



Attachment 4-Staff-48

Actuarial Reports

Algoma Power Inc.
EB-2024-0007

2023 Year-End Disclosures and 2024 Pension Expense Estimates under CICA3461

	Algoma RPP	Algoma SERP	TOTAL
Change in benefit obligation			
Benefit obligation - end of prior period	26,313,267	87,795	47,939,000
Current service cost (employer)	445,348	-	760,634
Interest cost	1,360,044	4,031	2,466,697
Employee contributions	216,482	-	216,482
Plan amendments	-	-	-
Benefits paid	(1,301,226)	(25,843)	(2,801,160)
Net transfer in (out)*	-	-	-
Acquisitions (divestitures)	-	-	-
Increase (decrease) in obligation due to cur:	-	-	-
Obligation being settled	-	-	-
Special Termination Benefit	-	-	-
Actuarial loss (gain)	2,310,172	20,131	3,515,936
Benefit obligation - end	29,344,087	86,114	52,097,589
Change in plan assets			
Market value of plan assets - end of prior per	29,929,093	-	57,720,093
Actual return on plan assets	2,902,820	-	5,259,434
Employer contributions	446,062	25,843	502,059
Employee contributions	216,482	-	216,482
Benefits paid	(1,301,226)	(25,843)	(2,801,160)
Net transfer in (out)*	-	-	-
Actual plan expenses	-	-	(213,218)
Market value of plan assets - end	32,193,231	-	60,683,690
Reconciliation of funded status			
Benefit obligation - end	29,344,087	86,114	52,097,589
Market value of plan assets - end	32,193,231	-	60,683,690
Funded status - surplus (deficit)	2,849,144	(86,114)	8,586,101
Employer contributions after measurement d	-	-	-
Unamortized transitional obligation	-	-	-
Unamortized past service costs	-	-	2,478
Unamortized net actuarial loss (gain)	673,925	(983)	2,331,206
Accrued benefit asset (liability)	3,523,069	(87,077)	10,919,785
2023 Components of expense			
Current service cost	445,348	-	935,634
Interest cost	1,360,044	4,031	2,466,697
Expected return on plan assets	(1,705,751)	-	(3,176,391)
Amortization of transitional obligation	-	-	-
Amortization of past service costs	-	-	543
Amortization of net actuarial loss (gain)	-	(10,252)	(6,912)
Net expense (income)	99,641	(6,231)	219,571
Assumptions			
At beginning of period			
Discount rate	5.30%	5.30%	
Rate of compensation increase	3.50%	N/A	
Expected rate of return on plan assets	5.75%	N/A	
EARS	18.80	2.20	
At end of period			
Discount rate	4.60%	4.80%	
Rate of compensation increase	3.50%	N/A	
Expected rate of return on plan assets	5.75%	N/A	
EARS	18.40	2.90	
Estimated 2024 Components of expense			
Current service cost	550,992	-	912,932
Interest cost	1,319,441	3,431	2,330,442
Expected return on plan assets	(1,829,449)	-	(3,350,423)
Amortization of transitional obligation	-	-	543
Amortization of past service costs	-	-	5,801
Amortization of net actuarial loss (gain)	-	-	-
Net expense (income)	40,984	3,431	(100,705)

Fortis Ontario's Non-Pension Post Retirement Benefit Plans
Estimated 2023 Expense under Section 3461

		Algoma	
From		2023-01-01	2023-01-01
To		2023-12-31	2023-12-31
Change in benefit obligation			
Benefit obligation - end of prior period		5,963,100	
Current service cost (employer)		184,100	
Interest cost		310,800	
Employee contributions		0	
Plan amendments		0	
Benefits paid		-179,200	
Net transfer in (out)		0	
Acquisitions (divestitures)		0	
Increase (decrease) in obligation due to curtailment		0	
Obligation being settled		0	
Special termination benefits		0	
Actuarial loss (gain)		892,300	
Benefit obligation - end		7,171,100	
Change in plan assets			
Market value of plan assets - end of prior period		0	
Actual return on plan assets		0	
Employer contributions		179,200	
Employee contributions		0	
Benefits paid		-179,200	
Surplus paid out to employer		0	
Settlement payments		0	
Net transfer in (out)		0	
Acquisitions (divestitures)		0	
Actual plan expenses		0	
Market value of plan assets - end		0	
Reconciliation of funded status			
Benefit obligation - end		7,171,100	
Market value of plan assets - end		0	
Funded status - surplus (deficit)		-7,171,100	
Employer contributions after measurement date		0	
Unamortized transitional obligation (asset)		0	
Unamortized past service costs		-0	
Unamortized net actuarial loss (gain)		-3,060,560	
Accrued benefit asset (liability)		-10,231,660	
Unamortized transitional increase (decrease) in valuation allowance		0	
Valuation allowance		0	
Accrued benefit asset (liability), net of valuation allowance		-10,231,660	
Components of expense			
Current service cost (including provision for plan expenses)		184,100	
Interest cost		310,800	
Expected return on plan assets		0	
Amortization of transitional obligation (asset)		0	
Amortization of past service costs		-21,940	
Amortization of net actuarial loss (gain)		-197,400	
Curtailment loss (gain)		0	
Settlement loss (gain)		0	
Amortization of transitional increase (decrease) in VA		0	
Increase (decrease) in valuation allowance		0	
Special termination benefits		0	
Net expense (income)		275,560	
Assumptions			
At beginning of period			
Discount rate		5.30%	
Rate of compensation increase		3.50%	
Immediate trend rate		4.98%	
Ultimate trend rate		4.00%	
At end of period			
Discount rate		4.60%	
Rate of compensation increase		3.50%	
Immediate trend rate		4.83%	
Ultimate trend rate		4.00%	
EARSL for in-year amortization of actuarial (gain)/loss		18.00	

