

1 Q. On page 8 of the Report it is stated that the cost estimate for a new 60 MW  
2 combustion turbine in-service in 2015 was \$120.8 million. When was this cost  
3 estimate prepared? Please provide a copy of the cost estimate.

4

5

6 A. The \$120.8 million estimate as provided in Table 1 for a new 60 MW combustion  
7 turbine in-service in 2015 was finalized in September of 2013 using the base  
8 estimate as attached (see Attachment 1).

9

10

Table 1

Project Cost: (\$ x1,000)	<u>Total</u>
Material Supply	1,935.1
Labour	4,651.2
Consultant	1,739.8
Contract Work	82,266.6
Other Direct Costs	370.5
Interest and Escalation	11,672.1
Contingency	18,192.7
<u>TOTAL</u>	<u>120,828.1</u>

SUMMARY									
Project Title: Engineering Discipline: Estimated by: Project Start Year: Date:		HRD 60 MW (Nominal) CT Addition						Project Type: <div>Capital</div>	
		All All & Consolidated by							
		2013 September 29, 2013							
Estimator presents Project Manager with total estimate by discipline stated in cash flow format.									Total
Estimates:		\$3,990,618	\$660,600	\$1,935,090	\$1,739,820	\$136,550	\$233,954	\$82,266,625	\$90,963,257
Total Cash Flow:		\$3,990,618	\$660,600	\$1,935,090	\$1,739,820	\$136,550	\$233,954	\$82,266,625	\$90,963,257
Cost Type		1110	1120	1130	1135	1140	1145	1150	
Period		Labour	Overtime	Material	Consultant	Equip. Rental	Travel	Contract Work	
2013 (Year 1)	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov								
	Dec								
Total		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2014 (Year 2)	Jan	133.3					7.8		
	Feb	133.3					7.8		
	Mar	133.3			150.0		7.8	3,952.5	
	Apr	133.3			150.0	5.9	7.8		
	May	133.3			25.2	5.9	7.8	3,952.5	
	Jun	133.3				5.9	7.8		
	Jul	133.3				5.9	7.8	15,810.0	
	Aug	133.3				5.9	7.8		
	Sep	133.3				5.9	7.8	7,905.0	
	Oct	133.3		322.5		5.9	7.8		
	Nov	133.3		322.5		5.9	7.8		
	Dec	133.3		322.5		5.9	7.8	321.7	
Total		1,600.0	0.0	967.5	325.2	53.4	93.9	31,941.7	
Cost Type		1110	1120	1130	1135	1140	1145	1150	
Period		Labour	Overtime	Material	Consultant	Equip. Rental	Travel	Contract Work	
2015 (Year 3)	Jan	133.3		322.5	91.7	5.9	7.8	321.7	
	Feb	133.3		322.5	91.7	5.9	7.8	321.7	
	Mar	133.3		322.6	91.7	5.9	7.8	321.7	
	Apr	181.8	60.1		126.6	5.9	10.6	321.7	
	May	181.8	60.1		126.6	5.9	10.6	23,715.0	
	Jun	181.8	60.1		126.6	5.9	10.6		
	Jul	181.8	60.1		126.6	5.9	10.6		
	Aug	181.8	60.1		126.6	5.9	10.6	11,857.5	
	Sep	181.8	60.1		126.6	5.9	10.6	402.0	
	Oct	299.9	100.1		126.6	9.9	17.7	402.0	
	Nov	299.9	100.1		126.6	9.9	17.7	402.0	
	Dec	299.9	100.1		126.6	9.9	17.7	12,259.5	
Total		2,390.6	660.6	967.6	1,414.6	83.1	140.1	50,324.9	
2016 (Year 4)	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov								
	Dec								
Total		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2017 (Year 5)	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov								
	Dec								
Total		0.0	0.0	0.0	0.0	0.0	0.0	0.0	

