

**ACTUARIAL REPORT**  
(for pension expense purposes)  
  
on the Pension Liabilities which  
  
**CENTRA GAS MANITOBA INC.**  
  
has as at  
  
**DECEMBER 31, 2011**  
  
with respect to the  
  
Centra Gas Manitoba Inc.  
(Rural) Local 681 Pension Plan

June, 2012

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Prepared by:

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- II Summary of the Rural Plan
- III Summary of Actuarial Assumptions

## **I. PURPOSE**

The purpose of this Report is to:

- indicate the liabilities which the Centra Gas Manitoba Inc. (the Company) has at December 31, 2011, with respect to the employees participating in the Centra Gas Manitoba Inc. (Rural) Local 681 Pension Plan (Rural Plan), and
- determine the formula for pension expense as at December 31, 2011.

The liabilities have been computed on a going concern basis. This basis contemplates the continued existence of the pension plan and the funding arrangements for the benefits under the pension plan.

The Rural Plan self-insures all benefits and therefore is exposed to investment and demographic risks. There were no members accruing new pensions under the Rural Plan at the valuation date. It may be desirable at some time in the future, if conditions are appropriate, to consider alternatives to settling the accrued benefit obligations under this Rural Plan in a manner agreeable to the members and the Company.

The guidance for the calculation of the liabilities and the preparation of this Report are the Practice-Specific Standards for Pension Plans of the Canadian Institute of Actuaries and IAS 19, Employee Benefits issued by the International Accounting Standards Committee.

## **2. DATA**

All members actively employed by the Company on June 20, 2001 ceased to accrue future service benefits under the Rural Plan and commenced to accrue future service benefits under the Manitoba Civil Service Superannuation Plan, as employees of Manitoba Hydro.

The data on which the valuation is based was provided by the Civil Service Superannuation Board (Superannuation Board). Due to time constraints, the data provided by the Superannuation Board was sent without performing their normal annual edit checks. The details of the data provided are described in Appendix I.

However, we checked the data for missing information, illogical information and reconciled with the prior valuation data. A few minor changes to the data resulted from the checks made.

### 3. MEMBERSHIP

The data provided indicated that the Rural Plan had the following participants:

	<i>December 31, 2011</i>	<i>December 31, 2010</i>
Retired Members	24	22
Terminated Vested Members	1	2
Active Members	-	-
Suspended Members	54	55
<b>Total</b>	<u>79</u>	<u>79</u>

A reconciliation of the number of member records used in the calculations is shown in Appendix I.

The numbers shown for retired members includes no beneficiary records at December 31, 2011 and at December 31, 2010.

### 4. ASSUMPTIONS

The assumptions used in this valuation and the assumptions used in the last valuation are shown in Appendix III.

The selection of the demographic assumptions is made by the actuary. The demographic assumptions used for this valuation are the same as those used for the 2010 Report.

The selection of the economic assumptions is made by management with consultation provided by the actuary. The economic assumptions used for this Report were reduced. In particular, the discount rate was reduced from 6.50% to 5.25%. This change was made to better reflect the yields available on high quality corporate bonds.

The assumptions are, for the most part, on a best estimate basis but with some allowance for adverse deviation. For this valuation, the Rural Plan had an investment experience loss and a liability experience gain as reported in the reconciliation part of this Report.

## **5. CONTRIBUTION REQUIREMENTS FOR PENSION EXPENSE**

As indicated, all active members employed by the Company on June 20, 2001 ceased to accrue future service benefits under the Rural Plan. There are no members accruing new pensions under the Rural Plan.

The Company is expected to amortize any unfunded liabilities due to benefit changes, actuarial gains or losses due to deviations from expected experience and any transitional assets or obligations.

## **6. VALUATION PROCEDURE**

The accrued benefit actuarial cost method has been used to determine the accrued liabilities. Under this method, the accrued liabilities are equal to the amount needed to fund the projected benefits accrued for service up to the valuation date.

The liabilities are computed separately for each employee and each potential benefit in the future for that employee. For each benefit, we determine:

- the probability of that benefit becoming payable each year in the future based on the assumptions outlined in Appendix III,
- a discount factor which makes allowance for the interest expected to be earned between the valuation date and the date of payment to finance a portion of the future payment, and
- the amount of the future benefit. Pensions are based on service completed prior to the valuation date and projected salaries immediately prior to the event causing the pension to be paid.

