

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	11 Year Total
ELECTRIC													
Major New Generation & Transmission													
Wuskwatim - Generation	1,374.6	181.1	65.3	5.9	-	-	-	-	-	-	-	-	252.3
Wuskwatim - Transmission	297.4	31.6	-	-	-	-	-	-	-	-	-	-	31.6
Herblet Lake – The Pas 230 kV Transmission	74.9	6.4	0.7	-	-	-	-	-	-	-	-	-	7.2
Keeyask - Generation	5,636.9	115.6	163.4	198.2	401.1	662.9	895.6	1,041.0	786.3	716.4	189.2	45.4	5,215.1
Conawapa - Generation	7,770.8	104.4	105.2	66.1	67.2	188.1	235.4	296.8	322.6	764.7	1,229.5	1,222.9	4,603.0
Kelsey Improvements & Upgrades	301.7	34.4	24.8	20.2	0.4	-	-	-	-	-	-	-	79.7
Kettle Improvements & Upgrades	165.7	13.7	22.9	20.4	20.7	7.3	7.4	7.6	7.7	7.9	8.0	8.2	131.9
Pointe du Bois Spillway Replacement	398.2	41.1	113.6	100.4	77.1	13.0	-	-	-	-	-	-	345.2
Pointe du Bois - Transmission	85.9	14.5	11.1	18.2	16.4	-	-	-	-	-	-	-	60.2
Pointe du Bois Powerhouse Rebuild	1,538.3	-	-	-	-	-	-	-	-	-	-	0.5	0.5
Bipole III - Transmission Line	1,259.9	31.0	52.8	135.4	330.9	353.9	239.0	73.4	-	-	-	-	1,216.3
Bipole III - Converter Stations	1,828.5	50.7	141.6	315.4	330.6	353.5	356.3	163.2	58.8	-	-	-	1,770.0
Bipole III - Collector Lines	191.4	9.9	57.8	46.9	22.6	25.2	18.5	10.1	-	-	-	-	191.1
Riel 230/ 500 kV Station	267.6	74.8	67.7	47.5	-	-	-	-	-	-	-	-	190.0
Firm Import Upgrades	19.9	0.2	19.7	-	-	-	-	-	-	-	-	-	19.9
Dorsey - US Border New 500kV Transmission Line	204.8	0.1	0.8	0.4	2.0	3.6	34.0	84.0	79.0	-	-	-	203.9
St. Joseph Wind Transmission	11.2	2.3	-	-	-	-	-	-	-	-	-	-	2.3
Demand Side Management	NA	31.8	33.6	-	-	-	-	-	-	-	-	-	65.4
Generating Station Improvements & Upgrades	649.0	-	-	-	-	-	-	-	-	-	45.0	32.2	77.3
Single Cycle Gas Turbines	65.6	-	-	-	-	-	-	-	-	-	-	-	-
Additional North South Transmission	318.2	-	-	-	-	-	-	-	-	-	-	-	-
Target Adjustment	NA	(87.8)	(118.3)	85.0	(45.4)	(40.7)	(175.7)	277.0	(77.3)	(77.0)	(26.0)	(3.2)	(289.4)
		656.1	762.6	1,060.0	1,223.4	1,566.9	1,610.5	1,953.0	1,177.1	1,412.0	1,445.8	1,306.0	14,173.5

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	11 Year Total
Power Supply													
HVDC Auxiliary Power Supply Upgrades	5.3	0.5	0.4	-	-	-	-	-	-	-	-	-	0.9
Dorsey Synchronous Condenser Refurbishment	78.3	4.6	5.3	5.1	7.7	11.7	11.4	8.3	-	-	-	-	54.2
HVDC System Transformer & Reactor Fire Protection & Prevention	10.4	0.5	0.3	0.3	0.1	-	-	-	-	-	-	-	1.2
HVDC Transformer Replacement Program	171.7	4.6	17.6	15.5	17.2	14.0	9.7	-	-	-	-	-	78.5
HVDC Transformer Replacement Program Extended	449.7	-	-	-	-	-	-	-	-	-	0.5	4.6	5.2
Dorsey 230 kV Relay Building Upgrade	82.2	1.6	2.2	17.7	35.1	12.5	3.1	-	-	-	-	-	72.2
HVDC Stations Ground Grid Refurbishment	4.3	0.4	0.4	0.4	0.3	0.5	-	-	-	-	-	-	2.1
HVDC Bipole 2 230 kV HLR Circuit Breaker Replacement	15.9	2.1	1.1	1.0	0.2	0.5	0.1	0.1	0.0	-	-	-	5.2
HVDC Bipole 1 Pole Differential Protection	3.3	-	-	1.1	2.2	-	-	-	-	-	-	-	3.3
HVDC Bipole 1 By-Pass Vacuum Switch Removal	20.4	0.4	2.3	11.1	6.0	-	-	-	-	-	-	-	19.8
HVDC Bipole 2 Refrigerant Condenser Replacement	11.0	-	0.2	2.7	2.4	5.6	-	-	-	-	-	-	11.0
HVDC Smoothing Reactor Replacements	39.3	20.6	1.8	0.7	-	-	-	-	-	-	-	-	23.1
HVDC - BP1 Converter Station, P1 & P2 Battery Bank Separation	3.2	0.4	1.2	1.5	-	-	-	-	-	-	-	-	3.2
HVDC Bipole 1 DCCT Transductor Replacement	11.7	0.2	1.3	1.1	3.0	3.8	2.4	-	-	-	-	-	11.7
HVDC Bipole 1 & 2 DC Converter Transformer Bushing Replacements	8.7	0.6	1.0	1.7	5.3	0.0	-	-	-	-	-	-	8.7
HVDC Bipole 2 Valve Wall Bushing Replacements	19.2	0.1	-	3.3	4.8	4.0	4.2	2.3	-	-	-	-	18.7
