



Appendix C

2007 South Australian Generation and Load Scenario Analysis



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REPORT (ELN00011) TO



NATIONAL ELECTRICITY MARKET ASSISTANCE 2007 South Australian Generation and Load Scenario Analysis

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EXECUTIVE SUMMARY

To assist ElectraNet in identifying the likely areas of network development over the next Revenue Reset period, potential generation development paths for the region of South Australia over the next ten years have been assessed through the application of ROAM Consulting's (ROAM) Scenario Analysis methodology. The methodology is based on the identification of three separate 'theme sets' defining the direction of the energy sector in the region of South Australia. These theme sets relate to:

- Various load growth rates, including consideration of the potential for expanded industrial load of moderate and major size;
- Varying trading options between South Australia and the Eastern States, depending on energy policy changes in any or all regions of the NEM, and changes to the relative pricing of energy resources, and;
- Varying carbon value, or greenhouse emissions reduction schemes.

The generation developments that have been assessed cover a mix of thermal gas fired plant, wind generation and other renewable technologies including biomass. A key factor that has emerged is the need for additional gas fired generation to support peak loads and expanded industrial load (including Olympic Dam and Prominent Hill), regardless of the installed wind farm capacity. This is a result of the inability to rely on wind generation for more than 8% of its installed capacity at times of 10% POE peak demand. Steps have recently been taken such that future wind farms will be required to install equipment to increase their operational flexibility. However, this does not presently increase the amount of reliable capacity able to contribute to the required level of installed capacity to meet minimum reserve margin conditions.

The remaining capacity to support load growth will have to be provided by scheduled generation, and in South Australia, the most probable plant type is currently open cycle gas turbine plant. In the event of a large amount of wind generation being commissioned in response to new carbon abatement schemes, generating companies will need to make informed decisions as to the type of gas fired (or other) generating capacity to install. It is likely that a high installed capacity base of wind power would cause generating companies to favour open cycle gas turbines with lower capital costs and higher levels of operating flexibility, in contrast to the use of more efficient combined cycle generating plants, which have higher capital costs and are less flexible. Alternatively, the possibility exists for South Australia to rely more heavily upon imported base-load power from the rest of the NEM to support a large installed capacity base of wind power.





The following table summarises the themes, which were developed and studied in this scenario analysis:

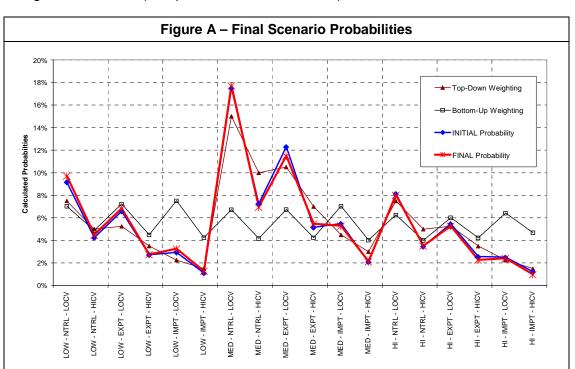
	Table A – List of Themes Studied									
L	oad Growth	Inter	-Regional Trade	Carbon Value						
Theme		Theme		Theme						
LOW	Low load growth, with the addition of occasional industrial loads and delayed expansion at Olympic Dam.	NTRL	Neutral inter- regional trading – 'as is' levels.	LOCV	'As is' carbon values / carbon abatement schemes.					
MED	Moderate load growth, with the addition of industrial loads the timely expansion of Olympic Dam.	EXPT	Significantly higher average power export from South Australia to the rest of the NEM.	HICV	Significantly increased carbon value, or the roll- out of other significant carbon abatement schemes.					
HI	Moderate load growth, with the addition of frequent industrial loads and the timely expansion of Olympic Dam.	IMPT	Significantly higher average power import from the rest of the NEM into South Australia.	-						

Using the combination of these theme sets, eighteen discrete development scenarios were constructed encompassing a range of widely differing market development paths. The relative likelihood of each of these development paths was assessed using a probabilistic methodology, which takes a 'Top-down' theme-based approach and a 'Bottom-up' individual project-based approach and combines the two strategies.





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The following chart summarises the relative probabilities determined for each of those eighteen scenarios (final probabilities marked in red):

The outcome of the scenario analysis as seen in the chart above is a set of eighteen scenarios which have corresponding generating plant installation programmes matching the projected state peak demand with adequate reserve capacity. The probability that has been determined for each of these scenarios varies significantly. Nevertheless it may be important for ElectraNet to address each of the scenarios in order to provide a reliable view of the variability of future generating patterns.







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1. BACKGROUND

In 2005 ROAM Consulting (ROAM), on behalf of ElectraNet, conducted an assessment of potential generation and load developments for South Australia through the application of a probabilistic scenario analysis methodology. The ESIPC provided valuable input to this analysis. A final report was completed in December 2005.

In May 2006, ElectraNet engaged ROAM Consulting to update its assessment to enable the preparation of scenario based network development plans for its forthcoming Revenue Reset Application. A key purpose of the update was to critically review the scenario analysis input assumptions made in 2005 in light of newly available information and the performance of the market during that year. In particular, the key areas of review were scenario themes, potential future generation projects, future loads, and assigned probabilities. The review of input assumptions was undertaken in consultation with ElectraNet, the Electricity Supply Industry Planning Council (ESIPC) and ETSA Utilities.

Now in 2007, ElectraNet engaged ROAM Consulting again to conduct a new Scenario Analysis study prior to making a submission for a Revenue Reset Application. The drivers for this review include

- New connection-point load forecasts with significantly higher growth, along with further potential development of large industrial load
- Significant changes to key issues such as Minimum Reserve conditions and installed plant
- Potential changes in policy regarding Climate Change and Greenhouse Abatement

The Scenario Analysis conducted relates primarily to identifying the need for load driven reliability augmentations and distribution connection works under varying external generation development and load forecast assumptions. Market benefit projects (e.g. interconnections) and augmentations driven by generation connections are considered to be outside the scope of this analysis, and would be subject to separate analysis.



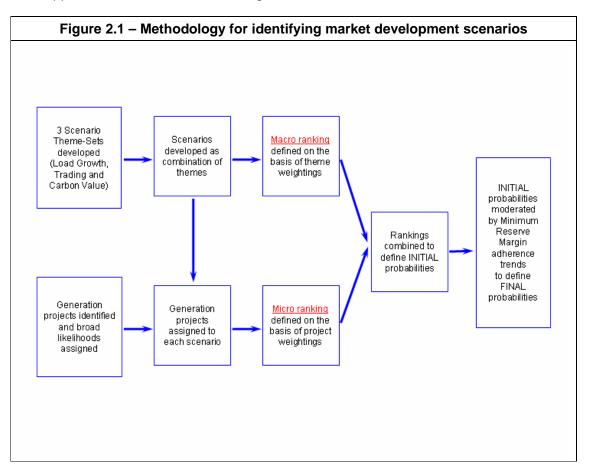


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2. SCENARIO ANALYSIS METHODOLOGY

The methodology used in this assessment has been designed to deliver a forward-looking view of a number of plausible market development scenarios, specifically focusing on the South Australian region.

The approach is summarised in the diagram below:



Specific comments are made with respect to each of the steps identified above:

Step 1) Scenario Theme Sets Identified

The following theme sets were used in the study:

- 1) Three themes within the Load Growth scenario theme set:
 - Low, Medium and High load growth.
- 2) Three themes within the Inter-Regional Trading theme set:
 - Neutral, Increased Import, and Increased Export inter-regional trading trends





3) Two themes within the Carbon Value theme set:

- Low Carbon Value and High Carbon Value themes.

Other developments consisting of high impact, but low probability events, for example the development of major geothermal or nuclear power stations, were not considered within the report. These exceptional scenarios would result in a substantial shift in generation patterns requiring separate treatment by the regulator, and are therefore not within the scope of the Revenue Reset Scenario Analysis.

These defined theme-sets and themes are discussed in detail in Section 3 of this report, and justification and explanation is also contained in the Preliminary (Assumptions) Report.

Step 2) Theme Probabilities and Top Down Scenario Weightings

Through consultation with ElectraNet and ESIPC, each of the themes has been assigned a relative probability of proceeding. The probabilities associated with each are shown below:

Table 2.1 – Initial Scenario Probabilities								
Load G	rowth	Inter-Regio	nal Trade	Carbon Value				
Theme	Probability	Theme	Probability	Theme	Probability			
LOW	25%	NTRL	50%	LOCV	60%			
MED	50%	EXPT	35%	HICV	40%			
Н	25%	IMPT	15%	-	-			

From the themes contained within the three theme sets of Load Growth, Inter-Regional Trade and Carbon Value, eighteen (18) discrete combinations are possible. Each of these combinations forms a 'scenario'. The relevant theme probabilities are combined to produce a 'Top-Down' Weighting for each of the eighteen scenarios using the following formula:

$TDW = W_{Load} \times W_{Trade} \times W_{Carbon}$

where **TDW** is the Top Down Weighting, and **W** is a theme weighting.







Table 2.2 – Top Down Weightings for each Scenario								
Scenario	Scenario Theme Combination	Combination of Probabilities	Top-Down Weighting					
1	LOW - NTRL - LOCV	0.25 * 0.5 * 0.6	7.50%					
2	LOW - NTRL - HICV	0.25 * 0.5 * 0.4	5.00%					
3	LOW - EXPT - LOCV	0.25 * 0.35 * 0.6	5.25%					
4	LOW - EXPT - HICV	0.25 * 0.35 * 0.4	3.50%					
5	LOW - IMPT - LOCV	0.25 * 0.15 * 0.6	2.25%					
6	LOW - IMPT - HICV	0.25 * 0.15 * 0.4	1.50%					
7	MED - NTRL - LOCV	0.5 * 0.5 * 0.6	15.00%					
8	MED - NTRL - HICV	0.5 * 0.5 * 0.4	10.00%					
9	MED - EXPT - LOCV	0.5 * 0.35 * 0.6	10.50%					
10	MED - EXPT - HICV	0.5 * 0.35 * 0.4	7.00%					
11	MED - IMPT - LOCV	0.5 * 0.15 * 0.6	4.50%					
12	MED - IMPT - HICV	0.5 * 0.15 * 0.4	3.00%					
13	HI - NTRL - LOCV	0.25 * 0.5 * 0.6	7.50%					
14	HI - NTRL - HICV	0.25 * 0.5 * 0.4	5.00%					
15	HI - EXPT - LOCV	0.25 * 0.35 * 0.6	5.25%					
16	HI - EXPT - HICV	0.25 * 0.35 * 0.4	3.50%					
17	HI - IMPT - LOCV	0.25 * 0.15 * 0.6	2.25%					
18	HI - IMPT - HICV	0.25 * 0.15 * 0.4	1.50%					

The Top Down Weighting for each of the scenarios was calculated to be as follows:

Therefore the scenario with the highest Top-Down Weighting is Scenario 7: MED-NTRL-LOCV at 15%. This scenario could be considered the 'Business as Usual' case, given that it implies no significant changes from current market operation in South Australia; moderate load growth, consistent inter-regional trade, and no significant carbon value signal. The scenarios in which all three comprising themes are significantly different from the 'normal' operation of the market in South Australia (e.g. Scenario 18: HI-IMPT-HICV, which combines high load growth, significantly increased inter-regional import, and a significant carbon value signal) have the lowest Top-Down Weightings, being 1.5%.





Step 3) Potential Generation Developments identified

A total of 57 new projects of the technology types, locations and fuel types of interest were included in the study. These projects were based upon information already known to ROAM Consulting through published documents, or made known by ElectraNet and ESIPC. Most new generation options are real, announced projects, with parameters as per the best publicly available information. Where actual announced projects do not provide a sufficient amount of suitable capacity, ROAM has added generic stations similar in size and technology to publicly announced or existing plant. Each of the projects considered appears in the Project Analysis sheets in the Appendices, including details of size, plant type and location.

In order to use the potential generation developments in the scenario analysis process, it is necessary to assign rankings to each project describing its likelihood of proceeding. These rankings are converted into a numerical figure for use in the analysis process. The ranking categories chosen and corresponding numerical weightings were:

Table 2.3 – Project Rankings and Weightings									
Code	Code Ranking Weighting								
D	Definite	100%							
VH	Very High	80%							
н	High	70%							
М	Moderate	50%							
L	Low	20%							
VL	Very Low	10%							

Each potential project was assigned a Ranking from the table above. The project rankings were assigned by ROAM and reviewed by ElectraNet and the ESIPC during the 2006 Analysis. These have been updated by ROAM to reflect any recent information, and then were transferred into ROAM's analysis tools. The selection of a ranking was based heavily upon the proportion of key milestones achieved by each project, including the acquisition of land, the purchase of equipment, the acquisition of approvals and licences, the achievement of power sales, the finalisation of finance and the commencement of construction. Generally, projects that had achieved more of these milestones were given a higher ranking, however other factors were also taken into account, such as known economic incentives (or dis-incentives), opposition to the project (for example, from local councils), the determination of the project's proponent, and the elapsed time between announcements regarding the project.





Step 4) Scenario 'Planting' and Bottom-Up Scenario Weightings

A manual methodology was used for 'planting' each of the eighteen scenarios, consistent with the approach used in previous assignments for ElectraNet and other TNSPs. Each plant is also assigned a year indicating the earliest time by which it could be commissioned.

Each of the scenarios was then 'planted' to reflect the combination of themes from which the scenario was comprised. The following factors were considered when performing this task:

- The earliest possible year of entry condition was strictly enforced projects were not allowed to be shifted to an earlier than achievable year to satisfy a supply shortfall;
- Where multiple plants of the similar type or size were able to be selected concurrently, the project with the higher 'probability' ranking was installed first;
- Sufficient capacity was installed to ensure that where possible, a realistic balance between supply and demand was maintained;
- Neutral trading scenarios tend to reflect the current supply-demand balance, whereas import-oriented scenarios tend towards a tighter supply-demand balance, and export-oriented scenarios tend towards a higher level of surplus capacity¹;
- Scenarios that included the increased renewables theme tend towards a much higher level of wind generation (currently being the furthest advanced and most prevalent form of renewable energy in South Australia);
- In planting scenarios to meet the minimum reserve margin conditions, wind farms were assumed to contribute 8% of their peak capacity at the time of a 10% POE system peak demand, in line with independently assessed figures², and;
- Many 'iterations' of the planting procedure were performed and cross-checks completed in order to reach a plausible planting outcome for all scenarios.

Factors affecting the location of new plant developments within South Australia were considered through the creation of the scenarios above.

¹ Note that in scenarios containing the High Carbon Value theme as well as the Increased Exports theme, there is generally a large number of new wind farms selected in the planting scheme. Given the assumed 8% capacity factor of these Windfarms at the time of a 10% POE peak demand, the supply-demand balance may appear tight at the time of peak. However, during other periods, far more capacity from these wind farms would be available, allowing a high level of exportation. ² The following is a quote from ESIPC's Planning Council Wind Report to ESCOSA regarding the assumed capacity

² The following is a quote from ESIPC's Planning Council Wind Report to ESCOSA regarding the assumed capacity factor of wind generation during the time of South Australia's regional peak demand:

[&]quot;...it is prudent to leave the current Figure of between 7% and 8% for the calculation of the supply-demand balance to accommodate for this currently unquantifiable reduction at peak load until more detailed operational information is obtained."

This assumption is unchanged in the 2006 ESIPC APR and no further updates to this assumption have been published. Therefore it was deemed appropriate for use in this 2007 Scenario Analysis.



The Top-Down Weightings for each scenario generally reflect the likelihood that particular combinations of scenario themes will occur.

However, they do not address the uncertainty relating to which of the various prospective generation developments of each type will be developed under the particular theme.