A		B	C
1			GT-PUB-NLH-011, Attachment 1
2		Page 2 of 8, 190 MW Combustion Turbine Generation - Holyrood	
3		<b>Project Title:</b>	HRD 60 MW (Nominal) CT Addition
4		<b>Engineering Discipline:</b>	All
5		<b>Estimated by:</b>	All & Consolidated by [REDACTED]
6		<b>Project Start Year:</b>	2013
7		<b>Date:</b>	41546
8		<b>Asset Manager:</b>	[REDACTED]
9			
10		<b>High Level Description:</b>	Supply, Install and Commission 50 MW (Minimal) Combustion Turbine
11			Plant with 120 MVAR of Synchronous Condensing & Balance Of Plant in
12			Holyrood Plant Yard
13			
14		<b>High Level Justification:</b>	MW System Generation to offset projected LOLH violations. MVAR
15			support required to mitigate projected voltage issues. Replace HRP black-
16			start unit functionality.
17			
18		<b>Scope of Work:</b>	
19			
20			
21			
22		<b>Work Exclusions:</b>	
23			
24			
25			
26		<b>Assumptions:</b>	
27			
28			
29			
30		<b>Constraints:</b>	
31			
32			
33			
34		<b>High Level Requirements:</b>	
35			
36			
37			
38		<b>High Level Risks:</b>	
39			
40			
41			
42		<b>High Level Schedule:</b>	
43		(i.e. material lead times, outages,...)	
44			
45			
46		<b>High Level Resource Assignment:</b>	
47			
48			
49			
50		<b>Environmental Services:</b>	Desktop study, Draft EA Document, EA Document, EA Process Interface,
51			Input to Construction Contract, Construction Monitoring, Post-
52			Construction Monitoring
53			
54		<b>Financial Services:</b>	Review of Generation Alternatives
55		(i.e. Cost Benefit Analysis)	
56			
57			

Engineering Regular Labour						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by					
Project Start Year:	2013			Total Regular Labour Costs(1110): \$2,006,898		
Date:	September 29, 2013					
Note: All rate information comes from the Standard Estimating Rates.				Rates Last Updated: 2012-12-14		
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1	PROGRAM MANAGER				\$ -	
2	Risk / Change Management / Coaching	Engineer/Technologist	2.5	1	\$ 3,400.00	\$8,500
3					(\$/wk)	
4	PROJECT MANAGER				(\$/wk)	
5	Scope / Schedule / Budget Review	Engineer/Technologist	1	1	\$ 3,400.00	\$3,400
6	Design Transmittal	Engineer/Technologist	1	1	\$ 3,400.00	\$3,400
7	Schedule	Engineer/Technologist	0.4	1	\$ 3,400.00	\$1,360
8	Risk Workshop	Engineer/Technologist	0.2	1	\$ 3,400.00	\$680
9	Project Kick-off Meeting	Engineer/Technologist	0.2	1	\$ 3,400.00	\$680
10	Team Mtgs (1d/2w Project Duration/#Project	Engineer/Technologist	13	1	\$ 3,400.00	\$44,200
11	Biweekly Customer / Stakeholder Meetings	Engineer/Technologist	6	1	\$ 3,400.00	\$20,400
12	Weekly Construction Meetings	Engineer/Technologist	2.4	1	\$ 3,400.00	\$8,160
13	Risk Management / Change Management	Engineer/Technologist	2.5	1	\$ 3,400.00	\$8,500
14	Site Safety Tour	Engineer/Technologist	2	1	\$ 3,400.00	\$6,800
15	Financial Close Out	Engineer/Technologist	1	1	\$ 3,400.00	\$3,400
16	Post Implementation Review	Engineer/Technologist	1	1	\$ 3,400.00	\$3,400
17	PM - Full Time For 3 years less above	Engineer/Technologist	125.3	1	\$ 3,400.00	\$426,020
18	ENGINEERING				(\$/wk)	
19	Mechanical engineering	Engineer/Technologist	78	1	\$ 3,400.00	\$265,200
20	Electrical eng (See Estimate)	Engineer/Technologist			\$ 3,400.00	\$188,760
21	Civil engineering (See Estimate)	Engineer/Technologist			\$ 3,400.00	\$76,000
22	Telecontrol eng. (See Estimate)	Engineer/Technologist			\$ 3,400.00	\$64,500
23	P&C engineering (See Estimate)	Engineer/Technologist			\$ 3,400.00	\$139,400
24	P&C engineering (See Estimate)	Engineer/Technologist			\$ 3,400.00	\$336,638
25	P&C eng. - DCS (See Estimate)	Engineer/Technologist			\$ 3,400.00	
26	T&D Engineering (See Estimate)	Engineer/Technologist			\$ 3,400.00	\$129,600
27	DRAFTING				(\$/wk)	
29	Drafting (Design/As-Builts)	Drafters	15	1	\$ 2,400.00	\$36,000
30					(\$/wk)	
31	SURVEYING				(\$/wk)	
33	SURVEYING				(\$/wk)	
34					(\$/wk)	
35	PHASE 1 ENGINEERING	Engineer/Technologist	4	6	\$ 3,400.00	\$81,600
36					(\$/wk)	
37	ENVIRONMENTAL				(\$/wk)	
38	Environmental Specialist	Ecologist/Safety Lead/Safety Specialist	12	1	\$ 2,900.00	\$34,800
39	Environmental Management during const.	Environmental Coordinator/Monitor	30	1	\$ 2,400.00	\$72,000
40	Environmental Management during const.	Ecologist/Safety Lead/Safety Specialist	15	1	\$ 2,900.00	\$43,500
41					(\$/wk)	
42					(\$/wk)	
43					(\$/wk)	
44					(\$/wk)	
45					(\$/wk)	