The liability for each benefit for an employee is the sum of the product of these 3 factors for each year in the future. The sum of these liabilities obtained for all employees is the liability for that benefit in respect of employees.

The liabilities for pensioners and deferred pensioners is determined by a similar process except that the amount of payment is based on the pension in payment or the pension on record in the case of deferred pensioners.

## 7. VALUATION RESULTS

The following table shows the financial position of the Rural Plan as at December 31, 2011 and December 31, 2010:

	December 31, 2011	December 31, 2010
<b>ASSETS</b>		
Market Value of Assets	\$ 3,721,700	\$ 3,754,409
Accounts Receivable	36,275	51,780
<b>TOTAL VALUE OF ASSETS</b>	<b>\$ 3,757,975</b>	<b>\$ 3,806,189</b>
<b>LIABILITIES</b>		
Retired Members <small>(24 / 22)</small>	\$ 1,493,100	\$ 1,319,500
Terminated Vested Members <small>(1 / 2)</small>	13,800	25,700
Suspended Members <small>(54 / 55)</small>	2,874,400	2,317,200
<b>TOTAL LIABILITIES</b>	<b>\$ 4,381,300</b>	<b>\$ 3,662,400</b>
<b>SURPLUS / (UNFUNDED LIABILITY)</b>	<b>\$ (623,325)</b>	<b>\$ 143,789</b>
Funded Ratio	85.8%	103.9%

The computed expected average remaining service life (EARSL) of the suspended members of the Rural Plan is slightly higher than 10. However since the Rural Plan does not receive new members, it is anticipated the EARSL will be decreasing each year into the future. As a result, we recommend an EARSL of 10.

## 8. RECONCILIATION OF RESULTS

The financial position of the Rural Plan as at December 31, 2011 can be reproduced if the financial position as at December 31, 2010 is adjusted to recognize the various changes in the financial position which occurred during the period under review.

	ASSETS Market Value	LIABILITIES	SURPLUS/ (UNFUNDED LIABILITY)
Open 12-31-2010	\$ 3,806,189	\$ 3,662,400	\$ 143,789
- cost of 1.57% COLA effective July 1, 2011	-	21,100	(21,100)
- special payments (actual cash to current year)	215,828	-	215,828
- special payments (change in accounts receivable)	(15,505)	-	(15,505)
- expenses	(26,487)	-	(26,487)
- interest expected	248,757	235,133	13,624
- investment experience gain/(loss) (Note 1)	(338,661)	-	(338,661)
- benefit payments	(132,146)	(132,146)	-
- effect of change in assumptions	-	618,800	(618,800)
- liability experience (gain)/loss (Note 2)	-	(23,987)	23,987
Close 12-31-2011	<u>\$ 3,757,975</u>	<u>\$ 4,381,300</u>	<u>\$ (623,325)</u>

### Notes:

1. The investment experience was unfavourable during 2011 and resulted in an investment experience loss of \$338,661. The actual rate of return was equal to -2.35% as compared to the assumed rate of return equal to 6.50%.
2. The demographic experience was favourable during 2011 and resulted in a liability experience gain of \$23,987. Of this amount, \$12,100 was attributable to less than expected increases in the benefit rate, \$23,400 was attributable to favourable retirement experience and \$10,500 was attributable to unfavourable mortality experience. The balance, equal to a loss of \$1,013 is due to the experience with respect to mortality and other experience and is within an acceptable level of deviation.
3. Overall experience has been less favourable than expected in 2011. In the future, there will be periods when actual experience is more favourable than expected and other periods when actual experience is less favourable than expected, resulting in future gains and losses.

## **9. PROJECTION FORMULA FOR LIABILITIES**

The following formula can be used to project the estimated increase in liabilities in the 12 to 18 months after the valuation date:

- Add interest at the rate of 5.25% per year to the liabilities at the beginning of the period.

The interest addition for the current service cost, if any, and the payments from the accounts should be prorated to recognize investment for half the period, on average.

- Deduct the actual pension and benefit payments made to the Fund for the period.

## **10. ACCOUNTING FOR PENSION OBLIGATIONS**

Generally for the Rural Plan, the pension expense for a period is equal to:

- (a) current service cost, plus
- (b) interest on accrued benefit obligations, less
- (c) expected interest on assets, plus
- (d) amounts to amortize the past service costs, plus
- (e) amounts to amortize the actuarial gains/losses, plus
- (f) amounts to amortize the net transitional asset/obligation.