For this purpose, Bottom-Up Scenario Weightings were derived as the **sum** of the weightings applicable to each of the generation projects assumed to proceed within a given scenario. The Bottom-Up Weighting was calculated as follows:

BUW_{Scenario} $i = [(WP_1 + WP_2 + ...) / NPI_{Scenario} i] / <math>\sum_{i=1 \text{ to}} BUW_{Scenario} i$

Where **BUW** is the Bottom Up Weighting, **WP**₁, **WP**₂, etc are the individual probabilities of each of the projects **installed at any point within** scenario'i', and **NPI** is the number of plants installed throughout scenario 'i'.

The Bottom-Up Weighting can therefore be interpreted as the average weighting of the plant selected in a scenario, compared with all of the scenarios. An example of this calculation is provided for the MED-EXPT-LOCV scenario, for which the Bottom-Up Scenario Weighting was calculated to be **6.75%**:

Table 2.4 – Example Bottom-Up Weighting Calculation							
Plant installed within the scenario	Plant Ranking	Plant Weighting					
Brown Hill Windfarm	D	100%					
Lake Bonney S2 Windfarm	D	100%					
Quarantine OCGT	D	100%					
Dry Creek Unit 4	Н	70%					
Mallala A	Н	70%					
Tailem Bend A	Н	70%					
Tailem Bend B	Н	70%					
Hallett B	М	50%					
Hamley Bridge A	М	50%					
Hamley Bridge B	М	50%					
Mallala B	М	50%					
Pelican Point S2	М	50%					
Tailem Bend C	М	50%					
Snuggery Retirement	Н	70%					
Sum of plant weightings	Sum of plant weightings (SumPW)						





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Number of Plants Installed (NPI)	14
Average Plant Weighting in Scenario (APW)	= SumPW / NPI = 0.68
Bottom-Up Weighting of Scenario (BUW)	=APW / SUM (All scenario APW's) = 0.68 / 10.06 = 6.75%

The Bottom-Up Weighting calculation gives a *high* value where the selected plant within the scenario consists of projects primarily of high likelihood, and a *low* value where most of the selected plant is of a low likelihood. The Bottom-Up Weighting of a scenario can therefore be quite different from the Top-Down Weighting relative to the weightings of the other scenarios.

The calculated Bottom-Up Weighting for each of the 18 scenarios is shown below:

Table 2.5 – Bottom-Up Weightings for each Scenario							
Scenario	Scenario Theme Combination	Bottom-Up Weighting					
1	LOW - NTRL - LOCV	7.0%					
2	LOW - NTRL - HICV	4.9%					
3	LOW - EXPT - LOCV	7.2%					
4	LOW - EXPT - HICV	4.5%					
5	LOW - IMPT - LOCV	7.5%					
6	LOW - IMPT - HICV	4.2%					
7	MED - NTRL - LOCV	6.7%					
8	MED - NTRL - HICV	4.2%					
9	MED - EXPT - LOCV	6.7%					
10	MED - EXPT - HICV	4.2%					
11	MED - IMPT - LOCV	7.0%					
12	MED - IMPT - HICV	4.0%					
13	HI - NTRL - LOCV	6.3%					
14	HI - NTRL - HICV	4.0%					
15	HI - EXPT - LOCV	6.0%					
16	HI - EXPT - HICV	4.2%					
17	HI - IMPT - LOCV	6.4%					
18	HI - IMPT - HICV	4.7%					

In this scenario analysis, it can be observed that the Bottom-Up Weightings are tightly clustered between 4.0% and 7.5%. This low degree of volatility results from the installation in all scenarios of plant of low probability. The high degree of load growth present in the 2007 load forecasts means that even under low load conditions, the installation of at least some moderate probability plant is required. It is those scenarios featuring the High Carbon Value theme that receive lower Bottom-





Up Weightings due to their inclusion of a lot of low probability plant. This indicates that in the case of a High Carbon Value, many smaller units are likely to be installed instead of fewer, but significantly larger units.

Step 5) Calculation of the Initial Scenario Probability

The Initial Scenario Probability is determined from the combination of the Top-Down Weighting and the Bottom-Up Weighting. It is calculated as follows:

$ISP_{Scenario i} = (TDW_{Scenario i} * BUW_{Scenario i}) / \sum_{i=1 \text{ to } 18} (ISP_{Scenario i})$

Where **ISP** is the Initial Scenario Probability, **TDW** is the Top-Down Weighting and **BUW** is the Bottom-Up Weighting.

The Initial Scenario Probability for each of the eighteen scenarios was calculated to be as follows:

Table 2.6 – Initial Scenario Probabilities for each Scenario								
Scenario	Scenario Theme Combination	Initial Scenario Probability						
1	LOW - NTRL - LOCV	9.2%						
2	LOW - NTRL - HICV	4.2%						
3	LOW - EXPT - LOCV	6.6%						
4	LOW - EXPT - HICV	2.7%						
5	LOW - IMPT - LOCV	2.9%						
6	LOW - IMPT - HICV	1.1%						
7	MED - NTRL - LOCV	17.5%						
8	MED - NTRL - HICV	7.2%						
9	MED - EXPT - LOCV	12.3%						
10	MED - EXPT - HICV	5.2%						
11	MED - IMPT - LOCV	5.5%						
12	MED - IMPT - HICV	2.1%						
13	HI - NTRL - LOCV	8.1%						
14	HI - NTRL - HICV	3.5%						
15	HI - EXPT - LOCV	5.5%						
16	HI - EXPT - HICV	2.6%						
17	HI - IMPT - LOCV	2.5%						
18	HI - IMPT - HICV	1.2%						

The combined top down and bottom up weightings are somewhat more extreme than the top down weightings, ranging from 17.5% down to 1.1%. This tends to





reflect that the scenarios which are most probable from a top down perspective are reinforced by being associated with projects that are more likely. Conversely, those that are of low probability from a top down perspective are associated with projects that are less likely.

Step 6) Moderation and the Final Scenario Probabilities

The *Initial Scenario Probability* calculated in Step 5 (being the product of the *Top-Down* and *Bottom-Up Weightings*) was developed for each scenario, without considering any particular market indicators. Hence, the values may not accurately reflect realistic limitations on system capacity and energy imposed either by the market in limiting oversupply or by regulatory requirements for minimum generation.

It was recognised that a reasonable level of adherence to the accepted Minimum Reserve Margin conditions is key for any future scenario. Therefore Minimum Reserve Margin is used to moderate the probabilities of the scenarios developed.

The Minimum Reserve Margin condition is defined as having sufficient plant (or firm interconnection capability, or Demand Side Management) to supply the peak 10% Probability of Exceedence demand, plus the assumed Reserve Margin. NEMMCO reviewed the minimum reserve levels in 2006. South Australia presently has a local minimum reserve margin of -50MW, meaning that a minimum local generation level equal to its 10% POE maximum demand, less 50MW, is required to meet reliability criteria.

As was the case in previous studies for ElectraNet, the planting of each scenario will ensure that the annual generating capacity will be generally consistent with meeting or exceeding the minimum reserve levels for each scenario.

The Minimum Reserve Margin moderation factor for each scenario was calculated as the product of the factors determined for individual years:

MFMRM = Average (MFMRM_{2006/07}, MFMRM_{2007/08}, ...)

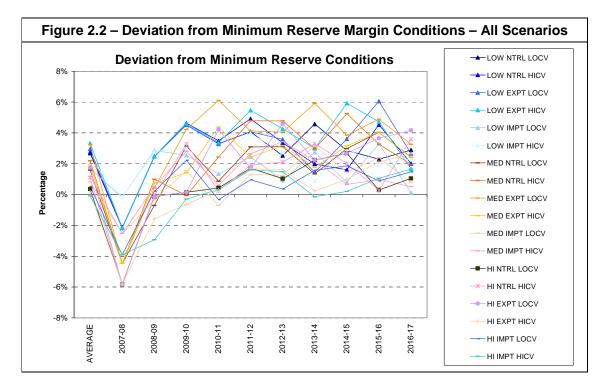
Where MFMRM is the Moderating Factor for the Minimum Reserve Margin.

The yearly and average deviation from the Minimum Reserve Margin conditions for each of the eighteen scenarios is summarised in the following figure. It should be noted that these percentages reflect the percentage by which the total available supply (via local generation or import) exceeds or falls short of the Minimum Reserve Conditions, being the sum of the relevant peak 10% POE demand and the Minimum Reserve Margin.





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As can be seen in the chart above, the scenarios maintain a level of installed capacity that varies from around 0.5% under the Minimum Reserve Margin conditions to approximately 6% in excess of this minimum with the exception of the year 2007-08. ROAM considers that there is no additional new plant which could be installed (that is not already committed) in time to be operational for the 2007-08 summer. Depending on the materiality of the technical shortfall, NEMMCO may engage its Reserve Trader provisions to provide a mechanism to ensure reliable energy supply in South Australia given the lack of sufficiently advanced generation projects in the region.

Due to the relatively high level of load growth, especially in the MED and HI load growth themes where the Olympic Dam expansion proceeds from 2008-09 as per existing schedules, the degree of installed capacity above the Minimum Reserve Margin remains stable in most scenarios. Increasing levels of industrial loads in South Australia (such as the Prominent Hill copper and gold mine) require a greater level of installed capacity. Given the current assumption that windfarms can only contribute on average 8% of their nominal rating for windfarms at the time of system peak, they can provide only minor support to thermal stations during peak periods.

However, this large amount of wind generation will, for an average of 35% of the year (based upon the recognised 35% average capacity factor of wind generation in South Australia), be able to produce far more than 8% of its maximum rated capacity. This large amount of wind generation will be available for use within South Australia or export to the rest of the NEM.





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Moderating the Initial Scenario Probabilities

The moderating factor discussed above is combined with the Initial Scenario Probabilities in the following way:

$FSP_{Scenario i} = (ISP_{Scenario i} * MF_{MRM of Scenario i}) / \sum_{i=1 \text{ to } 18} (FSP_{Scenario i})$

Where **FSP** is the Final Scenario Probability, **ISP** is the Initial Scenario Probability, and **MFMRM** is the Moderating Factor for the Minimum Reserve Margin.

The Moderating Factor weightings used are summarised in the following table. Negative values indicate a shortfall of supply, and positive values indicate an excess of supply. It is undesirable for the region to be significantly short of capacity, and hence undersupply is penalised more heavily than oversupply. A near 0% difference indicates that supply is adequate to achieve the reliability obligations and is favourable for generators, and therefore was given a higher weighting.

Table 2.7 – Minimum Reserve Margin Moderating Factor Weightings							
% difference from Minimum Reserve Margin Conditions	Weighting						
-5%	0						
-4%	0						
-3%	0						
-2%	1						
-1%	2						
0%	4						
1%	5						
2%	5						
3%	5						
4%	4						
5%	4						
6%	3						
7%	3						
8%	2						
9%	2						
10%	1						
11%	1						
12%	0						





Following the moderation process, the Final Scenario Probability for each of the eighteen discrete scenarios was determined to be as follows:

Table 2.8 – Final Scenario Probabilities for each Scenario							
Scenario	Scenario Theme Combination	Final Scenario Probability					
1	LOW - NTRL - LOCV	9.7%					
2	LOW - NTRL - HICV	4.5%					
3	LOW - EXPT - LOCV	6.8%					
4	LOW - EXPT - HICV	2.8%					
5	LOW - IMPT - LOCV	3.3%					
6	LOW - IMPT - HICV	1.3%					
7	MED - NTRL - LOCV	17.7%					
8	MED - NTRL - HICV	7.0%					
9	MED - EXPT - LOCV	11.5%					
10	MED - EXPT - HICV	5.5%					
11	MED - IMPT - LOCV	5.3%					
12	MED - IMPT - HICV	2.1%					
13	HI - NTRL - LOCV	8.0%					
14	HI - NTRL - HICV	3.5%					
15	HI - EXPT - LOCV	5.3%					
16	HI - EXPT - HICV	2.3%					
17	HI - IMPT - LOCV	2.4%					
18	HI - IMPT - HICV	1.0%					





Step 7) Final Project Probabilities

In addition to calculating scenario probabilities, one of the outcomes of the methodology is a set of final *project* probabilities. The calculation of a final project probability is defined as follows:

 $FPP_{Project i} = \sum_{i=1 \text{ to } 18} (FSP_{Scenario i} * DF_{Scenario i})$

Where **FSP** is the Final Scenario Probability, and $DF_{Scenario i} = \begin{cases} 1 & \text{if Project i is selected in Scenario i} \\ 0 & \text{if Project i is NOT selected in Scenario i} \end{cases}$

That is, the final *project* probability is the sum of the final *scenario* probabilities of every scenario in which that project was used (installed). Therefore the initial project ranking has no effect on the final project probability other than making that project more likely to appear in scenarios if it had a higher initial ranking (and vice versa).

The final project probabilities were calculated to be as summarised in the following chart (aligned perpendicular to the text for readability). It can be observed that a small degree of volatility exists between the Initial Ranking values, as some projects that were assigned a low probability are required under some scenarios to enter to provide sufficient capacity to meet Minimum Reserve Margins.

Due to the frequency with which some projects are used (or not used) the final project probabilities vary greatly. A number of the candidate projects were not utilised in any of the scenarios, as they were deemed unsuitable for the planting of the eighteen scenarios studied. Typically these were large windfarms or subcritical baseload stations which were not considered at all likely to proceed in South Australia under the studied market conditions, but were included in the analysis for completeness.

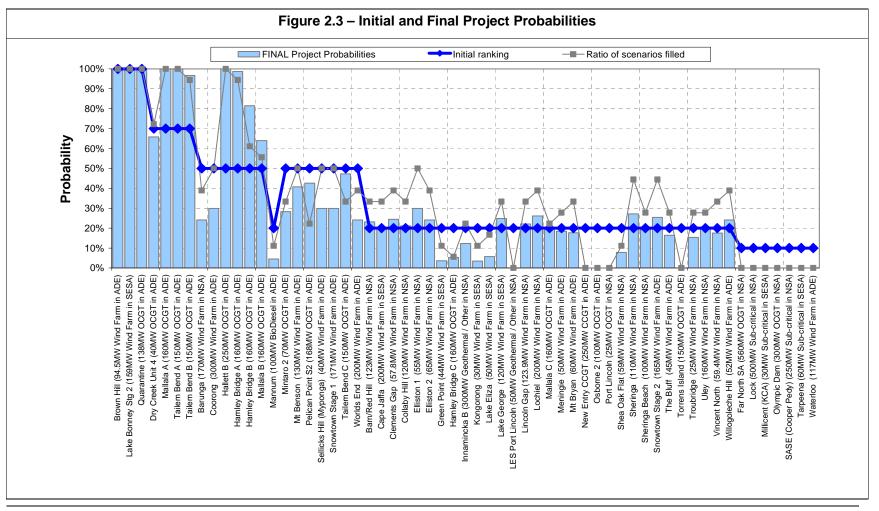
The bulk of the selected projects are located in the ADE (Adelaide) zone, however a significant number of projects within the NSA (North South Australia) and SESA (South-East South Australia) zones were also selected.





NEM ASSISTANCE 2007 South Australian Generation and Load Scenario Analysis

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3. DATA ASSUMPTIONS

3.1 Load Growth

3.1.1 Investigation and Reconciliation of the Connection Point Load Forecasts

ElectraNet made connection point (commonly known as 'bottom-up') demand forecasts available to ROAM for use in this Scenario Analysis. Updated regional, or 'top-down' demand forecasts, typically provided by NEMMCO from NIEIR were not available for this work, as they are not expected to be ready until July 2007 in time for the release of the 2007 NEMMCO Statement of Opportunities.

