844:16

UB – M	IANITOBA	A HYDRO GRA	12-19-2012	Page 2154 of	£ 2162
tanks	1816:6	2034:8	25 1892 : 22	2004:19	2001:2,13
2066	:22	tens 1864:25	1893 : 15	2017:8,9	2007:14
2068	:15	1870:11	1894:7,14	2075:18	2013:21
2069	:15	10/0:11	1895:8,20	2076:14,15	2021:5
2071	:10,25	term 1826:24	1898:10,24	tested	2023:22
	:14,22	1884:13	1901:7,14		2024:7
	,	1897:8	1903:25	1905:7,13	2027:5
tax		2016:4	1905:10,16	testimony	2031:22
	:23,24	2026:5	,24	1990:1	2032:12
1917	:11	2073:15	, 1906:3,6	2059:4	2050:24
taxi 2	079:6	2077:7	1907:16		2051:8
L	006 10	terminology	1912:6	testing 1861 : 1	2055:14,2
tear 1	896:19	1972:14	1916:1,3	1901:19,24	2065:15
teasing	g	1972:14	1922:23	1901:19,24	2085:3,10
1829	:10	terms	1923:16	tests	14 2086:4
1844	:9	1814:13	1933:25	1860:25	
techni	aa 1	1820:17,23	1940:13	textbooks	thanks
		1824:16	1946:25	1861:4	1881:2
2037	:25	1825:14,15	1947:11	1897:2	That'd
techni	ques	1827:15	1948:2		2016:11
1897	:19	1829:11	1950:23	1915:24	
techno	100100	1831:21	1950:25	1920:6	that'll
	71:15	1832:7,8,1	1954:15	texts	2085:25
L ZU	/1:15	1 1833:22	1958:2	1915:20	that's
techno	logy	1834:10	1958:2	thank	1818:4
1881	:16	1837:11	,23 1976:7	1824:14	1823:7,10
1897	:14,18	1838:14	1992:17	1833:7	1825 : 21
2072	:24	1840:21	1992:17		1826:8
teleph		1841:9	1993:1	1838:13	1827:20
1873		1844:2	2001:9	1847:14	1828:1,18
		1845:19	2001:9	1865:6	1829:9
1906	:1,9	1848:8		1869:3	1832:14,2
temper		1849:3,23,	2009:10	1875:22	1838:7
1909	:24	24,25	2017:1	1881:24	1841:1,8,
ten 18	67.20	1850:22	2021:8	1882:17,25	2 1843:23
		1851:25	2023:20	1884:1	1847:3
1881		1852:24	2028:19	1904:10	1848:6
1919	-	1853:22	2039:18	1905:15	1849:20
1944		1854:15,17	2040:11	1912:14,17	1851:1
1948		1855:23	2047:10	,18,23	1853:5,18
1969		1856:21	2053:5	1917:8	1854:1,8,
1990		1858:14	2063:1	1918:22	1 1858:1
	:11,15	1859:17,18	2073:17	1919:25	1859:7,20
	2010:8		2077:5	1923:23	
2049		1861:1	2083:24	1926:14	1860:18
2070		1863:23	territory	1939:1	1861:11,1
2071	:8	1867:9	1889:24	1940:18,20	,22
tend 1	871:20	1871:22		1946:14	1862:23
		1873:6,20	test 1839:2	1953:1,15	1863:10
tenden	-	1880:3	1917:15	1963:22	1864:11
1909	:/	1883:20	1940:10	1967:16	1865:10,2
tends		1886:15	1941:15	1973 : 5	1868:13
1908	:21	1887:2,18,	1942:3	1988:8	1869:22
		19 1888:9,20,	1983:8	1993:4	1871:3,18
tenish			1987:9		21

IOB MANIIO.	BA IIIDIQ GIA	12 19 2012	1898 2155 01	
1872:12,13	20 1968:20	2046:6	1839:1	1824:6,11
1873:17	1969:7,21,	2048:22,23	1841:10	1847:20,24
1874:8,15	25	2049:7	1842:16	1902:16
1876:22	1970:2,6,1	2050:1,5,1	1849:4	1903:21,24
1879:15	7	9,21	1861:12	1904:5
1883:25	1971:3,5,1	2051:4	1863:11	1920:7
1884:5,21	2,13	2052:12	1885:3	1921:1,2
1885:6	1972:1,10	2053:25	1902:1	1922:8
1886:23,24	1973 : 15	2055:17	1903:9	1944:15
1887:24	1976:19,25	2057:20	1904:19,20	1959:1
1888:3,12	1977:5,7,9	2060:1,23	1921:9,23	1966:10
1892:6,16	,15	2061:8,16	1922:24	1971:24
1893:24	1979:13,15	2062:3	1933:24	1972:6
1895:5,17,	,20	2065:19,22	1947:12	1980:16
23 1897:5	1980:4,18,	2066:21,22	1949:5	2004:22
1898:24	21	2068:14	1954:1,4	2006:8,18
1903:5	1981:5,17	2069:3,5,1	1961:1,14	2042:20,21
1904:9	1985:25	4,25	1965:4,18	2044:8
1906:21	1986:16	2070:2,21,	1971:3,19	2047:22
1908:1	1987:3,12	25	1984:17	2049:13
1914:22	1989:21	2071:11,21	1993:20	2056:3
1917:21	1991:1,8,1	2072:12	2002:1,4	2060:17
1919:11	4,15	2074:6,7	2006:2,22	2061:2
1920:9	1993:11	2078:3,9	2013:18	2082:25
1923:13,22	1998:10	2079:1,8	2020:5,6	they've
1925:8,15,	1999:4	2080:17	2024:9,12	1845:7
24	2001:19	2081:7,23	2026:2	1905:13
1926:7,15	2003:3	2084:6,7	2030:17	2052:8
1928:1,10	2006:6,7	2085:8	2031:2,24	2060:17
1929:16,21	2010:20	2086:1	2034:7	
1931:17	2011:12,17	theoretical	2035:19,25	third
1936:6	2013:2	1979:24	2036:18	1822:21
1940:22	2016:24	2073:1	2045:23	1836:8
1941:21	2018:20		2048:19,20	2011:15
1942:1,10,	2020:17	theoreticall	,25	third-
13 1943:1	2022:5,18,	y 1980:5	2049:9,18	largest
1944:23	20 2025:19	theory	2054:8	1893:10,15
1945:12	2026:16	1900:12	2061:3,14	thirteen
1948:12,18	2027:22	2009:10	2068:20	1911:14
,21	2031:16	thereafter	2069:15	1930:23
1949:16	2032:16	1874:17	2071:8	
1950:9,13	2033:1,12,		2077:22	thirty
1953:12	15,23	thereby	2083:13	1828:22
1955:2	2035:1,8,9	2043:25	thermal	1852 : 25
1956:2 1957:14	,10,12,20 2036:5,10,	therefore	2034:25	1853 : 12
		1883:12	thesis	1990:10
1959:25 1960:22	15,20 2037:4,7	2015:25	1836:4	2043:22
1960:22	2037:4,7 2038:13	2021:16		2070:19
1962:8,23,	2038:13	2026:5	they'd	thirty-five
25 1964:11	2039:17	2044:4	1901:21	1829:16
1965:6,15	2042:9	2061:5	1966:9	1876 : 7
1966:8	2044:20	there's	they're	1977 : 25
1967:5,11,	2045:5,21	1817:6	1823:16	thirty-nine
± 30 / • 3 / ± ± /	2010.0121	0.1101		chill cy-litile

PUB -	MANITOBA	HYDRO GRA	12-19-2012	Page 2156 of	2162
203	34:2	1905:8	1834:8,15	1896:1,9	traditionall
thirt	cy-one	2058:4	1872:15	1924:22	y 2056:11
	18:25	three-seven-	1882:14	1935:1	transaction
	19:4	five	1888:2	2004:5	1878:7
		2069:2	1911:12	2033:12	1883:11
	y-seven		1919:12	2035:1	1003.11
	18:13,20	three-three	1937 : 3	2044:25	transactiona
205	58:8	1962:1,7,2	1959 : 6	2070:7	1 1834:17
thirt	y-six	1 1969:24	1984:6	Toronto	1835:17,25
	18:11	1970:5,22	1992:3,12	1903:15	1836:10,13
	51:16	1973:14,16	2017:20		,25
	52:10	1978:19	2021:22	total 1863:3	transactions
		1982:16	2077:21,22	1866:8	1848:22
	oughly	1986:5	2078:7	1889:20,25	1877:19
190)5:14	throughout	toll 2057:14	1893:6	1886:19
thou	2049:10	1840:22		1894:8,15,	1887:6
+h	4	1871:15	tolling	24 1944:2	
thous		2002:15	1910:21	1962:19,22	transcript
	34:19,20	2002:10	1911:23	1973:6 , 13	1812:15
,22		2018:13	T-O-L-L-I-N-	2006:2	1817:10,21
	11:25	2010:15	G 1911:25	2036:19	1939:6,18
	13:7,23			2037:5	1940:8
	54:6,13	throw	tomorrow	2046:19	transferred
	55:8,13	1826:13	2027:17	2068:17	2024:5
	53:4,7	throws	2028:2	totalled	
	56:9,12,	2025:12	2031:4	1955:16	transformer
19,			2085:8		2045:1
	59:24	thrust	2086:6	totalling	transformers
	/2:1,9	1849:21	tongue	1854:6	2005:11
	73:15	Thus 2023:6	2007:3	1892:25	
	4:25	ti 1877:7		totally	transition
	75:2	LI 18//:/	tonight	1871:17	1878:7
	76:7	tie 1887:4	2028:16	1880:19	1983:21
	90:4	tied 2034:17	tonight's	2019:4	1997:5
	.8:25		2028:9	++++-1-	1998:3
	9:3,4,1	tightly	tool	totals	2024:18
	6,18,21	1867 : 16		1948:20	transitioned
	54:3	time-	1868:10,17 ,18	tough	1996:23
	56:5 58:7,15	estimating	1898:21	2076:21	translated
		1876:13		towards	1854:23