HVDC Bipole 2 Upgrades & Replacements	444.2	-	-	-	-	-	-	-	-	-	12.3	52.7	65.0
HVDC Bipole 1 CQ Disconnect Replacement	5.2	0.3	0.9	1.5	1.0	1.1	0.3	-	-	-	-	-	5.2
HVDC Bipole 2 Thyristor Module Cooling Refurbishment	4.7	1.2	-	-	-	-	-	-	-	-	-	-	1.2
HVDC Bipole 1 Transformer Marshalling Kiosk Replacement	6.8	0.4	2.7	1.2	1.2	-	-	-	-	-	-	-	5.5
HVDC Gapped Arrestor Replacement	16.3	0.2	1.0	3.9	3.4	7.0	0.1	-	-	-	-	-	15.7
Converter Transformer Bushing Replacement	5.9	0.4	1.0	0.5	-	-	-	-	-	-	-	-	1.9
Winnipeg River Riverbank Protection Program	19.7	1.5	1.4	1.3	1.3	1.3	0.8	-	-	-	-	-	7.5
Power Supply Hydraulic Controls	20.5	1.0	0.7	1.3	-	-	-	2.1	2.6	0.9	-	-	8.6
Slave Falls GS Creek Spillway Rehab	11.1	0.0	1.0	1.9	8.1	-	-	-	-	-	-	-	11.1
Slave Falls Rehabilitation	230.2	9.0	2.6	4.3	31.7	40.6	45.8	42.0	11.3	-	-	-	187.3
Great Falls Unit 4 Major Overhaul	43.5	11.4	21.6	0.8	-	-	-	-	-	-	-	-	33.8
Great Falls Unit 5 Discharge Ring Replacement and Major Overhaul	24.8	-	-	-	2.2	17.1	5.4	-	-	-	-	-	24.8
Generation South Overhauls & Improvements	384.8	-	-	-	-	-	-	-	-	-	4.7	10.2	14.8
Pine Falls Rehabilitation	166.7	4.0	21.0	26.9	40.3	46.8	14.0	0.1	-	-	-	-	153.0
Generation South Transformer Refurbish & Spares	27.6	0.6	7.0	13.8	4.3	0.5	0.5	-	-	-	-	-	26.6
Water Licenses & Renewals	54.6	5.2	5.6	6.2	6.3	6.5	6.5	3.9	-	-	-	-	40.2
Generation South PCB Regulation Compliance	4.7	0.5	0.4	0.4	0.2	2.7	-	-	-	-	-	-	4.1
Kettle Transformer Overhaul Program	35.6	9.1	7.1	7.9	0.7	-	-	-	-	-	-	-	24.8
Generation South Breaker Replacements	11.1	1.7	3.8	0.5	1.0	0.4	1.2	-	-	-	-	-	8.5
Seven Sisters Upgrades	14.4	4.4	1.6	0.6	-	-	-	-	-	-	-	-	6.6
Generation South Excitation Upgrades	18.3	1.3	1.5	2.3	1.9	2.5	1.0	0.7	6.9	0.2	-	-	18.3
Generation South Excitation Program Extended	14.0	-	-	-	-	-	-	-	-	-	4.4	5.0	9.4
Laurie River/Churchill River Diversion (CRD) Comm and Annunciation Upgrade:	4.8	2.1	1.9	-	-	-	-	-	-	-	-	-	4.0
Notigi Marine Vessel Replacement and Infrastructure Improvements	4.6	0.3	4.1	-	-	-	-	-	-	-	-	-	4.4
Limestone Stilling Basin Rehabilitation	2.0	0.0	0.4	1.6	-	-	-	-	-	-	-	-	2.0
Pointe Du Bois GS Rehabilitation	50.0	6.3	19.8	19.5	4.4	-	-	-	-	-	-	-	49.9
Kettle Wicket Gates Lever Refurbishments	2.3	-	1.1	1.2	-	-	-	-	-	-	-	-	2.3
Limestone Governor Control Repl	2.5	-	0.3	1.3	0.9	-	-	-	-	-	-	-	2.5
Limestone GSCADA Replacement	5.3	-	0.4	1.3	0.8	0.9	0.4	1.5	-	-	-	-	5.3
Jenpeg Unit Overhauls	128.1	-	-	-	-	2.2	2.5	18.0	23.7	24.2	24.6	20.8	115.9
Power Supply Dam Safety Upgrades	64.5	7.4	10.6	5.0	-	-	-	-	-	-	-	-	23.1
Brandon Unit 5 License Review	18.7	0.2	0.2	2.6	10.4	0.0	-	-	-	-	-	-	13.4
Selkirk Enhancements	14.2	0.4	0.9	-	-	-	-	-	-	-	-	-	1.3
Fire Protection Projects - HVDC	7.2	0.4	0.2	1.2	2.9	-	-	-	-	-	-	-	4.7
Halon Replacement Project	36.4	1.6	5.2	2.6	3.5	2.2	0.9	-	-	-	-	-	16.0
Oil Containment – Power Supply	19.1	0.7	0.5	0.7	0.4	0.6	0.3	-	-	-	-	-	3.1
Grand Rapids Townsite House Renovations	5.2	1.1	0.9	0.9	0.9	0.0	-	-	-	-	-	-	3.9
Grand Rapids Fish Hatchery	2.2	1.2	0.8	-	-	-	-	-	-	-	-	-	2.0
Generation Townsite Infrastructure	52.1	9.0	1.9	-	-	-	-	-	-	-	-	-	10.9
Site Remediation of Contaminated Corporate Facilities	32.8	1.6	1.1	-	-	-	-	-	-	-	-	-	2.7
High Voltage Test Facility	40.6	13.7	0.4	-	-	-	-	-	-	-	-	-	14.1
Power Supply Security Installations / Upgrades	43.2	5.6	7.9	9.7	4.7	-	-	-	-	-	-	-	27.8
Power Supply Sewer & Domestic Water System Install and Upgrade	37.9	6.4	2.9	1.0	2.4	1.6	2.4	3.1	0.1	-	-	-	19.9