The Scenario Analysis methodology requires the use of 'gross', or 'generator terminal' regional demand forecasts. To construct these and also ascertain the level of change inherent in these new forecasts, ROAM conducted an investigation and reconciliation of the new connection point forecasts, comparing them with the forecasts utilised in 2006's Scenario Analysis, which were derived from those found in the 2006 NEMMCO Statement of Opportunities.

Constructing suitable 'gross' demand forecasts for the Comparison of these two forecasts requires a reasonable degree of care in order to account for the many factors impacting upon the effective demand, or scheduled generation requirement.

Therefore, for each of the three supplied connection point forecasts supplied by ElectraNet on behalf of ETSA Utilities (Low, Medium and High), ROAM applied the following methodology to obtain directly comparable loads. Note that the methodology outlined here is consistent with that used by the ESIPC as described on Page 17 of the 2006 ESIPC Annual Planning Report.

- 1. *Reduced* the connection point loads by applying a diversity factor of 4% to all but one connection point peak load forecast (being the Eastern Suburbs load, the largest of the load points) as per Page 17 of the 2006 ESIPC APR. This scaling accounts for the degree of diversity in the load between the connection points at the time of the *system-wide* peak.
- 2. *Summed* all of the 'diversified' metro and country peak connection point loads to get a system-wide peak connection point load.
- 3. Added the Direct Connect Customer loads as supplied by ElectraNet. These include several different loads, however only the Olympic Dam load increased over time, representing the expansion of the facilities at Olympic Dam (ODE) and also the construction of Prominent Hill (PH). In accordance with the load assumptions described in Section 3.1.2, the additional load due to the Olympic Dam expansion was added as provided by ElectraNet for the Medium and High load forecasts, but delayed by four years in the Low load forecast.
- 4. Scaled the totals *down* by the assumed level of embedded and nonscheduled generation available at the time of system peak load (as per the 2006 ESIPC APR). This amount varies between approximately 34MW and 50MW over the scope of the study.
- 5. Subtracted the amount of assumed Direct Load Curtailment (DLC) assumed in the NIEIR forecasts (listed in the 2006 ESIPC APR as 30MW





starting 2010-11 and increasing to 155MW in 2015-16). Straight-line growth in DLC was assumed.

- 6. *Added* the programs of 'block loads' as described in Section 3.1.2 representing the addition of non-specific industrial load such as processing plants, factories, and so forth. This program assumes more frequent addition of block loads in the higher load forecasts and therefore also a higher *total* contribution to load.
- 7. Scaled the total *up* by a factor of 5.5% in each year, representing the combined transmission system and auxiliary (or generator in-house) losses at the time of system peak. This scaling factor was obtained from Page 17 of the 2006 ESIPC APR.

At this point, the connection point loads were in a state ready for use in the Scenario Analysis. The following section describes how the 2006 SOO loads were adjusted such that they could be directly compared to the newly created connection point-derived forecasts.

The 2006 SOO peak demand forecasts also required a small amount of systematic adjustment in order to make them directly comparable to the system peak forecasts produced from the connection point load forecasts in the above six steps. It is assumed that all but the Olympic Dam expansion load and the Prominent Hill load were included as committed projects in the 2006 SOO forecasts, since the Direct-Connect Customer loads (DCC¹) other than these were already in operation prior to the creation of the 2006 SOO forecasts and do not change over time. However, the Olympic Dam expansion load and Prominent Hill load were not committed projects at the time the 2006 SOO forecasts were produced (Prominent Hill is now committed), and as such are assumed not to be included in the 2006 SOO forecasts. Therefore, such that the same DCC load was represented in both sets of forecasts, ROAM added the Olympic Dam expansion load and Prominent Hill load and Prominent Hill load to the 2006 SOO forecast peak demands.

The 2006 SOO peak demand forecasts also do not include the program of block loads assumed in this Scenario Analysis. Therefore since these were added to the connection point derived system forecasts in the steps outlined above, ROAM also added these block loads to the 2006 SOO peak loads. In this way, the connection point derived peak demand forecasts were directly comparable to the 2006 SOO peak demand forecasts.

The construction and reconciliation process summarised above is demonstrated in Table 3.1 for each of the three load growth themes. It compares the 2007 Connection Point forecasts with the SOO 2006 (NIEIR) regional, 10% Probability of Exceedence forecasts (Low 10% POE, Medium 10% POE and High 10% POE):



¹ DCC users connect directly to ElectraNet's transmission system rather than the distribution system.



Table 3.1 – 2007 Connection-Point Derived vs. 2006 SOO Peak Demand Forecasts 2007 Medium connection point forecast vs Medium economic growth 10% POE 2006 SOO forecast											
		2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17
Sum of	L	3151	3218	3287	3358	3430	3504	3579	3656	3735	3816
connection point	М	3188	3275	3365	3458	3553	3651	3752	3856	3963	4074
peaks	н	3236	3344	3456	3571	3691	3815	3944	4078	4216	4359
	L	3056	3121	3188	3256	3326	3398	3471	3546	3623	3701
4% Diversity applied	М	3092	3176	3263	3353	3446	3541	3639	3740	3844	3951
	н	3138	3243	3351	3463	3580	3700	3825	3954	4088	4228
Plus all Direct	L	3294	3400	3473	3541	3654	3735	3839	3934	4015	4389
Connect Customer Loads	М	3373	3508	3631	3741	3838	4229	4327	4578	4682	4789
Customer Loads	н	3420	3575	3719	3851	3972	4388	4513	4792	4926	5065
Assumed embedded &	L	3247	3352	3424	3492	3605	3686	3787	3882	3963	4337
non-scheduled generation	М	3326	3460	3582	3692	3789	4180	4275	4526	4630	4737
subtracted	н	3373	3527	3670	3802	3923	4339	4461	4740	4874	5013
Assumed Direct	L	3247	3352	3424	3462	3550	3606	3682	3752	3808	4182
Load Curtailment	М	3326	3460	3582	3662	3734	4100	4170	4396	4475	4582
subtracted	н	3373	3527	3670	3772	3868	4259	4356	4610	4719	4858
Assumed Block	L	3247	3352	3424	3462	3580	3636	3712	3782	3838	4242
Load program added	М	3326	3460	3612	3692	3764	4160	4230	4456	4565	4672
added	н	3373	3557	3700	3832	3928	4349	4446	4730	4839	5008
	L	3426	3537	3612	3653	3777	3836	3916	3990	4049	4475
Added 5.5% Tx and Aux Losses	М	3509	3650	3811	3895	3971	4388	4462	4701	4816	4929
	н	3559	3752	3903	4043	4144	4588	4690	4990	5105	5284
	L	3477	3549	3609	3634	3668	3696	3724	3747	3796	3846
2006 SOO 10% POE Forecast	М	3506	3609	3680	3730	3778	3824	3866	3916	3984	4053
	н	3540	3673	3758	3835	3905	3970	4030	4102	4191	4282
2006 SOO plus	L	3486	3601	3660	3686	3764	3802	3863	3906	3961	4322
new DCC loads (ODE & PH)	М	3560	3716	3818	3889	3943	4300	4342	4550	4618	4688
(,	н	3593	3779	3896	3995	4069	4446	4506	4736	4825	4916
2006 SOO plus	L	3486	3601	3660	3686	3796	3834	3894	3938	3992	4385
new DCC loads	М	3560	3716	3850	3921	3975	4364	4405	4613	4713	4782
& Block Loads	Н	3593	3811	3927	4058	4133	4541	4601	4862	4952	5075
Difference	L	-60	-64	-48	-33	-18	3	22	52	57	90
between forecasts	М	-51	-66	-39	-26	-3	25	57	88	103	146
Torecasts	н	-35	-59	-24	-15	12	47	89	128	154	209

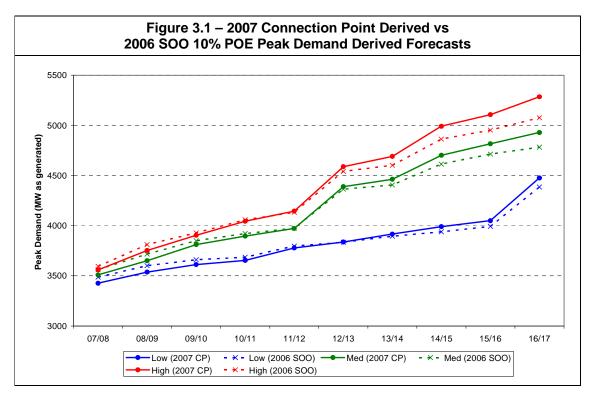
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It can be observed that the new 2007 connection point derived forecasts exhibit a significant correlation with those produced using the 2006 SOO figures (with the same DCC load and block load program assumed). The 'cross-over' behaviour is due to the higher level of growth inherent in the 2007 connection point forecasts, likely resulting from higher expectations of economic growth in South Australia. ROAM expects that these increased levels of growth will be reflected in the 'top-down' forecasts to be produced by NIEIR for use in the 2007 ESIPC APR and also the 2007 NEMMCO SOO.

A chart comparing the connection point derived forecasts with the 2006 SOO derived forecasts via the above method is shown in Figure 3.1. Note that these figures do not directly compare with the figures published in the 2006 SOO, as they have been increased to allow for the assumed Olympic Dam expansion, the commissioning of the Prominent Hill facilities, and the addition of a program of regular industrial 'block' loads as described in the preceding text.



3.1.2 Industrial 'Block' Loads and the Olympic Dam Expansion Project

It was recognized that while the 2007 Connection Point and DCC Forecasts allow for increases in embedded small-scale industrial load, they do not incorporate the effect of the addition of significant block loads associated with larger industrial developments. A 30MW 'block' of load represents an average size for a new industrial load such as a processing plant or a large factory. Extremely large block loads are considered exceptional cases for which separate network analysis would be performed.





The timing and frequency of additional industrial 'block' loads agreed between ROAM, ElectraNet and the ESIPC in 2006 was as follows. The same assumed program has been adopted for this 2007 analysis with one minor modification; the program has been shifted such that it commences one year later. Note that block loads are considered to have a nominal 100% load factor¹.

- **High**: Three additional 30MW block loads per regulatory period, that is, one every two years.
- **Medium**: Two additional 30MW block loads per regulatory period, that is, one every three years.
- Low: One additional 30MW block load per regulatory period, that is, one every five years.

This timing and sizing of the additional block loads was incorporated into the studied years according to the following program. The table shows the year in which the block loads commence, and therefore any block load is assumed to be in operation for the remainder of the study timeframe from that year onwards. The block loads in each load growth theme are therefore summative.

Table 3.2 – New 'Block' Load Scheduling										
Load Growth Theme	2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17
LOW					30MW					30MW
MED			30MW			30MW			30MW	
HI		30MW								

In meetings between ROAM, ElectraNet and ESIPC in 2006, it was agreed that there was a high likelihood that the Olympic Dam expansion would occur, but the timing of the project was uncertain. The project represents an increase of some 550MW over an eight year period, corresponding to approximately 16% of the current peak demand in South Australia, and therefore represents some has a large impact upon the total South Australia demand.

Although it was assumed that the Olympic Dam project was more firm now than in 2006 when the last Scenario Analysis was performed, it is recognised that it is still not a committed project. Therefore it was assumed that the Olympic Dam expansion program would be incorporated into the three load growth themes in the following manner:

- High: Olympic Dam expansion scheduled as per the forecast load data received from BHP Billiton. This results in the majority of the new load coming on-line within the pertinent Revenue Reset period.
- **Medium**: As per the High load theme.



¹ The justification and reasoning behind the selection of the size of these block loads and the associated timing can be found in the 2006 Scenario Analysis Preliminary (Assumptions) Report.



 Low: Olympic Dam expansion delayed by *four* years. This results in approximately 20% of the total additional load coming on-line within the pertinent Revenue Reset period.

The Prominent Hill project was assumed to proceed as specified by ElectraNet for all load cases, as this project has now achieved committed status¹.

The combination of the 2007 Connection-Point derived gross peak demand forecasts for the relevant load theme, the new block load scheduling and the Olympic Dam expansion gives the following capacity requirements for the three load growth cases.

Note that these figures assume only 29MW of firm demand peak reduction due to Demand Side Management, a significant reduction from the 89MW previously assumed. This change is noted in NEMMCO's 2006 Statement of Opportunities Update dated 30 January 2007 It is also important to note that these generation requirements include the current -50MW South Australia region Local Minimum Reserve Margin as published by NEMMCO in the 2006 Statement of Opportunities Executive Briefing

Table 3.3 – Total Required Capacity from Local Generation, Interconnection orOther Sources											
Load Growth Theme	2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	
LOW	3347	3458	3534	3574	3699	3758	3837	3911	3971	4396	
MED	3431	3572	3732	3816	3893	4310	4384	4622	4737	4850	
HI	3480	3674	3825	3964	4066	4509	4611	4912	5027	5205	

The following table shows the assumed current and committed installed capacity in South Australia. These figures are as published in the 2006 ESIPC APR with the addition of some capacity due to the inclusion of the small Angaston power station.

Table 3	Table 3.4 – Assumed Current Installed and Committed Capacity in South Australia MW As Generated									
2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	
3,270	3,279	3,279	3,279	3,284	3,288	3,288	3,288	3,288	3,288	

Comparing Tables 3.3 and 3.4, it can be seen that a very significant shortfall in plant develops in all load growth themes over the studied ten year period. This shortfall must be met with new South Australian generating plant, power imported via interconnection with the rest of the NEM, or with other measures, for example Demand Side Management, Direct Load Curtailment or non-scheduled and embedded generation.





¹ Reference: 2006 NEMMCO Statement of Opportunities Update (30 January 2007).



3.2 Inter-Regional Trade

3.2.1 Neutral Trade

For each of the Inter-Regional Trade themes, it is necessary to assume a level of import or export that is expected to be fully available at the time of South Australia's peak summer demand. According to NEMMCO's 2006 Minimum Reserve Level Recalculation, South Australia has a local minimum reserve requirement of -50MW. Additionally, the Reserve Level review concluded that no power would be available via import from Victoria at time of peak demand on either the Heywood or Murraylink interconnector. ROAM Consulting has therefore assumed that 0MW of import capacity will be available at the time of the South Australia's regional peak demand in all years for those scenarios featuring the neutral trading theme (NTRL).

3.2.2 Increased Inter-regional Exports

For the export-oriented trading scheme (EXPT), it is assumed that market conditions are such that South Australia seeks to provide increased exports of electricity via existing inter-regional interconnections. Given that South Australia is required to locally generate almost all power to meet the peak system load, additional capacity could provide an increased export capability to Victoria. Another plausible driver could be the introduction or extension of carbon-abatement schemes which lead to significant investment in renewables and gas fired generation developments. With over 3500MW of proposed wind generation and geothermal possibilities, South Australia is well placed to provide renewable energy to the other NEM regions.

Given that South Australia is currently a net importer of power, this theme attempts to capture a progressive swing towards net exports. From previous consultation with ElectraNet and the ESIPC, it was decided that this theme would be associated with up to a 500MW maximum export capability from South Australia by the commencement of the Revenue Reset period. ROAM has interpreted this as an increase of approximately 200MW to the *average* export capability.

The much higher level of expected economic growth demonstrated by the new 2007 Connection Point forecasts and the significant interest in industrial and renewables growth in South Australia, combined with high priced Victorian power resulting from the scarcity water in the Snowy, Southern Hydro and Tasmanian Hydro schemes, has in ROAM's view increased the likelihood of the Export scenario. Therefore it has been assigned a probability of 35%, up 10% from the assumption made in 2006.