Engineering Overtime Labour						
Project Title:		HRD 60 MW (Nominal) CT Addition				
Engineering Discipline:		All				
Estimated by:		All & Consolidated by ██████████				
Project Start Year:		2013		Total Overtime Labour Costs(1120):   \$27,200		
Date:		September 29, 2013				
Note: All rate information comes from the Std Estimating Rates sheet.				Rates Last Updated: 2012-12-14		
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1					(\$/wk)	
2	P&C engineering (See ██████ Estimate)	Engineer/Technologist	2	1	\$ 3,400.00	\$6,800
3	P&C engineering (See ██████ Estimate)	Engineer/Technologist	6	1	\$ 3,400.00	\$20,400
4					(\$/wk)	
5					(\$/wk)	
6					(\$/wk)	
7					(\$/wk)	
8					(\$/wk)	
9					(\$/wk)	
10					(\$/wk)	
11					(\$/wk)	
12					(\$/wk)	
13					(\$/wk)	
14					(\$/wk)	
15					(\$/wk)	
16					(\$/wk)	
17					(\$/wk)	
18					(\$/wk)	
19					(\$/wk)	
20					(\$/wk)	
21					(\$/wk)	
22					(\$/wk)	
23					(\$/wk)	
24					(\$/wk)	
25					(\$/wk)	
26					(\$/wk)	
27					(\$/wk)	
29					(\$/wk)	
30					(\$/wk)	
31					(\$/wk)	
33					(\$/wk)	
34					(\$/wk)	
35					(\$/wk)	

Construction Regular Labour						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by					
Project Start Year:	2013		Total Regular Labour Costs(1110): \$1,983,720			
Date:	September 29, 2013					
Note: All rate information comes from the Std Estimating Rates.			Rates Last Updated: 2012-12-14			
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1					\$ -	
2	Mechanical engineering				\$ -	
3	Electrical eng (See Estimate)				\$ -	\$360,000
4	Civil engineering (See Estimate)				\$ -	
5	Telecontrol eng. (See Estimate)				\$ -	\$73,200
6	P&C engineering (See Estimate)				\$ -	\$129,720
7	P&C engineering (See Estimate)				\$ -	\$105,600
8	P&C eng. - DCS (See Estimate)				\$ -	
9	T&D Engineering (See Estimate)				\$ -	\$36,000
10					\$ -	
11					\$ -	
12	PLANT PERSONNEL				\$ -	
13	Electricians	Internal Labour - Trades	52	2	\$ 2,100.00	\$218,400
14	Mechanical maintenance	Internal Labour - Trades	52	2	\$ 2,100.00	\$218,400
15	P&C technicians	Internal Labour - Technologist	52	2	\$ 2,400.00	\$249,600
16	Labourers	Internal Labour - Trades	52	2	\$ 2,100.00	\$218,400
17	Supervisors	Internal Labour - Technologist	52	3	\$ 2,400.00	\$374,400
18					\$ -	
19					\$ -	
20					\$ -	
21					\$ -	
22					\$ -	
23					\$ -	
24					\$ -	
25					\$ -	
26					\$ -	
27					\$ -	
28					\$ -	
29					\$ -	
30					\$ -	
31					\$ -	
32					\$ -	
33					\$ -	
34					\$ -	
35					\$ -	
36					\$ -	
37					\$ -	
38					\$ -	
39					\$ -	
40					\$ -	
41					\$ -	
42					\$ -	
43					\$ -	