	79:13 80:24		toolbox	1852:18	
	3:5,8,1	time-frame	1831:14	1928:22	transmission
	2047:23	1837:9	tools	1958:5	1837:18
	58:6	2040:1	1831:13		2033:11,14
	59:24	timely		town 2035:11	2056:5,6
	70:5,20	1990:15	top 1820:21	track	2082:24
207	0.3,20	title 1855:3	1822:21	1834:16	2083:5
	sands	1877:6	1826:16		travel
	24:11,13	TO / / : 0	1848:19	tracking	1877:2
183	35:9	to-apples	1851:10	1837:12	1999:2
	37:4	1944:2	1854:3,25	traditional	2028:4
183	39:7,8,9	today	1865:2,18	2042:14	
186	55 : 1	1833:24	1879:4	2053:9	travelled
187	0:11	1000.21	1895:14		

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2157 o	£ 2162
1999:5	1965:5,14	1970:19	1912:20	1947 : 19
treat	1966:23	1976:7	1915:4	2068:3
1932:18	1967 : 18	2028:25	1969:1	two-o-five
2060:3	1978:14,24	2032:13	1977:20	1897:9
	1979:7	2059:20	2001:18	
treated	2069:2,4,2	2064:9	2010:23	two-point 2068:21
1889:15 2083:2	2 2074:10	2077:15	2013:1	
	2075:17	2085:12	2020:18	tying 1911:1
treatment	2076:10,16 2078:2,15,	trying	2066:3	type 1821:12
2042:14	23	1849:9,10	turned	1824:10
2053:9	-	1851:7	2001:1	1828:3
treatments	truncate	1855:21	turning	1830:9
2023:1	1929:8	1861:3	1828:4	1831:4
tremendously	1930:18	1863:25	1892:7	1832 : 19
1912:16	truncated	1864:17	twelve	1839:9
	1856 : 18	1880:21,24	1826:14	1863:10
trench	1885:23,25	1910:3 1916:1,15	1911:14	1880:6
1865:19	truncates	1918:1,15	1967:2	1881:12
trend	1929:3	1917:9,11	2010:8	1906:16
1833:3,5	1931:7	1923:17	2035:19	1917:10
1880:22,25		1926:24		1945:5
1881:2,13	truncating	1930:21	twen 1990:9	1948:18
1947:16,25	1931:3	1934:25	twenty	1955:6
trending	truncation	1943:21	1919:1	1963:13 2005:11
1881:8	1885 : 19	1947:8	1930:14	2003:11
	1886:5,10	1966:22	1943:12	2022.20
trends 1832:18	1972:2,11	1968:25	1961:1	
	trust	1983:25	1977:3	types
tried 1835:3	1871 : 17	1990:21	1990:10	1863:17
1853 : 6	trusting	2005:9	2004:16,17	1903:16
1959:23	2033:24	2025:8,16,	2016:19	1915:10,14
2054:9		20 2030:16	2052:2 2067:21	1922:10 1953:24
tries 1862:1	try 1819:18	2057:11	2076:3,23	1997:15
trip 2085:1	1835:4,10,	2064:12	2077:23	
	21 1836:17	2065:19	2079:16	typical
trouble	1860:16	2074:11,22	2081:18	1825:18
1980:23	1861:17 1863:12	,25		typically
true 1820:13	1864:7	turbine	twenty-fifth 1929:12	1823 : 17
1841:12	1865:19	2043:2		
1873 : 9	1868:6	turbines	twenty-five	U
1917 : 12	1872:24,25	2005:8,22	1843:7	ultimate
1938:7	1873:3	turn 1819:17	1869:24	1827:11,16
1971:9	1888:6	1829:14	1870:22	1828:25
1978:18	1918:14	1848:1	1871:1	1855:23
2060:1	1928:17	1851:9,10	1929:10	
2072:8	1929:18	1854:25	1931:1	ultimately 1874:6
2076:5	1935:5	1859:15	1980:15 2079:22,24	1874:6 2065:16
true-up	1936:5	1867:3		
1816 : 7	1937:3	1896:4	twenty-one	umbrage
1894:2,8,1	1938:10	1905 : 17	1900:4	2060:7
0,15	1957:9	1908:3	twice	un 1839:23

2 Page 2158 of 2162

		12 19 2012	149C 2150 01	
1891:9	1970:8	undertaken	undisputed	2081:24
unanimous	1983:6	1935:25	2019:17	2082:1
	1984:1			upon 1817:1
1889:8	1985:4,16,	undertakes	unfortunatel	=
unaware	19 2025:22	1861:1	y 1822:10	1823:4
2031:3	2027:21	undertaking	1837:3,16	1825:24
uncertainty	2042:10	1813:3,4,8	1898:2	1826:7
1887:18	2049:24	,9,10	2019:23	1839:20
2077:4	2053:16	1817:9,16,	unique	1845:22
2077.4	2056:24	20,25	2052:24	1851:24
un-confuse	2066:21	1839:24	2056:20	1865:19
2011:24	2074:11,14	1840:6	2059:1,19	1868:22
unconstraine	,23,25	1888:5,14	2063:22	1882:1,2
d 1929:10	2075:16	1890:2,7,9		1890:24
a 1929:10	2077:20	,14	uniqueness	1938:20,21
under-	2078:12	, 1927:12	2047:19	1997:2
depreciate	2080:3,19	1937:10,16	unit 1921:16	2028:5
d		1939:6,14,	1934:19	2030:22,23
2058:15,25	understandin	17	1939:21	2086:9
2072:7,25	g 1820:17	1940:1,7,1	1982:13	upside
	1877 : 10	6	1985:6	1851:17
undergoing	1880:11	1942:8,21	2018:16	
1830:17	1899:11	1947:15,18	2044:24	upwards
underlies	1913:12	,21,24	2053:11	1943:12
1922:3	1927:23	1948:1		usable
	1930:12	1949:12	United	1953 : 23
underneath	1961:15,23	1952:21	2028:6	
1827:25	1966:24	1957:1,9,2	units 1985:5	useful
under-	1971:8	1 1958:15		1820:22
recovery	1978:23	1987:15,19	University	1825:15,17
2024:4	2040:12,18	1988:9,17	1900:14	,18,19
undenstand	2059:3	1989:6,17	university-	1926:15
understand	2072:11	1990:13,14	based	1954:3,19
1821:23	understated	,25 1991:9	1821:6	1957:17
1826:15	2023:17	1998:14,20		2011:21
1832:15	2023:17	1998:14,20	unknown	2031:25
1838:9	understood		1886:24	2082:14
1841:8,20	1899:8	2000:4,5,9	unless	usually
1850:22	1945:20	2001:7	1948:18	- 1851:3
1852:16	1980:8	2029:11	2026:9	1865:3
1858:9	1989:5	2032:14		
1863:22	1991:19	2076:2	unlikely	utilities
1880:19	2001:12	2077:12,15	1868:20	1810:3,20
1884:3	2012:14	2078:5,8,1	unmanageable	1821:17
1907:15	2059:3	1,18	1875:10	1823:5,9,1
1914:15	2080:1,21	undertakings		4,20,22
1918:24	undentelee	1812:4	un-salvage-	1824:2,12,
1928:5	undertake	1814:1	adjusted	18
1929:19	1839:18	1815:1	1963:21	1834:12,16
1930 : 16	1849:24	1816:1	unusual	1835 : 16
1937 : 12	1887:14	1817:7	1909:21	1895:10,12
1960 : 17	1937:5			,20,21
	1998:16	undertook	update	1897:1,3
1966:16,22			1000 10 00	
1966:16,22 1968:25 1969:23	2056:15	1947 : 15	1939:19,20 2079:11	1906:25

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611

PUB - MANITOB	A HYDRO GRA	12-19-2012	Page 2159 o:	£ 2162
1914:1	1941:11	1981 : 11	1872:12	1888:10,21
1983:14	1943:14	2009:4	1873:17	virtually
1992:20	1944:19	vary 1972:12	1874:10	1869:25
1996:11	1951:17	_	1875:6,18	1954:22
2024:20	1955:21	vehicles	1943:8	2005:12
2026:6	1958:25	2034:13,17	1951:10	
utility	1959:8	venture	1954:8,21	visible
1821:4,10	1971:4,10	2057:8	1955:2,10	1845:7
1822:5	1979:12,17		1956:2,17	visually
1832:21	,18	version	1957:6,18,	1869:1,8
1834:24	1985:12	1830:7	21,25	
1881:5	1986:12	1861:4	1982:12	vital
1903:25	2017:14	1900:23	1987:24	2012:12
1915:9	2024:18	1916:25	1988:15	Volume
1920:18	2025:4	1918:19	1999:1	2018:2
1993:10	2041:25	1928:18	2016:21	
2026:7,16	2044:5	1957:24	2017:6,16	
2020:7,10	2053:8	1963:3,7	2020:5	W
2049:19	values	1974:22	2077:25	wait 2020:6
2053:14	1872:4,7	versions	2078:9	waited
2059:19	1880:17	1835:7	2080:8	1882:23
2064:15	1966:13	2015:2	2082:9	waiting
			vint 1874:4	1826:22
utility-	variance	versus	1909:9	1882:23
interest	1892:13,22	1921:10,22 1935:9		1882:23
1821:24	1893:15,19	1935:9	vintage	walk 1833:11
	,21,22	1947:2,10	1834:21	wall 1834:25
V	1894:24		1835:18	1928:22
valuation	1945:23	view 1821:3	1837:12	1931:16
1883:6	1966:3	1823:12	1872:21	