Power Supply Domestic	NA	19.7	20.1	20.5	21.0	21.4	21.8	22.2	22.7	23.1	23.6	24.1	240.3
Target Adjustment	NA	(10.7)	(60.3)	(57.3)	(76.4)	(77.5)	(30.6)	(19.6)	(1.6)	0.5	0.8	(2.8)	(335.5)
		155.6	137.6	150.4	163.9	130.5	104.1	84.8	65.6	48.9	70.8	114.6	1,226.7

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	11 Year Total
Transmission													
Winnipeg - Brandon Transmission System Improvements	44.8	3.0	0.8	4.1	28.7	3.7	-	-	-	-	-	-	40.3
Transcona East 230 - 66 kV Station	33.1	24.1	-	-	-	-	-	-	-	-	-	-	24.1
Brandon Area Transmission Improvements	11.8	4.4	6.3	1.0	-	-	-	-	-	-	-	-	11.6
Neepawa 230 - 66 kV Station	30.0	14.1	8.0	4.5	-	-	-	-	-	-	-	-	26.6
Transmission Line Re-Rating	31.8	2.9	6.4	-	-	-	-	-	-	-	-	-	9.3
St Vital-Steinbach 230 kV Transmission	32.2	-	-	-	-	0.8	0.9	2.6	6.1	9.7	12.1	-	32.2
Transcona Station 66 kV Breaker Replacement	6.0	0.4	2.9	1.5	1.1	0.0	-	-	-	-	-	-	6.0
13.2kV Shunt Reactor Replacements	33.0	2.2	4.9	0.9	0.8	2.2	2.3	2.3	17.5	-	-	-	33.0
Lake Winnipeg East System Improvements	66.9	2.3	5.7	15.4	29.2	14.2	0.1	-	-	-	-	-	66.8
Canexus Load Addition	(0.2)	0.9	0.1	-	-	-	-	-	-	-	-	-	1.0
D602F 500kV T/L Footing Replacements	4.4	4.4	-	-	-	-	-	-	-	-	-	-	4.4
Stanley Station 230-66 kV Transformer Addition	21.1	0.0	1.8	7.3	7.9	4.0	-	-	-	-	-	-	21.1
Enbridge Pipelines: Clipper Project Load Addition Phase 2	7.5	1.8	1.9	0.0	-	-	-	-	-	-	-	-	3.7
Ashern Station Bank Addition	10.6	0.2	1.6	1.5	7.0	0.2	-	-	-	-	-	-	10.6
Ashern Station 230 kV Shunt Reactor Replacement	2.7	0.9	1.8	-	-	-	-	-	-	-	-	-	2.7
Tadoule Lake DGS Diesel Tank Farm Upgrade	1.1	(1.0)	0.7	-	-	-	-	-	-	-	-	-	(0.4)
Energy Management System (EMS) Upgrade	6.6	2.8	2.0	-	-	-	-	-	-	-	-	-	4.8
Transmission Line Protection & Teleprotection Replacement	21.1	3.1	3.4	2.8	2.8	2.9	2.4	-	-	-	-	-	17.5
Winnipeg Central Protection Wireline Replacement	10.5	0.4	-	-	-	-	-	-	-	-	-	-	0.4
Mobile Radio System Modernization	30.7	1.9	6.4	2.8	11.6	7.9	-	-	-	-	-	-	30.5
Site Remediation of Diesel Generating Stations	13.3	2.3	0.7	-	-	-	-	-	-	-	-	-	3.0
Oil Containment - Transmission	7.4	0.4	0.0	-	-	-	-	-	-	-	-	-	0.4
Station Battery Bank Capacity & System Reliability Increase	46.5	4.8	5.1	4.9	5.0	5.2	-	-	-	-	-	-	25.0
Waverley Service Centre Oil Tank Farm Replacement	3.0	0.5	0.4	0.7	-	-	-	-	-	-	-	-	1.6
115 kV Transmission Lines	298.9	-	-	-	-	-	-	-	-	-	10.3	16.1	26.4
230 kV Transmission Lines	171.1	-	-	-	-	-	-	-	-	-	5.9	9.2	15.1
Sub-Transmission	124.8	-	-	-	-	-	-	-	-	-	4.3	6.7	11.0
Communications	425.8	-	-	-	-	-	-	-	-	-	14.7	23.0	37.6
Site Remediation	NA	-	-	-	-	-	-	-	-	-	-	-	-
Transmission Domestic	NA	30.6	31.2	31.8	32.5	33.1	33.8	34.5	35.1	35.9	36.6	37.3	372.3
Target Adjustment	NA	(24.3)	(13.4)	27.3	(38.2)	(13.6)	(0.1)	2.2	(14.6)	0.0	1.0	1.8	(71.9)
		83.1	78.7	106.5	88.6	60.7	39.3	41.6	44.1	45.6	84.8	94.1	767.0
Customer Service & Distribution													
Winnipeg Distribution Infrastructure Requirements	24.5	2.3	2.3	2.9	-	-	-	-	-	-	-	-	7.5
Rover Substation Replace 4 kV Switchgear	12.7	0.0	0.1	1.7	2.5	2.8	0.5	-	-	-	-	-	7.5
Martin New Outdoor Station	28.2	1.2	11.9	8.1	2.2	-	-	-	-	-	-	-	23.3
Frobisher Station Upgrade	14.4	0.5	1.0	-	-	-	-	-	-	-	-	-	1.5
Burrows New 66 kV/ 12 kV Station	28.6	12.1	6.7	-	-	-	-	-	-	-	-	-	18.9
Winnipeg Central 12&4kV Manhole Oil Switches	9.8	1.4	-	-	-	-	-	-	-	-	-	-	1.4
William New 66 kV/ 12 kV Station	10.3	0.5	2.2	2.9	3.2	1.1	-	-	-	-	-	-	10.0
Waverley West Sub Division Supply - Stage 1	6.5	0.7	-	-	-	-	-	-	-	-	-	-	0.7
St. James New Station & 24 kV Conversion	65.9	0.6	6.3	3.9	9.5	21.8	23.6	-	-	-	-	-	65.7