Construction Overtime Labour						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by					
Project Start Year:	2013			Total Overtime Labour Costs(1120): \$633,400		
Date:	September 29, 2013					
Note: All rate information comes from the Std Estimating Rates sheet.				Rates Last Updated: 2012-12-14		
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1					\$ -	
2	Mechanical engineering				\$ -	
3	Electrical eng (See Estimate)				\$ -	\$35,700
4	Civil engineering (See Estimate)				\$ -	
5	Telecontrol eng. (See Estimate)				\$ -	\$15,200
6	P&C engineering (See Estimate)				\$ -	\$11,700
7	P&C engineering (See Estimate)				\$ -	\$48,000
8	P&C eng. - DCS (See Estimate)				\$ -	
9	T&D Engineering (See Estimate)				\$ -	\$30,800
10					\$ -	
11	PLANT PERSONNEL				\$ -	
12	Electricians	Internal Labour – Trades	20	2	\$ 2,100.00	\$84,000
13	Mechanical maintenance	Internal Labour – Trades	20	2	\$ 2,100.00	\$84,000
14	P&C technicians	Internal Labour – Technologist	20	2	\$ 2,400.00	\$96,000
15	Labourers	Internal Labour – Trades	20	2	\$ 2,100.00	\$84,000
16	Supervisors	Internal Labour – Technologist	20	3	\$ 2,400.00	\$144,000
17					\$ -	
18					\$ -	
19					\$ -	
20					\$ -	
21					\$ -	
22					\$ -	
23					\$ -	
24					\$ -	
25					\$ -	
26					\$ -	
27					\$ -	
29					\$ -	
30					\$ -	
31					\$ -	
33					\$ -	
34					\$ -	
35					\$ -	

Materials					
Project Title:		HRD 60 MW (Nominal) CT Addition			
Engineering Discipline:		All			
Estimated by:		All & Consolidated by ██████████			
Project Start Year:		2013		Total Materials Cost (1130): \$1,935,090	
Date:		September 29, 2013			
#	Item Description	Unit Price	Units	Quantity	Total \$
1			m		
2	Mechanical engineering				
3	Electrical eng (See ██████████ Estimate)		lot		\$580,000
4	Civil engineering (See ██████████ Estimate)				\$51,900
5	Telecontrol eng. (See ██████████ Estimate)		ea		\$222,800
6	P&C engineering (See ██████████ Estimate)				\$106,925
7	P&C engineering (See ██████████ Estimate)		Lot		\$10,000
8	P&C eng. - DCS (See ██████████ Estimate)				
9	T&D Engineering (See ██████████ Estimate)				\$732,715
10					
11	Misc. materials for construction	\$200,000	ea	1	\$200,000
12					
13	Office furniture, fax machine, printers, etc. for construction trailers	\$10,000	ea	1	\$10,000
14					
15	Phones, blackberries, pagers, (including cell phone monthly fees)	\$10,000	ea	1	\$10,000
16					
17	PPE	\$8,000	ea	1	\$8,000
18					
19	Office supplies (paper, etc)	\$750	ea	1	\$750
20					
21	Drinking water	\$2,000	ea	1	\$2,000
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					