1887:1,4	1967:1	1847 : 6	1883:17	walls 1835:8
1900:7	2036:4	1850 : 13	1885:7	Warden
1916:22	2070:19	1863 : 7	1886:22,25	1812:7
1917:10	variant	1885:4	1931:6	1818:25
1919:22	1927:16	1886:24	1933:22	1819:8
	variation	1898:14,18	1935:10	1872:6,12
value	1926:19	1911:14,19	1947:19	1873:17
1831:12	1920:19	1914:19	1970:11,12	1874 : 10
1866:8	variations	1915:13	1981:24	1875:6 , 18
1872:10,11	2054:2	1916:19	1983:18	1902:3
1878:1	variety	1945:12	vintaged	1943:8
1880:5	1832:24	1992:17	1887:1	1951 : 10
1883:5	1901:1	1996:16	1983:22	1953 : 20
1885:11,12	1921:6	1997:5	vintages	1954:8,21
1916:4,5	2041:1	2009:24	1947:20	1955:2,10
1917:1,12, 15,23,24		2014:13	1948:13	1956:2,17
	various	2041:23		1957:6,18,
1919:4,8,1	1821:20	2063:7	vintage's	21,25
2,13,17,20	1830:2	2065:12	1908:22	1982:12
,24	1916:12	viewed	1909:9	1984:21
1920:10,25	1924:7	1831:11	vintaging	1987:24
1921:22 1923:17	1926:10		1814:13	1988:15
	1975:24	VINCE 1812:7	1887:8,18	1991:16
1938:7	1976:3	1818:25	,	

PUB - I	MANITOBA	HYDRO GRA	12-19-2012	Page 2160 of	E 2162
1999	9:1	weathered	1833:24	2025:8,15,	2084:6
2008	3:23	1845:8	1838:20	20 2026:16	whatever
2014	1:8	website	1842:22	2027:20	1959:7
2016	5:21	2004:23	1847:1	2028:3,5	1988:1
2017	7:6,16		1853 : 22	2031:20	2014:9
2020		we'd 1835:1	1874:2	2032:6	2085:11
2025		1861:7	1886:12	2033:2	
	7:20,25	1862:14	1888:5	2047:14	whatsoever
2078		1868:11	1912:20,24	2048:13	1951:6
2080		1870:9,15	1938:4,17	2061:21,25	whereas
2082	2:9	1873:3	1949:11	2065:8	1971 : 10
Warder	n's	1951:17	1957:6	2071:22,23	2003:11
1951	L:24	1986:25	1962:16	2076:9,12,	whereby
2008	3 : 5	2032:15	1988:15	22 2077:25	1947:8
wareho		2034:10	1998:13	2078:1	
		2059:7	2027:11	2083:18	whether
1873	5:5	week 1942:24	2032:12,13	we've	1816:3
warrar	nt	1952:11	2079:22	1824:15	1856 : 7
2083	3:23	2086:1	2081:4	1827 : 12	1887:14
warrar	ntv	weight	2086:2,5	1832:10,18	1939:22
1821	-	1863:1	we're	1841:3	1943:14
		1864:17	1817:3,4,1	1842:17	1956:16
wasn't		1868:15	4 1822:23	1856:18	1970:19
1830		2063:11	1833:3	1871:14	1994:21
1835			1842:21	1877 : 16	1996:15
1895		weighted	1843:24	1879 : 22	2015:15
1897		1822:5	1863:12	1880:13	2031:13
1914		1925:19,21	1881:3,4,5	1893:13,18	2053:4
1954		1926:11,13	,6,8,15,18	1903:24	2054:1
1974 1976		1927:8	1886:2,5	1910:5	2076:22 2077:22
1976		weighting	1900:4,6,1	1913:4	2077:22 2078:1,12,
1994		1822:10	1 1911:12	1924:4,7	14,19
1997		1824:25	1915:12	1925:17	2082:15
2057		1863:18	1917:11	1944:4	
2069		1926:8	1921:17	1954:2	whole 1907:5
2003		weir	1931:3,8	1960:8,20	1927:22
2077		1932:18,19	1938:24	1961:9	1934:2
			1943:10	1965:23	1941:7
	1816:5	weirs	1945:16 1947:8	1966:25 1968:13	1947:1
1939		1865:10	1955:20	1980:13	1952:20
2066		1930:11,13	1955:20	2005:5	1954:18
2068		1931:22	1957:3	2010:4,8	1955:11
	9:14,15	2005:6	1958:9,11	2010:4,8	1985:7
	L:10,25	2050:18,23	1976:13	2013:12	1996:12
2078	3:14,22	Weir's	1977:21	2034:1,19	1997:23 2012:8
waterw	-	1852:5	1979:6	2046:2	2012:8
2005	5:7 , 21	Welcome	1981:10	2052:9	2022:3 2025:13,21
Waterw	wheels	1819:6	1984:4	2064:11,14	2023:13,21
2005		1938:24	1990:12	,15	2076:4
			1991:13	2071:7,16	
ways 1	1882:3	we'll	2015:3	2072:14	whole-life
wear 1	1896:19	1826:10,11	2021:1	2076:22	1962:3
		,23			

wide18421:141844:1,8,14,23witnesses1916:1897:161845:11,1,492020:32033:widely,181846:31896:3,8,12022:32003:1835:121847:14,2551877:92022:1850:121849:1,201899:4,221887:191922:1923:91850:211899:13,231895:11worldswidespread1852:3,141900:181943:14worlds2042:4221901:32027:101855:2042:4221906:3wooden1994:92017:11854:2,9,11905:5,221841:211917:1811:95,221906:31913:25worl 1841:111917:1811:720191933:11worth 1943:11943:11811:720191930:11written1812:121858:8,241909:5,241937:11921:11811:720191933:11written1812:21859:4,131911:7,221942:14,152031:11814:7,9,21865:6,151928:211945:8wrong1822:7,12,1866:6,141937:11942:22065:11823:211866:6,141937:11945:8wrong1822:3,10,1866:151928:211944:172031:16182:221866:6,141937:11945:8wrong182:231866:6,141937:11945:8yrong182:24,14,14171961:101957:4,13 <th>PUB - MANIIOBA</th> <th></th> <th>12-19-2012</th> <th>Page 2101 01</th> <th></th>	PUB - MANIIOBA		12-19-2012	Page 2101 01	
wide1841:141844:1,8,14,23witnesses1916:1897:161845:11,1492020:32003:widely,181846:31895:2,3,12022:32003:1850:121845:14,14992022:2023:1850:121849:1,201896:3,8,11807:5,211882:4worlds1993:81849:1,201898:4,221897:5,211877:92022:1923:91850:211899:13,231895:11worldswider1822:1221900:181943:14worlds2042:4221903:8wood 1841:112027:101855:2042:4221903:8wood 1841:112028:2017:11853:13,201904:9woodenworth 11811:720191933:11943:2william1855:2,7,11907:6,12,work 1884:111943:1811:720191930:11writen1812:121858:8,241909:5,241937:11921:1818:7,9,21854:4,131911:7,221942:14,152031:11819:5,6241803:122,191943:8wrong182:211866:6,151922:211945:8wrong182:21,111865:2,121945:121947:251941:192:2:21866:6,141937:11945:8wrong182:2:3,10,1866:151922:211945:121945:12192:2:21865:6,151922:222001:81905:12<	whom 1900.5	18	1894 • 1 . 7 . 1	2065•3	1834 : 25
Wild 16/2114 2,22 1895:2,3,1 Wildesse 1997: widely 18145:11,14 9 2020:3 2003: 1836:6 1847:14,25 5 1877:9 2022: 1836:6 1847:14,25 5 1877:9 2022: 1836:6 1849:1,20 1898:4,22 1887:19 1922: 1823:9 1850:21 1899:13,23 1895:11 1922: vider 1822:1 1851:6,16, 1900:18 2027:10 1886: 2042:4 22 1903:8 wood 1841:11 2026: 2017:1 1854:2,9,1 1905:15,22 work 1844:11 1917: william 1855:2,7,1 1907:6,12, work 1844:11 1917: 1811:7 20 19 1930:11 written 1811:7 20 19 1930:11 written 1812:12 1858:4,24 1907:5,24 1937:1 1921:: 1818:17 20 19 1930:11 written 1811:16 20					
1897:16 $1849:11,4$ 9 $2020:3$ $2002:$ widely, 18 1846:3 $1896:3,8,1$ wonder $2023:$ $1836:6$ $1847:1,4,25$ 5 $1877:9$ $2023:$ $1850:12$ $1848:1,12$ $1897:5,21$ $1882:4$ worlds $1899:8$ $1849:1,20$ $1898:4,22$ $1887:5$ $1877:9$ $2023:$ $1923:9$ $1850:21$ $1899:13,23$ $1895:11$ worldswider $1822:1$ 22 $1900:18$ $1943:14$ worlds $2042:4$ 22 $1900:38$ $2027:10$ $1855:$ $2042:4$ 22 $1903:8$ wooden $1841:21$ $2017:1$ $1854:2,9,1$ $1906:3$ $906:3$ $906:3$ wildcard $1855:2,7,1$ $1906:3,10$ $1922:21$ $913:25$ wpL 1 $1855:2,7,1$ $1909:5,24$ $1937:1$ $1943:3$ $1811:7$ 20 23 $1933:11$ $1921:15$ $1811:7$ 20 $1999:5,24$ $1937:1$ $1942:14,15$ $182:12$ $1864:15$ $1912:5,9,1$ $1943:3$ $2085:$ $182:22,7,12,$ $1864:15$ $1912:5,9,1$ $1942:14,15$ $2031:$ $1822:2,7,12,$ $1864:15$ $1912:2,9,1$ $1942:14,15$ $2035:$ $1822:2,7,12,$ $1864:15$ $1912:2,9,1$ $1942:14,15$ $2035:$ $1822:2,12,25$ 24 $1933:20$ $2194:25$ $2005:1$ $1822:2,12,25$ 24 $1931:20$ $2025:18$ $1941:1$ $1922:2,25$ $1949:1$ $1949:12,20$ 1				witnesses	
