TETRA TECH

Wednesday, April 15th, 2015

Mr. Michel Poulin
Manager
Hydro Hawkesbury Inc.
850 Tupper St
Hawkesbury (Ontario)
K6A 3S7

OBJECT : Construction Cost Estimate Summary

Introduction

This document presents the cost estimate for the engineering, procurement and construction activities for the retrofit of the 115 kV substation, which is the property of Hydro Hawkesbury Inc. The estimate has been performed to confirm the construction cost presented to Infrastructure Ontario.

Assumptions

The following assumptions have been taken into account to build the estimate:

- Estimate class 2 (± 10%)
- Estimate is presented in Canadian dollars (CDN)
- The contingency of the concept is not included
- The equipment purchase cost is based on tenders or database
- Work will be performed in regular time and overtime, 10 hours a day, 6 days a week
- The "MEANS" is used as an estimate basis for electrical equipment installation man hours
- The estimate applies a productivity similar to other public utility works
- The productivity used for works is 70%
- Contractor's site mobilization and demobilization costs are included in each discipline hourly rates
- Hourly labor rate (rates similar to those in the construction industry)
- Room and board are included in man hours
- Import duties, permits, asbestos removal are excluded
- Contaminated soil treatments are included as a risk contingency ($99,470)
- Engineering and service fees were provided by the client through invoice and proposal
- There are a minimum of 3 bidders for the major components and the general contractor

Results

The estimate contained two types of cost, direct and indirect. The direct cost includes the electrical equipment, concrete, granular material, the installation, etc. The indirect cost includes all services, such as engineering, utility fees, commissioning, geotech lab, etc. The total of both costs is $2,830 300, including the owner's and risk contingencies.

If we look at the summary table of the cost estimate we can see that the direct cost with risk contingency is $2,090,920. We have $607,030 for civil and structural works and $1,384,420 for electrical works, including electrical

components. In the costs, there is a risk contingency for decontamination. At this stage, we do not anticipate contaminated soil but with experience, it would not be surprising to find contaminated soils, even though there never was any major oil spills. The existing transformers have been in services for approximately 55 years. It would be normal through the years that oil would have trickled.

The indirect cost represents $529,337. As mentioned, these costs include the engineering (completed) and the required services for the substation commissioning, as well as the fees for interconnection studies (Hydro One and IESO are included) and the Geotechnical laboratory fees.

Explanation of differences

The first estimate was presented at a preliminary stage, which means that they was no cost for components other than major equipment as the detailed engineering was not begun. The first estimate was done without any detailed engineering. This was a Rough Order of Magnitude (ROM Estimate). According to the literature, a common variance for this type of estimate could be - 25% to + 75%. The ROM estimate had provided a total cost of $1,598,848.05, and with the variance, it would give a total cost ranging from $1,199,136 (- 25%) to $2,787,984 (+ 75%).

The last estimate performed is a class 2 with a variance of +/- 10%. The total estimated cost is $2,830,300 when the variance is applied, the total cost will be between $2,547,270 (- 10%) and $3,113,330 (+ 10%).

When looking at these estimates, we can see that differences are not only on total costs, but also on the items included. Attached is the table 1 where the major differences between the preliminary and the latest estimate are shown.

Also, some items were not included in the preliminary estimate. Following is a list of these items with the associated costs:

- New control building including protection and control system ($184,815)
- 145 kV, 3,000 A load break switches ($73,238)
- The ground grid, as there was no drawing of the actual ground grid, we had to design a new one (Difference of $84,793)
- Shed demolition, at the beginning it was planned to keep the same shed and to add the new control and protection system ($14,900)
- Risk contingency for contaminated soil ($99,740)
- Replacement of the 1,200 A disconnect switches ($7,448)

Conclusion

The main factor explaining the difference between the two estimates is due to the engineering progress at the time the first estimate has been performed. The precision of an estimate is closely bounded to the progress of the engineering. Prior to obtaining approvals from authorities, modifications were made to the design which had a significant effect on construction costs. The latest estimate was performed based on the detailed engineering with an approved design by the authorities. According to detailed engineering, invoices and the proposals received, the construction cost, including the engineering for the rehabilitation is evaluated at $2,830,300 with a precision of +/- 10%.