Distribution	887.5	-	-	-	-	-	-	-	-	-	30.5	47.9	78.4
York Station Bank & Switchgear Addition	6.0	1.4	-	-	-	-	-	-	-	-	-	-	1.4
Defective RINJ Cable Replacement	8.7	1.3	1.3	-	-	-	-	-	-	-	-	-	2.7
Health Sciences Centre Service Consolidation & Distribution Upgrade	15.8	2.0	5.0	3.6	4.0	0.6	-	-	-	-	-	-	15.2
Waverley South DSC Installation	3.9	2.7	-	-	-	-	-	-	-	-	-	-	2.7
Southdale DK732 Cable Replacement	2.6	0.9	1.2	-	-	-	-	-	-	-	-	-	2.1
Steinbach Area 66kV Capacity Upgrade	6.3	5.9	0.3	-	-	-	-	-	-	-	-	-	6.2
Line 27 66 kV Extension and Arborg North Distribution Supply Centre	6.0	4.3	1.2	-	-	-	-	-	-	-	-	-	5.4
AECL Station Switchgear Replacement	2.4	0.8	-	-	-	-	-	-	-	-	-	-	0.8
Melrose DSC	3.5	3.5	-	-	-	-	-	-	-	-	-	-	3.5
Starbuck DSC	3.0	3.0	-	-	-	-	-	-	-	-	-	-	3.0
Enbridge Pipelines Clipper-66kV Supply I	0.9	2.1	-	-	-	-	-	-	-	-	-	-	2.1
Teulon East 66-12 kV Station	4.6	4.2	-	-	-	-	-	-	-	-	-	-	4.2
Waskada New 66-25kV Distrib'n Supply Ctr	3.9	3.9	-	-	-	-	-	-	-	-	-	-	3.9
Cromer North Station & Reston RE12-4 25kV Conversion	4.3	0.2	1.2	-	-	-	-	-	-	-	-	-	1.3
Brandon Crocus Plains 115-25 kV Bank Addition	6.3	0.0	0.0	0.0	6.2	-	-	-	-	-	-	-	6.2
Birtle South - Rossburn 66kV Line	4.9	-	-	0.1	0.3	4.5	-	-	-	-	-	-	4.9
TCPL Keystone Project	8.0	2.1	2.4	-	-	-	-	-	-	-	-	-	4.5
Line 98 Rebuild Melita to Waskada	3.8	3.8	-	-	-	-	-	-	-	-	-	-	3.8
Customer Service & Distribution Domestic	NA	127.9	130.5	133.2	136.3	139.0	141.8	144.7	147.5	150.5	153.5	156.6	1,561.5
Target Adjustment	NA	(30.3)	(6.8)	(11.2)	(21.6)	(18.7)	(14.8)	(9.6)	(9.8)	(10.0)	(10.2)	(10.4)	(153.6)
		159.0	166.8	145.1	142.5	151.1	151.2	135.0	137.7	140.5	173.8	194.0	1,696.6

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	11 Year Total
Customer Care & Marketing													
Advanced Metering Infrastructure	30.9	-	4.0	5.3	5.4	5.6	4.3	4.2	-	-	-	-	28.8
Customer Care & Marketing Domestic	NA	3.0	3.0	3.1	3.8	3.9	4.0	4.1	4.1	4.2	4.3	4.4	42.0
Target Adjustment	NA	3.6	1.0	(0.3)	(0.9)	(2.3)	(1.2)	(5.4)	(1.1)	(1.2)	(1.2)	(1.2)	(10.2)
		6.6	8.0	8.1	8.4	7.2	7.1	2.9	3.0	3.1	3.1	3.2	60.7
Finance & Administration													
Corporate Buildings	NA	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	88.0
EAM Phase 2	19.3	6.1	8.9	2.3	-	-	-	-	-	-	-	-	17.3
Workforce Management (Phase 1 to 4)	15.7	2.3	-	-	-	-	-	-	-	-	-	-	2.3
Fleet	NA	13.8	14.1	14.3	14.6	14.9	15.2	15.5	15.8	16.2	16.5	16.8	167.7
Finance & Administration Domestic	NA	24.9	25.4	25.9	26.5	27.0	27.5	28.1	28.7	29.2	29.8	30.4	303.5
Target Adjustment	NA	(8.4)	(8.9)	(2.3)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(19.8)
		46.7	47.5	48.3	49.1	49.9	50.7	51.6	52.5	53.3	54.3	55.2	559.0
ELECTRIC CAPITAL SUBTOTAL		1,107.1	1,201.1	1,518.2	1,675.9	1,966.2	1,962.9	2,268.9	1,480.0	1,703.3	1,832.6	1,767.1	18,483.4
GAS													
Customer Service & Distribution													
Ile Des Chenes NG Transmission Network Upgrade	1.2	0.3	0.9	-	-	-	-	-	-	-	-	-	1.2
Gas SCADA Replacement	4.6	3.6	-	-	-	-	-	-	-	-	-	-	3.6
Buncloudy Natural Gas Crossing at Souris River	1.6	1.6	-	-	-	-	-	-	-	-	-	-	1.6
Customer Service & Distribution Domestic	NA	25.2	25.7	26.2	26.7	27.3	27.8	28.4	28.9	29.5	30.1	30.7	306.5
Target Adjustment	NA	(6.2)	(4.5)	(3.7)	(3.7)	(3.8)	(3.9)	(4.0)	(4.0)	(4.1)	(4.2)	(4.3)	(46.4)
		24.6	22.1	22.5	23.0	23.4	23.9	24.4	24.9	25.4	25.9	26.4	266.5
Customer Care & Marketing													
Advanced Metering Infrastructure	15.0	-	1.0	5.4	8.4	-	-	-	-	-	-	-	14.7
Demand Side Management	NA	12.6	13.4	-	-	-	-	-	-	-	-	-	26.1