widely ,18 1846:3 1896:3,8,1 wonder 2022: 1836:6 1847:14,25 5 1877:9 2023: 1839:8 1849:1,20 1898:4,22 1887:19 1922: 1923:9 1850:21 1899:13,23 1895:11 1922: wider 1822:1 1851:6,16, 1900:18 1943:14 worried widespread 1852:3,14, 1902:2,22 2028:10 1886: 2042:4 22 1903:8 wood 1841:11 2026: william 1855:2,7,1 1907:6,12, work 1844:11 1917: 1811:7 20 23 1913:25 WPLP 18 williams 1855:4,13, 1909:5,24 1937:11 1921: 1811:7 20 19 1933:11 1921: 1945:8 1818:7,9,2 1858:4,13, 1911:7,22 1942:14,15 2031:1 1819:5,6 1486:15 1913:20 21,24 2066:1 1822:7,12, 1866:6,15,15 1928:21 1944:8 2085:3 <	1897:16			2020:3	
1833:6 $1847:14/25$ $1877:9$ $2023:$ $1850:12$ $1848:8,18$ $1897:5,21$ $1882:4$ worlds $1899:8$ $1849:1,20$ $1898:4,22$ $1887:19$ $1922:$ $1923:9$ $1850:21$ $1899:4,23$ $1845:1.9$ $1922:$ wider $1822:11$ $1851:6,16$, $1900:18$ $1943:14$ worlds $2042:4$ 22 $1900:3$ $2027:10$ $1885:$ $2042:4$ 22 $1900:3$ $2027:10$ $1886:$ $2042:4$ 22 $1900:3$ $word$ $1841:11$ $1994:$ wildcard $1855:2,7,1$ $1907:6,12$, $work$ $1884:11$ $1994:$ $2017:1$ $1855:2,7,1$ $1907:6,12$, $work$ $1884:11$ $1943:$ $1811:9$ $5,20$ 23 $1941:21$ $1941:$ $2028:$ $williams$ $1855:2,7,1$ $1907:6,12$, $work$ $1884:11$ $1943:$ $1811:7$ 20 19 $1943:$ $1942:21$ $1811:7$ 20 19 $1945:8$ $wrott$ $1821:2$ $1859:4,13$, $1911:7,22$ $1942:14,15$ $2031:$ $1812:12$ $1865:6,15,$ $1928:21$ $1943:3$ $2085:$ $1822:7,12,$ $1865:6,15,$ $1928:21$ $1948:12,20$ $2066:$ $19,22,25$ 24 $1931:20$ $,21,24$ $wrong$ $1822:1,2,25$ 24 $1931:20$ $,21,24$ $wrong$ $1822:1,1,1,1$ $1865:6,15,$ $1928:21$ $1948:17$ $19921:19$ $19,22,25$ 24 $1869:6,14,$ $1931:10$	widely		2	wonder	2003:13
1850:121448.8,181897:5,211862:4worlds1899:81849:1,201899:13,221897:5,211877:191922:11923:91850:611901:31992.21895:11worriedwidespread221901:32027:101886:2042:4221903:8wood 1841:111994:wildcard1855:13,201904:9wood 1841:111994:2017:15,221905:15,22wood 11844:211917:1811:95,20231913:25WPLP 181811:720191909:5,241937:11929:211811:720191939:11written1811:720191937:11921:11818:7,9,21859:4,13,1912:5,9,11943:32085:1820:5,9,11865:5,15,1915:211947:251941:1812:71865:6,14,1937:11947:251941:19,22,25241931:20,21,242066:19,22,25241937:11949:6,20Wwat1823:3,10,1666:191945:81907:1822:5,9,21867:1,7willing1958:31907:1822:5,9,21866:6,14,1937:11949:6,20Wwat1822:3,10,1666:191948:171992:191908:1822:3,10,1666:191948:171957:4,131815:1822:3,10,1666:191948:171992:191908:1822:3,10,1666:191949:12,201968: <td>_</td> <td>•</td> <td></td> <td></td> <td></td>	_	•			
1899:8 1849:1,20 1898:4,22 1887:19 1922: 1923:9 1850:21 1899:13,23 1895:11 1922: wider 1822:1 1851:6,16, 1900:13 2027:10 1885: 2042:4 22 1903:8 2028:10 1886: 2017:1 1855:2,7,1 1905:15,22 2028:10 1884:11 2017:1 1855:2,7,1 1906:3 1841:21 1917: 1811:9 5,22 1906:3,10, 1922:1 Worlds William 1855:2,7,1 1907:6,12, work 1884:11 1943: 1811:7 20 19 1920:11 written 1811:7 20 19 1930:11 written 1811:7 20 19 1930:11 written 1812:12 1858:8,24 1909:5,24 1937:1 1943:3 2085: 1820:5,9,1 1865:6,15, 1922:1 1947:25 1941: 2031: 1820:5,9,1 1865:6,15, 1928:21 1943:3 2085: <			-		2023:4
1923:91850:211899:13,231895:111922:wider 1822:11851:6,16,1900:181943:14worried221901:32027:101856:2042:4221903:82028:101886:2042:4221903:8wood 1841:111994:wildcard1855:2,7,11907:6,12,wood 1841:111917:1811:95,221906:3wood 1841:111917:1811:95,20231913:25WPLP 18williams1855:2,7,11907:6,12,work 1884:111943:1811:720191930:311929:211811:720191930:11written1812:121859:4,13,1911:7,221942:14,152031:1812:121856:6,13,1911:7,221944:32085:1822:7,12,1865:6,15,1928:211947:251941:1822:7,12,1865:6,15,1928:211948:12,202066:19,22,25241937:11949:6,20Wuskwat1825:3,10,1866:6,14,1937:11949:6,20Wuskwat1825:3,10,1866:6,14,1937:11949:6,201908:14,221866:6,14,1937:11949:6,201908:14,221866:6,14,1937:11949:6,201908:166:5,9,2187:1,72018:142031:161905:11875:1,51941:161955:31907:1826:5,9,21876:1,251846:171960:222077:5					worlds
wider $1822:1$ $1851:6,16,$ $1900:18$ $1943:14$ worried $2042:4$ 22 $1900:2,22$ $2022:10$ $1886:$ $2042:4$ 22 $1902:2,22$ $2022:10$ $1886:$ $2017:1$ $1854:2,9,1$ $1906:15,22$ wood $1841:21$ $1994:$ $2017:1$ $1854:2,9,1$ $1906:15,22$ $wooden$ $1994:$ $2028:$ $2017:1$ $1854:2,9,1$ $1905:15,22$ $wooden$ $1943:14$ $2028:$ $2017:1$ $1855:2,7,1$ $1907:6,12,$ $1841:21$ $1917:$ $1811:7$ 20 23 $1911:25$ $WDLP$ 18 $1812:12$ $1855:2,7,1$ $1909:5,24$ $1930:11$ $1922:21$ $1811:7$ 20 19 $1930:11$ $1921:1$ $1812:12$ $1856:2,13,$ $1909:5,24$ $1937:1$ $1921:1$ $1812:12$ $1865:21$ $2,19$ $1945:8$ $2025:1$ $182:5,9,9,1$ $1865:21$ $2,19$ $1945:8$ $worg$ $182:2,7,12,$ $1865:6,15,$ $1928:21$ $1944:2,20$ $2066:$ $19,22,25$ 24 $1937:1$ $1949:6,20$ $Wuskwat$ $1824:4,14,$ 17 $1961:10$ $1957:4,13$ $1815:$ $1824:4,14,$ 17 $1948:17$ $1992:19$ $1908:$ $14,22$ $1867:1,7$ $willing$ $1958:3$ $1907:$ $1825:3,10,$ $1867:1,25$ $2005:12$ $2005:10$ $1933:$ 1 $1877:1,5,1$ $1948:17$ $2992:19$ $1908:$ $14,22$ <td></td> <td></td> <td></td> <td></td> <td>1922:21</td>					1922:21
wider1822:1100:10 and 190:22027:101856:2042:4221901:32027:101866:2042:4221903:8wood 1841:111994:wildcard1853:13,201904:9wood 1841:111994:2017:11855:2,7,11905:15,221841:211917:1811:95,221906:31913:25Work 1884:111917:1811:720191930:11written1812:121855:2,7,11909:5,241937:11921::1811:720191930:11written1812:121856:6,131911:7,221942:14,152031:1819:5,6241860:122,191943:32085:1820:5,9,11866:6,151915:211947:251944:122066:19,22,25241931:20,21,242066:2066:19,22,25241931:20,21,242066:2066:19,22,25241931:20,21,241845:1907:1823:211866:6,14,1937:11945:6,202066:19,22,25241931:20,21,241845:1823:211866:7.1,7willing1992:191908:1825:3,10,1866:9,3,211957:4,131815:221871:1,51950:222001:81954:1825:3,11,1878:9,172018:142031:1614,221867:1,251948:171992:191908:1825:3,10,1868:19,171811:162077	1923:9				worried