3.2.3 Increased Inter-regional Imports

In the import-oriented trading theme (IMPT) it is assumed that market conditions are such that South Australia tends towards further importation of electricity via inter-regional interconnections. This outcome could be feasible should significant investment in low cost fuel baseload plant occur in Victoria (or New South Wales





or Queensland), which could see South Australia importing more of its baseload energy requirements, with several existing and new generators within South Australia trending more towards peaking operation. Increased imports could also result merely from a lack of market development within South Australia.

In previous consultation with ElectraNet and the ESIPC, it was decided that the increased inter-regional imports theme should progressively incorporate a higher level of reliance on imported electricity, with up to a maximum of 650MW available for import into South Australia. ROAM has interpreted this within the scenario analysis framework as a firm increase of 200MW in the *minimum* available level of imports at the time of South Australia's peak demand. This additional 200MW capability is progressively added to the assumed Neutral import level of 0MW over several years such that a full 200MW is available by the commencement of the Revenue Reset period. Given that the current Minimum Reserve Margins are such that South Australia has a local requirement and cannot rely on imports at time of peak demand, this scenario also assumes that the next Minimum Reserve Margin Assessment would consider investment growth in neighbouring regions and reintroduce an import allowance for the South Australian region.

The import capability assumed to be available at the time of system peak for all IMPT scenarios was as follows:

Tal	Table 3.7 – Assumed Import Capability for IMPT (Increased Import) Scenarios										
2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17		
67MW	133MW	200MW									

This theme was assigned an initial probability of 15% in recognition of the uncertainty of future minimum reserve requirements and particularly the higher probability assigned to an Export theme (see Section 3.2.2).

3.3 Carbon Value Themes

ElectraNet and the ESIPC considered that there would be justification for a carbon value theme set. A low carbon value would be the equivalent of continuing with current development plans for generation, with OCGT plant being the main provider of new capacity in South Australia; a high carbon value would tend to favour lower emission CCGT projects and may encourage more wind generation and alternatives such as geothermal and biomass technologies.

Currently, the majority of Australian generators have committed to mitigate greenhouse emissions through the Greenhouse Efficiency Standards Deeds of Agreement with the Commonwealth Government. The notional value ascribed through these five year agreements is up to \$10/tonne of CO_2 equivalent. A higher carbon value in future years would be consistent with carbon values of \$A20 to \$A25/tonne of CO2, or higher, which are conceivable, given recent trends in Europe.



The choice of a slightly higher probability for the lower carbon value theme (60%) reflects the high level of uncertainty as to whether formal mechanisms will be put in place to create a carbon value within the next ten years. The ESIPC had the view that the higher values would have considerably less than 50% probability in the next 5 to 10 years and this has been taken into account. Formal mechanisms could be introduced by the Commonwealth government, an individual State or a number of State governments in cooperation.

The South Australian government released draft legislation in 2006 focussing on carbon abatement¹, with one of the key targets being a mandated 20% of consumed electricity in South Australia to come from renewable sources by 2014. Such initiatives indicate the degree of interest in carbon abatement schemes in the region of South Australia. This legislation is currently still undergoing debate, but it is ROAM's view that the legislation has a reasonable chance of being accepted.

The Commonwealth Government has assembled a Prime Ministerial Task Group on emissions trading which is due to report its findings by 31 May 2007. Depending on the outcome of this work, the future direction of greenhouse policy in Australia is likely to be more clearly understood.



¹ Source: <u>http://www.greenhouse.sa.gov.au/PDFs/FINAL_explanatory%20paper1.pdf</u>



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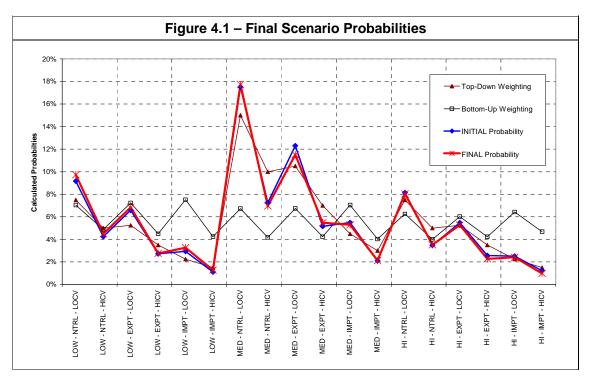
4. DISCUSSION

ROAM Consulting, in consultation with both ElectraNet and ESIPC, has constructed eighteen plausible scenarios for generation development in the South Australian region for the next ten years. The scenario identification methodology used was based upon the original methodology implemented for this task several years ago. In the last review ROAM Consulting revisited the methodology, altering the moderating factors to use the more relevant 'Minimum Reserve Margin' concept. As a result of implementing this methodology, the relative probability with which each of the eighteen identified development scenarios would proceed has been calculated, and the relative likelihood of each of the identified potential projects has also been calculated.

Specific mention is made here of key results. Individual commentary has also been provided with respect to each scenario (Appendix A) and each potential project (Appendix B).

4.1 Analysis of the Scenarios

The eight defined themes were combined to create eighteen discrete scenarios capturing a variety of developmental trends. The actual outcome may (and likely will) differ from all of the scenarios with respect to the final size, timing and constitution of the projects. However the range of scenarios provided in this assessment is intended to provide a broad enough range of possibilities such that the future market development that actually evolves in South Australia over the next ten years is not dissimilar from those proposed in this assessment. The following chart summarizes the relative probabilities determined for each of these eighteen scenarios:



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With respect to figure 4.1, the following observations can be made:

- The MED-NTRL-LOCV (Medium load growth, neutral inter-regional trading, and a low carbon value signal) scenario was determined to be the 'most likely' outcome out of the eighteen studied scenarios, achieving a final probability rating of 17.7%. This scenario could perhaps best be described as 'business as usual'. This scenario features the addition of approximately 1650MW of new gas thermal generating units using OCGT technology, combined with some wind generation. The bulk of this new generation is located in the ADE zone.
- The MED-EXPT-LOCV (Medium load growth, increased inter-regional exports, and a low carbon value signal) scenario was determined to be the next most likely of the eighteen, however its probability was significantly lower than that of the MED-NTRL-LOCV scenario. The relatively high probability assigned to the selected load growth and inter-regional trading themes combine to put this scenario ahead of High Carbon Value scenarios of different load growth or trading themes. Compared with the MED-NTRL-LOCV scenario, this scenario features more thermal gas units and more geothermal or other technologies. Most new plant is located in the ADE zone however several new renewables projects are located in the NSA and SESA zones.
- In 2007-08 South Australia does not meet its minimum reserve conditions for all scenarios. With the 2007 Connection Point Derived Forecasts showing significantly higher load levels than forecast in previous editions, and the unavailability of imported power, under no load scenario does the current existing and committed capacity meet the Minimum Reserve Margin requirement. While some plant has recently become committed (e.g. Lake Bonney Stage 2 windfarm, Brown Hill windfarm (at Hallett) and the Quarantine 'B' OCGT), there are too few sufficiently advanced projects that could be commissioned before the 2007-08 summer to avoid breaching the minimum reserve condition.
- Wind generation may present a challenge for the South Australian region. Assuming a High Carbon Value signal eventuates, a strong possibility exists that a large amount of wind generation could be commissioned. However, given that only 8% of its maximum output can be assumed available at the time of regional peak demand, significant levels of thermal plant (or firm import capability) must supplement this generation, possibly resulting in a large excess of plant at some times of the year.
- The combination of the theme weightings was seen to have a greater bearing on the final probability than the bottom-up (project) weightings due to the lower level of volatility in the bottom-up weightings.

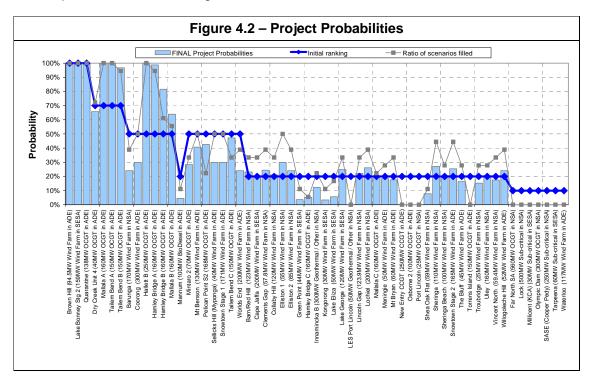




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4.2 Analysis of New Generation Projects

The Initial Ranking and Final Project Probability for each of the 59 studied new generation developments are shown in Figure 4.2.



As a result of this study, the following major projects received a high likelihood of proceeding (> 60%).

- The Quarantine Power Station expansion, involving the installation of 138MW open cycle gas turbine, has recently become committed for 2008-09.
- The Brown Hill wind farm at Hallett has recently become committed for 2007-08.
- The Lake Bonney Stage 2 wind farm has recently become committed for 2007-08.
- The Hallett B open cycle gas turbine project was present in all scenarios. This plant was deemend to be a convenient project to support expansion at the Olympic Dam site. It is located in the ADE zone towards the border with the NSA zone which is a strategic site.
- The Mallala, Tailem Bend and Hamley Bridge projects, all of which consist of stages of ~160MW open cycle gas turbines, were installed to some degree in all scenarios. Mallala is considered a likely addition to the South Australian generation portfolio in the short term and is located in the ADE zone. The exact number and timing of units at each of these three locations is likely to be competitive and will depend on several factors such as the rate of demand growth, network constraints and gas availability.



- Dry Creek Unit 4, a small 40MW open cycle gas turbine which would likely operate in extreme peaking mode and/or in the role of network support, is included in all most scenarios.
- Decommissioning of the Snuggery power station is assumed in all scenarios.

The following projects received a reasonable likelihood of proceeding (> 30%).

- Additional peaking plant at the Mallala, Tailem Bend and Hamley Bridge locations is likely.
- Pelican Point Stage 2, which ElectraNet reports is likely to be configured as a 160MW open cycle gas turbine station.
- A large amount of wind generation is also considered reasonably likely, particularly if a high carbon value or carbon trading scenario eventuates. This results in up to 2,000MW of wind capacity installed which can only contribute approximately 175MW to reserve margin calculation. This shows that at other times of the year wind capacity can provide additional generation for use in South Australia or for export to neighbouring regions. The following wind projects have a final probability approximately equal to or greater than 30%:
 - o 300MW Coorong Wind Farm;
 - o 40MW Sellicks Hill Wind Farm (at Myponga);
 - o 171MW Snowtown Wind Farm (Stage 1);
 - o 130MW Mt Benson Wind Farm, and;
 - o 55MW Elliston Wind Farm (Stage 1).





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5. CONCLUSIONS

Potential generation development paths for the region of South Australia over the next ten years have been assessed through the application of a scenario analysis methodology. The methodology is based on the identification of three separate 'theme sets' defining the direction of the energy sector in the region of South Australia. These theme sets relate to:

- Varying load growth rates, including consideration of the potential for expanded industrial load of moderate and major size;
- Varying trading options between South Australia and the Eastern States, depending on energy policy changes in any or all regions of the NEM, and changes to the relative pricing of energy resources, and;
- Varying carbon value, or greenhouse emissions reduction schemes.

The generation developments that have been assessed cover a mix of thermal gas and coal-fired plant, wind generation and other renewable technologies including biomass. A key requirement that has emerged is the need for additional gas fired generation to support peak loads and expanded industrial load (including the new mining development at Prominent Hill and the likely expansion of Olympic Dam), regardless of the installed wind farm capacity. This is a result of the inability to rely on wind generation for more than a fraction (currently 8%) of its installed capacity at times of high temperatures and extreme demand (10% POE) peak demand. Steps have been taken such that future wind farms will be required to install specialised equipment to improve the accuracy of output forecasting and increase the level of control over the generators. However, this does not presently increase the amount of reliable capacity able to contribute to the required level of installed capacity to meet minimum reserve margin conditions.

The remaining capacity to support load growth will have to be provided by scheduled generation, and in South Australia, the most probable plant types are Open Cycle Gas Turbine plants. In the event of a large amount of wind generation being commissioned in response to new carbon abatement schemes (that is, the introduction of a High Carbon Value), generating companies will need to make informed decisions as to the type of gas fired (or other) generating capacity to install. It is likely that a high installed capacity base of wind power would cause generating companies to favour open cycle gas turbines with lower capital costs and higher levels of operating flexibility, in contrast to the use of more efficient combined cycle generating plants, which have higher capital costs and are less flexible. Alternatively, the possibility exists for South Australia to rely more heavily upon imported baseload power from the rest of the NEM to support a large installed capacity base of intermittent wind power. However, since the current Minimum Reserve conditions which specify that South Australia cannot rely upon imported power to meet its 10% POE peak demand, it would be necessary for this to be relaxed such that firm interconnector capacity to the region could be relied upon to support such a generation development scenario.





APPENDIX A – SUGGESTED DISPATCH ORDER FOR EXISTING AND NEW PLANT

Sources:

- 1. 1: ACIL Tasman (27 March 2007). *Fuel resource, new entry and generation costs in the NEM.* Table 120.
- 2. 2: ACIL Tasman (27 March 2007). *Fuel resource, new entry and generation costs in the NEM.* 27 Tables 122-123.
- 3. 3: ROAM Consulting analysis.

Table A.1 – Suggested Dispatch Order								
Generator	Existing?	Short-Run Margina	Source					
Northern SA	Y	\$	17.71	1				
Lock	N	\$	20.00	2				
SASE (Cooper Pedy)	N	\$	20.00	2				
New Entry CCGT	N	\$	22.22	2				
Playford B	Y	\$	25.55	1				
Pelican Point	Y	\$	32.23	1				
Ladbroke Grove	Y	\$	32.76	1				
Osborne	Y	\$	33.32	1				
Torrens Island B	Y	\$	46.37	1				
Quarantine	Y	\$	47.74	1				
Quarantine OCGT	N	\$	47.74	2				
Torrens Island A	Y	\$	50.40	1				
Dry Creek Unit 4	N	\$	54.53	2				
Hallett B	N	\$	54.53	2				
Hamley Bridge A	N	\$	54.53	2				
Hamley Bridge B	N	\$	54.53	2				
Hamley Bridge C	N	\$	54.53	2				
Mallala A	N	\$	54.53	2				
Mallala B	N	\$	54.53	2				
Mallala C	N	\$	54.53	2				
Mintaro 2	N	\$	54.53	2				
Osborne 2	N	\$	54.53	2				
Pelican Point S2	N	\$	54.53	2				
Tailem Bend A	N	\$	54.53	2				
Tailem Bend B	N	\$	54.53	2				

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Report to:



NEM ASS/STANCE 2007 South Australian Generation and Load Scenario Analysis

Eln00011 28 May 2007

Tailem Bend C	N	\$ 54.53	2
Torrens Island 'C' OCGT	N	\$ 54.53	2
Far North SA	N	\$ 57.57	2
Olympic Dam	N	\$ 57.57	2
Hallett	Y	\$ 58.88	1
Mintaro	Y	\$ 65.51	1
Innamincka B	N	\$ 68.00	3
Dry Creek	Y	\$ 71.58	1
LES Port Lincoln	N	\$ 100.00	3
Angaston	Y	\$ 273.86	1
Mannum	N	\$ 350.00	3
Port Lincoln	Y	\$ 355.30	1
Port Lincoln	N	\$ 355.30	2
Snuggery	Y	\$ 355.30	1

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APPENDIX B & C – SCENARIO LISTING WITH COMMENTARY AND PROJECT LISTING

These Appendices follow this document.