Customer Care & Marketing Domestic	NA	4.8	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.7	5.8	57.7
Target Adjustment	NA	(1.5)	1.4	(1.2)	(11.9)	(2.9)	(2.9)	(2.1)	(2.7)	(2.8)	(2.3)	(2.3)	(31.1)
		15.9	20.7	9.1	1.5	2.3	2.4	3.3	2.7	2.7	3.4	3.5	67.3
GAS CAPITAL SUBTOTAL		40.5	42.8	31.6	24.5	25.7	26.3	27.7	27.6	28.1	29.3	29.9	333.9
CONSOLIDATED CAPITAL		1,147.6	1,243.9	1,549.8	1,700.4	1,991.9	1,989.1	2,296.6	1,507.6	1,731.5	1,861.9	1,797.0	18,817.3
Target Adjustment	NA	(33.6)	(0.0)	0.0	0.0	31.1	87.9	135.9	160.3	182.2	51.8	5.2	620.8
CEF11-2 TOTAL		1,114.1	1,243.9	1,549.8	1,700.4	2,022.9	2,077.0	2,432.5	1,667.9	1,913.6	1,913.7	1,802.1	19,438.1

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	21 Year Total
ELECTRIC												
Major New Generation & Transmission												
Wuskwatim - Generation	1,374.6	-	-	-	-	-	-	-	-	-	-	252.3
Wuskwatim - Transmission	297.4	-	-	-	-	-	-	-	-	-	-	31.6
Herblet Lake – The Pas 230 kV Transmission	74.9	-	-	-	-	-	-	-	-	-	-	7.2
Keeyask - Generation	5,636.9	-	-	-	-	-	-	-	-	-	-	5,215.1
Conawapa - Generation	7,770.8	1,042.6	909.5	691.8	281.3	41.0	-	-	-	-	-	7,569.1
Kelsey Improvements & Upgrades	301.7	-	-	-	-	-	-	-	-	-	-	79.7
Kettle Improvements & Upgrades	165.7	7.7	-	-	-	-	-	-	-	-	-	139.6
Pointe du Bois Spillway Replacement	398.2	-	-	-	-	-	-	-	-	-	-	345.2
Pointe du Bois - Transmission	85.9	-	-	-	-	-	-	-	-	-	-	60.2
Pointe du Bois Powerhouse Rebuild	1,538.3	2.2	16.0	37.8	90.7	157.8	245.0	403.9	312.7	216.2	55.6	1,538.3
Bipole III - Transmission Line	1,259.9	-	-	-	-	-	-	-	-	-	-	1,216.3
Bipole III - Converter Stations	1,828.5	-	-	-	-	-	-	-	-	-	-	1,770.0
Bipole III - Collector Lines	191.4	-	-	-	-	-	-	-	-	-	-	191.1
Riel 230/ 500 kV Station	267.6	-	-	-	-	-	-	-	-	-	-	190.0
Firm Import Upgrades	19.9	-	-	-	-	-	-	-	-	-	-	19.9
Dorsey - US Border New 500kV Transmission Line	204.8	-	-	-	-	-	-	-	-	-	-	203.9
St. Joseph Wind Transmission	11.2	-	-	-	-	-	-	-	-	-	-	2.3
Demand Side Management	NA	-	-	-	-	-	-	-	-	-	-	65.4
Generating Station Improvements & Upgrades	649.0	21.1	9.4	14.4	15.2	25.8	79.3	56.6	62.7	174.5	112.6	649.0
Single Cycle Gas Turbines	65.6	-	-	-	-	-	-	-	-	8.4	57.2	65.6
Additional North South Transmission	318.2	-	-	-	318.2	-	-	-	-	-	-	318.2
Target Adjustment	NA	(1.8)	(1.7)	306.3	(319.8)	(0.5)	(0.5)	(0.5)	(0.5)	(8.9)	-	(317.2)
		1,071.8	933.3	1,050.2	385.6	224.1	323.8	460.0	374.9	390.2	225.5	19,612.8

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	21 Year Total
Power Supply												
HVDC Auxiliary Power Supply Upgrades	5.3	-	-	-	-	-	-	-	-	-	-	0.9
Dorsey Synchronous Condenser Refurbishment	78.3	-	-	-	-	-	-	-	-	-	-	54.2
HVDC System Transformer & Reactor Fire Protection & Prevention	10.4	-	-	-	-	-	-	-	-	-	-	1.2
HVDC Transformer Replacement Program	171.7	-	-	-	-	-	-	-	-	-	-	78.5
HVDC Transformer Replacement Program Extended	449.7	6.4	32.9	6.7	7.0	50.3	22.5	77.8	88.1	39.3	113.5	449.7
Dorsey 230 kV Relay Building Upgrade	82.2	-	-	-	-	-	-	-	-	-	-	72.2
HVDC Stations Ground Grid Refurbishment	4.3	-	-	-	-	-	-	-	-	-	-	2.1
HVDC Bipole 2 230 kV HLR Circuit Breaker Replacement	15.9	-	-	-	-	-	-	-	-	-	-	5.2
HVDC Bipole 1 Pole Differential Protection	3.3	-	-	-	-	-	-	-	-	-	-	3.3
HVDC Bipole 1 By-Pass Vacuum Switch Removal	20.4	-	-	-	-	-	-	-	-	-	-	19.8
HVDC Bipole 2 Refrigerant Condenser Replacement	11.0	-	-	-	-	-	-	-	-	-	-	11.0
HVDC Smoothing Reactor Replacements	39.3	-	-	-	-	-	-	-	-	-	-	23.1
HVDC - BP1 Converter Station, P1 & P2 Battery Bank Separation	3.2	-	-	-	-	-	-	-	-	-	-	3.2
