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# CAPITAL INVESTMENT VALUE REPORT



Source: TNG NSW

**Project Title:** Energy from Waste Facility, Eastern Creek (SSD 6236)

**Proponent:** The Next Generation NSW Pty Ltd (TNG NSW)  
C/- Urbis Pty Ltd  
Angus Halligan  
Email: ahalligan@urbis.com.au

**Initial Report Date: 13 June 2014**  
**Revised Report Date: 31 March 2015**

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*Appendix A*                      *Indicative Cost Estimate Summary*  
*Appendix B*                      *Reduced Architectural Drawing(s)*

## 1. Instruction

We have undertaken a study of the Concept Architectural Drawings and other information provided, with the aim of deriving the probable cost of construction for the above Project and providing a **Capital Investment Value Report**.

## 2. Location

The subject property is located at Eastern Creek in the central western suburbs of Sydney NSW, approximately 36 km west of the Sydney CBD. The location of the Subject Property is depicted below.



Source: SA5220 Preliminary EIS 191113

## 3. Brief Development Description/Construction Related Jobs

The proposal comprises the construction of an Energy from Waste Facility, which will allow for unsalvageable and uneconomic residue waste from the Genesis Material Processing Centre (MPC) and Waste Transfer Station (WTS) to be used for generation of electrical power.

This Project has an estimated capital investment value of \$557M (see Paragraph 4 for details). It is expected that the project will generate up to 250 construction related jobs

during the construction phase. The estimated job figure is based on the published information for the following three Major Projects from Wellington Council (a local government area in the Orana region of New South Wales, Australia):

1. ERM Power: the Construction of a gas fired power station at Wellington. Development approval has been granted by the New South Wales Government. The Wellington 1 project has a capital cost of \$700M, and will employ up to 300 people during the construction phase, with up to 10 ongoing positions once operational.
2. Infigen Energy Development Pty Ltd: the Development of a 33 tower wind farm at Bodangora. The project has an estimated capital investment value of \$200M, and would see the creation of up to 110 jobs during the construction phase and 6-8 operational jobs thereafter.
3. Wind Prospect: the Development of a wind farm comprising up to 330 towers located 20km east of Wellington. The project has an estimated capital investment value of \$1.3bn. The project would see up to 250 jobs created during the construction phase, with up to an estimated 40 operational positions thereafter.

It is worthwhile to note that this is the estimated number of jobs created and not the number of individual workers that will be required and employed.

The labour demand for the Project includes, but is not limited to the following categories:

- Architects
- Bricklayers
- Building envelope/façade specialists
- Civil engineers
- Civil engineers operatives not elsewhere classified
- Construction managers
- Electrical trades and installation
- Floorers
- Glaziers
- Labourers
- Logistics
- Non construction professional, technical, IT, and other office based staff (excl. managers)
- Other Construction professional and technical staff
- Painters and decorators
- Plant mechanics/fitters
- Plant operatives
- Plasterers
- Plumbing and heating, ventilation and air conditioning trades
- Roofer
- Scaffolders
- Senior, executive and business process managers
- Specialist building operatives not elsewhere classified
- Steel erectors
- Surveyors
- Wood trades and interior fit-out

#### **4. Construction Cost Estimate – Capital Investment Value**

The estimated cost of construction may be achieved in the vicinity of the following:

<b>Description</b>	<b>Amount (\$)</b>
<b>Building Cost (Capital Investment Value)</b>	<b>\$ 557,902,333</b>

Please refer to *Appendix A* for an Elemental Cost Estimate Summary prepared in general compliance with the criteria outlined by the NSW Government Department of Planning (Part 3A).

This indicative Capital Investment Value includes all costs necessary to establish and operate the development including the design and construction of buildings, structures, associated infrastructure and fixed or mobile plant and equipment (**but excluding land costs and GST**).

#### **5. Construction Cost Estimate – Section 94A Levy**

<b>Description</b>	<b>Amount (\$)</b>
Total Construction Cost (excl. GST)	142,829,966
<i>Add</i>	
Consultants Fees	8,424,075
Allowance for Plant and Equipment (incl. Installation Labour and Commission Allowance)	406,648,292
<b>Total Development Cost (excl. GST)</b>	<b>557,902,333</b>
<i>Add GST</i>	55,790,233
Total Development Cost (incl. GST)	613,692,567

Our Construction Cost Estimate is prepared in accordance with the Environmental Planning and Assessment Regulation 2000 (Reg 25J) - Section 94A Levy - Determination of proposed cost of Development.

Our Construction Cost Estimate may be considered at mid-range of recent costs, based on the proposed level of finishes and in the absence of structural and services drawings, Contract Documents and DA Conditions.

#### **6. Quality of Finishes**

The proposed Fixtures and Finishes for the development may be considered of purpose-built commercial quality. The quality of finishes proposed, are appropriate to the type, scale and location of this project.