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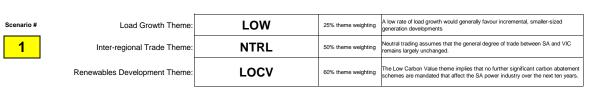
New Projects

2010-11

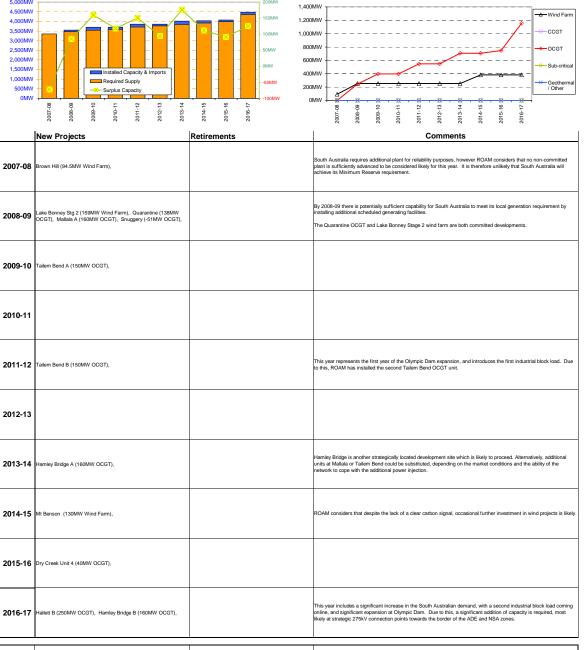
2012-13

Cumulative Capacity Additions (or Retirements)

Eln00011 28th May 2007





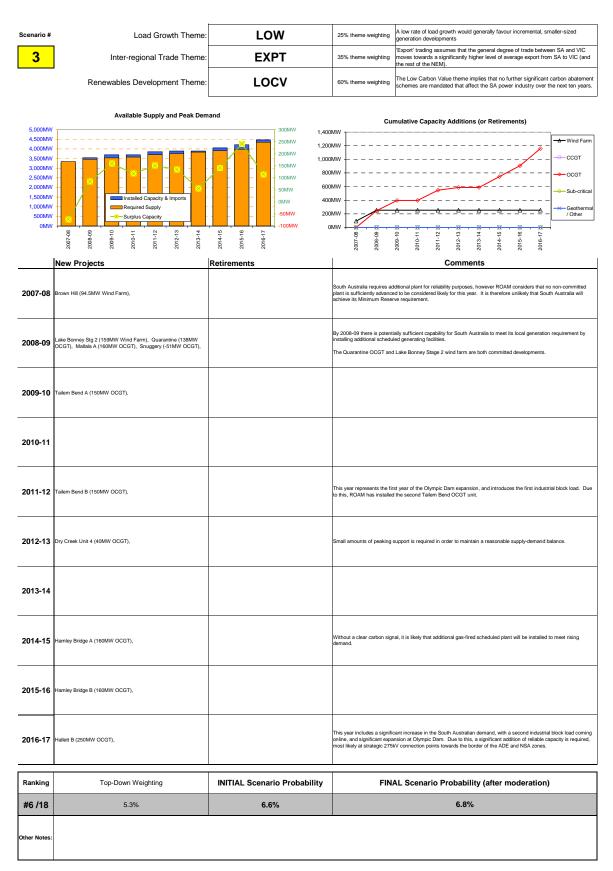


FINAL Scenario Probability (after moderation) Ranking Top-Down Weighting **INITIAL Scenario Probability** 9.7% #3 /18 7.5% 9.2% her Note



Scenario #	Load Growth Theme:	LOW	25% theme weighting	A low rate of load growth would generally favour incremental, smaller-sized
2	Inter-regional Trade Theme:	NTRL	50% theme weighting	generation developments Neutral trading assumes that the general degree of trade between SA and VIC remains largely unchanged.
	Renewables Development Theme:	HICV	40% theme weighting	The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates such as combined cycle natural gas plant, wind energy or biomass.
5,000MW 4,500MW 3,000MW 3,000MW 2,500MW 2,000MW 1,000MW 500MW 0MW	Available Supply and Peak Dem	200MW 2,000 150MW 1,800 100MW 1,400 50MW 1,000 50MW 1,000 50MW 2,000 50MW 1,800 50MW 1,900 50MW 2,900 50MW 2,9	MW -	an containing use prain, wind energy of boundars. mulative Capacity Additions (or Retirements) and containing use prain, wind energy of boundars. and containing use praint, wind energy of boundars. </th
2007-08	Brown Hill (94.5MW Wind Farm),		South Australia requires ad plant is sufficiently advance achieve its Minimum Reser	ditional plant for reliability purposes, however ROAM considers that no non-committed of to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.
2008-09	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCGT), Mallala A (160MW OCGT), Snuggery (-51MW OCGT),		installing additional schedu	ally sufficient capability for South Australia to meet its local generation requirement by led generating facilities. Lake Bonney Stage 2 wind farm are both committed developments.
2009-10	Tailem Bend A (150MW OCGT), Meningie (50MW Wind Farm),		wind generation is installed	lue) theme set promotes additional wind capacity. In this scenario almost 2000MW of over the ten year period. Thermal generation is still required periodically due to the lbute significantly during peak demands.
2010-11	Sellicks Hill (Myponga) (40MW Wind Farm),			
2011-12	Tailem Bend B (150MW OCGT), Coorong (300MW Wind Farm),		This year represents the fir to this, ROAM has installed	st year of the Olympic Dam expansion, and introduces the first industrial block load. Due the second Tailem Bend OCGT unit.
2012-13				
2013-14	Snowtown Stage 1 (171MW Wind Farm), Cape Jaffa (200MW Wind Farm),		A high carbon value also in	creases the likelihood of these large scale windfarm projects.
2014-15	Dry Creek Unit 4 (40MW OCGT), Elliston 1 (55MW Wind Farm), Lochiel (200MW Wind Farm),			
2015-16	Hamley Bridge A (160MW OCGT), Collaby Hill (120MW Wind Farm), Sheringa (110MW Wind Farm),			
2016-17	Hallett B (250MW OCGT), Lake George (120MW Wind Farm), Lincoln Gap (123.9MW Wind Farm), Uley (160MW Wind Farm),		online, and significant expa	cant increase in the South Australian demand, with a second industrial block load coming nsion at Olympic Dam. Due to this, a significant addition of reliable capacity is required, VV connection points towards the border of the ADE and NSA zones.
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#10 /18	5.0%	4.2%		4.5%
Other Notes:				

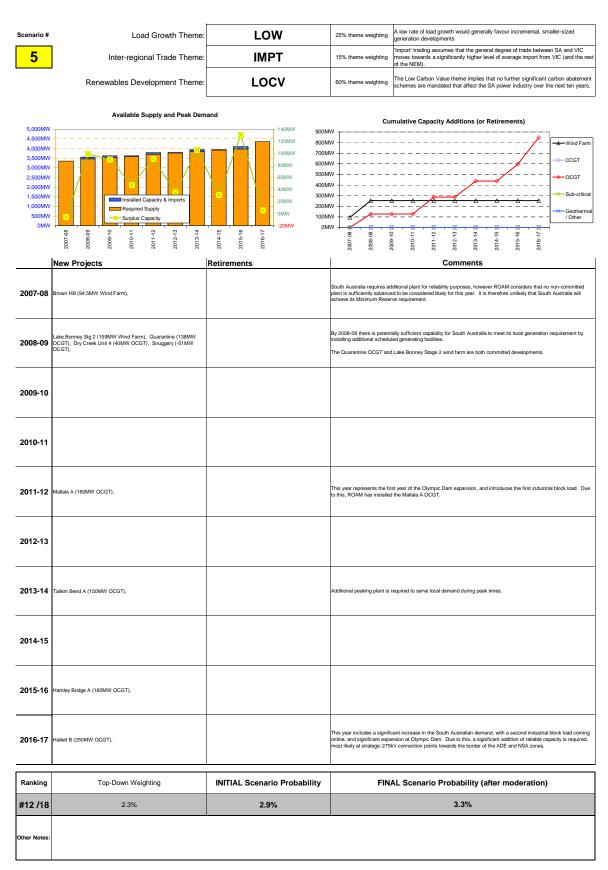




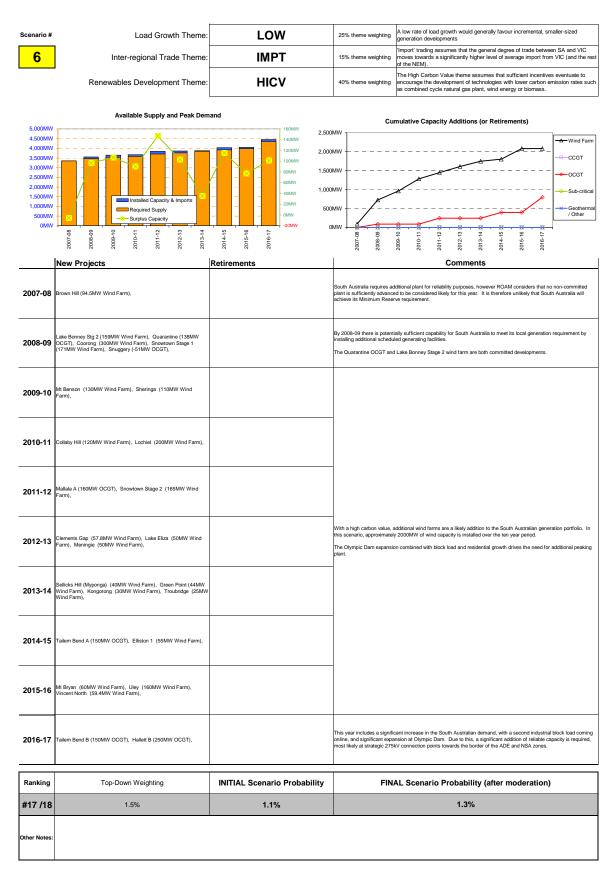


Scenario #	Load Growth Theme:	LOW	25% theme weighting	A low rate of load growth would generally favour incremental, smaller-sized generation developments
4	Inter-regional Trade Theme:	EXPT	35% theme weighting	Export' trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average export from SA to VIC (and
	Renewables Development Theme:	HICV	40% theme weighting	the rest of the NEM). The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates such as combined cycle natural gas plant, wind energy or biomass.
	Available Supply and Peak Derr			as comprise ryce reading gas prent, wind energy or promose.
5,000MW 4,500MW		250MW 2,500		mulative Capacity Additions (or Retirements)
4,000MW 3,500MW 2,500MW 2,500MW 1,500MW 1,500MW 500MW 0MW	B B B B B B B C C C C C C C C C C C C C		эмw — — — — — — — — — — — — — — — — — — —	
	2007-08 2008-09 2009-10 2010-11 2011-12 2011-13 2013-14	2014-15 2015-16 2016-17	2007-08 2008-09	2009-10 2011-12 2012-13 2013-14 2013-15 2015-16 2016-17 2016-17
	New Projects	Retirements		Comments
2007-08	Brown Hill (94.5MW Wind Farm),			ditional plant for reliability purposes, however ROAM considers that no non-committed of to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.
2008-09	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCGT), Mallala A (160MW OCGT), Snuggery (-51MW OCGT),		installing additional schedu	ally sufficient capability for South Australia to meet its local generation requirement by ed generating facilities.
2009-10	Tailem Bend A (150MW OCGT), Sellicks Hill (Myponga) (40MW Wind Farm),		wind generation is installed	tue) theme set promotes additional wind capacity. In this scenario almost 2000MW of over the ten year period. Thermal generation is still required periodically due to the ibute significantly during peak demands.
2010-11				
2011-12	Tailern Bend B (150MW OCGT), Coorong (300MW Wind Farm), Mit Benson (130MW Wind Farm), Snowtown Stage 1 (171MW Wind Farm),		The HICV (High Carbon Va	lue) theme set promotes the commissioning of frequent new wind generation.
2012-13	Collaby Hill (120MW Wind Farm), Mt Bryan (60MW Wind Farm),		rvew thermal plant is suit re	quired to meet the increases in demand from the expanding Olympic Dam site.
2013-14	Worlds End (200MW Wind Farm), Barn/Red Hill (123MW Wind Farm), The Bluff (45MW Wind Farm), Willogoleche Hill (52MW Wind Farm),		Further wind generation de	velopments are encouraged with a high carbon value.
2014-15	Barunga (170MW Wind Farm), Hamley Bridge A (160MW OCGT), Elliston 1 (55MW Wind Farm), Snowtown Stage 2 (165MW Wind Farm),			
2015-16	Clements Gap (57.8MW Wind Farm), Elliston 2 (65MW Wind Farm), Troubridge (25MW Wind Farm), Vincent North (59.4MW Wind Farm),			
2016-17	Hallett B (250MW OCGT), Lincoln Gap (123.9MW Wind Farm),		online, and significant expa	cant increase in the South Australian demand, with a second industrial block load coming nison at Olympic Dam. Due to this, a significant addition of reliable capacity is required, V connection points towards the border of the ADE and NSA zones.
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#13 /18	3.5%	2.7%		2.8%
Other Notes:				











Scenario #	Load Growth Theme:	MED	50% theme weighting	A medium rate of load growth would favours steady investment in new plant, in line with development in recent years.
7	Inter-regional Trade Theme:	NTRL	50% theme weighting	Neutral trading assumes that the general degree of trade between SA and VIC remains largely unchanged.
	Renewables Development Theme:	LOCV	60% theme weighting	The Low Carbon Value theme implies that no further significant carbon abatement schemes are mandated that affect the SA power industry over the next ten years.
	Available Supply and Peak Dem	and		<u> </u>
6,000MW 5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	Available supply and reak Den	250MW 1,800 200MW 1,800 150MW 1,400 50MW 1,200 0MW 800 	MW MW MW MW MW MW MW MW MW MW	Additions (or Retirements) Image: State Sta
2007-08	Brown Hill (94.5MW Wind Farm),		South Australia requires ac plant is sufficiently advance achieve its Minimum Reser	Iditional plant for reliability purposes, however ROAM considers that no non-committed of to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.
2008-09	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCGT), Mallala A (160MW OCGT), Snuggery (-51MW OCGT),		installing additional schedu	ally sufficient capability for South Australia to meet its local generation requirement by legenerating facilities.
2009-10	Tailem Bend A (150MW OCGT), Tailem Bend B (150MW OCGT),		significant investment in ne	industrial block loads entering South Australia. In order to meet growing demand, a w peaking plant is required. ROAM considered that the Tailem Bend projects were highly lamley Bridge developments could be substituted.
2010-11				
2011-12	Mailala B (160MW OCGT),			
2012-13	Hallett B (250MW OCGT), Hamley Bridge A (160MW OCGT),		Moderate load growth, with the Hallett B unit due to its 275kV backbone.	a significant expansion at Olympic Dam, requires additional capacity. ROAM has selected strategic location and sizing which makes it convenient to supply Olympic Dam via the
2013-14				
2014-15	Hamley Bridge B (160MW OCGT), Tailem Bend C (150MW OCGT),		Further expansion at Olym	pic Dam supports the installation of more scheduled plant in 2014-15 and 2015-16.
2015-16	Pelican Point S2 (168MW QCGT),			
2016-17				
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#1 /18	15.0%	17.5%		17.7%
Other Notes:				