Hoping our cost estimate meets your expectations,

Sincerely,

Gabriel Ouellette, P. Eng.
Project Manager

Attachements

Table 1

Hydro Hawkesbury	First Estimate (ROM Estimate)	Class 2 Estimate +/- 10 %	Comments
Description			
Hydro One			
Hydro One Review (PO to HONI)	$ 25 000.00	$ 60 000.00	
Hydro One Capital Work (Dead End Structure, etc)	$ 100 000.00	$ 100 000.00	Estimated only
Major Equipment			
New Transformers (2) 110kV-12.4kV - 7.5/10/20MVA			
New Transformer (1) 110kV-12.4kV - 15/20/25MVA	$ 738 630.00	$ 586 256.00	
New Circuit Switchers c/w Steel Structure & P&C	$ 131 000.00	$ 136 000.00	Circuit switchers only, no structure and protection and control included
Other Equipment (Switches?)	$ 10 000.00		
New 110kV Structures			
New Structure 110kV c/w assembly	$ 10 360.00	$ 111 180.00	
New insulators	$ 9 382.00	$ 8 190.00	
New 110kV Cables	$ 8 636.00	$ 7 065.00	
110kV Structure & Circuit Switcher Grounding	$ 3 600.00	$ 72 403.00	Includes all works and components for the ground grid
New 12.4kV Structure			
New Structure 15kV c/w assembly	$ 5 180.00	$ 76 318.00	Includes excavation and structure for Insulators
Cable tray for control cables	$ 1 204.00	$ 12 292.00	Includes concrete sleepers
Conduits for control cables	$ 2 792.00	N/A	
New control cables	$ 2 000.00	$ 55 599.00	Includes Identification
new 12.47kV Cables	$ 8 636.00	$ 34 266.00	Includes Bus bar with accessories
12.47kv Structure Grounding	$ 2 450.00		Includes in Circuit switcher grounding.
Metering			
Move Metering	$ 20 000.00	$ 22 496.00	
Construction			
Base Transformers	$ 18 296.00	$ 70 383.00	Including excavation works and excluding Oil containement system
Oil Containment (Sorbweb System)	$ 85 000.00	$ 58 200.00	
Concrete for Oil Containment	$ 18 712.00		Included in Base Transformer
Base Circuit Switchers	$ 10 000.00	$ 155 960.00	Including excavation works and excluding structure
Fence Modification and new gate entrance	$ 6 824.00	$ 7 344.00	
Other Civil (Move Shed etc)	$ 5 000.00	$ 41 920.00	Includes demolition of the old shed, installation of the new control building with it's concrete base
Move Old Power Transformers to new base	$ 15 000.00	$ 14 408.00	
Connection transformers	$ 27 067.50		This item is covered in class two estimate in the item "services"
Power Transformer Grounding	$ 2 252.00		Included in "110kV Structure & Circuit Switcher Grounding" activity
Program P&C and tests	$ 7 500.00	$ 94 445.00	Included pre operational test and commissioning
Contractor Markup (10%, excluding cost transformers)	$ 15 781.15		
Detailled Engineering			
Engineering	$ 100 000.00	$ 273 000.00	Includes preliminary engineering
Sub Total	*$ 1 390 302.65*	*$ 1 997 725.00*	
Contingency (15%)	$ 208 545.40	$ 210 000.00	
TOTAL	**$ 1 598 848.05**	**$ 2 207 725.00**	

PROJECT INFORMATION AND DESCRIPTION

TETRA TECH

Template S170-EST-F001-E-R0F

OWNER : Hydro Hakesbury Inc.	**Project No : 14988TTE**
PROJECT : Detailed Engineering and Project Cost Estimate	**DC :**
	Date : 2015-04-09
Owner Project No: N/A	**Revision : 0**

OWNER : Hydro Hakesbury
ADDRESS : 850 Tupper st,
Hakesbury, Ontario, K2A 3S7
TYPE OF PROJECT : Engineering

- ☐ Order of Magnitude
- ☐ Conceptual
- ☐ Budgetary
- ☑ Definitive
- ☐ Control

PROJECT TEAM :

Project manager (Client):	Michel Poulin	Ph. :	613-632-6689	ext. :	
Lead manager (Tetra Tech QE) :		Ph. :		ext. :	
Civil & structural engineer :	Ali Wardani	Ph. :	514-257-2427	ext. :	3949
Mech. engineer (building) :	n/a	Ph. :		ext. :	
Mechanical engineer :	n/a	Ph. :		ext. :	
Process engineer :	n/a	Ph. :		ext. :	
Electrical engineer :	Gabriel Ouellette	Ph. :	819-562-7266	ext. :	8010
Instrumentation engineer :		Ph. :		ext. :	
Other:		Ph. :		ext. :	
Other:		Ph. :		ext. :	
Lead estimator:	Jean-Pierre Levasseur, PQS	Ph. :	418-843-1956	ext. :	5303
Cost controller :	Michel Tremblay, CEC	Ph. :	418-548-5522	ext. :	449

ESTIMATE BASIS :

Request received : 2015/03/23
Request date : 2015-04-07
Work start date:
Work end date:

Prepared by

Civil & Struc.: Michel Tremblay
Mech. & Piping: N/A
Heating & ventil.:N/A
Elect. & Instr.: Jean-Pierre Levasseur

PROJECT DESCRIPTION SUMMARY :

ESTIMATE BASED ON THE FOLLOWING DOCUMENTS OR HYPOTHESIS :

- Estimate class 2 (± 10 %)
- Estimate is presented in Canadian dollars (CDN).
- The contingency of the concept is not included.
- The purchase cost of equipment is based on tenders or databases.
- Work will be performed in regular time and overtime, 10 hours a day, 6 days a week.
- The "MEANS" is used as an estimate basis for electrical equipment installation manhours.
- The estimate applies a productivity similar to other public utilities works.
- The productivity used for works is 70%.
- Contractor's site mobilization and demobilization costs are included in each discipline hourly rates.
- Hourly labor rate (rate in the construction industry).
- Room and board is included manhours.
- Import duties, permits, asbestos removal are excluded.
- Treatment of contaminated soils are included as a risk contengency ($ 99,470),

COST ESTIMATE SUMMARY

TETRA TECH

OWNER :	**Hydro Hakesbury Inc.**	☐ Magnitude ☐ Conceptual ☐ Budgetary ☑ Definitive ☐ Control	**Project no : 14988TTE** **Lot :** **Date : 2015-04-09** **Revision : 0**
PROJECT :	**Detailed Engineering and Project Cost Estimate**		
Project No. :	**14988TTE**		