Third Party Consultants Labour						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by ██████████					
Project Start Year:	2013		Total Regular Labour Costs(1110): \$1,739,820			
Date:	September 29, 2013					
Note: All rate information comes from the Std Estimating Rates.			Rates Last Updated: 2012-12-14			
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1					\$ -	
2	Mechanical engineering				\$ -	\$250,000
3	Electrical eng (See ██████ Estimate)				\$ -	\$30,120
4	Civil engineering (See ██████ Estimate)				\$ -	\$25,200
5	Telecontrol eng. (See ██████ Estimate)				\$ -	
6	P&C engineering (See ██████ Estimate)				\$ -	
7	P&C engineering (See ██████ Estimate)				\$ -	
8	P&C eng. - DCS (See ██████ Estimate)				\$ -	
9	T&D Engineering (See ██████ Estimate)				\$ -	\$17,500
10					\$ -	
11	Environmental Studies				\$ -	\$300,000
12					\$ -	
13	On-site Reps	Consultants (min \$175/hr.)	52	3	\$ 7,000.00	\$1,092,000
14	On-site Rep expenses				\$ -	\$25,000
15					\$ -	
16					\$ -	
17					\$ -	
18					\$ -	
19					\$ -	
20					\$ -	
21					\$ -	
22					\$ -	
23					\$ -	
24					\$ -	
25					\$ -	
26					\$ -	
27					\$ -	
28					\$ -	
29					\$ -	
30					\$ -	
31					\$ -	
32					\$ -	
33					\$ -	
34					\$ -	
35					\$ -	
36					\$ -	
37					\$ -	
38					\$ -	
39					\$ -	
40					\$ -	
41					\$ -	
42					\$ -	
43					\$ -	

Third Party Equipment Rentals						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by ██████████					
Project Start Year:	2013		Total Equip Rental Costs(1140): \$105,600			
Date:	September 29, 2013					
Note: All rate information comes from the Std Estimating Rates sheet.			Rates Last Updated: 2012-12-14			
#	Item Description	Category		# of Wks	Rate / Wk	Total \$
1			▼		\$ -	
2	Mechanical engineering		▼		\$ -	
3	Electrical eng (See ██████████ Estimate)		▼		\$ -	\$4,200
4	Civil engineering (See ██████████ Estimate)		▼		\$ -	
5	Telecontrol eng. (See ██████████ Estimate)		▼		\$ -	
6	P&C engineering (See ██████████ Estimate)		▼		\$ -	
7	P&C engineering (See ██████████ Estimate)		▼		\$ -	
8	P&C eng. - DCS (See ██████████ Estimate)		▼		\$ -	
9	T&D Engineering (See ██████████ Estimate)		▼		\$ -	
10			▼		\$ -	
11	Rental of office trailers		▼		\$ -	\$100,000
12	Electrical OSR Vehicle		▼		\$ -	\$1,400
13			▼		\$ -	
14			▼		\$ -	
15			▼		\$ -	
16			▼		\$ -	
17			▼		\$ -	
18			▼		\$ -	
19			▼		\$ -	
20			▼		\$ -	
21			▼		\$ -	
22			▼		\$ -	
23			▼		\$ -	
24			▼		\$ -	
25			▼		\$ -	
26			▼		\$ -	
27			▼		\$ -	
29			▼		\$ -	
30			▼		\$ -	
31			▼		\$ -	
33			▼		\$ -	
34			▼		\$ -	
35			▼		\$ -	