Scenario #		Loa	ad Grow	th Ther	ne:		N	/ED)		50% theme we	ighting			load grow in recent		ld favo	ours stea	ady inve	stment	in new plant, in li	ne
8	Ir	nter-regio	onal Trac	de Ther	ne:		N	TRI	L		50% theme we	ighting	Neutral	trading as		at the g	jenerai	l degree	of trade	e betwee	en SA and VIC	
	Renewa	ibles Dev	/elopme	ent Ther	ne:		н	IIC\	/		40% theme we	ighting	The Hig encoura	h Carbon ge the de	Value the	me ass t of tech	hnolog	ies with	lower c	arbon e	s eventuate to mission rates su	:h
6,000MW		Available S	Supply an	nd Peak I	Dema	and		30	OOMW	3,500	/W	Cur			ity Addi					11033.	7	
5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	2003-09 × 2008-000× 2008-000× 2000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000× 2008-0000000000000000000000000000000000	Installed C Required S Surplus Ca			2013-14	2014-15	2015-16	- 20 - 10 - 10 - 50 - 01 5 5 1	50MW 50MW 50MW 60MW 60MW 50MW 100MW 150MW 150MW	3,000M 2,500M 2,000M 1,500M 1,000M 500M			2009-10	2010-11	2012-13			2014-15	2015-16 2	2016-17	Wind Farr OCGT OCGT Geotherm /Other	
	New Projects				F	Retirem	ents								Com	ment	ts					
2007-08	Brown Hill (94.5MW Wind	Farm),									South Australia re plant is sufficiently achieve its Minimu	advance	ed to be co	onsidered I								
2008-09	Lake Bonney Stg 2 (159M OCGT), Mallala A (160MV Farm), Mt Benson (130M (171MW Wind Farm), Mt (45MW Wind Farm), Wilk Snuggery (-51MW OCGT)	V OCGT), Co W Wind Farm Bryan (60MV goleche Hill (oorong (300 n), Snowtow V Wind Farn	0MW Wind wn Stage 1 m), The Blu							A large number of The Quarantine O										ncentive arise.	
2009-10	Mintaro 2 (70MW OCGT), Cape Jaffa (200MW Winc Snowtown Stage 2 (165M	Farm), Ellist	ton 1 (55MV		rm),						2009-10 is the firs plant is required.	t of three	industria	l block loar	ds entering	g South /	Austral	lia. In or	der to m	eet dem	and, new peaking	
2010-11	Tailem Bend A (150MW O Wind Farm), Barr/Red Hil (50MW Wind Farm), Uley	I (123MW W	ind Farm), I	onga) (40M Meningie	w						Further wind devel supply levels.	lopment i	is likely to	proceed, t	out addition	nal sche	duled p	blant will	still be r	equired t	o maintain sufficie	nt
2011-12	Tailem Bend B (150MW O	CGT), Lochie	al (200MW)	Wind Farm),																	
2012-13	Hallett B (250MW OCGT), Elliston 2 (65MW Wind Fa	Hamley Brid	ge A (160M)	IW OCGT),							Moderate load gro a Hallett B and Ha site via the major 2	mley Brid	dge A due	ant expans to their lo	ion at Olyr ation, whi	mpic Da ch is sui	m, req itable t	uires ado o help pr	litional c ovide su	apacity. pport to	ROAM has instal the Olympic Dam	ed
2013-14																						
2014-15	Hamley Bridge B (160MW Clements Gap (57.8MW \ Wind Farm), Sheringa (1	Vind Farm), L	Lake George								Further expansion support, in 2014-1	at Olymp 5.	pic Dam s	upports th	e installatio	on of add	ditional	schedul	ed gas p	lant, witl	h additional wind	
2015-16	Collaby Hill (120MW Wind Farm), Sheringa Beach (*	Farm), Linco 00MW Wind	oln Gap (123 I Farm),	3.9MW Win	ıd																	
2016-17	Barunga (170MW Wind Fa	ırm),																				
Ranking	Top-	Down Weig	ghting			INITIA	L Scei	nario	Probabi	lity		FIN/	AL Sc	enario	Proba	bility	/ (aft	ter me	odera	tion)		
#5 /18		10.0%						7.2%							7.	.0%						
Other Notes:																						

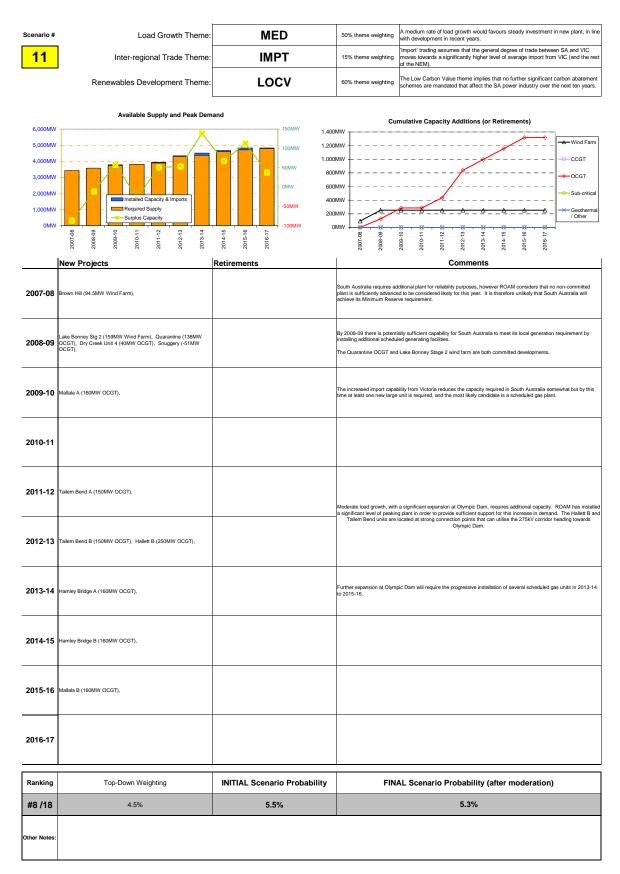


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Renewalkies Development Theme LOCV Kin turw ung besche Standaus has atteilte some in handen handen handen handen handen handen handen handen handen some in handen handen handen handen handen handen handen some in handen handen handen handen handen handen handen handen handen some in handen handen some in handen han]			
Autor branch and autor	•				the rest of the NEM). The Low Carbon Value theme implies that no further significant carbon abatement
Current of the spectra of the spect		Renewables Development mente.	LOCV	00% theme weighting	schemes are mandated that affect the SA power industry over the next ten years.
Autom Autom <th< th=""><th>0.000 844</th><th>Available Supply and Peak Den</th><th>2020-1147</th><th></th><th>mulative Capacity Additions (or Retirements)</th></th<>	0.000 844	Available Supply and Peak Den	2020-1147		mulative Capacity Additions (or Retirements)
Autom Table 1 Table 2 Control Control <thcontrol< th=""> <thcontrol< th=""> <thcon< th=""><th></th><th>^^</th><th>250MW 1,600</th><th>MW +</th><th></th></thcon<></thcontrol<></thcontrol<>		^^	250MW 1,600	MW +	
Autom Autom <th< th=""><th>4,000MW</th><th></th><th> 150MW - 100MW 1,200</th><th>mw 🗕 – – – – – –</th><th></th></th<>	4,000MW		150MW - 100MW 1,200	mw 🗕 – – – – – –	
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New Projects Retirements Conments 2007-09 Invanity 10 433W Word Family Statis Australia Statistics Family Statistingenet Family Statistic	OMW		-200MW	MW 8 8	
2007-08 Insert HE 05.0077 Wind Family. Soft Andraids inspires adding during in understay to protect the order window (adding the protect the order window) adding the protect the order window (adding the protect the order window). 2008-08 Adde Boneg Sig 2 (1000W Wind Family. Countered (1300W) COCT). Protect Sig 2 (1000W Wind Family. Countered (1300W) COCT). 2008-10 Adde Boneg Sig 2 (1000W Wind Family. Countered (1300W) COCT). Dood 10 in the first of there induced and window (adding the protect in the loss of pr			1	2007	
2007-08 Been Hill (M. XMY Wird Fam, Link and Direct Mark Wird Fam, Direct Mark Mither Mithe			Retirements		
20000 bit Control bit was and and an electron coord, water a tensor of the second	2007-08	Brown Hill (94.5MW Wind Farm),		plant is sufficiently advance	ed to be considered likely for this year. It is therefore unlikely that South Australia will
20001b Eventsor Eventsor In the construction COCT and Lake Borry Stage 2 and term as both committed developments. 2000-10 Telm Bord A (SSANY COCT), Takem Bord B (SSANY COCT), Takem B (SSANY COCT),		Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW		By 2008-09 there is potent	tially sufficient capability for South Australia to meet its local generation requirement by Jed generating facilities.
2005-10 Name Bodd X (190007 OCDI), Lamin Bind B (190007 OCDI) Impediation of the subshadled plant is regard. 2010-11 Analas B (190007 OCDI), Lamin Bind B (190007 OCDI). Data Is the seport oriented frees is this screave, additional plant will bodder South Australia's skilly to service load 2011-12 Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), 2012-13 Index B (290007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), 2013-14 Interror B (190007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), 2013-15 Interror B (190007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2013-16 Interror B (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2013-15 Taken Bord C (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2013-16 Taken Bord C (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2014-15 Taken Bord C (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), <t< th=""><th>2008-09</th><th>OCGT), Dry Creek Unit 4 (40MW OCGT), Mallala A (160MW OCGT), Snuggery (-51MW OCGT),</th><th></th><th></th><th></th></t<>	2008-09	OCGT), Dry Creek Unit 4 (40MW OCGT), Mallala A (160MW OCGT), Snuggery (-51MW OCGT),			
2005-10 Name Bodd X (190007 OCDI), Lamin Bind B (190007 OCDI) Impediation of the subshadled plant is regard. 2010-11 Analas B (190007 OCDI), Lamin Bind B (190007 OCDI). Data Is the seport oriented frees is this screave, additional plant will bodder South Australia's skilly to service load 2011-12 Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), 2012-13 Index B (290007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), 2013-14 Interror B (190007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Huminy Bridge A (190007 OCDI), 2013-15 Interror B (190007 OCDI), Huminy Bridge A (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2013-16 Interror B (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2013-15 Taken Bord C (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2013-16 Taken Bord C (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), 2014-15 Taken Bord C (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), Impediation (190007 OCDI), <t< th=""><th></th><th></th><th></th><th></th><th></th></t<>					
2010-11 main is (100000 COCI), it mains is a constant of a subset is based of mains is a constant of a subset is based of the Clympic Dam, regarders additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarders additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarders additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regardere additional sequenci additional sequenci i	2009-10	Tailem Bend A (150MW OCGT), Tailem Bend B (150MW OCGT),		2009-10 is the first of thre injection of new scheduled	e industrial block loads entering South Australia. In order to meet demand, a significant plant is required.
2010-11 main is (100000 COCI), it mains is a constant of a subset is based of mains is a constant of a subset is based of the Clympic Dam, regarders additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarders additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regarders additional sequenci is to Clympic Dam, regarder additional sequenci is to Clympic Dam, regardere additional sequenci additional sequenci i					
Image: Control Image: Contro Image: Control Image:	2010-11	Mallala B (160MW OCGT),		Due to the export-oriented outside of the region.	theme in this scenario, additional plant will bolster South Australia's ability to service load
Image: Control Image: Contro Image: Control Image:					
2012-13 Hallett B (250MW OCGT), Hamily Bridge A (160MW OCGT). Image: Comparison of the indext of the indext of the opport of the Olympic Dam let via the major 273KV condor. 2013-14 Hamily Bridge B (160MW OCGT). Several new scheduled gas plents will be necessary over the years 2013-14 to 2015-16 in order to serve the increasing badd while alice Neeping encody additional reserve to support to the Olympic Dam let via the major 273KV condor. 2014-15 Tailem Band C (150MW OCGT). Several new scheduled gas plents will be necessary over the years 2013-14 to 2015-16 in order to serve the increasing badd while alice Neeping encody additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2014-15 Tailem Band C (150MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2015-16 Pelican Point S2 (168MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2016-17 Pelican Point S2 (168MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support the increased inter-regional export for the NEM. 2016-17 Pelican Point S2 (168MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support to the NEM. 2016-17 Top-Down Weightling Image: Comparison badd whi	2011-12				
2012-13 Hallett B (250MW OCGT), Hamily Bridge A (160MW OCGT). Image: Comparison of the indext of the indext of the opport of the Olympic Dam let via the major 273KV condor. 2013-14 Hamily Bridge B (160MW OCGT). Several new scheduled gas plents will be necessary over the years 2013-14 to 2015-16 in order to serve the increasing badd while alice Neeping encody additional reserve to support to the Olympic Dam let via the major 273KV condor. 2014-15 Tailem Band C (150MW OCGT). Several new scheduled gas plents will be necessary over the years 2013-14 to 2015-16 in order to serve the increasing badd while alice Neeping encody additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2014-15 Tailem Band C (150MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2015-16 Pelican Point S2 (168MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2016-17 Pelican Point S2 (168MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support the increased inter-regional export for the NEM. 2016-17 Pelican Point S2 (168MW OCGT). Image: Comparison badd while alice Neeping encody additional reserve to support to the NEM. 2016-17 Top-Down Weightling Image: Comparison badd whi					
indexindexindexindex2013-14and by Bridge B (160MW OCGT).Several new scheduled gas plants will be necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the years 2013-14 to 2015-16 in order to save the necessary over the neces	2012-13	Hallett B (250MW OCGT), Hamley Bridge A (160MW OCGT),		a Hallett B and Hamley Bri	dge A due to their location, which is suitable to help provide support to the Olympic Dam
2013-14 Hamley Bridge B (160MW OCGT). Increasing load while also keeping enough additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2014-15 Tailem Bend C (150MW OCGT). Increasing load while also keeping enough additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2015-16 Palican Point S2 (168MW OCGT). Increasing load while also keeping enough additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2015-16 Palican Point S2 (168MW OCGT). Increasing load while also keeping enough additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2015-16 Palican Point S2 (168MW OCGT). Increasing load while also keeping enough additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2015-16 Palican Point S2 (168MW OCGT). Increasing load while also keeping enough additional reserve to support the increased inter-regional exports from South Australia into Victoria and the rest of the NEM. 2016-17 Palican Point S2 (168MW OCGT). Internet of the NEM. Ranking Top-Down Weighting INITIAL Scenario Probability FINAL Scenario Probability (after moderation) #2 /18 10.5% 12.3% 11.5% <					
Image: state stat	2013-14	Hamley Bridge B (160MW OCGT),		increasing load while also	keeping enough additional reserve to support the increased inter-regional exports from
Image: Constraint of the section of				South Australia into Victori	a and the rest of the NEM.
Image: Constraint of the section of	2014-15	Tailem Bend C (150MW OCGT).			
Add Image: Marcine Science Scien					
Add Image: Marcine Science Scien	2045 40	Deliane Delet \$2 (100MH/ COOT)			
Ranking Top-Down Weighting INITIAL Scenario Probability FINAL Scenario Probability (after moderation) #2 /18 10.5% 12.3% 11.5%	2015-16	rrenden Point S2 (1088899 OCG1),			
Ranking Top-Down Weighting INITIAL Scenario Probability FINAL Scenario Probability (after moderation) #2 /18 10.5% 12.3% 11.5%					
#2 /18 10.5% 12.3% 11.5%	2016-17				
	Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
Other Notes:	#2 /18	10.5%	12.3%		11.5%
	Other Noto				
	Other Notes:				



