

TQ Holdings Australia Pty Ltd
Proposed Port Kembla Bulk Liquids Terminal

Capital Investment Value Report

Estimate Review – Dermot FitzGibbon – August, 2015

**Comments, Assumptions, Qualifications and Notes made in regard to Stages 1, 2 and 3
detailed Estimates**

Introduction :

Dermot was engaged by TQ Holdings Australia Pty Ltd (TQ) to prepare an independent capital investment estimate based on the design of the proposed project, utilizing historical project costs and metrics, in combination with the budget quotations provided by TQ.

Separate estimates were prepared for each stage of the project. A summary of all three stages was also prepared. Refer to the following estimate sheets :

1. Summary of all three stages
2. Stage 1.
3. Stage 2.
4. Stage 3

The estimates developed were based on the following specific notes and assumptions.

Notes:

- A) Based on all of the information provided by TQ that form the basis of the detailed estimates, the overall order of accuracy of the estimates is considered to be within the range of plus or minus 10%.
- B) Civil quantities, rates and allowances are based solely on the Cardno preliminary BOQ and Engineers cost estimate, as submitted to TQ in July 2014.

- C) Structural steel allowances were based on costs provided by TQ and other historical project data comparisons.
- D) Electrical and Instrumentation costs and allowances were based on costs and quantities provided by TQ and other historical project metric data comparisons.
- E) Site man hours for structural, mechanical and piping, plus for indirect labour and plant and equipment requirements were based on the quantities and cost rates provided in the TQ estimate worksheets.
- F) Direct labour costs were based mainly on the rates and allowances in the current Transfield Services Illawarra Operations Enterprise Agreement 2015-2017, and also include for a flat rate site allowance of \$200-00 per week.
- G) Wage rate allowances for stage 2 have been escalated by 3% from the stage 1 rates. Stage 3 rates have been escalated 5% from the stage 1 rates.
- H) Major equipment overseas supply pricing has been based on a Euro to Australian dollar exchange rates of 1.5 to 1.
- I) The detailed estimates do not include allowances for inclement weather.
- J) On site construction durations are based on 60 weeks for stage 1, followed by 21 weeks for stage 2. Stage 3 is based on a stand-alone duration of an additional 21 weeks after completion of stages 1 and 2.

Assumptions:

A) All Contractor and Supplier pricing has been based solely on the budget quotations received by TQ for the various work packages.

B) Structural steel and piping supply costs in the TQ estimate worksheets include for shop fabrication, painting and delivery to site.

C) Site construction power and water requirements for all Contractors to be provided by the Contractors.

D) Unrestricted access will be available around the work sites for plant and equipment etc, at all times.

E) Storage tanks do not require grout to the underside of bases.

Construction Labour:

Construction man hours were calculated from first principles for structural, mechanical and piping work packages. The man hours for all other project packages are based on the information provided by TQ.

Man hour and Construction jobs numbers estimate:

Description	# of personnel	on site weeks	Hrs per week	total Hrs
TQ	16	120	50	96000
Site Management	12	112	50	67200
Civil Contractors	24	112	40	107520
Tanks Contractor	40	86	40	137600
Mech/Struct/Piping Cont.	30	103	40	123600
Electrical Contractors	12	103	40	49440
Other Misc Contractors	5	78	40	15600
Estimated site hour total				596960
Estimated number of Construction jobs				139

Disclaimer:

I, Dermot Fitzgibbon, hereby confirm that the information provided by me is accurate at the date of preparation, based on the information provided to me at the time of preparing the budget estimates.

As the detailed design of the project has not been carried out, full and accurate bills of quantities are not yet available to develop a more accurate capital investment value.

Signed:

Dermot FitzGibbon

Date:

17/8/15

Estimate Summary

Estimator Dermot FitzGibbon

Project Name: Pt Kembla Bulk Liquids Terminal - stage 1, 2 and 3

Client: TQ Holdings Australia

order of accuracy

Date 17-Aug-15

Tender No: rev 1

approx plus/minus 10%

	DIRECT COSTS	Man Hours	\$
A.	1 Site Labour		
	Mechanical		
	Electrical & Instrumentation		
	Total Direct Costs A		\$ 8,328,965
B.	2 In House Shop Fabrication - Labour		
	Steelwork		
	Pipe work		
	Other		
	3 Equipment Supply		
	valves		
	Electrical & Instrumentation		
	Mechanical		
	miscellaneous		
	4 Materials (Not Equipment)		
	piping		
	Mechanical		
	Electrical & Instrumentation		
	miscellaneous		
	5 Subcontracts -		
	Tanks		
	Civil		
	Structural Steel Fabrication		
	Buildings		
	Elect and Instrumentation		
	Fire system		
	mechanical		
	piping		
	Miscellaneous		
	Total Direct Costs B		\$ 140,747,794
C.	INDIRECT COSTS		
	Site establishment		
	Site Supervision		
	Plant and Equipment		
	Cranes		
	Site Running		
	Tools		
	Consumables		
	Commissioning		
	Inclement Weather		
	Other		
	Total Indirect Costs C	-	\$ 13,270,174
D.	INDIRECT COSTS - Project Specific		
	Historical project costs		
	FEED		
	Approvals and compliances		
	Design and Engineering		
	Internal project team resources		
	Business and Operational systems		
	Office Costs		
	Insurances @ contract sum x		
	procurement and inspections		
	Site Security Services		
	Fees and Bonds etc.		
	HR/IR		
	Dept Travel		
	Other		
	Total Indirect Costs D		\$ -
	Sub Total A, B, C, D		\$ 172,636,919
		0%	\$ -
	Escalation	0%	\$ -
		0%	\$ -
	Contingency	0%	\$ -
	Margin	0%	\$ -
	TENDER PRICE TOTAL		\$ 172,636,919
	PLUS GST @	0%	\$ 172,636,919