## **7. Exclusions**

Our Cost Estimate does not include the following:

- Land Acquisition;
- Marketing and financing;
- Legal costs;
- Taxes, levies and charges;
- Major services diversions, external connections and/or improvement;
- Amplification / amendment to existing services;
- Amendments to plans, incomplete documentation;
- Energy and water efficiency;
- Rock excavation;
- Authorities Fees (S94 Contribution and the like);
- Contingency allowance.

## **8. Documentation**

Our Indicative Cost Estimate was based on the Concept Architectural Drawing supplied by AT&L, Project No. 14-187, Drawing No. C002, Issue F, Dated 12 March 2015. Please refer to *Appendix B* for a reduced copy of this drawing.

We also relied upon project information supplied by Urbis Pty Ltd and TNG NSW.

## **9. Assumptions / Parameters**

This Cost Estimate may provide no more than a rough guide to the probable cost of the proposed development. Costs may vary considerably, due to a range of variables:

- DA Conditions;
- Detailed documentation;
- Existing infrastructures and services;
- Design team;
- Method of procurement;
- Fixtures and finishes;
- Contract conditions.

As the level of documentation is further expanded, the Quantity Surveyor is able to provide a more accurate estimate of costs.

## **10. Disclaimer**

This Certificate has been prepared for the sole purpose of providing a Cost Estimate for an indicative Capital Investment Value Report and DA Council Submission only. This Quantity Survey Certificate is not to be used for any other purpose. This Report is confidential to the developer. The Writer does not accept any contractual, tortuous or other form of liability for any consequences, loss or damage which may arise as a result of any other person acting upon or using this report.

Report and estimate prepared by



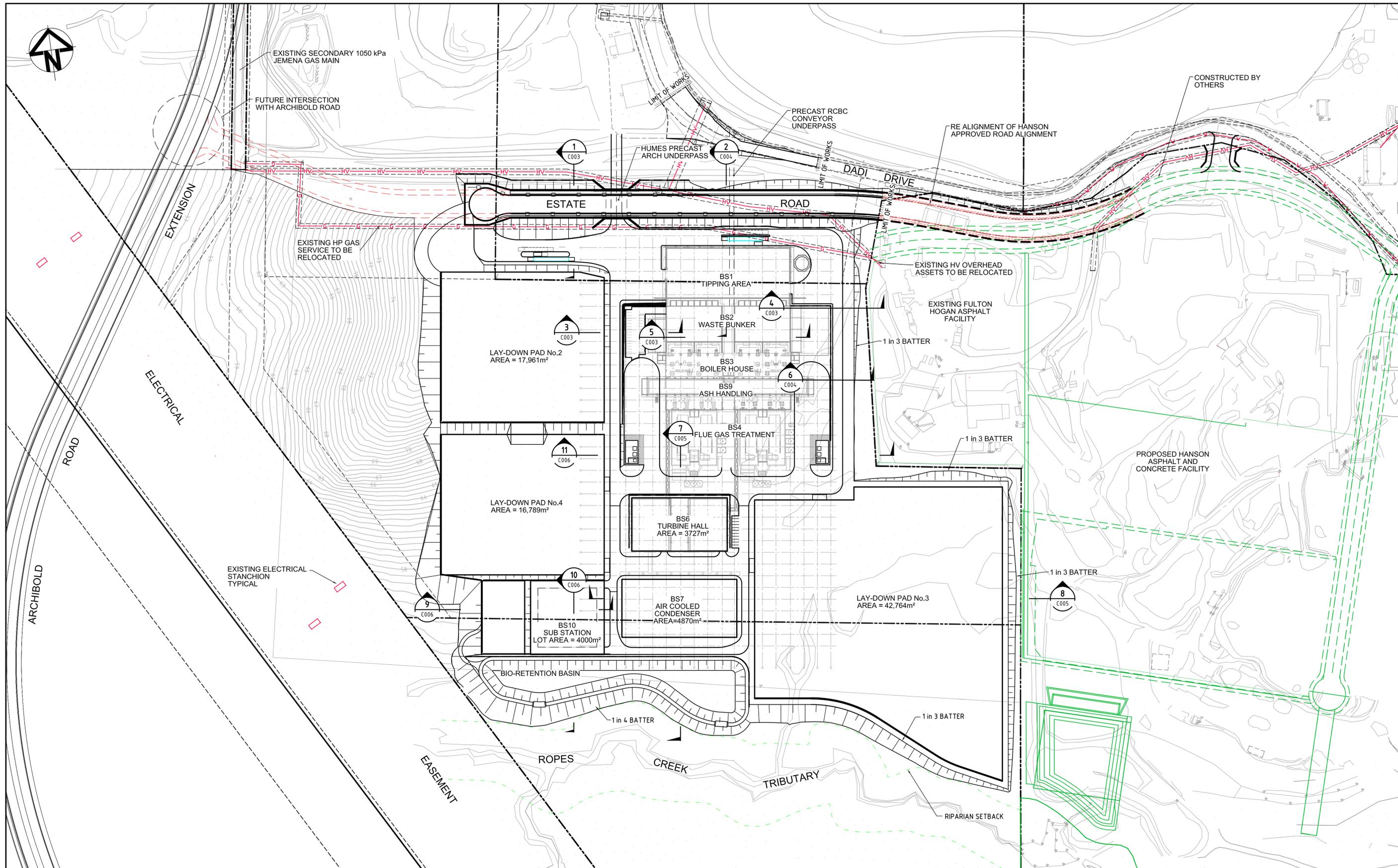
**Michael M. Dakhoul** *B. Build (Hons. 1) AAIQS MAIB MCIQB ICECA*  
*AAIQS Reg. No. 3618*