## II. ACTUARIAL OPINION

In our opinion, for the purposes of this Report:

- The financial and membership data is sufficient and reliable.
- The assumptions, in aggregate which have been used, are appropriate for the purpose of determining the accounting requirements of the Rural Plan on a going concern basis.
- The method which has been used is appropriate for the purpose of determining the accounting requirements of the Rural Plan on a going concern basis.
- We are not aware of any other matters or events occurring since the completion of this Report, which will materially affect the calculation of the liabilities as at December 31, 2011.
- This Report has been prepared and my opinion given in accordance with accepted actuarial practice in Canada.

DATED at Winnipeg, this 29<sup>th</sup> day of June, 2012

ELLEMENT & ELLEMENT



Louis Ellement, F.S.A., F.C.I.A.

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**APPENDIX I**

**Summary of Data**

A. RECONCILIATION OF MEMBERSHIP

	<i>Retired Members</i>	<i>Terminated Vested Members</i>	<i>Suspended Members</i>	<i>Total Members</i>
December 31, 2010	22	2	55	79
Adjustments	-	-	-	-
Change in Status	-	-	-	-
Transfer in/(out)	-	-	-	-
Member Deaths:				-
- cash settlement	-	-	-	-
- beneficiary pension	-	-	-	-
Terminations:				
- cash/transfer	-	-	-	-
- deferred pension	-	-	-	-
- reciprocal transfer	-	-	-	-
Disablements	-	-	-	-
Retirements	2	(1)	(1)	-
Pensioner Deaths:				
- pension ceases	-	-	-	-
- pension continues	-	-	-	-
December 31, 2011	<u>24</u>	<u>1</u>	<u>54</u>	<u>79</u>

**B. DETAILS OF MEMBERSHIP**

The following statistics are applicable to each category of member as at December 31, 2011 and December 31, 2010:

▪ **RETIRED MEMBERS**

Age Band	<u>December 31, 2011</u>		<u>December 31, 2010</u>	
	Count	Average Monthly Pension	Count	Average Monthly Pension
45 - 49	-	-	-	-
50 - 54	-	-	-	-
55 - 59	-	-	-	-
60 - 64	1	\$ 183	2	\$ 240
65 - 69	5	337	4	498
70 - 74	8	591	7	592
75 - 79	5	641	4	654
80 - 84	2	291	4	383
85 - 89	3	369	1	129
90 - 94	-	-	-	-
Total / Average	24	\$ 479	22	\$ 495

▪ **TERMINATED VESTED MEMBERS**

Age Band	<u>December 31, 2011</u>		<u>December 31, 2010</u>	
	Count	Average Monthly Pension	Count	Average Monthly Pension
< 20	-	-	-	-
20 - 24	-	-	-	-
25 - 29	-	-	-	-
30 - 34	-	-	-	-
35 - 39	-	-	-	-
40 - 44	-	-	-	-
45 - 49	-	-	-	-
50 - 54	-	-	-	-
55 - 59	1	\$ 135	1	\$ 135
60 - 64	-	-	-	-
65 - 69	-	-	1	110
70 - 74	-	-	-	-
75 - 79	-	-	-	-
80 - 84	-	-	-	-
Total / Average	1	\$ 135	2	\$ 123

▪ **SUSPENDED MEMBERS**

<b>Age Band</b>	<b><u>December 31, 2011</u></b>			<b><u>December 31, 2010</u></b>		
	<b>Count</b>	<b>Average Service</b>	<b>Average Salary</b>	<b>Count</b>	<b>Average Service</b>	<b>Average Salary</b>
< 20	-	-	-	-	-	-
20 - 24	-	-	-	-	-	-
25 - 29	-	-	-	-	-	-
30 - 34	-	-	-	-	-	-
35 - 39	2	0.5	\$ 62,848	2	0.5	\$ 59,124
40 - 44	4	8.3	76,104	5	8.7	67,934
45 - 49	9	8.5	61,003	14	10.1	62,360
50 - 54	21	11.2	64,850	19	11.2	61,949
55 - 59	11	12.9	69,955	9	13.3	67,440
60 - 64	7	13.2	67,147	5	12.6	64,611
65 - 69	-	-	-	-	-	-
70 - 74	-	-	-	1	9.8	48,457
75 - 79	-	-	-	-	-	-
80 - 84	-	-	-	-	-	-
<b>Total / Average</b>	<b>54</b>	<b>10.7</b>	<b>\$ 66,306</b>	<b>55</b>	<b>10.7</b>	<b>\$ 63,390</b>

## C. SOURCE OF INFORMATION

The information used in this valuation is listed below.