Fortis Ontario's Non-Pension Post Retirement Benefit Plan

Estimated 2023 Expense under Section 3461

	Algoma
From	2024-01-01
To	2024-12-31
Components of expense	
Current service cost (including provision for plan expenses)	240,400
Interest cost	325,200
Expected return on plan assets	0
Amortization of transitional obligation (asset)	0
Amortization of past service costs	0
Amortization of net actuarial loss (gain)	-130,200
Curtailment loss (gain)	0
Settlement loss (gain)	0
Amortization of transitional increase (decrease) in VA	0
Increase (decrease) in valuation allowance	0
Special termination benefits	0
Net expense (income)	435,400
Assumptions	
At beginning of period	
Discount rate	4.60%
Rate of compensation increase	3.50%
Immediate trend rate	4.83%
Ultimate trend rate	4.00%
At end of period	
Discount rate	4.60%
Rate of compensation increase	3.50%
Immediate trend rate	4.77%
Ultimate trend rate	4.00%
EARSL for in-year amortization of actuarial (gain)/loss	18.00

Fortis Ontario's Non-Pension Post Retirement Benefit Plans **Estimated 2025 Expense under Section 3461**

		Algoma				
From		2021-01-01	2022-01-01	2023-01-01	2024-01-01	2025-01-01
To		2021-12-31	2022-12-31	2023-12-31	2024-12-31	2025-12-31
Change in benefit obligation						
Benefit obligation - end of prior period		8,935,000	8,332,600	5,963,100	6,371,400	6,692,500
Current service cost (employer)		416,500	339,200	184,100	197,200	205,000
Interest cost		247,800	271,700	310,800	326,100	342,500
Employee contributions		0	0	0	0	0
Plan amendments		0	0	0	0	0
Benefits paid		-165,300	-139,700	-196,700	-202,200	-211,300
Net transfer in (out)		0	0	0	0	0
Acquisitions (divestitures)		0	0	0	0	0
Increase (decrease) in obligation due to curtailment		0	0	0	0	0
Obligation being settled		0	0	0	0	0
Special termination benefits		0	0	0	0	0
Actuarial loss (gain)		-1,101,400	-2,840,700	110,100	0	0
Benefit obligation - end		8,332,600	5,963,100	6,371,400	6,692,500	7,028,700
Change in plan assets						
Market value of plan assets - end of prior period		0	0	0	0	0
Actual return on plan assets		0	0	0	0	0
Employer contributions		165,300	139,700	196,700	202,200	211,300
Employee contributions		0	0	0	0	0
Benefits paid		-165,300	-139,700	-196,700	-202,200	-211,300
Surplus paid out to employer		0	0	0	0	0
Settlement payments		0	0	0	0	0
Net transfer in (out)		0	0	0	0	0
Acquisitions (divestitures)		0	0	0	0	0
Actual plan expenses		0	0	0	0	0
Market value of plan assets - end		0	0	0	0	0
Reconciliation of funded status						
Benefit obligation - end		8,332,600	5,963,100	6,371,400	6,692,500	7,028,700
Market value of plan assets - end		0	0	0	0	0
Funded status - surplus (deficit)		-8,332,600	-5,963,100	-6,371,400	-6,692,500	-7,028,700
Employer contributions after measurement date		0	0	0	0	0
Unamortized transitional obligation (asset)		0	0	0	0	0
Unamortized past service costs		-13,640	-21,940	0	0	0
Unamortized net actuarial loss (gain)		-1,337,560	-4,150,260	-3,842,760	-3,664,660	-3,498,260
Accrued benefit asset (liability)		-9,683,800	-10,135,300	-10,214,160	-10,357,160	-10,526,960
Unamortized transitional increase (decrease) in valuation allowance		0	0	0	0	0
Valuation allowance		0	0	0	0	0
Accrued benefit asset (liability), net of valuation allowance		-9,683,800	-10,135,300	-10,214,160	-10,357,160	-10,526,960
Components of expense						
Current service cost (including provision for plan expenses)		416,500	339,200	184,100	197,200	205,000
Interest cost		247,800	271,700	310,800	326,100	342,500
Expected return on plan assets		0	0	0	0	0
Amortization of transitional obligation (asset)		0	0	0	0	0
Amortization of past service costs		8,300	8,300	-21,940	0	0
Amortization of net actuarial loss (gain)		0	-28,000	-197,400	-178,100	-166,400
Curtailment loss (gain)		0	0	0	0	0
Settlement loss (gain)		0	0	0	0	0
Amortization of transitional increase (decrease) in VA		0	0	0	0	0
Increase (decrease) in valuation allowance		0	0	0	0	0
Special termination benefits		0	0	0	0	0
Net expense (income)		672,600	591,200	275,560	345,200	381,100
Assumptions						
At beginning of period						
Discount rate		2.80%	3.30%	5.30%	5.20%	5.20%
Rate of compensation increase		3.50%	3.50%	3.50%	3.50%	3.50%
Immediate trend rate		5.27%	5.05%	4.98%	4.86%	4.80%
Ultimate trend rate		4.00%	4.00%	4.00%	4.00%	4.00%
At end of period						
Discount rate		3.30%	5.30%	5.20%	5.20%	5.20%
Rate of compensation increase		3.50%	3.50%	3.50%	3.50%	3.50%
Immediate trend rate		5.05%	4.98%	4.86%	4.80%	4.80%
Ultimate trend rate		4.00%	4.00%	4.00%	4.00%	4.00%
EARSL for in-year amortization of actuarial (gain)/loss		18.00	18.00	18.00	18.00	18.00