videspread $1852:3,14,$ $1902:2,22$ $2028:10$ $1886:$ $2042:4$ 22 $1903:8$ wood $1841:11$ $1994:$ wildcard $1853:13,20$ $1904:9$ wooden $1994:$ $2017:1$ $1854:2,9,1$ $1905:15,22$ $1841:21$ $1994:$ william $1855:2,7,1$ $1907:6,12,$ woodenworth $1894:11$ $1811:9$ $5,20$ 23 $1913:25$ WPLP 18 williams $1855:2,7,1$ $1907:6,12,$ work $1884:11$ $1943:$ $1811:7$ 20 19 $1937:1$ $1923:21$ written $181:7$ 20 19 $1937:1$ $1921:$ $181:7,9,2$ $1858:8,24$ $1909:5,24$ $1937:1$ $1921:$ $1819:5,6$ $24 1860:18$ $1912:5,9,1$ $1943:3$ $2085:$ $182:7,9,1$ $1863:21$ $2,19$ $1945:8$ wrong $4 1821:22$ $1866:6,15,$ $1928:21$ $1944:20$ $2066:$ $19,22,25$ 24 $1937:1$ $1945:8$ wrong $4 1823:21$ $1866:6,14,$ $1937:1$ $1949:6,20$ $Wexket$ $1823:3,10,$ $1866:6,14,$ $1937:1$ $1949:6,20$ $Wexket$ $1825:3,10,$ $1866:6,14,$ $1937:1$ $1949:6,20$ $Wexket$ $1825:3,10,$ $1866:6,14,$ $1937:1$ $1949:6,20$ $1948:17$ $1825:3,10,$ $1866:6,14,$ $1937:1$ $1949:6,20$ $1948:17$ $1825:4,14,$ 17 $2005:12$ $1941:6$ $1955:3$ $162:5,9,2$ $1876:11,25$ </td <td>wider 1822:1</td> <td></td> <td></td> <td></td> <td></td>	wider 1822:1				
2042:4 22 $1903:8$ wood $1841:11$ $1994:$ wildcard $1853:13,20$ $1904:9$ wooden $1941:2228:$ $2017:11$ $1854:2,9,1$ $1906:15,22$ wooden $1841:21$ $1917:$ $1811:9$ $5,20$ 23 $1913:25$ work $184:11$ $1943:$ $1811:7$ 20 12 $1907:6,12,$ work $1844:11$ $1943:$ $1811:7$ 20 19 $1930:11$ written $1811:7$ 20 19 $1930:11$ written $1812:12$ $1858:8,24$ $1909:5,24$ $1937:1$ $1943:3$ $1812:12$ $1858:8,24$ $1909:5,24$ $1937:1$ $1943:3$ $1820:5,9,1$ $1863:21$ $2,19$ $1943:3$ $2085:$ $1822:7,12,$ $1865:6,15,$ $1928:21$ $1947:25$ $1941:20$ $19,22,25$ 24 $1931:20$ $,21,24$ wrong $19,22,25$ 24 $1931:20$ $,21,24$ $392:19$ $19,22,25$ 24 $1931:20$ $,21,24$ $3906:1$ $1825:3,10,$ $1866:6,14,$ $1937:1$ $1948:12,20$ $2066:2$ $19,22,25$ 24 $1867:1,7$ willing $1952:19$ $1948:12,20$ $1826:5,9,2$ $1867:1,7$ $1948:17$ $1999:19$ $1908:190:22$ $1825:3,10,$ $1866:19$ $1948:17$ $1999:19$ $1908:190:22$ $1826:5,9,2$ $187:1,55$ $1811:6$ $2079:11$ $1993:23$ $1826:5,9,1$ $.22$ $187:1,25$ $2005:10$ $1953:23$ $1826:5,$	widespread				
vildcard $1853:13,20$ $1904:9$ wood $1841:11$ $2028:$ 2017:1 $1854:2,9,1$ $1905:15,22$ $1841:21$ $2078:$ William $1855:2,7,1$ $1906:3$ $1841:21$ $1917:$ $1811:9$ $5,20$ 23 $1913:25$ WPLP 18Williams $1855:2,7,1$ $1900:3,10,$ $1929:21$ WrlP 18 $1811:7$ 20 9 $1930:11$ written $1812:12$ $1858:8,24$ $1909:5,24$ $1937:1$ $1921:$ $1818:7,9,2$ $1859:4,13,$ $1911:7,22$ $1942:14,15$ $2031:$ $1820:5,9,1$ $1863:21$ $2,19$ $1945:8$ wrong 4 $1821:22$ $1864:15$ $1915:21$ $1947:25$ $1941:$ $1822:7,12,$ $1866:6,14,$ $1937:1$ $1949:6,20$ Wuskwat $1822:17,12,$ $1866:6,14,$ $1937:1$ $1949:6,20$ Wuskwat $1824:4,14,$ 17 $1961:10$ $1957:4,13$ $1907:$ $1825:3,10,$ $1868:19$ $1948:17$ $1992:19$ $1908:$ $14,22$ $1869:3,21$ $1950:22$ $2001:8$ $1995:$ $1826:5,9,2$ $187:1,75$ $Winfrey$ $2025:18$ $1954:$ $1826:5,9,1$ 22 $1831:16$ $2079:11$ $1983:$ $1822:7,3,11,$ $1880:7$ $1811:16$ $2079:11$ $1983:$ $1823:7,11,$ $1880:7$ $1811:16$ $2066:2$ $9 198$ $1822:7,9,1,22$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1983:$ $1823:7,22$ $1883:1,18,$	-				
windship $1864:2,9,1$ $1905:15,22$ woodenworth 11811:9 $5,22$ $1906:3$ $1841:21$ $1917:$ 1811:9 $5,20$ 23 $1913:25$ WPLP 181811:7 20 19 $1330:11$ written1811:7 20 19 $1330:11$ written1812:12 $1856:2,13,$ $1909:5,24$ $1937:1$ $1929:21$ 1818:7,9,2 $1859:4,13,$ $1911:7,22$ $1942:14,15$ $2031:$ 1819:5,6 24 $1860:18$ $1912:5,9,1$ $1943:3$ $2055:$ 1820:5,9,1 $1863:21$ $2,19$ $1945:8$ wrong4 $1821:22$ $1864:15$ $1915:21$ $1947:25$ $1941:$ 1822:7,12, $1865:6,15,$ $1928:21$ $1948:12,20$ $2066:$ $19,22,25$ 24 $1937:1$ $1949:6,20$ Wuskwat1822:3,10, $1866:6,14,$ $1937:1$ $1949:6,20$ Wuskwat1825:3,10, $1866:19$ $1948:17$ $1992:10$ $1953:$ 1826:5,9,2 $187:1,77$ $2018:14$ $2031:16$ $,16,22$ 1828:2,6,9 $,20$ $1810:22$ $2077:5$ $17,23$ 1828:2,6,9 $,22$ $1880:7$ $1811:16$ $2086:2$ $9 1988$ 1829:5,9,1 $,22$ $1883:1,18,$ $1889:12,20$ $2040:10$ 1831:4,19 $1884:2,10$ 17 $2031:14$ $1923:1$ 1831:4,19 $1884:2,10$ 17 $2031:14$ $2001:8$ 1831:4,19 $1884:2,10$ 17 $2031:16$ $2040:$				wood 1841:11	
2017:1 $1034.2, 9/1$ $10303.13/22$ $1841:21$ worth 11811:9 $5, 20$ 23 $1913:25$ $1941:21$ $1917:$ 1811:9 $5, 20$ 23 $1913:25$ WILP 181811:7 20 19 $1908:3, 10,$ $192:21$ WILP 18181:7 20 19 $1930:11$ written1812:12 $1858:8, 24$ $1909:5, 24$ $1937:1$ $1921:3$ 1818:7, $9, 2$ $1859:4, 13,$ $1911:7, 22$ $1942:14, 15$ $2031:$ 1819:5, 6 24 $1860:18$ $1912:5, 9, 1$ $1943:3$ $2085:$ 1820:5, $9, 1$ $1863:21$ $2, 19$ $1945:8$ wrong4 $1821:22$ $1864:15$ $1915:21$ $1947:25$ $1941:$ $19, 22, 25$ 24 $1937:1$ $1949:6, 20$ $2066:$ $19, 22, 25$ 24 $1937:1$ $1949:6, 20$ $2066:$ $1824:4, 14,$ 17 $1961:10$ $1957:4, 13$ $1815:$ 22 $1867:1, 7$ willing $1992:19$ $1908:$ $1825:3, 10,$ $1868:19$ $1948:17$ $2005:10$ $1953:$ $1826:5, 9, 2$ $1877:1, 5$ Winfrey $2025:18$ $1954:$ $1827:3, 11,$ $1879:1, 3, 1$ $8161:22$ $2005:10$ $1953:$ $1826:5, 9, 1,$ $1880:7$ $1811:16$ $2077:5$ $17, 23$ $1826:5, 9, 1,$ $1882:19, 21$ $1814:16$ $2086:2$ $9198:$ $1822:5, 9, 1,$ 23 $1890:5, 11,$ $806:2$ $9198:$ $1822:5, 9, 1$	wildcard			wooden	2020:7
William 3722 $1907:6, 12$, $1907:6, 12$, $1907:6, 12$, $1907:6, 12$, $1907:6, 12$, $1907:6, 12$, $1913:25$ $1913:25$ $1913:25$ Williams $1856:2, 13$, $1956:3, 10$, $1811:7$ 20 $1929:21$ $1933:1$ $1929:21$ $1943:$ $1929:21$ 1811:7 20 $1999:5, 24$ $1937:1$ $1929:21$ $1937:1$ $1921:$ $1921:$ $1937:1$ $1921:$ $1921:$ 1818:7,9,2 $1820:5, 9, 1$ $1856:6, 18$ $1915:21$ $1917:72$ $1943:3$ $2065:$ $2031:$ $2065:$ $1820:5, 9, 1$ $1822:7, 12,$ $1862:66, 15,$ $19, 22, 25$ $1866:6, 14,$ $1937:1$ $1947:25$ $1943:$ $1947:25$ $wrong$ $1947:25$ $1822:7, 12,$ $1822:321$ $1866:6, 14,$ $1937:1$ $1946:10$ $1947:25$ $1947:25$ $wrong$ $1946:10$ $1957:4, 13$ $1957:4, 13$ $1815:$ $1958:3$ $1909:$ $192:19$ $1908:$ $1826:5, 9, 2$ $1826:5, 9, 2$ $1866:11, 25$ $1067:1, 7$ $1866:12$ $1950:22$ $2005:10$ $1953:$ $1097:13$ $1950:22$ $2005:10$ $1953:$ $1953:$ $1097:13$ $1966:123$ $1953:$ $1997:13, 11,$ $1877:1, 5$ $1810:22$ $2077:5$ $17, 23$ $1828:2, 6, 9$ $9, 20$ $1810:22$ $2077:5$ $17, 23$ $1828:2, 6, 9$ $9, 20$ $1810:22$ $2077:5$ $17, 23$ $1832:4, 19$ $1832:7$ $1883:1, 18,$ $1889:12, 20$ $1832:7,$ $1883:1, 18,$ $1889:12, 20$ $1832:10, 2016:$ 23 $1832:17, 22$ $1883:1, 18,$ $1889:15, 11, 1983:7, 2079:$ $1839:16, 23$ $1889:10, 19, 2$ $1997:13$ $1997:13$ $1997:13$ $1997:14$ $1997:13$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ $1997:12$ <td>2017:1</td> <td></td> <td></td> <td></td> <td>worth 1875:1</td>	2017:1				worth 1875:1
