

EB-2013-0321 - Cost Overrun Scenarios - Breakdown by Category

J14.1 a (with contingency growth)

Major Category	Category / Contract Type	Base Case \$2013	50% Cost Growth		100% Cost Growth		150% Cost Growth		200% Cost Growth		250% Cost Growth	
			Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG
RFR	OPG Project Management	690	1,035	1,035	1,380	1,380	1,725	1,725	2,070	2,070	2,415	2,415
	Contractor Cost											
	Tooling (Fixed Price)											
	Mockup (Fixed Price)											
	Owner Specified Materials (Cost Plus)											
	Definition Phase (Target Price/ Fixed Fee)											
	Execution Phase (Target Price/ Fixed Fee)											
	Contingency											
Total												
Fuel Handling	OPG Project Management	83	125	125	166	166	208	208	249	249	291	291
	Contractor Cost											
	Defueling - Eng Services (Fixed/Firm Price)											
	Defueling - Eng Services (Misc Reimbursables)											
	Fuel Handling (Fixed Price)											
	Contingency											
Total												
Steam Generators	OPG Project Management	63	95	95	126	126	158	158	189	189	221	221
	Contractor Cost											
	Fixed Price											
	Target Price/ Fixed Fee											
	EPC Other											
Contingency												
Total												
Turbine Generators	OPG Project Management	195	293	293	390	390	488	488	585	585	683	683
	Contractor Cost											
	Eng Serv & Equip Supply (Fixed Price)											
	Eng Serv & Equip Supply (Target Price)											
	Installation - Defn Phase (Target Price/ Fixed Fee)											
	Installation - Exec. Phase (Target Price/ Fixed Fee)											
	EPC											
	Contingency											
Total												
Balance of Plant	OPG Project Management	216	324	324	432	432	540	540	648	648	756	756
	Contractor Cost											
	EPC & T&M											
	Contingency											
Total												
Other Costs	Islanding											
	System Shutdown											
	Operations & Maintenance Support	863	1,295	1,295	1,726	1,726	2,158	2,158	2,589	2,589	3,021	3,021
	Facilities & Infrastructure	820	1,230	1,230	1,640	1,640	2,050	2,050	2,460	2,460	2,870	2,870
	Waste Management	10	15	15	20	20	25	25	30	30	35	35
	New Fuel	132	198	198	264	264	330	330	396	396	462	462
	Insurance	114	171	171	228	228	285	285	342	342	399	399
	Regulatory, i.e. ISR, EA, IIP	80	120	120	160	160	200	200	240	240	280	280
	Licensing (CNSC Fees)	73	110	110	146	146	183	183	219	219	256	256
	Contingency											
	Retube Waste Containers (Provision)	220	330	330	440	440	550	550	660	660	770	770
Management Reserve	568	852	852	1,136	1,136	1,420	1,420	1,704	1,704	1,988	1,988	
Total												
Subtotal		10,000	15,000	14,010	20,000	18,308	25,000	22,606	30,000	26,904	35,000	31,203
Interest & Escalation		2,900	4,350	4,063	5,800	5,309	7,250	6,556	8,700	7,802	10,150	9,048
Total		12,900	19,349	18,073	25,800	23,617	32,250	29,162	38,700	34,706	45,150	40,251
LUEC For Each Cost Scenario (cents)		8.3		9.9		11.6		13.2		14.9		16.6

Assumptions:

- Cost growth is applied to all costs ~~except contingency~~.
- Contingency amounts are decreased by the cost overruns and are accounted for in the total costs for each scenario.
- Current cost estimate is OPG's current "high confidence" estimate.
- Project components costs (RFR, Fuel Handling etc.) include all costs, including OPG management costs, contractor costs, and other costs.
- Total includes all project component costs and interest and escalation.
- LUEC includes all costs, including interest, escalation, and fixed corporate overheads for pensions and other post employment benefits.
- Percent cost growth is applied to all costs and is spread evenly across all costs.

OPG Assumptions:

- Interest & escalation prorated
- An increase of Project cost of \$1B will result in a LUEC increase of approximately \$0.003 (0.3 cents).

EB-2013-0321 - Cost Overrun Scenarios - Breakdown by Category

J14.1 b (contingency removed to offset cost growth)

Major Category	Category / Contract Type	Base Case \$2013	50% Cost Growth		100% Cost Growth		150% Cost Growth		200% Cost Growth		250% Cost Growth	
			Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG	Gross costs	Costs passed to OPG
RFR	OPG Project Management	690	1,035	1,035	1,380	1,380	1,725	1,725	2,070	2,070	2,415	2,415
	Contractor Cost											
	Tooling (Fixed Price)											
	Mockup (Fixed Price)											
	Owner Specified Materials (Cost Plus)											
	Definition Phase (Target Price/ Fixed Fee)											
	Execution Phase (Target Price/ Fixed Fee)											
	Contingency											
Total												
Fuel Handling	OPG Project Management	83	125	125	166	166	208	208	249	249	291	291
	Contractor Cost											
	Defueling - Eng Services (Fixed/Firm Price)											
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	Fuel Handling (Fixed Price)											
	Contingency											
Total												
Steam Generators	OPG Project Management	63	95	95	126	126	158	158	189	189	221	221
	Contractor Cost											
	Fixed Price											
	Target Price/ Fixed Fee											
	EPC Other											
Contingency												
Total												
Turbine Generators	OPG Project Management	195	293	293	390	390	488	488	585	585	683	683
	Contractor Cost											
	Eng Serv & Equip Supply (Fixed Price)											
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Contingency												
Total												
Balance of Plant	OPG Project Management	216	324	324	432	432	540	540	648	648	756	756
	Contractor Cost											
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Total												
Other Costs	Islanding											
	System Shutdown											
	Operations & Maintenance Support	863	1,295	1,295	1,726	1,726	2,158	2,158	2,589	2,589	3,021	3,021
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	New Fuel	132	198	198	264	264	330	330	396	396	462	462
	Insurance	114	171	171	228	228	285	285	342	342	399	399
	Regulatory, i.e. ISR, EA, IIP	80	120	120	160	160	200	200	240	240	280	280
	Licensing (CNSC Fees)	73	110	110	146	146	183	183	219	219	256	256
	Contingency											
	Retube Waste Containers (Provision)	220	330	330	440	440	550	550	660	660	770	770
Management Reserve	568											
Total												
Subtotal	10,000		10,104		13,100		16,096		19,092		22,089	
Interest & Escalation	2,900		2,930		3,799		4,668		5,537		6,405	
Total	12,900		13,034		16,899		20,764		24,629		28,494	
LUEC For Each Cost Scenario (cents)	8.3		8.3		9.5		10.7		11.9		13.0	

Assumptions:

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OPG Assumptions:

Interest & escalation prorated

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J14.2 a (with contingency growth)

Major Category	Category / Contract Type	Base Case \$2013	50% Cost Growth		100% Cost Growth		150% Cost Growth		200% Cost Growth		250% Cost Growth	
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Contingency												
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