HVDC Bipole 1 DCCT Transductor Replacement	11.7	-	-	-	-	-	-	-	-	-	-	11.7
HVDC Bipole 1 & 2 DC Converter Transformer Bushing Replacements	8.7	-	-	-	-	-	-	-	-	-	-	8.7
HVDC Bipole 2 Valve Wall Bushing Replacements	19.2	-	-	-	-	-	-	-	-	-	-	18.7
HVDC Bipole 2 Upgrades & Replacements	444.2	57.4	64.1	98.1	103.5	56.2	-	-	-	-	-	444.2
HVDC Bipole 1 CQ Disconnect Replacement	5.2	-	-	-	-	-	-	-	-	-	-	5.2
HVDC Bipole 2 Thyristor Module Cooling Refurbishment	4.7	-	-	-	-	-	-	-	-	-	-	1.2
HVDC Bipole 1 Transformer Marshalling Kiosk Replacement	6.8	-	-	-	-	-	-	-	-	-	-	5.5
HVDC Gapped Arrestor Replacement	16.3	-	-	-	-	-	-	-	-	-	-	15.7
Converter Transformer Bushing Replacement	5.9	-	-	-	-	-	-	-	-	-	-	1.9
Winnipeg River Riverbank Protection Program	19.7	-	-	-	-	-	-	-	-	-	-	7.5
Power Supply Hydraulic Controls	20.5	-	-	-	-	-	-	-	-	-	-	8.6
Slave Falls GS Creek Spillway Rehab	11.1	-	-	-	-	-	-	-	-	-	-	11.1
Slave Falls Rehabilitation	230.2	-	-	-	-	-	-	-	-	-	-	187.3
Great Falls Unit 4 Major Overhaul	43.5	-	-	-	-	-	-	-	-	-	-	33.8
Great Falls Unit 5 Discharge Ring Replacement and Major Overhaul	24.8	-	-	-	-	-	-	-	-	-	-	24.8
Generation South Overhauls & Improvements	384.8	40.3	29.4	48.6	28.5	33.3	82.8	53.3	53.7	-	-	384.8
Pine Falls Rehabilitation	166.7	-	-	-	-	-	-	-	-	-	-	153.0
Generation South Transformer Refurbish & Spares	27.6	-	-	-	-	-	-	-	-	-	-	26.6
Water Licenses & Renewals	54.6	-	-	-	-	-	-	-	-	-	-	40.2
Generation South PCB Regulation Compliance	4.7	-	-	-	-	-	-	-	-	-	-	4.1
Kettle Transformer Overhaul Program	35.6	-	-	-	-	-	-	-	-	-	-	24.8
Generation South Breaker Replacements	11.1	-	-	-	-	-	-	-	-	-	-	8.5
Seven Sisters Upgrades	14.4	-	-	-	-	-	-	-	-	-	-	6.6
Generation South Excitation Upgrades	18.3	-	-	-	-	-	-	-	-	-	-	18.3
Generation South Excitation Program Extended	14.0	3.4	1.2	-	-	-	-	-	-	-	-	14.0
Laurie River/Churchill River Diversion (CRD) Comm and Annunciation Upgrade:	4.8	-	-	-	-	-	-	-	-	-	-	4.0
Notigi Marine Vessel Replacement and Infrastructure Improvements	4.6	-	-	-	-	-	-	-	-	-	-	4.4
Limestone Stilling Basin Rehabilitation	2.0	-	-	-	-	-	-	-	-	-	-	2.0
Pointe Du Bois GS Rehabilitation	50.0	-	-	-	-	-	-	-	-	-	-	49.9
Kettle Wicket Gates Lever Refurbishments	2.3	-	-	-	-	-	-	-	-	-	-	2.3
Limestone Governor Control Repl	2.5	-	-	-	-	-	-	-	-	-	-	2.5
Limestone GSCADA Replacement	5.3	-	-	-	-	-	-	-	-	-	-	5.3
Jenpeg Unit Overhauls	128.1	-	-	-	-	-	-	-	-	-	-	115.9
Power Supply Dam Safety Upgrades	64.5	-	-	-	-	-	-	-	-	-	-	23.1
Brandon Unit 5 License Review	18.7	-	-	-	-	-	-	-	-	-	-	13.4
Selkirk Enhancements	14.2	-	-	-	-	-	-	-	-	-	-	1.3
Fire Protection Projects - HVDC	7.2	-	-	-	-	-	-	-	-	-	-	4.7
Halon Replacement Project	36.4	-	-	-	-	-	-	-	-	-	-	16.0
Oil Containment – Power Supply	19.1	-	-	-	-	-	-	-	-	-	-	3.1
Grand Rapids Townsite House Renovations	5.2	-	-	-	-	-	-	-	-	-	-	3.9
Grand Rapids Fish Hatchery	2.2	-	-	-	-	-	-	-	-	-	-	2.0
Generation Townsite Infrastructure	52.1	-	-	-	-	-	-	-	-	-	-	10.9
Site Remediation of Contaminated Corporate Facilities	32.8	-	-	-	-	-	-	-	-	-	-	2.7
High Voltage Test Facility	40.6	-	-	-	-	-	-	-	-	-	-	14.1
Power Supply Security Installations / Upgrades	43.2	-	-	-	-	-	-	-	-	-	-	27.8
Power Supply Sewer & Domestic Water System Install and Upgrade	37.9	-	-	-	-	-	-	-	-	-	-	19.9
Power Supply Domestic	NA	24.6	25.0	25.5	26.1	26.6	27.1	27.7	28.2	28.8	29.3	509.2
Target Adjustment	NA	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	-	(335.8)
		132.0	152.6	178.9	165.0	166.4	132.4	158.7	170.0	68.1	142.9	2,693.7