1811:9 $1053:2, 7.1$ $1007:8, 12, 7$ work 1884:11 $1943:$ Williams1856:2, 13, 1908:3, 10, 1929:2, 21WPLP 181811:720191930:11written1812:121858:8, 241909:5, 241930:11written1812:121858:8, 241909:5, 241937:11921:11818:7, 9, 21859:4, 13, 1911:7, 221943:32085:11820:5, 9, 11863:212,191945:8wrong4 1821:221865:6, 15, 1928:211945:8wrong1822:7, 12, 1865:6, 15, 1928:211945:8wrong1823:211866:6, 14, 1937:11949:6, 20Wukwat1825:3, 10, 1268:191948:171992:191825:3, 10, 1268:191948:171992:191825:3, 10, 1268:191948:171992:191825:3, 10, 1268:191948:171825:3, 10, 1268:191948:171827:3, 11, 1878:9, 172018:142005:101826:5, 9, 21876:11, 251826:5, 9, 21876:11, 251826:5, 9, 21876:11, 251828:2, 6, 99, 201828:2, 6, 99, 201829:5, 9, 1, 2, 11831:4, 191884:2, 101831:4, 191884:2, 101831:4, 191884:2, 101831:4, 191884:2, 101831:6, 20231831:6, 231889:12, 201831:6, 231889:12, 201831:6, 231889:12, 201831:6, 231889:10, 181831:10, 201937:132008:22029:2	William				1917:14
Williams $3,256:2,13,$ $1938:3,10,$ $1913:25$ WPLP 181811:72019 $1908:3,10,$ $1929:21$ Written1812:121858:8,24 $1909:5,24$ $1937:1$ $1929:21$ Written1818:7,9,21859:4,13, $1911:7,22$ $1942:14,15$ $2031:$ 1818:7,9,21859:4,13, $1911:7,22$ $1942:14,15$ $2031:$ 1820:5,9,11863:21 $2,19$ $1943:33$ $2085:$ 1820:7,12,1865:6,15, $1928:21$ $1948:12,20$ $2066:$ 1822:7,12,1865:6,15, $1928:21$ $1948:12,20$ $2066:$ 1823:211866:6,14, $1937:1$ $1949:6,20$ Wuskwat1824:4,14,17 $1961:10$ $1957:4,13$ $1815:$ 221867:1,7willing $1958:3$ $1907:$ 1825:3,10,1868:19 $1948:17$ $1992:19$ $1908:$ 1826:5,9,21876:11,25 $2001:8$ $1909:$ 1826:5,9,21876:11,25 $2005:10$ $1953:$ 11877:1,5Winfrey $2051:23$ $1982:$ 1828:2,6,99,20 $1810:22$ $2077:5$ $17,23$ 1828:2,6,99,20 $1810:22$ $2077:5$ $17,23$ 1829:5,9,1,22 $1879:24$ Worked $1996:$ 8,251883:1,18, $1889:12,20$ $2040:10$ $1988:$ 1831:4,191884:2,10 17 $2031:14$ $4922:10$ 1832:7,121886:11 $197:13$ $2008:2$ $2029:$ 1831:4,20 24					1943:15
williams $1000.2,13,7$ $1000.3,10,7$ $1929:21$ 1811:720191930:11written1812:121858:8,241909:5,241937:11921::1818:7,9,21859:4,13,1911:7,221942:14,152031:1 1819:5,624 1860:181912:5,9,11943:32085:1820:5,9,11866:6,122,191945:8wrong4 1821:221864:151915:211947:251941:1822:7,12,1865:6,15,1928:211948:12,202066::19,22,25241937:11949:6,20Wuskwat1823:211866:6,14,1937:11949:6,20Wuskwat1825:3,10,1868:191948:171992:191908:14,221866:3,211950:222001:81907:1825:3,10,1868:191948:171992:191908:14,221869:3,211950:222005:101953:1826:5,9,21877:1,5Winfrey2025:181954:1827:3,11,1878:9,172018:142031:16,16,221828:2,6,99,201810:222077:517,231828:2,6,9,9,201811:162086:29 1981829:5,9,1,221879:24worked1983:1831:4,191884:71889:12,122040:101988:1831:4,191884:2,1017 2031:14working221832:71886:3,231907:132008:22029:1838:10,2024242084:24worki				1913:25	WPLP 1817:19
1812:121858:8,241909:5,241937:11921:11818:7,9,21859:4,13,1911:7,221942:14,152031:11819:5,6241860:181912:5,9,11943:32085:1820:5,9,11863:212,191945:8wrong41821:221864:151915:211947:251941:19,22,25241931:20,21,242066:19,22,25241931:20,21,24Wuskwat1823:211866:6,14,1937:11949:6,20Wuskwat1824:4,14,171961:101957:4,131815:221867:1,7willing1958:31907:1825:3,10,1868:191948:171992:191908:14,221869:3,211950:222001:81909:1826:5,9,21876:11,252005:101953:11877:1,5Winfrey2025:181954:1827:3,11,1878:9,172018:142031:161828:2,6,99,201810:222077:517,231829:5,9,1,221879:13,1Winnipeg2051:231829:5,9,1,221879:24worked1986:1830:6231890:5,11,1992:102040:101832:71886:11wish 1876:232001:841831:4,191884:2,10172031:141932:101833:7,221889:10,18wished1948:172081:1831:4,151899:10,181997:132008:22029:1				1929:21	
1818:7,9,2 $1859:4,13$, $241860:18$ $1911:7,22$ $1912:5,9,1$ $1942:14,15$ $1943:3$ 			-		written
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				1937:1	1921:2
1820:5,9,1 $1863:21$ $2,19$ $1945:8$ 2005.1 $4 1821:22$ $1864:15$ $1915:21$ $1945:8$ $1947:25$ $1941:1$ $19,22,25$ 24 $1931:20$ $,21,24$ $2066:$ $1823:21$ $1866:6,14,$ $1937:1$ $1949:6,20$ $Wuskwat$ $1824:4,14,$ 17 $1961:10$ $1958:3$ $1907:$ $1825:3,10,$ $1866:3,21$ $1948:17$ $1992:19$ $1908:$ $14,22$ $1867:1,7$ willing $1958:3$ $1907:$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2005:10$ $1953:$ 1 $1877:1,5$ $Winfrey$ $2025:18$ $1999:$ $1826:5,9,2$ $1879:1,3,1$ $Winnipeg$ $2051:23$ $1982:$ $1827:3,11,$ $1878:9,17$ $2018:14$ $2031:16$ $,16,22$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1829:5,9,1$ $,22$ $1879:24$ $Worked$ $1983:$ $8,25$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1987:$ $1830:6$ 23 $1897:13$ $1907:13$ $2008:2$ $2029:$ $1838:10,20$ 24 $2084:24$ <t< td=""><td></td><td></td><td></td><td>1942:14,15</td><td>2031:9</td></t<>				1942:14,15	2031:9
41821:221864:151915:211947:25wrong $1822:7,12,$ $1865:6,15,$ $1928:21$ $1947:25$ $1941:$ $19,22,25$ 24 $1931:20$ $,21,24$ $2066:$ $1823:21$ $1866:6,14,$ $1937:1$ $1949:6,20$ Wuskwat $1824:4,14,$ 17 $1961:10$ $1957:4,13$ $1815:$ 22 $1867:1,7$ willing $1958:3$ $1907:$ $1825:3,10,$ $1868:19$ $1948:17$ $1992:19$ $1908:$ $14,22$ $1869:3,21$ $1950:22$ $2005:10$ $1953:$ $14,22$ $1877:1,5$ $1950:22$ $2005:10$ $1953:$ $1826:5,9,2$ $1876:11,25$ $Winfrey$ $2025:18$ $1999:$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $1829:5,9,1$ $,22$ $1880:7$ $1811:16$ $2086:2$ $9 198$ $1829:5,9,1$ $,22$ $1879:24$ $worked$ $1986:$ $8,25$ $1883:1,18,$ $1890:5,11,$ $1932:10$ $2016:$ $1831:4,19$ $1884:2,10$ $17 2031:14$ $1932:10$ $2016:$ $1832:7$ $1886:11$ $wished$ $1932:10$ $2016:$ $1834:7$ $1889:10,18$ $1907:13$ $2008:2$ $2029:$ $1838:10,20$ 24 $1889:10,18$ $1907:13$ $2008:2$ $2029:$ $1839:16,23$ $1889:10,18$ $wished$ $1948:17$ $2081:$ $1840:14,15$ $1890:1,19,2$ <				1943:3	2085:22
4 $1821:22$ $1864:15$ $1915:21$ $1947:25$ $1941:$ $1822:7,12$, $1865:6,15$, $1928:21$ $1948:12,20$ $2066:2$ $19,22,25$ 24 $1931:20$ $,21,24$ $2066:2$ $1823:21$ $1866:6,14$, $1937:1$ $1949:6,20$ Wuskwat $1824:4,14$, 17 $1961:10$ $1957:4,13$ $1815:2$ 22 $1867:1,7$ willing $1958:3$ $1907:1$ $1825:3,10$, $1868:19$ $1948:17$ $1992:19$ $1908:19$ $14,22$ $1869:3,21$ $1950:22$ $2005:10$ $1953:1$ $1826:5,9,2$ $1876:11,25$ $2005:10$ $1953:1$ $1827:3,11$, $1877:1,5$ Winfrey $2025:18$ $1954:1$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ 124 $1880:7$ $1811:16$ $2079:11$ $1983:1$ $1829:5,9,1$ $,22$ $1879:24$ worked $1986:2$ $8,25$ $1883:1,18$, $1890:5,11,$ $1932:10$ $2016:1$ $1831:4,19$ $1884:2,10$ $17,2031:14$ $1932:10$ $2016:1$ $1832:7$ $1886:11$ wish $1876:23$ $2001:8$ 4 $1834:7$ $1889:10,18$ $2084:24$ $2008:2$ $2029:$ $1838:10,20$ 24 $2084:24$ $2081:2$ $2029:$ $1839:16,23$ $1889:10,18$ $1997:12$ $1948:17$ $2081:$ $1844:7,13,$ $0,21$ $1997:12$ $1948:17$ $2081:$ $1839:16,23$ $1889:10,18$ $1997:12$ $1948:17$				1945:8	wrong