	DESCRIPTION	OWNER				CONTRACTOR				Total
		Equipment E1	Material M1	Labor L1		Equipment E2	Material M2	Labor L2		
		Amount	Amount	Amount	M.-H./Total	Amount	Amount	Amount	M.-H./Total	
DIRECT CONSTRUCTION COSTS :										
	Civil & Structural	$ -	$ -	$ -	-	$ 94,910	$ 279,070	$ 233,050	1,710	$ 607,030
	Electrical	$ -	$ -	$ -	-	$ 997,840	$ 151,100	$ 235,480	1,600	$ 1,384,420
	Decontamination (if required)	$ 99,470	$ -	$ -	-	$ -	$ -	$ -	-	$ 99,470
	Direct Costs Subtotal :	**$ 99,470**	**$ -**	**$ -**	**0 hrs**	**$ 1,092,750**	**$ 430,170**	**$ 468,530**	**3,310 hrs**	**$ 2,090,920**
INDIRECT COSTS:										
8000	**PROFESSIONAL SERVICES & SITE COSTS**	**% TIC cost**	**% Direct costs**							
8100	Indirects costs including :	18.7%	25.3%							$ 529,337
8200	Engineering and services ($ 371,023 + $ 2,419)									$ -
8300	Hydro One fees ($ 60,000)									$ -
8400	IESO ($ 1,450)									$ -
8500	Pre-op - Commissionning ($ 94,445)									$ -
8600										$ -
8700										$ -
8800										$ -
	Subtotal Prof. Services & Sites Costs:	**18.7%**	**25.3%**							**$ 529,337**
9000	**OWNER'S COSTS**	**% TIC cost**	**% Direct costs**							
9100	Project Team - Owner's Costs									$ -
9200	Project Team - External Costs									$ -
9300	Technology & Management System									$ -
9400	Operation Readiness									$ -
9500	Commissioning									$ -
9600	Start-Up Costs									$ -
9700	Working Capital									$ -
9800	Operation Inefficiencies									$ -
9900	Financial Costs									$ -
	Subtotal Owner Costs :	**0.0%**	**0.0%**							**$ -**
	Subtotal Indirect Costs :	**18.7%**	**25.3%**							**$ 529,337**
Project Subtotal (Before contingencies and escalation) :										**$ 2,620,257**
8900	**ESCALATION & CONTINGENCY**	**% TIC cost**	**% Project ST**							
8910	Owner's contingencies (10 %)									$ 210,000
8920	Escalation									$ -
	Subtotal Indirect Costs Escalation & Contingency :	**7.4%**	**8.0%**							**$ 210,000**
PROJECT TOTAL (to hundred dollars) :										**$ 2,830,300**

SIGNING :

Prepared by : **Michel Tremblay, Jean-Pierre Levasseur**

Signed by : **Michel Tremblay, Jean-Pierre Levasseur** **Date : 2015-04-09**

Reviewed by : **Gabriel Ouellet** **Date : 2015-04-09**

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Civil & structural | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
							$ -		$ -		$ -	-	-	$ -
			Demolition				$ -		$ -		$ -	-	-	$ -
			Demolition of a transfomer's foundations (2)	1	lot	$ 5,000	$ 5,000		$ -	$ 5,400	$ 5,400	-	40.0	$ 10,400
			Demolition of the existing control building	1	lot	$ 9,500	$ 9,500		$ -	$ 5,400	$ 5,400	-	40.0	$ 14,900
			Subtotal Demolition:				**$ 14,500**		**$ -**		**$ 10,800**		**80.0**	**$ 25,300**
							$ -		$ -		$ -	-	-	$ -
			Electrical Building (civil works)				$ -		$ -		$ -	-	-	$ -
			Reception and installation	1	lot	$ 4,800	$ 4,800		$ -	$ 4,320	$ 4,320	-	29.4	$ 9,120
			Excavation and backfill	1	lot	$ 1,500	$ 1,500	$ 1,000	$ 1,000	$ 1,500	$ 1,500	-	11.1	$ 4,000
			Concrete slab	1	lot	$ 1,500	$ 1,500	$ 7,000	$ 7,000	$ 5,400	$ 5,400	-	40.0	$ 13,900
			Subtotal Electrical Building (civil				**$ 7,800**		**$ 8,000**		**$ 11,220**		**80.5**	**$ 27,020**
							$ -		$ -		$ -	-	-	$ -
			Foundation for dead and circuit Switcher support (2 un)				$ -		$ -		$ -	-	-	$ -
			Ref:A1-14988-C-002				$ -		$ -		$ -	-	-	$ -
			Excavation	706	m³	$ 12	$ 8,472		$ -	$ 10	$ 7,060	-	52.3	$ 15,532
			MG-112 backfill (granular B)	492	m³	$ 12	$ 5,904	$ 12	$ 5,904	$ 20	$ 9,840	-	72.9	$ 21,648
			MG-20 backfill (granular A)	64	m³	$ 12	$ 768	$ 20	$ 1,280	$ 20	$ 1,280	-	9.5	$ 3,328
			Insulation HI-60	207	m²		$ -	$ 16	$ 3,315	$ 12	$ 2,486	-	18.4	$ 5,802
			Reinforced concrete slab	150	m³	$ 11	$ 1,650	$ 420	$ 63,000	$ 300	$ 45,000	-	333.3	$ 109,650
			Structural steel (ref S-002-1 et S-002-2)	17,000	kg	$ 0	$ 4,080	$ 5.50	$ 93,500	$ 1	$ 13,600	-	92.5	$ 111,180
			Subtotal Foundation for dead and circuit Switcher support (2 un):				**$ 20,874**		**$ 166,999**		**$ 79,266**		**578.9**	**$ 267,140**
							$ -		$ -		$ -	-	-	$ -
			Foundation for ISO post type 1 (2 un)				$ -		$ -		$ -	-	-	$ -
			Réf:A1-14988-C-002				$ -		$ -		$ -	-	-	$ -
			Excavation	60	m³	$ 12	$ 720		$ -	$ 10	$ 600	-	4.4	$ 1,320
			MG-112 backfill (granular B)	24	m³	$ 12	$ 288	$ 12	$ 288	$ 20	$ 480	-	3.6	$ 1,056
			MG-20 backfill (Granular A)	6	m³	$ 12	$ 72	$ 20	$ 120	$ 20	$ 120	-	0.9	$ 312
			Insolation HI-60	30	m²		$ -	$ 16	$ 487	$ 12	$ 365	-	2.7	$ 852
			Concrete base	5.0	m³	$ 11	$ 55	$ 420	$ 2,100	$ 350	$ 1,750	-	13.0	$ 3,905
			Structural steel (2) ref S-003	646	kg	$ 2.50	$ 1,615	$ 5.50	$ 3,553	$ 3	$ 2,132	-	14.5	$ 7,300
			Subtotal Foundation for ISO post type 1 (2 un):				**$ 2,750**		**$ 6,548**		**$ 5,447**		**39.1**	**$ 14,745**
							$ -		$ -		$ -	-	-	$ -
			Foundation 55T3 Transformer pad (2 un)				$ -		$ -		$ -	-	-	$ -
			Ref:A1-14988-C-003A, C-003B				$ -		$ -		$ -	-	-	$ -
			Excavation	406	m³	$ 12	$ 4,872		$ -	$ 10	$ 4,060	-	30.1	$ 8,932
			MG-112 backfill (granular B)	80	m³	$ 12	$ 960	$ 12	$ 960	$ 20	$ 1,600	-	11.9	$ 3,520
			MG-20 backfill (granular A)	54	m³	$ 12	$ 648	$ 20	$ 1,080	$ 20	$ 1,080	-	8.0	$ 2,808
			40-20mm fire stone	160	m³	$ 10	$ 1,600	$ 40	$ 6,400	$ 10	$ 1,600	-	11.9	$ 9,600
			Waterproof GCL membrane	384	m²	$ 11	$ 4,224	$ 17	$ 6,528	$ 15	$ 5,760	-	42.7	$ 16,512
			Drainage	112	m	$ 10	$ 1,120	$ 35	$ 3,920	$ 25	$ 2,800	-	20.7	$ 7,840
			Insulation HI-60	360	m²		$ -	$ 16	$ 5,760	$ 12	$ 4,320	-	32.0	$ 10,080
			Concrete base	63.0	m³	$ 11	$ 693		$ -	$ 570	$ 35,910	-	266.0	$ 36,603
			Subtotal Foundation 55T3 Transformer pad (2 un):				**$ 14,117**		**$ 24,648**		**$ 57,130**		**423.2**	**$ 95,895**
							$ -		$ -		$ -	-	-	$ -
			Foundation for ISO post type 1A & 2				$ -		$ -		$ -	-	-	$ -