The data on which the valuation is based was provided by the Superannuation Board.

### 1. RETIRED MEMBERS AND BENEFICIARIES

Information was provided for each member or beneficiary receiving a pension as at December 31, 2011. The details of the information provided included: name, social insurance number, date of birth, date of retirement, pension option chosen, and amount of monthly pension and monthly bridge payable.

### 2. TERMINATED VESTED MEMBERS

Information was provided for each person entitled to a paid-up pension. The details of the information provided included: name, social insurance number, sex, date of birth, date of termination, and amount of monthly pension earned to the date of termination.

### 3. ACTIVE AND DISABLED MEMBERS

For this Report, there were no members in this category.

### 4. SUSPENDED MEMBERS

Information was provided for each suspended member of the Rural Plan. The details of the information provided included: name, social insurance number, sex, date of birth, credited service to June 20, 2001, hourly rate of pay, job classification, required contributions with interest to December 31, 2011 and any voluntary or money purchase contributions with interest to December 31, 2011.

In addition, information was provided in regards to termination benefit payouts and any deaths that occurred since the date of the last valuation, December 31, 2010.

### 5. The State Street statements as at March 31, 2011, December 31, 2011 and March 31, 2012.

### 6. A copy of the Plan Text amended and restated effective May 31, 2010.

We also had available a copy of the Actuarial Report for pension expense purposes for the Rural Plan performed as at December 31, 2010 (2010 Report).

Data tests were performed to ensure consistency with the data provided and plan benefits. The data provided as at December 31, 2011 was reviewed for missing information and illogical information and was compared to the data provided at December 31, 2010.

## **A P P E N D I X   I I**

### **Summary of the Rural Plan**

The following description of the Rural Plan is a summary only. The summary was based on the Rural Plan Text amended and restated effective May 31, 2010.

For more complete information, reference should be made to the Text of the Rural Plan.

The effective date of the Rural Plan is January 1, 1986.

Effective June 20, 2001, all members actively employed by the Company ceased to accrue future service benefits under the Rural Plan and commenced to accrue future service benefits under the Manitoba Civil Service Superannuation Plan.

### **CONTRIBUTIONS**

The employer is required to pay into the Fund amounts, as determined by the Actuary sufficient to pay the benefit promised.

Prior to January 1, 1986, members were required to contribute to the Prior Plan.

### **NORMAL RETIREMENT**

The normal retirement age is 65.

### **EARLY RETIREMENT**

A member may retire prior to the normal retirement date which shall be the last day of any month next following or coincident with the Member having attained age 55.

Accrued Pension is unreduced if the Member has attained age 62. Otherwise, Accrued Pension reduced by  $\frac{1}{4}\%$  per month for each month between the date of retirement and the date of attainment of age 62.

A member who retires on and after December 29, 2005 is eligible for and unreduced retirement at the earliest of:

- (i) the date of attainment of age 62;
- (ii) provided the Member has attained age 55, the date on which the sum of the Member's age and eligibility service totals 80.

## PENSION FORMULA

- (i) **Accrued Pension**
  - (a) For service prior to January 1, 1986 the greater of:
    - (A) the pension accrued under the Prior Plan; and
    - (B) the pension that can be provided by the accumulated value of the member's required contributions under the Prior Plan.
  - (b) For service on or after January 1, 1986, an amount determined based on credited service and the member's Job Classification as follows:

Effective Date	Monthly Benefit Rate per Year of Credited Service		
	Job Classification		
	<u>A (100)</u>	<u>B (200)</u>	<u>C (300)</u>
January 1, 1986	\$ 12.00	\$ 16.00	\$ 17.00
January 1, 1987	13.00	17.00	20.00
January 1, 1989	15.00	20.00	23.00
January 1, 1990	16.00	21.00	24.00
January 1, 1991	18.00	23.00	26.00
January 1, 1992	19.50	24.50	27.50
January 1, 1993	20.50	25.50	28.50
January 1, 1996	21.50	26.50	29.50
January 1, 2004	22.85	27.85	30.85
December 29, 2005	23.42	28.55	31.62
December 28, 2006	24.01	29.26	32.41
December 27, 2007	24.61	29.99	33.22
January 1, 2009	25.32	30.86	34.18
December 31, 2010	25.57	31.17	34.52
January 1, 2011	26.22	31.95	35.39

The Monthly Benefit Rate, for any year after the last date shown in the above table, shall be equal to the last rate shown in the table increased by the negotiated general wage increases for the period between the last date shown in the table and that future year.