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	21 Year Total
Transmission												
Winnipeg - Brandon Transmission System Improvements	44.8	-	-	-	-	-	-	-	-	-	-	40.3
Transcona East 230 - 66 kV Station	33.1	-	-	-	-	-	-	-	-	-	-	24.1
Brandon Area Transmission Improvements	11.8	-	-	-	-	-	-	-	-	-	-	11.6
Neepawa 230 - 66 kV Station	30.0	-	-	-	-	-	-	-	-	-	-	26.6
Transmission Line Re-Rating	31.8	-	-	-	-	-	-	-	-	-	-	9.3
St Vital-Steinbach 230 kV Transmission	32.2	-	-	-	-	-	-	-	-	-	-	32.2
Transcona Station 66 kV Breaker Replacement	6.0	-	-	-	-	-	-	-	-	-	-	6.0
13.2kV Shunt Reactor Replacements	33.0	-	-	-	-	-	-	-	-	-	-	33.0
Lake Winnipeg East System Improvements	66.9	-	-	-	-	-	-	-	-	-	-	66.8
Canexus Load Addition	(0.2)	-	-	-	-	-	-	-	-	-	-	1.0
D602F 500kV T/L Footing Replacements	4.4	-	-	-	-	-	-	-	-	-	-	4.4
Stanley Station 230-66 kV Transformer Addition	21.1	-	-	-	-	-	-	-	-	-	-	21.1
Enbridge Pipelines: Clipper Project Load Addition Phase 2	7.5	-	-	-	-	-	-	-	-	-	-	3.7
Ashern Station Bank Addition	10.6	-	-	-	-	-	-	-	-	-	-	10.6
Ashern Station 230 kV Shunt Reactor Replacement	2.7	-	-	-	-	-	-	-	-	-	-	2.7
Tadoule Lake DGS Diesel Tank Farm Upgrade	1.1	-	-	-	-	-	-	-	-	-	-	(0.4)
Energy Management System (EMS) Upgrade	6.6	-	-	-	-	-	-	-	-	-	-	4.8
Transmission Line Protection & Teleprotection Replacement	21.1	-	-	-	-	-	-	-	-	-	-	17.5
Winnipeg Central Protection Wireline Replacement	10.5	-	-	-	-	-	-	-	-	-	-	0.4
Mobile Radio System Modernization	30.7	-	-	-	-	-	-	-	-	-	-	30.5
Site Remediation of Diesel Generating Stations	13.3	-	-	-	-	-	-	-	-	-	-	3.0
Oil Containment - Transmission	7.4	-	-	-	-	-	-	-	-	-	-	0.4
Station Battery Bank Capacity & System Reliability Increase	46.5	-	-	-	-	-	-	-	-	-	-	25.0
Waverley Service Centre Oil Tank Farm Replacement	3.0	-	-	-	-	-	-	-	-	-	-	1.6
115 kV Transmission Lines	298.9	19.8	21.1	25.8	23.7	25.5	28.4	28.9	31.5	32.9	34.8	298.9
230 kV Transmission Lines	171.1	11.3	12.1	14.8	13.6	14.6	16.3	16.5	18.0	18.8	19.9	171.1
Sub-Transmission	124.8	8.3	8.8	10.8	9.9	10.6	11.9	12.1	13.1	13.7	14.5	124.8
Communications	425.8	28.2	30.0	36.8	33.8	36.3	40.5	41.2	44.8	46.9	49.6	425.8
Site Remediation	NA	-	-	-	-	-	-	-	-	-	-	-
Transmission Domestic	NA	38.0	38.8	39.6	40.4	41.2	42.0	42.8	43.7	44.6	45.5	788.9
Target Adjustment	NA	2.2	2.3	2.9	2.6	2.8	3.1	3.2	3.5	3.6	3.9	(41.6)
		107.8	113.2	130.7	124.1	131.1	142.2	144.7	154.7	160.6	168.3	2,144.2
Customer Service & Distribution												
Winnipeg Distribution Infrastructure Requirements	24.5	-	-	-	-	-	-	-	-	-	-	7.5
Rover Substation Replace 4 kV Switchgear	12.7	-	-	-	-	-	-	-	-	-	-	7.5
Martin New Outdoor Station	28.2	-	-	-	-	-	-	-	-	-	-	23.3
Frobisher Station Upgrade	14.4	-	-	-	-	-	-	-	-	-	-	1.5
Burrows New 66 kV/ 12 kV Station	28.6	-	-	-	-	-	-	-	-	-	-	18.9
Winnipeg Central 12&4kV Manhole Oil Switches	9.8	-	-	-	-	-	-	-	-	-	-	1.4
William New 66 kV/ 12 kV Station	10.3	-	-	-	-	-	-	-	-	-	-	10.0
Waverley West Sub Division Supply - Stage 1	6.5	-	-	-	-	-	-	-	-	-	-	0.7
St. James New Station & 24 kV Conversion	65.9	-	-	-	-	-	-	-	-	-	-	65.7
Distribution	887.5	58.8	62.6	76.7	70.5	75.7	84.4	85.8	93.5	97.8	103.4	887.5
York Station Bank & Switchgear Addition	6.0	-	-	-	-	-	-	-	-	-	-	1.4
Defective RINJ Cable Replacement	8.7	-	-	-	-	-	-	-	-	-	-	2.7
Health Sciences Centre Service Consolidation & Distribution Upgrade	15.8	-	-	-	-	-	-	-	-	-	-	15.2
Waverley South DSC Installation	3.9	-	-	-	-	-	-	-	-	-	-	2.7
Southdale DK732 Cable Replacement	2.6	-	-	-	-	-	-	-	-	-	-	2.1