Fortis Ontario's Non-Pension Post Retirement Benefit Plan

Estimated 2023 Expense under Section 3461

	Algoma
From	2024-01-01
To	2024-12-31
Components of expense	
Current service cost (including provision for plan expenses)	240,400
Interest cost	325,200
Expected return on plan assets	0
Amortization of transitional obligation (asset)	0
Amortization of past service costs	0
Amortization of net actuarial loss (gain)	-130,200
Curtailment loss (gain)	0
Settlement loss (gain)	0
Amortization of transitional increase (decrease) in VA	0
Increase (decrease) in valuation allowance	0
Special termination benefits	0
Net expense (income)	435,400
Assumptions	
At beginning of period	
Discount rate	4.60%
Rate of compensation increase	3.50%
Immediate trend rate	4.83%
Ultimate trend rate	4.00%
At end of period	
Discount rate	4.60%
Rate of compensation increase	3.50%
Immediate trend rate	4.77%
Ultimate trend rate	4.00%
EARSL for in-year amortization of actuarial (gain)/loss	18.00

CICA3461 Pension Expense

Plan Name	Algoma Power Inc. Retirement Fund	Algoma Power Inc. SERP	All plans
Country	Canada	Canada	
Fiscal year ending on	12/31/2024	12/31/2024	12/31/2024
A. Components of net periodic benefit cost			
1. Service cost	550,992	-	550,992
2. Interest cost	1,319,441	3,431	1,322,872
3. Expected return on plan assets	(1,829,449)	-	(1,829,449)
4. Amortization of prior service cost	-	-	-
5. Amortization of net (gain) loss	-	-	-
6. Curtailment (gain) / loss recognized	-	-	-
7. Settlement (gain) / loss recognized	-	-	-
8. Special termination benefit recognized	-	-	-
9. Net periodic benefit cost	40,984	3,431	44,415
B. Assumptions to determine net cost			
Discount rate	4.60%	4.60%	4.60%
Expected return on assets	5.75%	N/A	5.75%
Salary increase rate	3.50%	3.50%	3.50%

Estimated Projections Only - CICA3461 sent February 8, 2024

Plan Name	Algoma Power Inc. Retirement Fund	Algoma Power Inc. SERP	All plans
Country	Canada	Canada	
Fiscal year ending on	12/31/2025	12/31/2025	12/31/2025
A. Components of net periodic benefit cost			
1. Service cost	499,148	-	499,148
2. Interest cost	1,379,279	2,739	1,382,018
3. Expected return on plan assets	(1,838,168)	-	(1,838,168)
4. Amortization of prior service cost	-	-	-
5. Amortization of net (gain) loss	-	-	-
6. Curtailment (gain) / loss recognized	-	-	-
7. Settlement (gain) / loss recognized	-	-	-
8. Special termination benefit recognized	-	-	-
9. Net periodic benefit cost	40,259	2,739	42,998
B. Assumptions to determine net cost			
Discount rate	4.90%	4.90%	4.90%
Expected return on assets	5.75%	N/A	5.75%
Salary increase rate	3.50%	3.50%	3.50%