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$					1941:14
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$					2066:25
1824:4,14, 17 $1961:10$ $1957:4,13$ $1815:$ 22 $1867:1,7$ $1868:19$ $1948:17$ $1958:3$ $1907:$ $1825:3,10,$ $1869:3,21$ $1948:17$ $1992:19$ $1908:$ $14,22$ $1869:3,21$ $1950:22$ $2001:8$ $1909:$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2005:10$ $1953:$ 1 $1877:1,5$ $Winfrey$ $2025:18$ $1954:$ $1827:3,11,$ $1878:9,17$ $2018:14$ $2031:16$ $,16,22$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $12,13,19,$ $1880:7$ $1811:16$ $2079:11$ $1983:$ 1224 $1882:19,21$ $1814:16$ $2086:2$ 9198 $1829:5,9,1$ $,22$ $1879:24$ $worked$ $1987:$ $1830:6$ 23 $1899:5,11,$ $1932:10$ $2016:$ $1831:4,19$ $1884:2,10$ 17 $2031:14$ $1932:10$ $2016:$ $1833:7,22$ $1887:13$ $1907:13$ $2008:2$ $2029:$ $1838:10,20$ 24 $2084:24$ $working$ $2008:2$ $1839:16,23$ $1889:10,18$ $wished$ $1948:17$ $2082:$ $184:7,13,$ $0,21$ $1997:12$ $1948:17$ $2082:$ $184:7,13,$ $0,21$ $wishes$ $work's$ $2029:$					
22 $1867:1,7$ $1825:3,10,$ $1867:1,7$ $1868:19$ willing $1948:17$ $1958:3$ $1992:19$ $1907:$ $1992:19$ $14,22$ $1869:3,21$ $1948:17$ $1950:22$ $1992:19$ $1908:$ $1992:19$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2001:8$ $2005:10$ $1953:$ $1992:19$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2001:8$ $2005:10$ $1953:$ $1953:$ 1 $1877:1,5$ $Winfrey$ $2025:18$ $2005:10$ $1953:$ $1953:$ $1827:3,11,$ $1878:9,17$ $2018:1,3,11$ $2018:14$ $2025:18$ $2051:23$ $2051:23$ $1982:$ $1982:$ $1828:2,6,9$ $9,20$ $1810:22$ $1880:7$ $2077:5$ $17,23$ $17,23$ $1811:16$ $2086:2$ 9198 $2079:11$ $1829:5,9,1$ $8,25$ $,22$ $1883:1,18,$ $1899:5,11,$ $1830:6$ 23 $1890:5,11,$ $172031:14$ $worked$ $1932:10$ $1988:$ $2040:10$ $1832:7$ $1838:10,20$ $1884:2,10$ $172031:14$ $1932:10$ $2001:8$ $2016:$ $1932:10$ $1833:7,22$ $1838:10,20$ $1839:16,23$ $1889:10,18$ $1890:1,9,2$ $wished$ $1997:12$ $1948:17$ $1948:17$ $2082:$ $1841:7,13,$ $19,23$ $1891:3,12,$ $2084:25$ $work's$ $2084:25$ $2084:25$				1949:6,20	Wuskwatim
1825:3,10, $1868:19$ 1911110 $1992:19$ $1908:$ $14,22$ $1869:3,21$ $1948:17$ $2001:8$ $1909:19$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2005:10$ $1953:$ 1 $1877:1,5$ Winfrey $2025:18$ $1954:$ $1827:3,11,$ $1878:9,17$ $2018:14$ $2031:16$ $,16,22$ $15,22$ $1879:1,3,1$ Winnipeg $2051:23$ $1982:$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $,12,13,19,$ $1880:7$ $1811:16$ $2079:11$ $1983:$ 24 $1882:19,21$ $1814:16$ $2086:2$ 9198 $1829:5,9,1$ $,22$ $1879:24$ worked $1987:$ $8,25$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1987:$ $1830:6$ 23 $1890:5,11,$ $1932:10$ $2016:$ $1832:7$ $1886:11$ $wish 1876:23$ $2001:8$ 4 $1834:7$ $1888:3,23,$ $1907:13$ $2008:2$ $2029:$ $1838:10,20$ 24 $2084:24$ $works 1913:7$ $2081:$ $1841:7,13,$ $0,21$ $wished$ $1948:17$ $2082:$ $1841:7,13,$ $0,21$ $wishes$ $work's$ $2082:$			1961 : 10	1957:4 , 13	1815:11
14,22 $1869:3,21$ $1948:17$ $2001:8$ $1909:$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2001:8$ $1909:$ $1826:5,9,2$ $1876:11,25$ $1950:22$ $2005:10$ $1953:$ 1 $1877:1,5$ $2018:14$ $2031:16$ $,16,2$ $15,22$ $1879:1,3,1$ $878:9,17$ $2018:14$ $2031:16$ $,16,2$ $15,22$ $1879:1,3,1$ $810:22$ $2077:5$ $17,23$ $12,13,19,$ $1880:7$ $1810:22$ $2077:5$ $17,23$ $,12,13,19,$ $1880:7$ $1811:16$ $2086:2$ 9198 $1829:5,9,1$ $,22$ $1879:24$ $806:6$ $9198:189:12,20$ $1830:6$ 23 $1890:5,11,$ $1932:10$ $2040:10$ $1831:4,19$ $1884:2,10$ 17 $2031:14$ $1932:10$ $1832:7$ $1886:11$ $1907:13$ $2008:2$ $2029:1$ $1838:10,20$ 24 $2084:23$ $2008:2$ $2029:1$ $1839:16,23$ $1889:10,18$ $8189:10,18$ $1948:17$ $2081:16$ $1841:7,13,$ $0,21$ $1997:12$ $1960:3$ $2082:10$ $19,23$ $1891:3,12,$ $2084:25$ $80rk's$ $2082:10$			willing	1958:3	1907 : 17
1826:5,9,2 $1876:11,25$ $1950:22$ $2005:10$ $1953:$ 1 $1877:1,5$ $877:1,5$ $2018:14$ $2025:18$ $1954:$ $1827:3,11,$ $1878:9,17$ $2018:14$ $2031:16$ $,16,22$ $15,22$ $1879:1,3,1$ $Winnipeg$ $2051:23$ $1982:$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $,12,13,19,$ $1880:7$ $1811:16$ $2079:11$ $1983:$ 24 $1882:19,21$ $1814:16$ $2086:2$ 9 $1829:5,9,1$ $,22$ $1879:24$ $worked$ $1987:$ $8,25$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1988:$ $1831:4,19$ $1884:2,10$ 17 $2031:14$ $1932:10$ $2016:$ $1832:7$ $1886:11$ $wish$ $1876:23$ $2001:8$ 4 $1834:7$ $1888:3,23,$ $1907:13$ $2008:2$ $2029:1$ $1838:10,20$ 24 $wished$ $1948:17$ $2079:$ $1839:16,23$ $189:10,18$ $wished$ $1948:17$ $2081:$ $1841:7,13,$ $0,21$ $wishes$ $work's$ $913:7$ $19,23$ $1891:3,12,$ $2084:25$ $work's$ $2082:$			1948:17	1992:19	1908:6,13
1 $1877:1,5$ Winfrey $2005:18$ $1954:$ $1827:3,11,$ $1877:1,5$ $2018:14$ $2025:18$ $1954:$ $15,22$ $1879:1,3,1$ Winnipeg $2051:23$ $1982:$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $,12,13,19,$ $1880:7$ $1811:16$ $2079:11$ $1983:$ 24 $1882:19,21$ $1814:16$ $2086:2$ 9 $1829:5,9,1$ $,22$ $1879:24$ $worked$ $1986:$ $8,25$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1987:$ $1830:6$ 23 $1890:5,11,$ $2040:10$ $1987:$ $1832:7$ $1886:11$ wish $1876:23$ $2001:8$ 4 $1834:7$ $1888:3,23,$ $2084:24$ $2008:2$ $2029:$ $1839:16,23$ $1889:10,18$ wished $1948:17$ $2081:$ $1841:7,13,$ $0,21$ wishes $work's$ $2084:25$ $1841:7,13,$ $0,21$ wishes $work's$ 500			1950:22	2001:8	1909:22
1 $1878:9,17$ $2018:14$ $2023:16$ $1876:2$ $15,22$ $1879:1,3,1$ $1879:1,3,1$ $2018:14$ $2031:16$ $16,2$ $15,22$ $1879:1,3,1$ $1879:1,3,1$ $2031:16$ $16,2$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $12,13,19,$ $1880:7$ $1811:16$ $2079:11$ $1983:$ 24 $1882:19,21$ $1814:16$ $2086:2$ 9 $1829:5,9,1$ $,22$ $1879:24$ $worked$ $1986:3$ $8,25$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1987:$ $1830:6$ 23 $1890:5,11,$ 17 $2031:14$ $1932:10$ $1832:7$ $1886:11$ $wish$ $1876:23$ $2001:8$ 4 $1834:7$ $1888:3,23,$ $1907:13$ $2008:2$ $2029:$ $1838:10,20$ 24 $wished$ $1948:17$ $2081:$ $1841:7,13,$ $0,21$ $wishes$ $1948:17$ $2082:$ $19,23$ $1891:3,12,$ $2084:25$ $work's$ $2082:$	1826:5,9,2			2005:10	1953:19