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Civil & structural | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
			Ref:A1-14988-C-005				$ -		$ -		$ -	-	-	$ -
			Excavation	83	m³	$ 12	$ 996		$ -	$ 10	$ 830	-	6.1	$ 1,826
			MG-112 backfill (granular B)	75	m³	$ 12	$ 900	$ 12	$ 900	$ 20	$ 1,500	-	11.1	$ 3,300
			MG-20 backfill (granular A)	3	m³	$ 12	$ 36	$ 20	$ 60	$ 20	$ 60	-	0.4	$ 156
			Concrete base	5.0	m³	$ 11	$ 55	$ 420	$ 2,100	$ 1,025	$ 5,125	-	38.0	$ 7,280
			Structural steel type 2 (Ref S-006)	412	kg	$ 3	$ 1,030	$ 5.50	$ 2,266	$ 3	$ 1,360	-	9.2	$ 4,656
			Structural steel type 1a (Ref S-003)	330	kg	$ 3	$ 825	$ 5.50	$ 1,815	$ 3	$ 1,089	-	7.4	$ 3,729
			Subtotal Foundation for ISO post type 1A & 2 :				**$ 3,842**		**$ 7,141**		**$ 9,964**		**72.3**	**$ 20,947**
							$ -		$ -		$ -	-	-	$ -
			Foundation for ISO & CT				$ -		$ -		$ -	-	-	$ -
			Ref:A1-14988-C-001				$ -		$ -		$ -	-	-	$ -
			Excavation	83	m³	$ 12	$ 996		$ -	$ 10	$ 830	-	6.1	$ 1,826
			MG-112 backfill (granular B)	75	m³	$ 12	$ 900	$ 12	$ 900	$ 20	$ 1,500	-	11.1	$ 3,300
			MG-20 backfill (granular A)	3	m³	$ 12	$ 36	$ 20	$ 60	$ 20	$ 60	-	0.4	$ 156
			Concrete base	6.0	m³	$ 11	$ 66	$ 420	$ 2,520	$ 350	$ 2,100	-	15.6	$ 4,686
			Structural steel type 1 (Ref S-003)	330	kg	$ 3	$ 825	$ 5.50	$ 1,815	$ 3	$ 1,089	-	7.4	$ 3,729
			Structural steel ISO and SURGE (Ref S-005)	760	kg	$ 3	$ 1,900	$ 5.50	$ 4,180	$ 3	$ 2,508	-	17.1	$ 8,588
			Subtotal Foundation for ISO & CT:				**$ 4,723**		**$ 9,475**		**$ 8,087**		**57.7**	**$ 22,285**
							$ -		$ -		$ -	-	-	$ -
			Foundation for ISO & SA				$ -		$ -		$ -	-	-	$ -
			Ref:A1-14988-C-005				$ -		$ -		$ -	-	-	$ -
			Excavation	83	m³	$ 12	$ 996		$ -	$ 10	$ 830	-	6.1	$ 1,826
			MG-112 backfill (granular B)	75	m³	$ 12	$ 900	$ 12	$ 900	$ 20	$ 1,500	-	11.1	$ 3,300
			MG-20 backfill (granular A)	3	m³	$ 12	$ 36	$ 20	$ 60	$ 20	$ 60	-	0.4	$ 156
			Concrete base	6.0	m³	$ 11	$ 66	$ 420	$ 2,520	$ 350	$ 2,100	-	15.6	$ 4,686
			Structura steel type 1 (Ref S-003)	330	kg	$ 3	$ 825	$ 5.50	$ 1,815	$ 3	$ 1,089	-	7.4	$ 3,729
			Structural steel ISO and SURGE (Ref S-006)	411	kg	$ 3	$ 1,028	$ 5.50	$ 2,261	$ 3	$ 1,356	-	9.2	$ 4,644
			Subtotal Foundation for ISO & SA:				**$ 3,851**		**$ 7,556**		**$ 6,935**		**49.9**	**$ 18,341**
							$ -		$ -		$ -	-	-	$ -
			Site works				$ -		$ -		$ -	-	-	$ -
			Sewing pump chamber	1	ea	$ 1,250	$ 1,250	$ 14,000	$ 14,000	$ 2,160	$ 2,160	-	16.0	$ 17,410
			Protective bollard	2	ea	$ 500	$ 1,000	$ 1,000	$ 2,000	$ 1,000	$ 2,000	-	14.8	$ 5,000
			Storm outfall	32	m	$ 47	$ 1,504	$ 100	$ 3,200	$ 125	$ 4,000	-	29.6	$ 8,704
			Fence	8	m	$ 500	$ 4,000	$ 63	$ 500	$ 168	$ 1,344	-	10.0	$ 5,844
			Double chain fence	1	ea	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	-	3.7	$ 1,500
			Pavement structure - Reparation	200	m²	$ 20	$ 4,000	$ 30	$ 6,000	$ 15	$ 3,000	-	22.2	$ 13,000
			Crushed stone	420	m²	$ 10	$ 4,200	$ 25	$ 10,500	$ 10	$ 4,200	-	31.1	$ 18,900
			Trenches for grounding (based onr 60 m./day)	600	m	$ 10	$ 6,000	$ 20	$ 12,000	$ 45	$ 27,000	-	200.0	$ 45,000
			Subtotal Site works:				**$ 22,454**		**$ 48,700**		**$ 44,204**		**327.4**	**$ 115,358**
			TOTAL :				**$ 94,910**		**$ 279,070**		**$ 233,050**		**1710 hrs**	**$ 607,030**