10	Inter-regional Trade Theme:	EXPT	35% theme weighting	with development in recent years. Export trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average export from SA to VIC (and the rest of the NEM).
	Renewables Development Theme:	HICV	40% theme weighting	The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates such as combined cycle natural gas plant, wind energy or biomass.
6,000MW	Available Supply and Peak Dem	and 250MW 3,000		mulative Capacity Additions (or Retirements)
5,000MW 4,000MW 3,000MW 2,000MW 1,000MW 0MW	Installed Capacity & Imports Required Supply	9: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5: 5:		
	New Projects	Retirements	South Australia requires ad	Comments
2007-08	Brown Hill (94.5MW Wind Farm),		plant is sufficiently advance achieve its Minimum Reser	ed to be considered likely for this year. It is therefore unlikely that South Australia will
2008-09	Lake Bonney Stg 2 (159M/W Wind Farm), Quarantine (138M/W OCGT), Malala A (150M/W OCGT), Barunga (170M/W Wind Farm), Coorong (300M/W Wind Farm), Snowtown Stage 1 (171M/W Wind Farm), Snuggery (-51M/W OCGT),		installing additional schedu	ally sufficient capability for South Australia to meet its local generation requirement by legenerating facilities.
2009-10	Tailem Bend A (150MW OCGT), Worlds End (200MW Wind Farm), Shaa Oak Flat (59MW Wind Farm), Snowtown Stage 2 (185MW Wind Farm),			
2010-11	Tailem Band B (150MW OCGT), Sallicks Hill (Myponga) (40MW Wind Farm), Lochiel (200MW Wind Farm), Sheringa (110MW Wind Farm), Sheringa Beach (100MW Wind Farm), Uley (160MW Wind Farm),		With a high carbon value a generation is a highly likely	and an export oriented inter-regional trade theme, the installation of significant wind outcome. Scheduled plant is still required to maintain sufficient reserves.
2011-12				
2012-13	Hallelt B (250MW OCGT), Hamley Bridge A (160MW OCGT), Barn/Red Hill (123MW Wind Farm), Clements Gap (57.8MW Wind Farm), Elliston 1 (55MW Wind Farm), Lake George (120MW Wind Farm),		Moderate load growth, with the Tailem Bend open cycle increase in demand.	a significant expansion at Olympic Dam, requires additional capacity. ROAM has installed gas turbine with additional wind turbines in order to provide sufficient support for this
2013-14	Elliston 2 (65MW Wind Farm), Troubridge (25MW Wind Farm), Vincent North (59.4MW Wind Farm), Willogoleche Hill (52MW Wind Farm),			
2014-15	Innamincka B (300MW Geothermal / Other),			ale geothermal power station proposed by Geodynamics. The project is far more likely and a high carbon value, given the large capital and connection costs associated with the
2015-16	Hamley Bridge B (160MW OCGT),			
2016-17				
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#7 /18	7.0%	5.2%		5.5%
Other Notes:				







Scenario #	Load Growth Theme:	MED	50% theme weighting	A medium rate of load growth would favours steady investment in new plant, in line with development in recent years.
12	Inter-regional Trade Theme:	IMPT	15% theme weighting	Import' trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average import from VIC (and the rest of the NEM).
	Renewables Development Theme:	HICV	40% theme weighting	The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates such as combined cycle natural gas plant, wind energy or biomass.
	Available Supply and Peak Derr		Cu	mulative Capacity Additions (or Retirements)
6,000MW 5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	New Projects	150MW 3,0 100MW 2,5 50MW 2,0 0MW 1,5 0MW 1,0	mmo m	→ Wind Fam → Wind Fam → CCGT → CCG
2007-08	Brown Hill (94.5MW Wind Farm),			didiional plant for reliability purposes, however ROAM considers that no non-committed ed to be considered likely for this year. It is therefore unlikely that South Australia will
2008-09	Lake Bonney Sig 2 (159MW Wind Farm), Quarantine (138MW OCG7), Dry Creek Unit 4 (40MW OCG7), Eliston 1 (55MW Wind Farm), Meninga (50MW Wind Farm), Mtspanie (60MW Wind Farm), Sheringa Beach (100MW Wind Farm), The Biut (45MW Wind Farm), Vincent North (59.4MW Wind Farm), Snuggery (-51MW OCG7),		installing additional schedu	ially sufficient capability for South Australia to meet its local generation requirement by led generating facilities.
2009-10	Mallala A (160MW OCGT), Barunga (170MW Wind Farm), Lake Elza (50MW Wind Farm),		plant is required. The Mall	e industrial block loads entering South Australia. In order to meet demand, new peaking ala A OCGT has been selected, along with the progressive development of a large amount advantage of the High Carbon Value incentives.
2010-11	Kongorong (30MW Wind Farm),			
2011-12	Tailern Bend A (150MW OCGT), Seilicks Hill (Myponga) (40MW Wind Farm),			
2012-13	Tailem Bend B (150MW OCGT), Hallett B (250MW OCGT), Mt Benson (130MW Wind Farm), Snowtown Stage 1 (171MW Wind Farm), Lochiel (200MW Wind Farm),			a significant expansion at Olympic Dam requires additional capacity. ROAM has selected and units, plus additional wind turbines in order to provide sufficient support for this
2013-14	Worlds End (200MW Wind Farm), Barn/Red Hill (123MW Wind Farm),			
2014-15	Hamley Bridge A (160MW OCGT), Clements Gap (57.8MW Wind Farm),		Further expansion at Olym Installation of wind farms p	pic Dam supports the installation of the Wasleys open cycle gas turbine in 2014-15. rovide additional peaking support.
2015-16	Corong (300MW Wind Farm), Mintaro 2 (70MW OCGT), Collaby Hill (120MW Wind Farm), Sheringa (110MW Wind Farm), Snowtown Stage 2 (165MW Wind Farm), Willogoleche Hill (52MW Wind Farm),			
2016-17	Cape Jaffa (200MW Wind Farm), Elliston 2 (65MW Wind Farm), Lake George (120MW Wind Farm), Lincoln Gap (123.9MW Wind Farm), Uley (160MW Wind Farm),			
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#16 /18	3.0%	2.1%		2.1%
Other Notes:				



Scenario #	Load Growth Theme:	HI	A high rate of load growth would be characterised by a possible moderate unde 25% theme weighting supply in the early years, until new large generation is able to meet the rapidly
13	Inter-regional Trade Theme:	NTRL	growing load. 50% theme weighting mains largely unchanged.
	Renewables Development Theme:	LOCV	60% theme weighting The Low Carbon Value theme implies that no further significant carbon abateme schemes are mandated that affect the SA power industry over the next ten year
6,000MW	Available Supply and Peak Dem	150100/	Cumulative Capacity Additions (or Retirements)
5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	Installed Capacity & Imports Required Supply	2,000 100MW 1,800 50MW 1,600 0MW 1,400 -50MW 1,000 -50MW 1,000 -50MW 1,000 -150MW 600 -150MW 400 -200MW 200	OMW
	2003-00-00-00-00-00-00-00-00-00-00-00-00-	Retirements	2007-08 2009-09 2011-12 2011-12 2014-15 2014-15 2014-15 2016-17
2007-08	Brown Hill (94.5MW Wind Farm),	Refrements	South Australia requires additional plant for reliability purposes, however ROAM considers that no non-committed plant is sufficiently advanced to be considered likely for this year. It is therefore unlikely that South Australia will achieve its Minimum Reserve requirement.
2008-09	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCGT), Dry Creek Unit 4 (40MW OCGT), Mallala A (160MW OCGT), Minlaro 2 (70MW OCGT), Mi Benson (130MW Wind Farm), Snuggery (-51MW OCGT),		Under the High Load Growth theme, a large amount of generation must be installed by 2008-09 for South Australi meet its local generation requirement. ROAM has selected those projects deemed most likely in order to fill this ge where possible. The Quarantine OCGT and Lake Bonney Stage 2 wind farm are both committed developments.
2009-10	Mallala B (160MW OCGT),		A second Maliala unit would be needed here to cope with the rapid load growth.
2010-11	Tailem Bend A (150MW OCGT),		Industrial loads will require additional capacity for support during peak load times.
2011-12	Tailem Bend B (150MW OCGT),		
2012-13	Hallett B (250MW OCGT), Tailem Bend C (150MW OCGT),		Moderate load growth and a significant expansion at Olympic Dam requires additional capacity. ROAM has select the Hallett B and Tailem Bend units, to provide sufficient support for this increase in demand.
2013-14	Hamley Bridge A (160MW OCGT),		
2014-15	Hamley Bridge B (160MW OCGT), Mallala C (160MW OCGT),		Further expansion at Olympic Dam supports the installation of Hamley Bridge and Mallala units.
2015-16			
2016-17	Pelican Point S2 (168MW OCGT),		The rapid and high load growth necessitates the installation of more scheduled plant in 2016-17. Pelican Point S2 was selected as other more Tikely projects have already been utilised in the preceding years
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#4 /18	7.5%	8.1%	8.0%
Other Notes:			



Scenario #	Load Growth Theme:	HI	25% theme weighting	A high rate of load growth would be characterised by a possible moderate under- supply in the early years, until new large generation is able to meet the rapidly
14	Inter-regional Trade Theme:	NTRL	50% theme weighting	growing load. Neutral trading assumes that the general degree of trade between SA and VIC remains largely unchanged.
	Renewables Development Theme:	HICV	40% theme weighting	The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates such as combined cycle natural gas plant, wind energy or biomass.
6,000MW 5,000MW	Available Supply and Peak Derr	250MW 3,50	мw	mulative Capacity Additions (or Retirements)
4,000MW 3,000MW 2,000MW 1,000MW	Installed Capacity & Imports Installed Capacity & Imports Required Supply Supply Supply 101 101 101 101 101 101 101 101 102 102 103 104 105 102 103 104 105 105 105 106 107 108 108 109 100	200111	WW	
	New Projects	Retirements	<u> </u>	Comments
2007-08	Brown Hill (94.5MW Wind Farm),			kilional plant for reliability purposes, however ROAM considers that no non-committed of to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.
2008-09	Lake Bonney Stg 2 (150MW Wind Farm), Quarantine (138MW OCGT), Dry Creek Unit 4 (40MW OCGT), Malala A (160MW OCGT), Mintaro 2 (70MW OCGT), Elliston 2 (65MW Wind Farm), Mt Byan (60MW Wind Farm), The Bluff (45MW Wind Farm), Snuggery (-51MW OCGT),		meet its local generation re where possible. Additionally Carbon Value incentive it c	In theme, a large amount of generation must be installed by 2008-09 for South Australia to quirement. ROAM has selected those projects deemed most likely in order to fill this gap , a significant mount of wind generation was added as with the introduction of a High an be expected that many projects will locate in South Australia rapidy. I Lake Bonney Stage 2 wind farm are both committed developments.
2009-10	Barunga (170MW Wind Farm), Mallala B (160MW OCGT), Mannum (100MW Geothermal / Other), Sellicks Hill (Myponga) (40MW Wind Farm),		Further windfarm and other timeframe. Scheduled plan initial probability.	r renewables development is expected to occur throughout the duration of the study will still be required, hence the Mallala A OCGT project was selected based on its high
2010-11	Snowtown Stage 1 (171MW Wind Farm), Clements Gap (57.8MW Wind Farm), Meningie (50MW Wind Farm),			
2011-12	Tailem Bend A (150MW OCGT), Lochiel (200MW Wind Farm),		Industrial loads will require	additional capacity for support during peak load times.
2012-13	Tailem Bend B (150MW OCGT), Hallett B (250MW OCGT), Mt Benson (130MW Wind Farm), Cape Jaffa (200MW Wind Farm), Collaby Hill (120MW Wind Farm), Willogoleche Hill (52MW Wind Farm),			a significant expansion at Olympic Dam requires additional capacity. ROAM has selected and units, plus additional wind turbines in order to provide sufficient support for this
2013-14	Hamley Bridge A (160MW OCGT),			
2014-15	Corong (300MW Wind Farm), Barn/Red Hill (123MW Wind Farm), Elliston 1 (55MW Wind Farm), Lake George (120MW Wind Farm), Lunon Gap (123,9MW Wind Farm), Malala C (160MW OCGT), Sheringa (110MW Wind Farm), Sheringa Bach (100MW Wind Farm), Vincent North (59.4MW Wind Farm),		Further expansion at Olymp scheduled gas plant and al	pic Dam, combined with a high value for carbon, supports the installation of further so an increased installed base of wind generation.
2015-16	Worlds End (200MW Wind Farm), Snowtown Stage 2 (165MW Wind Farm), Troubridge (25MW Wind Farm),			
2016-17	Innamincka B (300MW Geothermal / Other),			courages the development of significant renewables development, and as such could othermal project, possibly to support the expanded facilities at Olympic Dam.
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#11 /18	5.0%	3.5%		3.5%
Other Notes:				



Scenario #	Load Growth Theme:	НІ	25% theme weighting	A high rate of load growth would be characterised by a possible moderate under- supply in the early years, until new large generation is able to meet the rapidly
15	Inter-regional Trade Theme:	EXPT	35% theme weighting	growing load. Export trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average export from SA to VIC (and the rest of the NEM).
	Renewables Development Theme:	LOCV	60% theme weighting	The Low Carbon Value theme implies that no further significant carbon abatement schemes are mandated that affect the SA power industry over the next ten years.
6,000MW	Available Supply and Peak Dem	250MW 2,50		nulative Capacity Additions (or Retirements)
5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	Installed Capacity & Imports Required Supply Surgiced Supply Surgiced Supply Provide Supply <th>200MW 150MW 150MW 50MW 50MW 50MW 1,50 0MW 50MW 1,50 0MW 50MW 1,50 0MW 50MW</th> <th>XWW</th> <th>→ Wind Fam → CCGT → CCGT → CCGT → CCGT → OCGT → OCGT → Sub-critical → Geothermal / Other 5 Sub-critical → Geothermal / Other → CCGT</th>	200MW 150MW 150MW 50MW 50MW 50MW 1,50 0MW 50MW 1,50 0MW 50MW 1,50 0MW 50MW	XWW	→ Wind Fam → CCGT → CCGT → CCGT → CCGT → OCGT → OCGT → Sub-critical → Geothermal / Other 5 Sub-critical → Geothermal / Other → CCGT
	New Projects	Retirements		Comments
2007-08	Brown Hill (94.5MW Wind Farm),		South Australia requires ad plant is sufficiently advance achieve its Minimum Reser	ditional plant for reliability purposes, however ROAM considers that no non-committed d to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.
	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW		By 2008-09 there is sufficie additional scheduled generation committed developments.	ent capability for South Australia to meet its local generation requirement by installing ating facilities. The Quarantine OCGT and Lake Bonney Stage 2 wind farm are both
2008-09	OCGT), Dry Creek Unit 4 (40MW OCGT), Mallala A (160MW OCGT), Mintaro 2 (70MW OCGT), Mt Benson (130MW Wind Farm), Snuggery (-51MW OCGT),		Mallala A is considered a lil Supply-Demand balance.	xely development in the short time frame and returns South Australia to a reasonable Due to the high load growth conditions, Dry Creek and Mintaro have also been installed, as to be constructed within a reasonably tight timeframe.
2009-10	Mailala B (160MW OCGT),		Industrial loads will require	additional capacity for support during peak load times and for additional export capability.
2010-11	Tailem Bend A (150MW OCGT), Tailem Bend B (150MW OCGT),			
2011-12				
2012-13	Hallett B (250MW OCGT), Hamley Bridge A (160MW OCGT), Tailem Bend C (150MW OCGT),		has selected the Hallett B a	icant expansion at Olympic Dam requires the installation of additional capacity. ROAM in Talem Bend and Hamley Bridge units to retain sufficient reserves and allow South sport power under most circumstances.
2013-14				
2014-15	Hamley Bridge B (160MW OCGT), Maliala C (160MW OCGT),		Further expansion at Olym	Sic Dam supports the installation of additional peaking plant.
2015-16	Pelican Point S2 (168MW OCGT),		Pelican Point S2 and Hanle	y Bridge units will be required despite their low initial probability.
2016-17	Hamley Bridge C (160MW OCGT),			
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)
#9 /18	5.3%	5.5%		5.3%
Other Notes:		· · · · · · · · · · · · · · · · · · ·		