Engineering Travel						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by ██████████					
Project Start Year:	2013			Total Travel Costs(1145): \$203,454		
Date:	September 29, 2013					
Note: Air Fares may be typed directly into the Std Estimating Rates Sheet.				Rates Last Updated: 2012-12-14		
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1	Project Manager Safety Tour (4 tours per year)	Living Expenses	2	1	\$ 260.00	\$520
2		Commercial Car/Van/Pick Up Rental	2	1	\$ 500.00	\$1,000
3					\$ -	
4					\$ -	
5	Project Manager Site Meetings (12 mtgs per year)	Living Expenses	6	1	\$ 260.00	\$1,560
6		Commercial Car/Van/Pick Up Rental	6	1	\$ 500.00	\$3,000
7					\$ -	
8	Mechanical engineering				\$ -	
9	Electrical eng (See ██████ Estimate)				\$ -	\$30,372
10	Civil engineering (See ██████ Estimate)				\$ -	\$4,712
11	Telecontrol eng. (See ██████ Estimate)				\$ -	\$6,700
12	P&C engineering (See ██████ Estimate)				\$ -	\$17,950
13	P&C engineering (See ██████ Estimate)				\$ -	\$42,320
14	P&C eng. - DCS (See ██████ Estimate)				\$ -	
15	T&D Engineering (See ██████ Estimate)				\$ -	\$5,320
16					\$ -	
17	Environment (vehicle for construction monitoring)	Commercial Car/Van/Pick Up Rental	30	1	\$ 500.00	\$15,000
18					\$ -	
19	Car for engineering project team	Commercial Car/Van/Pick Up Rental	130	1	\$ 500.00	\$65,000
20					\$ -	
21	Misc. (meals)				\$ -	\$10,000
22					\$ -	
23					\$ -	
24					\$ -	
25					\$ -	
26					\$ -	
27					\$ -	
29					\$ -	
30					\$ -	
31					\$ -	
33					\$ -	
34					\$ -	
35					\$ -	

Construction Travel						
Project Title:	HRD 60 MW (Nominal) CT Addition					
Engineering Discipline:	All					
Estimated by:	All & Consolidated by ██████████					
Project Start Year:	2013			Total Travel Costs(1145): \$30,500		
Date:	September 29, 2013					
Note: Air Fares may be typed directly into the Std Estimating Rates Sheet.				Rates Last Updated: 2012-12-14		
#	Item Description	Category	# of Wks	# of People	Rate / Wk	Total \$
1					\$ -	
2	Mechanical engineering				\$ -	
3	Electrical eng (See ██████████ Estimate)				\$ -	
4	Civil engineering (See ██████████ Estimate)				\$ -	
5	Telecontrol eng. (See ██████████ Estimate)				\$ -	\$3,000
6	P&C engineering (See ██████████ Estimate)				\$ -	
7	P&C engineering (See ██████████ Estimate)				\$ -	\$8,360
8	P&C eng. - DCS (See ██████████ Estimate)				\$ -	
9	T&D Engineering (See ██████████ Estimate)				\$ -	\$14,140
10					\$ -	
11	Misc. Meals				\$ -	\$5,000
12					\$ -	
13					\$ -	
14					\$ -	
15					\$ -	
16					\$ -	
17					\$ -	
18					\$ -	
19					\$ -	
20					\$ -	
21					\$ -	
22					\$ -	
23					\$ -	
24					\$ -	
25					\$ -	
26					\$ -	
27					\$ -	
29					\$ -	
30					\$ -	
31					\$ -	
33					\$ -	
34					\$ -	
35					\$ -	

Third Party Contracts					
Project Title:	HRD 60 MW (Nominal) CT Addition				
Engineering Discipline:	All				
Estimated by:	All & Consolidated by ██████████				
Project Start Year:	2013		Total Contract Cost (1150): \$82,266,625		
Date:	September 29, 2013				
#	Item Description	Unit Price	Units	Quantity	Total \$
1			m		
2	Mechanical engineering				
3	Electrical eng (See ██████████ Estimate)		m3		\$215,000
4	Civil engineering (See ██████████ Estimate)				\$681,625
5	Telecontrol eng. (See ██████████ Estimate)		ea		\$175,000
6	P&C engineering (See ██████████ Estimate)				
7	P&C engineering (See ██████████ Estimate)		Lot		
8	P&C eng. - DCS (See ██████████ Estimate)				
9	T&D Engineering (See ██████████ Estimate)				\$1,345,000
10					
11	Misc. mechanical (████████)	\$500,000	ea	1	\$500,000
12					
13					
14	FROM ██████████ PROPOSAL (Quote is in USD, Rate of 1.02 used for \$Can)				
15	Supply and install 60 MW gas turbine plant (based on ███				