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Electrical | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
							$ -		$ -		$ -	-	-	$ -
			Electrical equipments				$ -		$ -		$ -	-	-	$ -
			New 110kV Dead-end wood structure (by others)				$ -		$ -		$ -	-	-	$ -
			New 110kV Dead-end wood structure (by others)	1	ea		$ -	$ -	$ -		$ -	-	-	$ -
			52T3-LBS : 3000A 145kV - Load Break switch				$ -		$ -		$ -	-	-	$ -
		5	Motorized 3-pole Vertical Break Disconnect Switch 138 kV Nom., 650 kV BIL, 3000	1	ea	$ 26,875	$ 26,875	$ 2,688	$ 2,688		$ 7,056	48.0	48.0	$ 36,619
			52T3-L/52T3-I : 1200A 145kV 38KA				$ -		$ -		$ -	-	-	$ -
		4	3-pole Circuit Switcher Siemens, SF6 type, 1200 A, 31,5 kA, 121 kV max., 550 KV BIL	1	ea	$ 63,383	$ 63,383	$ 6,338	$ 6,338		$ 4,704	32.0	32.0	$ 74,425
			52T2-L/52T2-I : 1200A 145kV 38KA				$ -		$ -		$ -	-	-	$ -
		4	3-pole Circuit Switcher Siemens, SF6 type, 1200 A, 31,5 kA, 121 kV max., 550 KV BIL	1	ea	$ 63,383	$ 63,383	$ 6,338	$ 6,338		$ 4,704	32.0	32.0	$ 74,425
			Metering Cabinet				$ -		$ -		$ -	-	-	$ -
			Metering Cabinet	1	ea	$ 22,496	$ 22,496	$ 2,250	$ 2,250		$ 4,704	32.0	32.0	$ 29,450
			55T3 : Transformer 15/20/25 MVA				$ -		$ -		$ -	-	-	$ -
		3	New 3Ø Transformer 110 kV / 12,48 kV, 15/20/25 MVA	1	ea	$ 586,256	$ 586,256	$ 58,626	$ 58,626		$ 9,408	64.0	64.0	$ 654,290
			55T3B : Switch 2000A 12.5kV				$ -		$ -		$ -	-	-	$ -
			55T3B : Switch 2000A 12.5kV	3	ea	$ 1,200	$ 3,600	$ 120	$ 360		$ 3,528	8.0	24.0	$ 7,488
			52T2-LBS : 3000A 145kV - Load Break switch				$ -		$ -		$ -	-	-	$ -
		5	Motorized 3-pole Vertical Break Disconnect Switch 138 kV Nom., 650 kV BIL, 3000	1	ea	$ 26,875	$ 26,875	$ 2,688	$ 2,688		$ 9,408	64.0	64.0	$ 38,971
			CT-2.1 : Current transformer 600:5A				$ -		$ -		$ -	-	-	$ -
		2	Current Transformer, bushing type, Meramec, model T.B.D.	3	ea	$ 2,052	$ 6,156	$ 205	$ 616		$ 3,528	8.0	24.0	$ 10,300
			55T2 : Transformer 7.5/10/12.5 MVA - EXISTING				$ -		$ -		$ -	-	-	$ -
		1	Existing Transformer to be remove for relocation	1	ea	$ 2,500	$ 2,500	$ -	$ -		$ 4,704	32.0	32.0	$ 7,204
		1	Existing Transformer to be relocated on new base in oil containment	1	ea	$ 2,500	$ 2,500	$ -	$ -		$ 4,704	32.0	32.0	$ 7,204
			LA2-T2 : Station class 12.7kV MCOV				$ -		$ -		$ -	-	-	$ -
		7	Substation Surge Arrester, polymer intermediate type PVI-LP, 12,7 kV MCOV, rated 15 kV, 4-hole NEMA pad line terminal Hubbell cat. #300813	3	ea	$ -	$ -	$ 480	$ 1,440		$ 1,764	4.0	12.0	$ 3,204
			CT-2.4 : Current transformer 2000:5A				$ -		$ -		$ -	-	-	$ -
		6	Outdoor cast epoxy resin insulated Current Transformer 15 kV, current ratio 1200/2000:5 A, Ritz cat. #GIFD25-03	3	ea	$ -	$ -	$ 500	$ 1,500		$ 3,528	8.0	24.0	$ 5,028
			Subtotal Electrical equipments:				**$ 804,024**		**$ 82,842**		**$ 61,740**		**420.0**	**$ 948,606**
							$ -		$ -		$ -	-	-	$ -
			Cable tray including grounding				$ -		$ -		$ -	-	-	$ -
			300mm Steel Cable tray	30	m		$ -	$ 100	$ 3,000		$ 5,292	1.2	36.0	$ 8,292