162,13,11, $1879:1,3,1$ $Winnipeg$ $2031:16$ 7072.16 $15,22$ $1879:1,3,1$ $1879:1,3,1$ $2051:23$ $1982:$ $1828:2,6,9$ $9,20$ $1810:22$ $2077:5$ $17,23$ $12,13,19,$ $1880:7$ $1811:16$ $2066:2$ 9198 24 $1882:19,21$ $1814:16$ $2086:2$ 9198 $1829:5,9,1$ $,22$ $1879:24$ $worked$ $1987:1$ $8,25$ $1883:1,18,$ $1889:12,20$ $2040:10$ $1988:1$ $1830:6$ 23 $1890:5,11,$ $172031:14$ $working$ 22 $1832:7$ $1886:11$ $wish 1876:23$ $2001:8$ 4 $1834:7$ $1888:3,23,$ $1907:13$ $2008:2$ $2029:18$ $1834:7$ $1889:10,18$ $wished$ $1948:17$ $2079:12$ $1839:16,23$ $1889:10,18$ $wished$ $1948:17$ $2081:17$ $1841:7,13,$ $0,21$ $1997:12$ $1960:3$ $2082:16$ $19,23$ $1891:3,12,$ $2084:25$ $work's$ $2082:16$					1954:10,11
1828:2,6,99,2018111292077:517,23,12,13,19,1880:71810:222077:51983:241882:19,211814:162086:29 1981829:5,9,1,221879:24worked1986:38,251883:1,18,1889:12,202040:101988:1830:6231890:5,11,17 2031:14working221831:4,191884:2,1017 2031:141932:102016:1833:7,221887:131907:132008:22029:1838:10,20242084:24works 1913:72079:1839:16,231889:10,18wished1948:172081:1840:14,151890:1,9,21997:121960:32082:1841:7,13,0,21wisheswork'sY			2018:14	2031:16	,16,22
,12,13,19,1880:71811:162079:111983:241882:19,211814:162086:29 1981829:5,9,1,221879:24worked1987:8,251883:1,18,1889:12,202040:101987:1830:6231890:5,11,17 2031:141982:101832:71886:1117 2031:141932:102016:1833:7,221887:131907:132008:22029:1838:10,20242084:242008:22029:1840:14,151890:1,9,21997:121948:172081:1841:7,13,0,21wisheswork's2082:19,231891:3,12,2084:25XX			Winnipeg	2051:23	1982:6,12,
241882:19,211811:162086:29 1981829:5,9,1,221814:162086:21986:18,251883:1,18,1889:12,202040:101987:1830:6231890:5,11,17 2031:141982:102040:101832:71886:1117 2031:141932:102016:1833:7,221887:131907:132008:22029:1838:10,20242084:24works 1913:72081:1840:14,151890:1,9,21997:1219960:32081:1841:7,13,0,21wisheswork's2082:19,231891:3,12,2084:25work'sY	1828:2,6,9		1810:22	2077:5	
1829:5,9,1 ,22 18110 180001 1986:1 8,25 1883:1,18, 1879:24 worked 1987: 1830:6 23 1890:5,11, 1988: 1987: 1831:4,19 1884:2,10 17 2031:14 working 22 1833:7,22 1887:13 1907:13 2001:8 4 1834:7 1888:3,23, 1907:13 2008:2 2029: 1839:16,23 1889:10,18 wished 1948:17 2081: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 work's Y			1811:16	2079:11	1983:1,4,1
8,25 1883:1,18, 1889:12,20 2040:10 1987: 1830:6 23 1890:5,11, 1989:5,11, 1988: 1831:4,19 1884:2,10 17 2031:14 working 22 1833:7,22 1887:13 1907:13 2001:8 4 1834:7 1888:3,23, 1907:13 2008:2 2029: 1839:16,23 1889:10,18 wished 1948:17 2081: 1840:14,15 1890:1,9,2 1997:12 1960:3 2082: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 4000000 2084:25			1814:16	2086:2	9 1984:8
8,25 1883:1,18, 1889:12,20 2040:10 1987: 1830:6 23 1890:5,11, 1987: 1988: 1831:4,19 1884:2,10 17 2031:14 1932:10 2016: 1833:7,22 1887:13 1907:13 2008:2 2029: 1838:10,20 24 2084:24 works 1913:7 2081: 1840:14,15 1890:1,9,2 1997:12 1960:3 2082: 1841:7,13, 0,21 wishes work's 2082:			1879:24	worked	1986:24
1830:6 23 1890:5,11, 1988: 1831:4,19 1884:2,10 17 2031:14 22 1832:7 1886:11 17 2031:14 1932:10 2016: 1833:7,22 1887:13 1907:13 2008:2 2029: 1838:10,20 24 2084:24 works 1913:7 2081: 1840:14,15 1890:1,9,2 1997:12 1948:17 2082: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 12084:25 Y			1889:12,20		1987:11
1832:7 1886:11 17 2031.14 1932:10 2016: 1833:7,22 1887:13 1907:13 2001:8 4 1834:7 1888:3,23, 1907:13 2008:2 2029: 1839:10,20 24 2084:24 works 1913:7 2081: 1840:14,15 1890:1,9,2 1997:12 1948:17 2082: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 Y Y			1890:5,11,		1988:1,11,
1833:7,22 1887:13 wish 1876:23 2001:8 4 1834:7 1888:3,23, 1907:13 2008:2 2029: 1838:10,20 24 2084:24 works 1913:7 2081: 1839:16,23 1889:10,18 wished 1948:17 2082: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 xork's X			17 2031 : 14	-	
1833:7,22 1807.13 1907:13 2001.6 4 1834:7 1888:3,23, 2008:2 2029: 1838:10,20 24 2084:24 works 1913:7 2081: 1839:16,23 1889:10,18 wished 1948:17 2081: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 1007:13 2082:			wich 1076.00		2016:6,8,1
1834:7 1800:37,237 2084:24 20084:24 2008.2 2023.1 1838:10,20 24 2084:24 works 1913:7 2079: 1839:16,23 1889:10,18 wished 1948:17 2081: 1840:14,15 1890:1,9,2 1997:12 1960:3 2082: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 1040.20 Y					
1838.10,20 121 wished 1913:7 2075. 1839:16,23 1889:10,18 wished 1948:17 2081: 1840:14,15 1890:1,9,2 1997:12 1960:3 2082: 1841:7,13, 0,21 wishes work's 2082: 19,23 1891:3,12, 2084:25 1010:00 Y				2008:2	2029:8,12
1839:16,23 1889:10,18 wished 1948:17 2081: 1840:14,15 1890:1,9,2 1997:12 1960:3 2082: 1841:7,13, 0,21 wishes work's 2084:25				works 1913:7	2079:9
1840:14,15 1890:1,9,2 1997:12 1960:3 1841:7,13, 0,21 wishes work's 19,23 1891:3,12, 2084:25 12082:1			wished		2081:9
1841:7,13, 0,21 19,23 1891:3,12, 2084:25 work's			1997:12		2082:5
19,23 1891:3,12, 2084:25			wishes		
$1 9/2 \cdot 2 7 1 25 - 200 \cdot 2 0 - 19/2 \cdot 2 0$					Y
1012.0///1	1842:3,7,1	25		1948:22	
2 1092:1,20 Witness world 1985.				world	1985:7
1843:6,10, 1893:12,18 2027:19	1843:6,10,	1893:12,18	2027:19		1000.1

PUB - MANIS	TOBA HYDRO GRA	12-19-2012	Page 2162 of 2162
2075:22	1852:18	2054:14	
year-to-yea	1 855:4	2059:8	
1951:2	1866:20	2062:17	
	1867:22	2064:3	
yesterday	1868:20	Yukan	
1829 : 21	1877:2,6	2064:20	
1836:19	1891:5,15,		
1843:19	17,20	Yukon	
1853:7	1892:1,21	2064:20,21	
1856:17	1896:9,16	,23	
1865:9,20			
1866:1	1906:5	Z	
1881:6 1891:17,2	1924:22	zer 1852:24	
1891:17,2		zero 1828:8	
1894:3	1959:24 1968:6	1852:11,24	
1895:7	1968:6	1863:5	
1900:14	1970:9	1865:21	
1905:23	2002:25	1931:2	
1908:1	2056:7,8	1977:11,13	
1909:13		2053:8	
1927 : 13	Young	zero-percent	
1928:16,1	8 1903:12	1977:19	
,24 1970:	9 younger		
1983 : 17	1853:19	zero-six	
1989:8	yourself	1981:21	
1990:1	2051:23	1982:18	
1996:7		1985:21	
2009:7	you've	1986:11	
yet 1853:11	1820:5 1869:10,15		
1905:10	1872:8		
1942:13	1880:2		
1982:6	1894:10		
1983:4	1895:19		
1990:22	1909:6		
1997:18	1913:21		
1998:4 2001:1	1922:1		
2001:1	1926:5		
2009:25	1928:3		
	1930:4		
you'll	1961:24		
1819:18,2			
1820:12,2			
1823:2,21			
1824:5,6, 9,23	1 1987:2 1991:19		
9,23 1826:14,1			
1828:14	2007:17		
1829:19,2			
,25	2044:15		
1848:4,13			
14,19,21	2046:2		
1851:23	2048:6		

DIGI-TRAN INC. 1-800-663-4915 or 1-403-276-7611 Serving Clients Across Canada