Appendix A

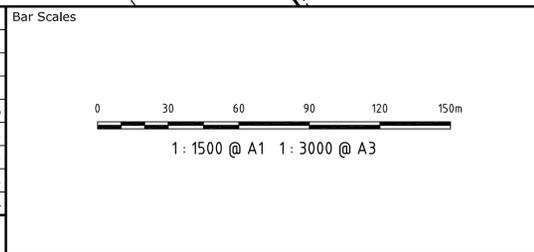
## Indicative Cost Estimate Summary

Code	Item	%	Cost (\$) / m2	Total Cost (\$)
PR	Preliminaries	20.25	5,117	30,633,000
	Gate House	0.20	50	300,000
	Tipping Hall	3.73	942	5,640,000
	Solid Fuel Bunker	12.64	3,193	19,112,000
	Fuel gas Treatment & Energy Recovery	14.93	3,773	22,584,000
	Residue Handling and Treatment	3.14	794	4,752,000
	Turbine Building	9.16	2,313	13,848,000
	Air Cooled Condensor	1.90	481	2,880,000
	Substation Buidling	2.77	700	4,192,000
	Office Building	1.18	299	1,792,000
PB/AC/ LP	Hydraulic, Mechanical & Electrical Services (incl. External Services)	6.61	1,670	10,000,000
XR/XN	Siteworks (Internal Roads, Estate Road Work, etc.)	11.95	3,018	18,070,000
XL	Landscaping and Improvements	1.04	263	1,575,000
BM	Builder's Margin	4.93	1,245	7,451,966
	<b>Total Construction Cost (excl. GST)</b>			<b>142,829,966</b>
	Add Consultants Fees	5.57	1,407	8,424,075
	<b>Total Construction Cost incl. Consultants Fees (excl. GST)</b>	<b>100.00</b>	<b>25,266</b>	<b>151,254,041</b>
	Add Allowance for Plant and Equipment			
	Balance of Plant			26,515,980
	Waste Preparation & Bunker equipment			
	Bottom Ash Handling equipment			
	Water Supply & Drain Water Handling			
	Compressed Air and Fuel Supply Equipment			
	Maintenance Devices and Hoists			
	Combustion Parts and Equipment			163,245,298
	Grate incineration, residue			
	Handling equipment , Boilers,			
	Chemical Supply tanks			
	Water Stream Cycle			96,873,912
	Turbines, Condensers, Steam Cycle			
	Water Treatment System			
	Flue Gas Treatment			40,672,464
	Flue Gas Handling and cleaning Equipment			
	Particle Separation, Residue Handling Equipment			
	Electrical Instrument & control			47,912,067
	Power, Control Sytems & Centre			
	Grid feeding equipment			
	Add Installation Labour and Commission Allowance for Plant and Equipment			31,428,571
	<b>Total Development Cost (excl. GST)</b>			<b>557,902,333</b>





Issue	Description	Date
F	RE-ISSUED FOR SSDA	12-03-15
E	RE-ISSUED FOR SSDA	20-02-15
D	ISSUED FOR SSDA	18-06-14
C	ISSUED FOR INFORMATION	16-06-14
B	ISSUED FOR CLIENT REVIEW	14-05-14
A	ISSUED FOR COORDINATION	06-05-14



THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L



Client	TS
Scales	1 : 1500 @ A1
Grid	MGA
Height Datum	AHD
Drawn	TS
Checked	MM
Approved	

Project  
**ENERGY FROM WASTE ELECTRICITY GENERATION PLANT, EASTERN CREEK**

Title  
**GENERAL ARRANGEMENT PLAN**

Civil Engineers and Project Managers

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Status	<b>FOR APPROVAL</b>	A1
NOT TO BE USED FOR CONSTRUCTION		
Drawing No.	C002	Issue
Project No.	14-187	F