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Electrical | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
			Concrete support for cable tray	10	ea	$ 400	$ 4,000		$ -		$ -	-	-	$ 4,000
			2/0 Copper conductor (grounding)	30	m		$ -	$ 10	$ 300		$ 441	0.1	3.0	$ 741
			Bolted ground connection to tray	12	ea		$ -	$ 35	$ 420		$ 1,764	1.0	12.0	$ 2,184
			Subtotal Cable tray including				**$ 4,000**		**$ 3,720**		**$ 7,497**		**51.0**	**$ 15,217**
							$ -		$ -		$ -	-	-	$ -
							$ -		$ -		$ -	-	-	$ -
			Control Building				$ -		$ -		$ -	-	-	$ -
			Building including electrical components, protection and control panel	1	lot	$ 184,815	$ 184,815	$ -	$ -		$ -	-	-	$ 184,815
			Subtotal Control Building:				**$ 184,815**		**$ -**		**$ -**		**-**	**$ 184,815**
							$ -		$ -		$ -	-	-	$ -
							$ -		$ -		$ -	-	-	$ -
			Aerial bus pipe and conductors				$ -		$ -		$ -	-	-	$ -
			Aluminium Bus Pipe				$ -		$ -		$ -	-	-	$ -
		8	ALUMINIUM BUS PIPE, 15 kV 6063-T6 ALLOY 53% IACS ASA SCH. 80 - 2 IN. O.D.: 2,375 IN. (60,3mm) WALL THICKNESS: 0,218 IN. (5,54mm)	90	m	$ -	$ -	$ 30	$ 2,700		$ 13,230	1.0	90.0	$ 15,930
			Aluminium conductor (ACSR)				$ -		$ -		$ -	-	-	$ -
		9	2 AWG, CODE "SPARATE" Nominal DIAM. 8,24mm	225	m	$ -	$ -	$ 2	$ 450		$ 6,615	0.2	45.0	$ 7,065
			Subtotal Aerial bus pipe and conductors:				**$ -**		**$ 3,150**		**$ 19,845**		**135.0**	**$ 22,995**
							$ -		$ -		$ -	-	-	$ -
			Accessories for aerial feeders				$ -		$ -		$ -	-	-	$ -
		10	Porcelaine Suspension Insulator Clevis type, ANSI Class 52-4	120	ea	$ -	$ -	$ 28	$ 3,360		$ 4,410	0.3	30.0	$ 7,770
		10	Porcelaine Suspension Insulator Clevis type, ANSI Class 52-4 (for spare)	15	ea	$ -	$ -	$ 28	$ 420		$ -	-	-	$ 420
		11	Station type post Insulator, 110 kV BIL each 30 3 spare Cantilever strenght 17,9 kN, 127 mm B.C. Ø NGK cat.# PH01110	30	ea	$ -	$ -	$ 168	$ 5,040		$ 4,410	1.0	30.0	$ 9,450
		12	Eye nut, bolt Ø 5/8 IN, galvanized steel.	6	ea		$ -	$ 5	$ 30		$ -	-	-	$ 30
		13	Turnbuckle 5/8 x 6 IN, Clevis-Clevis type, galvanized steel	6	ea	$ -	$ -	$ 70	$ 420		$ -	-	-	$ 420
		14	Turnbuckle 5/8 x 6 IN, Clevis-Eye type, galvanized steel	6	ea	$ -	$ -	$ 70	$ 420		$ -	-	-	$ 420
		15	Triangle Dead End Clamp, aluminium, Clevis type 5/8 IN pin Ø, for ACSR 2 AWG conductor, Hubbell Power System cat.# SD57C	6	ea		$ -	$ 120	$ 720		$ 882	1.0	6.0	$ 1,602
		16	Dead End Clamp, aluminium, Clevis type 5/8 IN pin Ø, for ACSR 2 AWG each 6 conductor Burndy cat.# CUW26RE-1	6	ea		$ -	$ 20	$ 120		$ 882	1.0	6.0	$ 1,002