Steinbach Area 66kV Capacity Upgrade	6.3	-	-	-	-	-	-	-	-	-	-	6.2
Line 27 66 kV Extension and Arborg North Distribution Supply Centre	6.0	-	-	-	-	-	-	-	-	-	-	5.4
AECL Station Switchgear Replacement	2.4	-	-	-	-	-	-	-	-	-	-	0.8
Melrose DSC	3.5	-	-	-	-	-	-	-	-	-	-	3.5
Starbuck DSC	3.0	-	-	-	-	-	-	-	-	-	-	3.0
Enbridge Pipelines Clipper-66kV Supply I	0.9	-	-	-	-	-	-	-	-	-	-	2.1
Teulon East 66-12 kV Station	4.6	-	-	-	-	-	-	-	-	-	-	4.2
Waskada New 66-25kV Distrib'n Supply Ctr	3.9	-	-	-	-	-	-	-	-	-	-	3.9
Cromer North Station & Reston RE12-4 25kV Conversion	4.3	-	-	-	-	-	-	-	-	-	-	1.3
Brandon Crocus Plains 115-25 kV Bank Addition	6.3	-	-	-	-	-	-	-	-	-	-	6.2
Birtle South - Rossburn 66kV Line	4.9	-	-	-	-	-	-	-	-	-	-	4.9
TCPL Keystone Project	8.0	-	-	-	-	-	-	-	-	-	-	4.5
Line 98 Rebuild Melita to Waskada	3.8	-	-	-	-	-	-	-	-	-	-	3.8
Customer Service & Distribution Domestic	NA	159.7	162.9	166.2	169.5	172.9	176.3	179.9	183.5	187.1	190.9	3,310.3
Target Adjustment	NA	(10.6)	(10.9)	(11.1)	(11.3)	(11.5)	(11.8)	(12.0)	(12.2)	(12.5)	-	(257.5)
		207.8	214.7	231.8	228.7	237.0	249.0	253.6	264.7	272.4	294.2	4,150.6

CAPITAL EXPENDITURE FORECAST (CEF11-2)

(in millions of dollars)

	Total Project Cost	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	21 Year Total
Customer Care & Marketing												
Advanced Metering Infrastructure	30.9	-	-	-	-	-	-	-	-	-	-	28.8
Customer Care & Marketing Domestic	NA	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	91.2
Target Adjustment	NA	(1.2)	(1.3)	(1.3)	(1.3)	(1.3)	(1.4)	(1.4)	(1.4)	(1.5)	-	(22.3)
		3.3	3.3	3.4	3.5	3.5	3.6	3.7	3.7	3.8	5.4	97.8
Finance & Administration												
Corporate Buildings	NA	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	168.0
EAM Phase 2	19.3	-	-	-	-	-	-	-	-	-	-	17.3
Workforce Management (Phase 1 to 4)	15.7	-	-	-	-	-	-	-	-	-	-	2.3
Fleet	NA	17.1	17.5	17.8	18.2	18.6	18.9	19.3	19.7	20.1	20.5	355.4
Finance & Administration Domestic	NA	31.0	31.6	32.3	32.9	33.6	34.2	34.9	35.6	36.3	37.1	643.1
Target Adjustment	NA	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	-	(20.2)
		56.1	57.1	58.1	59.1	60.1	61.1	62.2	63.3	64.4	65.5	1,165.9
ELECTRIC CAPITAL SUBTOTAL		1,578.8	1,474.1	1,653.0	965.9	822.2	912.2	1,082.9	1,031.2	959.5	901.7	29,864.9
GAS												
Customer Service & Distribution												
Ile Des Chenes NG Transmission Network Upgrade	1.2	-	-	-	-	-	-	-	-	-	-	1.2
Gas SCADA Replacement	4.6	-	-	-	-	-	-	-	-	-	-	3.6
Buncloudy Natural Gas Crossing at Souris River	1.6	-	-	-	-	-	-	-	-	-	-	1.6
Customer Service & Distribution Domestic	NA	31.3	31.9	32.6	33.2	33.9	34.6	35.3	36.0	36.7	37.4	649.4
Target Adjustment	NA	(4.4)	(4.5)	(4.6)	(4.6)	(4.7)	(4.8)	(4.9)	(5.0)	(5.1)	(5.2)	(94.4)
		26.9	27.5	28.0	28.6	29.2	29.7	30.3	30.9	31.6	32.2	561.5
Customer Care & Marketing												
Advanced Metering Infrastructure	15.0	-	-	-	-	-	-	-	-	-	-	14.7
Demand Side Management	NA	-	-	-	-	-	-	-	-	-	-	26.1
Customer Care & Marketing Domestic	NA	5.9	6.0	6.1	6.2	6.4	6.5	6.6	6.8	6.9	7.0	122.1
Target Adjustment	NA	(2.4)	(1.8)	(1.9)	(2.0)	(2.1)	(2.1)	(2.2)	(2.2)	(2.3)	(2.4)	(52.5)
		3.5	4.2	4.2	4.3	4.3	4.4	4.5	4.5	4.6	4.7	110.4
GAS CAPITAL SUBTOTAL		30.4	31.6	32.3	32.8	33.5	34.1	34.8	35.5	36.2	36.9	671.9
CONSOLIDATED CAPITAL		1,609.2	1,505.7	1,685.3	998.8	855.6	946.3	1,117.7	1,066.7	995.7	938.6	30,536.8
Target Adjustment	NA	5.3	5.4	5.5	5.6	5.8	5.9	6.0	6.1	6.3	6.4	679.0
CEF11-2 TOTAL		1,614.5	1,511.1	1,690.8	1,004.4	861.4	952.1	1,123.6	1,072.8	1,001.9	945.0	31,215.8