## NORMAL FORM

- (i) Member without a spouse: Lifetime annuity.
- (ii) Member with a spouse: Pension actuarially equivalent to a joint and one-half survivor pension
- (iii) Prior Plan: Life guaranteed for 120 months

## TERMINATION BENEFITS

### Prior to the Curtailment Date:

On the completion of less than 2 years of service, with the exception of death or retirement, a Member will not be entitled to a benefit from the Rural Plan.

On the completion of 2 or more years of service a member is entitled to a paid-up pension commencing at age 65.

### After the Curtailment Date:

A member is entitled to a paid-up pension commencing at age 65.

## DISABILITY BENEFITS

If a member becomes totally disabled, credited service will continue to accrue at the rate in effect immediately prior to the Member becoming totally disabled.

Members who are disabled or who are on a leave of absence due to maternity continue to accrue service under the Rural Plan on and after June 20, 2001.

## DEATH BENEFITS PRIOR TO RETIREMENT

In the event of death of a member other than a retired member, a benefit is payable equal to the sum of:

- (i) the member's accumulated contributions with interest under the Prior Plan, plus
- (ii) the commuted value of the deferred pension accrued to date of death.

## DEATH BENEFITS AFTER RETIREMENT

If the death of a Member occurs after retirement income has commenced, any benefits due will be paid to the Spouse or the beneficiary with the retirement income option the Member elected.



**A P P E N D I X   I I I**  
**Summary of Actuarial Assumptions**

	<u>December 31, 2011</u>	<u>December 31, 2010</u>
1. Asset Valuation	Market Value	same
2. Actuarial Cost Method	ABCM with salary projection	same
3. Annual Rate of Return on the Assets of the Fund	5.25%	6.50%
Annual Rate of Inflation Included in Rate of Return	2.00%	2.50%
4. General salary increases (service and merit is separate and age specific)		
▪ general salary increase rate for the year following the valuation date	2.75%	3.00%
▪ general salary increase rate for future periods	2.75%	3.00%
5. Annual Salary Merit Increases	n/a	same
6. Annual Indexing of Pensions Post-retirement (2/3 of the assumed rate of inflation)	nil	same
7. Annual Increase in Earnings under Canada Pension Plan	n/a	same
8. Annual Increase in Payment Rates		
▪ Canada Pension Plan	n/a	same
▪ Old Age Security	n/a	same
9. Annual Increase in Maximum Pension under ITA	2012: \$2,646.67 Indexed ≥ 2013: 2.75%	Same 3.00%
10. Annual Rate of Interest Credited to Employee Contributions	3.25%	4.50%
11. Annual Rates of Death	UP2020 see Table	same
12. Proportion of Employees with a Spouse Males / Females	90%/75%	same
13. Years male spouse older than female spouse	3	same
14. Annual Rates of Termination of Service	see Table	same
15. Annual Rates of Disability	nil	same
16. Annual Rates of Retirement	see Table	same

Actuarial Report on Pension Liabilities as at December 31, 2011  
 Centra Gas Manitoba Inc.  
 (Rural) Local 681 Pension Plan

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<u>Age</u>	<u>Mortality - UP2020</u>		<u>Termination</u>		<u>Disability</u>		<u>Retirement</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
20	0.03 %	0.02 %	9.50 %	20.00 %	-	-	-	-
25	0.05	0.02	6.70	20.00	-	-	-	-
30	0.08	0.03	4.30	14.00	-	-	-	-
35	0.08	0.04	2.90	7.60	-	-	-	-
40	0.09	0.05	2.20	4.80	-	-	-	-
45	0.12	0.07	0.70	0.80	-	-	-	-
50	0.17	0.10	-	-	-	-	-	-
55	0.29	0.20	-	-	-	-	10.00 %	10.00 %
60	0.56	0.42	-	-	-	-	20.00	20.00
65	1.08	0.81	-	-	-	-	100.00	100.00
70	1.72	1.30	-	-	-	-	-	-
75	2.77	1.98	-	-	-	-	-	-
80	5.14	3.53	-	-	-	-	-	-
85	8.71	6.23	-	-	-	-	-	-
90	14.82	11.56	-	-	-	-	-	-
95	23.84	19.01	-	-	-	-	-	-
100	33.24	28.96	-	-	-	-	-	-