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Electrical | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
		17	Anchor shackle, body and hardware Ø 5/8 IN. Hubbell Power System cat.# AS25	6	ea		$ -	$ 19	$ 114		$ -	-	-	$ 114
		18	Alu. Straight Cable to flat Terminal Connector, 145 kV, 2000A ACSR 2 AWG "SPARATE" to NEMA 4-hole pad Anderson (Hubbell Power System) cat.# ACF-6-C	36	ea		$ -	$ 48	$ 1,728		$ 2,646	0.5	18.0	$ 4,374
		19	Alu. Flat terminal to Stud Connector, 145 kV, 2000A NEMA 4-hole pad to Stud 1-1/2 IN. 12UNF Anderson (Hubbell Power System) cat.# ADSF141C3812	6	ea		$ -	$ 118	$ 708		$ 441	0.5	3.0	$ 1,149
		20	Alu. Cable to Flat terminal «T» Connector, 145 kV, 2000A Main: ALU. CONDUCTOR (ACSR) 2 AWG, CODE "SPARATE" Tap: NEMA 4-hole pad parallel to conductor Anderson (Hubbell Power System) cat.# ATCF-630-1	3	ea		$ -	$ 62	$ 186		$ 441	1.0	3.0	$ 627
		21	Alu. Straight Bus Pipe to Stud connector, 145 kV, 2000A ASA SCH. 80 - 2 IN. Alu. Bus Pipe to Stud 1-1/2 IN. 12UNF Anderson (Hubbell Power System) cat.# ADST142-12	6	ea		$ -	$ 145	$ 870		$ 882	1.0	6.0	$ 1,752
		22	Alu. Bus pipe to Cable «T» Connector, 145 kV, 2000A Main: ASA SCH. 80 - 2 IN. Alu. Bus Pipe Tap: Alu. Conductor (ACSR) 2 AWG, CODE "SPARATE" Anderson (Hubbell Power System) cat.# ATTC-206	6	ea		$ -	$ 102	$ 612		$ 882	1.0	6.0	$ 1,494
		23	Alu. Bus Clamp rigig-sliding type ASA SCH. 80 - 2 IN. Alu. Bus Pipe to Insulator 5 IN. B. C. Anderson (Hubbell Power System) cat.# AUR-20-5	21	ea		$ -	$ 131	$ 2,751		$ 3,087	1.0	21.0	$ 5,838
		24	Alu. Bus Clamp expansion type ASA SCH. 80 - 2 IN. Alu. Bus Pipe to Insulator 5 IN. B. C. Anderson (Hubbell Power System) cat.# AURF-20-5	6	ea		$ -	$ 852	$ 5,112		$ 882	1.0	6.0	$ 5,994
			Subtotal Accessories for aerial feeders:				**$ -**		**$ 22,611**		**$ 19,845**		**135.0**	**$ 42,456**
							$ -		$ -		$ -	-	-	$ -
							$ -		$ -		$ -	-	-	$ -
			Interconnection cables				$ -		$ -		$ -	-	-	$ -
			001A Cable TECK90 2C #12 AWG from 52T3-L CIRCUIT SWITCHER to CRTL BLDG. AC DISTRIB. PANEL	53	m		$ -	$ 4	$ 212		$ 935	0.1	6.4	$ 1,147
			001B Cable TECK90 2C #12 AWG from 52T3-L CIRCUIT SWITCHER to CRTL BLDG. AC DISTRIB. PANEL	35	m		$ -	$ 4	$ 140		$ 617	0.1	4.2	$ 757
			002A Cable TECK90 2C #12 AWG from 52T2-L CIRCUIT SWITCHER to CRTL BLDG. DC DISTRIB. PANEL	53	m		$ -	$ 4	$ 212		$ 935	0.1	6.4	$ 1,147

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Electrical | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
			002B Cable TECK90 2C #12 AWG from 52T3-L CIRCUIT SWITCHER to CRTL BLDG. DC DISTRIB. PANEL	35	m		$ -	$ 4	$ 140		$ 617	0.1	4.2	$ 757
			003A Cable TECK90 2C #10 AWG from 52T2-L CIRCUIT SWITCHER to CRTL BLDG. DC DISTRIB. PANEL	53	m		$ -	$ 5	$ 265		$ 1,091	0.1	7.4	$ 1,356
			003B Cable TECK90 2C #10 AWG from 52T3-L CIRCUIT SWITCHER to CRTL BLDG. DC DISTRIB. PANEL	35	m		$ -	$ 5	$ 175		$ 720	0.1	4.9	$ 895
			004A Cable TECK90 20C #14 AWG from 52T2-L CIRCUIT SWITCHER to CRTL BLDG. CNTL & PROT. PANEL	53	m		$ -	$ 12	$ 636		$ 2,065	0.3	14.0	$ 2,701
			004B Cable TECK90 20C #14 AWG from 52T3-L CIRCUIT SWITCHER to CRTL BLDG. CNTL & PROT. PANEL	35	m		$ -	$ 12	$ 420		$ 1,363	0.3	9.3	$ 1,783
			005A Cable TECK90 20C #14 AWG from 52T2-L CIRCUIT SWITCHER to CRTL BLDG. CNTL & PROT. PANEL	53	m		$ -	$ 12	$ 636		$ 2,065	0.3	14.0	$ 2,701
			005B Cable TECK90 20C #14 AWG from 52T3-L CIRCUIT SWITCHER to CRTL BLDG. CNTL & PROT. PANEL	35	m		$ -	$ 12	$ 420		$ 1,363	0.3	9.3	$ 1,783
			006A Cable TECK90 25C #14 AWG from 55T3 POWER TRANSFORMER to CRTL BLDG. CNTL & PROT. PANEL	40	m		$ -	$ 16	$ 640		$ 1,605	0.3	10.9	$ 2,245
			006B Cable TECK90 25C #14 AWG from 55T2 POWER TRANSFORMER to CRTL BLDG. CNTL & PROT. PANEL	63	m		$ -	$ 16	$ 1,008		$ 2,528	0.3	17.2	$ 3,536
			007A Cable TECK90 4C #10 AWG from 55T3, CT3.1 to CRTL BLDG. CNTL & PROT. PANEL	40	m		$ -	$ 7	$ 280		$ 1,176	0.2	8.0	$ 1,456
			007B Cable TECK90 4C #10 AWG from 55T2, CT2.1 to CRTL BLDG. CNTL & PROT. PANEL	63	m		$ -	$ 7	$ 441		$ 1,852	0.2	12.6	$ 2,293
			008A Cable TECK90 4C #10 AWG from 55T3, CT3.2 to CRTL BLDG. CNTL & PROT. PANEL	40	m		$ -	$ 7	$ 280		$ 1,176	0.2	8.0	$ 1,456
			008B Cable TECK90 4C #10 AWG from 55T2, CT2.4 to CRTL BLDG. CNTL & PROT. PANEL	65	m		$ -	$ 7	$ 455		$ 1,911	0.2	13.0	$ 2,366
			010A Cable TECK90 3C #10 AWG from 55T3 POWER TRANSFORMER to CRTL BLDG. AC DISTRIB. PANEL	40	m		$ -	$ 6	$ 240		$ 1,176	0.2	8.0	$ 1,416
			011A Cable TECK90 2C #12 AWG from 55T3 POWER TRANSFORMER to CRTL BLDG. DC DISTRIB. PANEL	40	m		$ -	$ 4	$ 160		$ 706	0.1	4.8	$ 866
			012A Cable TECK90 25C #14 AWG from 55T3 POWER TRANSFORMER to CRTL BLDG. CNTL & PROT. PANEL	40	m		$ -	$ 16	$ 640		$ 1,605	0.3	10.9	$ 2,245
			Teck connectors "ST" for 2C # 12 Teck cable	10	ea		$ -	$ 15	$ 150		$ 2,205	1.5	15.0	$ 2,355
			Teck connectors "ST" 2C # 10 Teck cable	4	ea		$ -	$ 15	$ 60		$ 529	0.9	3.6	$ 589
			Teck connectors "ST" for 3C # 10 Teck cable	2	ea		$ -	$ 20	$ 40		$ 323	1.1	2.2	$ 363
			Teck connectors "ST" for 4C # 10 Teck cable	6	ea		$ -	$ 20	$ 120		$ 970	1.1	6.6	$ 1,090
			Teck connectors "ST" 20C # 14 Teck cable	8	ea		$ -	$ 25	$ 200		$ 1,764	1.5	12.0	$ 1,964
			Teck connectors "ST" for 25C # 14 Teck cable	6	ea		$ -	$ 25	$ 150		$ 1,323	1.5	9.0	$ 1,473
			Identification, tests, connection of ctrl cables	420	ea		$ -	$ 2	$ 840		$ 15,435	0.3	105.0	$ 16,275
			Subtotal Interconnection cables:				**$ -**		**$ 8,960**		**$ 48,057**		**326.9**	**$ 57,017**
							$ -		$ -		$ -	-	-	$ -