Internal Equipment Rentals					
Project Title:	HRD 60 MW (Nominal) CT Addition				
Engineering Discipline:	All				
Estimated by:	All & Consolidated by ██████████				
Project Start Year:	2013		Total Equip Rental Costs(1140): \$30,950		
Date:	September 29, 2013				
Note: All rate information comes from the Std Estimating Rates sheet.			Rates Last Updated: 2012-12-14		
#	Item Description	Category	# of Wks	Rate / Wk	Total \$
1	Vehicle for Safety Tour		▼	\$ -	
2	Vehicle for Travel for Meetings		▼	\$ -	
3			▼	\$ -	
4	Mechanical engineering		▼	\$ -	
5	Electrical eng (See ██████ Estimate)		▼	\$ -	\$7,850
6	Civil engineering (See ██████ Estimate)		▼	\$ -	
7	Telecontrol eng. (See ██████ Estimate)		▼	\$ -	\$7,700
8	P&C engineering (See ██████████ )		▼	\$ -	\$10,500
9	P&C engineering (See ██████ Estimate)		▼	\$ -	
10	P&C eng. - DCS (See ██████ Estimate)		▼	\$ -	
11	T&D Engineering (See ██████ Estimate)		▼	\$ -	\$4,900
12			▼	\$ -	
13			▼	\$ -	
14			▼	\$ -	
15			▼	\$ -	
16			▼	\$ -	
17			▼	\$ -	
18			▼	\$ -	
19			▼	\$ -	
20			▼	\$ -	
21			▼	\$ -	
22			▼	\$ -	
23			▼	\$ -	
24			▼	\$ -	
25			▼	\$ -	
26			▼	\$ -	
27			▼	\$ -	
29			▼	\$ -	
30			▼	\$ -	
31			▼	\$ -	
33			▼	\$ -	
34			▼	\$ -	
35			▼	\$ -	

Standard Estimating Rates			
<b>Rates Last Updated: 2012-12-14</b>	<b>Operating</b>	<b>Capital</b>	
<b>Labour</b>	(\$/wk)	(\$/wk)	
Engineer/Technologist	\$3,400	\$3,400	
Surveyors	\$2,400	\$2,400	
Environmental Coordinator/Monitor	\$2,400	\$2,400	
Ecologist/Safety Lead/Safety Specialist	\$2,900	\$2,900	
Legal Counsel	\$4,400	\$4,400	
Drafters	\$2,400	\$2,400	
Owner Site Representative (OSR)	\$2,200	\$2,200	
Internal Labour – Technologist	\$2,400	\$2,400	
Internal Labour – Trades	\$2,100	\$2,100	
External Labour – Trades (Union)	\$3,320	\$3,320	
External Labour – Trades (Non Union)	\$2,280	\$2,280	
Consultants (min \$175/hr.)	\$7,000	\$7,000	
Miscellaneous			
<b>Internal Equipment Rentals</b>	(\$/wk)	(\$/wk)	
Cars/Vans/Pick Ups	\$350	\$350	
Snowmobiles/ATVs	\$250	\$250	
Line Body Trucks	\$1,000	\$1,000	
Aerial Devices	\$1,300	\$1,300	
Stake Body Boom Trucks	\$1,300	\$1,300	
Mobile Cranes	\$1,300	\$1,300	
Muskegs/Go Tracks	\$11,200	\$11,200	
Mobile Substation	\$850	\$850	
Portable Transformer (pallet)	\$850	\$850	
Helicopter (Casual or Contract) (\$1,285/hr)	\$51,400	\$51,400	
Miscellaneous			
Commercial Rental			
Other Equipment			
<b>Travel</b>	(\$)	(\$)	
Living Expenses	\$260	\$260	
Airport Taxi (Return)	\$80	\$80	
Commercial Car/Van/Pick Up Rental	\$500	\$500	
Hotel Accommodations (In province)	\$750	\$750	
Air Fare – In Province	By location	By location	
Air Fare – Out of Province	By location	By location	
Air Fare - Other			
Notes:			
• Labour rates for all categories the same for straight time and overtime, field or office. (no loading on overtime)			

[illegible]