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc. | **Labor-Hour Cost Crew / Discipline** | **Project No: 14988TTE**

Project : Detailed Engineering and Project Cost Estimate | **Addendum :**

Date : 2015-04-09

Project No.: 14988TTE | **Revision : 0**

Discipline: Electrical | **CONTRACTOR**

CODE			DESCRIPTION	Qty	Un.	Equipment E2		Material M2		Labor L2				TOTAL
	Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
							$ -		$ -		$ -	-	-	$ -
			Grounding (E-005 @ E-008)				$ -		$ -		$ -	-	-	$ -
			Main underground conductor				$ -		$ -		$ -	-	-	$ -
			4/0 Copper conductor (buried)	650	m		$ -	$ 15	$ 9,750		$ 4,778	0.1	32.5	$ 14,528
			Copper ground rod	8	ea		$ -	$ 35	$ 280		$ 1,764	1.5	12.0	$ 2,044
			Inspection box	8	ea		$ -	$ 75	$ 600		$ 1,176	1.0	8.0	$ 1,776
			Ground mat	1	ea		$ -	$ 585	$ 585		$ 588	4.0	4.0	$ 1,173
			2/0 ground conductor from 4/0 to equipment/structure				$ -		$ -		$ -	-	-	$ -
			2/0 Copper conductor	800	m		$ -	$ 10	$ 8,000		$ 5,880	0.1	40.0	$ 13,880
			Compression connector 4/0 to 2/0	60	ea		$ -	$ 35	$ 2,100		$ 8,820	1.0	60.0	$ 10,920
			2 holes compression connector	120	ea		$ -	$ 35	$ 4,200		$ 17,640	1.0	120.0	$ 21,840
			2/0 ground cable from 4/0 to existing fence				$ -		$ -		$ -	-	-	$ -
			2/0 Copper conductor	150	m		$ -	$ 10	$ 1,500		$ 1,103	0.1	7.5	$ 2,603
			Compression connector 4/0 to 2/0	20	ea		$ -	$ 35	$ 700		$ 2,940	1.0	20.0	$ 3,640
			Split bolt connecteur KS Burndy	140	ea		$ -	$ 15	$ 2,100		$ 10,290	0.5	70.0	$ 12,390
			Subtotal Grounding (E-005 @ E-008):				$ -		**$ 29,815**		**$ 54,978**		**374.0**	**$ 84,793**
							$ -		$ -		$ -	-	-	$ -
							$ -		$ -		$ -	-	-	$ -
			Equipment dismantling				$ -		$ -		$ -	-	-	$ -
			Dismanlling equipment	1	lot	$ 5,000	$ 5,000		$ -		$ 23,520	160.0	160.0	$ 28,520
			Subtotal Equipment dismantling :				**$ 5,000**		**$ -**		**$ 23,520**		**160.0**	**$ 28,520**
							$ -		$ -		$ -	-	-	$ -
			TOTAL :				**$ 997,840**		**$ 151,100**		**$ 235,480**		**1600 hrs**	**$ 1,384,420**

DETAILED COST ESTIMATE

TETRA TECH

Owner : Hydro Hakesbury Inc.	☐ Magnitude	**Labor-Hour Cost Crew / Discipline**	**Project No: 14988TTE**
Project : Detailed Engineering and Project Cost Estimate	☐ Conceptual ☐ Budgetary ☑ Definitive		**Addendum :** **Date : 2015-04-09**
Project No.: 14988TTE	☐ Control		**Revision : 0**

Discipline: Civil (decontamination)

CODE		DESCRIPTION	Qty	Un.	OWNER Equipment E1		CONTRACTOR Material M2		Labor L2				TOTAL
Facility	Item				Unit. Price	Amount	Unit. Price	Amount	Unit. Price	Amount	M-H/Un.	M-H/Total	
						$ -		$ -		$ -	-	-	$ -
						$ -		$ -		$ -	-	-	$ -
		Basis of estimate for decontamination: Total excavation = 1411 cubic meter at 50% of total volume = 711 cubic meter x 2.0 metric tons / cubic meter =1, 422 t m @ 70 $/ metric ton =	711	m.cu.	$ 140	$ 99,470		$ -		$ -	-	-	$ 99,470
						$ -		$ -		$ -	-	-	$ -
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			TOTAL :			$ 99,470		$ -		$ -		0 hrs	$ 99,470