Scenario #	Load Growth Theme:	HI	25% theme weighting	A high rate of load growth would be characterised by a possible moderate unde supply in the early years, until new large generation is able to meet the rapidly	r-
16	Inter-regional Trade Theme:	ЕХРТ	35% theme weighting	growing load. Export trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average export from SA to VIC (an the rest of the NEM).	d
	Renewables Development Theme:	HICV	40% theme weighting	The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates s as combined cycle natural gas plant, wind energy or biomass.	uch
	Available Supply and Peak Dem	nand		mulativa Capacity Additions (or Definaments)	
6,000MW 5,000MW		200MW 3,000 150MW 2,500	MW	mulative Capacity Additions (or Retirements)	rm
4,000MW 3,000MW		- 50MW 2,000		CCGT	
2,000MW	Installed Capacity & Imports	50MW 1,500 100MW 1,000			al
1,000MW	Required Supply	-200000	MW	Geother /Other	nal
OMW	2007-08 2008-09 2009-10 2010-11 2011-12 2011-12 2011-13	250 WW 25- +	- ₩ - ₩ - ₩ - ₩ - ₩ M	2009-10 0 2011-12 0 2011-12 0 2013-14 0 2013-14 0 2016-16 0 2016-16 0 2016-17 0 2016-17 0	
	New Projects	Retirements	56 56	88 83 8 8 8 8 8 Comments	
				kitional plant for reliability purposes, however ROAM considers that no non-committed	
2007-08	Brown Hill (94.5MW Wind Farm),		plant is sufficiently advance achieve its Minimum Reser	ed to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.	
	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCGT), Dry Creek Unit 4 (40MW OCGT), Mallala A (160MW		meet its local generation re	therme, a large amount of generation must be installed by 2008-09 for South Austral quirement. ROAM has selected those projects deemed most likely in order to fill this g , a significant amount of wind generation was added as with the introduction of a High	
2008-09	OCGT), Barunga (170MW Wind Farm), Snowtown Stage 1 (171MW Wind Farm), Snuggery (-51MW OCGT),		Carbon Value incentive it c	an be expected that many projects will locate in South Australia rapidly.	
2009-10	Mallala B (160MW OCGT), Sellicks Hill (Myponga) (40MW Wind Farm), Cape Jaffa (200MW Wind Farm), Lake Eliza (50MW		Further windfarm and other timeframe. Scheduled plan	r renewables development is expected to occur throughout the duration of the study t will still be required, hence the Mallala B project was selected based on its high initial	
	Wind Farm),		probability.	· · · · · · · · · · · · · · · · · · ·	
2010-11	Tailem Bend A (150MW OCGT), Coorong (300MW Wind Farm),			additional capacity for support during peak load times. Additional wind generation is like	ily,
			taking advantage of the Hig	n Galdon Value.	
2011-12	Tailem Bend B (150MW OCGT), Clements Gap (57.8MW Wind Farm),				
	i anny,				
2012-13	Hallett B (250MW OCGT), Hamley Bridge A (160MW OCGT), Elliston 1 (55MW Wind Farm), Green Point (44MW Wind Farm),		the Hallett B and Hamley B	a significant expansion at Olympic Dam requires additional capacity. ROAM has select ridge units, plus additional wind turbines in order to provide sufficient support for this	əd
	Lake George (120MW Wind Farm),		increase in demand.		
2013-14	Worlds End (200MW Wind Farm), Barn/Red Hill (123MW Wind Farm), Elliston 2 (65MW Wind Farm), Troubridge (25MW Wind Farm), Vincent North (59.4MW Wind Farm), Willogoleche Hill				
	(52MW Wind Farm),				
2014-15	Innamincka B (300MW Geothermal / Other), Lochiel (200MW Wind Farm), Snowtown Stage 2 (165MW Wind Farm),		The High Carbon Value en justify the Innamincka B ge	courages the development of significant renewables development, and as such could othermal project, possibly to support the expanded facilities at Olympic Dam.	
2015-16	Hamley Bridge B (160MW OCGT), Shea Oak Flat (59MW Wind Farm), Sheringa (110MW Wind Farm),		Further windfarm developm supplemented with significa the export of power.	nent is likely to continue throughout the scope of the study. This will need to be ant investment in new scheduled plant in order to retain a sufficient plant margin to ena	ble
			alle export or power.		
2016-17	Tailem Bend C (150MW OCGT), Lincoln Gap (123.9MW Wind Farm),				
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)	
#15 /18	3.5%	2.6%		2.3%	
Other Notes:					



Scenario #	Load Growth Theme:	HI	25% theme weighting	A high rate of load growth would be characterised by a possible moderate under- supply in the early years, until new large generation is able to meet the rapidly provide load.			
17	Inter-regional Trade Theme:	IMPT	15% theme weighting	growing load. 'Import trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average import from VIC (and the rest of the NEM).			
	Renewables Development Theme:	LOCV	60% theme weighting	The Low Carbon Value theme implies that no further significant carbon abatement schemes are mandated that affect the SA power industry over the next ten years.			
6,000MW	Available Supply and Peak Dem	nand		mulative Capacity Additions (or Retirements)			
5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	Image: Second	1,60 1,40 50MW 1,20 0,00W 50MW 1,20 0,00W 50MW 50MW 50MW 50 50MW 50 50MW 50 50MW 50 50MW 50 50MW 50 50MW 50 50MW 50 50MW 50 50 50 50 50 50 50 50 50 50 50 50 50					
	New Projects	Retirements		Comments			
2007-08	Brown Hill (94.5MW Wind Farm),		South Australia requires ac plant is sufficiently advance achieve its Minimum Reser	iditional plant for reliability purposes, however ROAM considers that no non-committed of to be considered likely for this year. It is therefore unlikely that South Australia will ver requirement.			
2008-09	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCGT), Mailala A (160MW OCGT), Snuggery (-51MW OCGT),		additional scheduled gener The Quarantine OCGT and Mallala A is considered a I	ent capability for South Australia to meet its local generation requirement by installing ating facilities. I Lake Bonney Stage 2 wind farm are both committed developments. Keyd development in the short time frame and returns South Australia to a reasonable With additional imports from Victoria, no other plant is required in 2008-09.			
2009-10	Mailala B (160MW OCGT),		A second large scheduled of Mallala A and the high in	unit will be required by 2009-10, and Mallala B was selected due to the previous installation litial probability of the plant.			
2010-11	Dry Creek Unit 4 (40MW OCGT),		Industrial loads will require additional capacity for support during peak load times.				
2011-12	Tailem Bend A (150MW OCGT),		New capacity will be require	ed to service the increasing load.			
2012-13	Tailem Bend B (150MW OCGT), Hallett B (250MW OCGT),		High load growth, with a sig Hallett B and Tailem Bend	gnilicant expansion at Olympic Dam, requires additional capacity. ROAM has selected the OCGT plants to maintain a reasonable supply-demand balance.			
2013-14	Hamley Bridge A (160MW OCGT),						
2014-15	Hamley Bridge B (160MW OCGT), Tailem Bend C (150MW OCGT),		Further expansion at Olym	pic Dam supports the installation of a significant amount of additional scheduled gas plant.			
2015-16	Mintaro 2 (70MW OCGT),						
2016-17	Mailala C (160MW OCGT),						
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)			
#14 /18	2.3%	2.5%		2.4%			
Other Notes:							



Scenario #	Load Growth Theme:	н	25% theme weighting	A high rate of load growth would be characterised by a possible moderate under- supply in the early years, until new large generation is able to meet the rapidly		
18	Inter-regional Trade Theme:	IMPT	15% theme weighting	growing load. Import trading assumes that the general degree of trade between SA and VIC moves towards a significantly higher level of average import from VIC (and the rest		
	Renewables Development Theme:	HICV	40% theme weighting	of the NEM). The High Carbon Value theme assumes that sufficient incentives eventuate to encourage the development of technologies with lower carbon emission rates such as applied avails pattern age latert wide devenue at bieners.		
	Available Supply and Back Deer			as combined cycle natural gas plant, wind energy or biomass.		
6,000MW	Available Supply and Peak Dem	100MW 2,500		mulative Capacity Additions (or Retirements)		
5,000MW 4,000MW 3,000MW 2,000MW 1,000MW	Installed Capacity & Imports	SoMW 2,000 OMW 1,500 SOMW 1,000 TOOMW 500	мw — — — — — -			
0MW	Required Supply	-150MW n	MW	Betternal / Other		
	2007-08 2008-09 2009-10 2010-11 2011-12 2011-12 2013-14	2014-15 2015-16 2016-17 2016-17	2007-08 2008-09	2010-11 2010-11 2011-12 2013-14 2013-16 2015-16 2016-17 2016-17		
	New Projects	Retirements		Comments		
2007-08	Brown Hill (94.5MW Wind Farm),			dditional plant for reliability purposes, however ROAM considers that no non-committed of to be considered likely for this year. It is therefore unlikely that South Australia will ve requirement.		
2008-09	Lake Bonney Stg 2 (159MW Wind Farm), Quarantine (138MW OCCT), Dry Craek Unit 4 (40MW OCCT), Elliston 1 (55MW Wind Farm), Snuggery (-51MW OCCT),		The Quarantine OCGT and With additional imports fro plant in this year.	I Lake Bonney Stage 2 wind farm are both committed developments. m Victoria, no other plant is required in 2008-09. South Australia is still somewhat short of		
2009-10	Mailaia A (160MW OCGT), Cape Jaffa (200MW Wind Farm), The Bluff (45MW Wind Farm),		The addition of new schedu scenario.	uled plant will allow South Australia to gain a positive plant margin in 2009-10 in this		
2010-11	Coorong (300MW Wind Farm), Mannum (100MW Geothermal / Other), Sellicks Hill (Myponga) (40MW Wind Farm), Snowtown Stage 1 (171MW Wind Farm), Worlds End (200MW Wind Farm), Elliston 2 (65MW Wind Farm),		Industrial loads will require additional capacity for support during peak load times. With increased imports, and a hig carbon value, this is likely to come from a combination of wind generation and other renewables development such the Mannum biodiesel plant.			
2011-12	Tailem Bend B (150MW OCGT),					
2012-13	Tailem Bend A (150MW OCGT), Hallett B (250MW OCGT), Mt Benson (130MW Wind Farm), Mt Bryan (60MW Wind Farm), Sheringa (110MW Wind Farm),		Hallett B and Tailem Bend	gnificant expansion at Olympic Dam, requires additional capacity. ROAM has selected the OCGT units to maintain a reasonable supply-demand balance. The Hallett B station is a to Olympic Dam as it is located very near the 275kV corridor heading towards the remote		
2013-14	Barunga (170MW Wind Farm). Snowtown Stage 2 (165MW Wind Farm), Willogoleche Hill (52MW Wind Farm),		Further windpower develop	sment is very likely under the High Carbon Value theme.		
2014-15	Innamincka B (300MW Geothermal / Other), Sheringa Beach (100MW Wind Farm),		Further expansion at Olym Innamincka B geothermal s	pic Dam, combined with a high value for carbon, encourages the installation of the station at near Moomba.		
2015-16	Mallala B (160MW OCGT),		Further progressively instal capacity to meet rapidly gro	lled thermal plant will still be required in the South Australian region to maintain sufficient wing industrial and residential load.		
2016-17	Hamley Bridge A (160MW OCGT),					
Ranking	Top-Down Weighting	INITIAL Scenario Probability	FIN	AL Scenario Probability (after moderation)		
#18 /18	1.5%	1.2%		1.0%		
Other Notes:						





Potential Project # (This

(This is a potential New Plant)

 Image: Definite
 Definite
 ADE node.
 This is a wind farm with a maximum rating of 94.5MW.

 Initially this project was rated a
 Definite
 likelihood of proceeding, which was deemed to correspond to a
 100% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 100.0% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV	YES										9.74%
Scenario 2	LOW	NTRL	HICV	YES										4.5%
Scenario 3	LOW	EXPT	LOCV	YES										6.83%
Scenario 4	LOW	EXPT	HICV	YES										2.76%
Scenario 5	LOW	IMPT	LOCV	YES										3.27%
Scenario 6	LOW	IMPT	HICV	YES										1.29%
Scenario 7	MED	NTRL	LOCV	YES										17.73%
Scenario 8	MED	NTRL	HICV	YES										6.97%
Scenario 9	MED	EXPT	LOCV	YES										11.51%
Scenario 10	MED	EXPT	HICV	YES										5.48%
Scenario 11	MED	IMPT	LOCV	YES										5.29%
Scenario 12	MED	IMPT	HICV	YES										2.12%
Scenario 13	н	NTRL	LOCV	YES										8.04%
Scenario 14	н	NTRL	HICV	YES										3.52%
Scenario 15	н	EXPT	LOCV	YES										5.27%
Scenario 16	н	EXPT	HICV	YES										2.28%
Scenario 17	н	IMPT	LOCV	YES										2.41%
Scenario 18	н	IMPT	HICV	YES										0.99%
Prob	Probability of Proceeding in this Year:			100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOW	6	6	100%							
MED	6	6	100%							
HI	6	6	100%							

l.	nter-Regi	onal Trad	e
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	6	100%
EXPT	6	6	100%
-			

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	9	100%						
HICV	9	9	100%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au



Potential Project #

al (This is a potential New Plant)

 2
 Lake Bonney Stg 2 (12.72 Wind Farm)
 located in the SESA node.
 This is a wind farm with a maximum rating of 159MW.

 Initially this project was rated a
 Definite
 likelihood of proceeding, which was deemed to correspond to a
 100% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 100.0% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV		YES									9.74%
Scenario 2	LOW	NTRL	HICV		YES									4.5%
Scenario 3	LOW	EXPT	LOCV		YES									6.83%
Scenario 4	LOW	EXPT	HICV		YES									2.76%
Scenario 5	LOW	IMPT	LOCV		YES									3.27%
Scenario 6	LOW	IMPT	HICV		YES									1.29%
Scenario 7	MED	NTRL	LOCV		YES									17.73%
Scenario 8	MED	NTRL	HICV		YES									6.97%
Scenario 9	MED	EXPT	LOCV		YES									11.51%
Scenario 10	MED	EXPT	HICV		YES									5.48%
Scenario 11	MED	IMPT	LOCV		YES									5.29%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 13	н	NTRL	LOCV		YES									8.04%
Scenario 14	н	NTRL	HICV		YES									3.52%
Scenario 15	н	EXPT	LOCV		YES									5.27%
Scenario 16	н	EXPT	HICV		YES									2.28%
Scenario 17	н	IMPT	LOCV		YES									2.41%
Scenario 18	HI	IMPT	HICV		YES									0.99%
Prob	Probability of Proceeding in this Year:			0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

	Load Growth										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios								
LOW	6	6	100%								
MED	6	6	100%								
HI	6	6	100%								

	Inter-Regional Trade									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
NTRL	6	6	100%							
EXPT	6	6	100%							

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	9	100%						
HICV	9	9	100%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au



Potential (This is a potential New Plant) Project

3

Quarantine (138 OCGT)

located in the ADE node.

Initially this project was rated a

Definite correspond to a

likelihood of proceeding, which was deemed to

100% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 100.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV		YES									9.74%
Scenario 2	LOW	NTRL	HICV		YES									4.5%
Scenario 3	LOW	EXPT	LOCV		YES									6.83%
Scenario 4	LOW	EXPT	HICV		YES									2.76%
Scenario 5	LOW	IMPT	LOCV		YES									3.27%
Scenario 6	LOW	IMPT	HICV		YES									1.29%
Scenario 7	MED	NTRL	LOCV		YES									17.73%
Scenario 8	MED	NTRL	HICV		YES									6.97%
Scenario 9	MED	EXPT	LOCV		YES									11.51%
Scenario 10	MED	EXPT	HICV		YES									5.48%
Scenario 11	MED	IMPT	LOCV		YES									5.29%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 13	н	NTRL	LOCV		YES									8.04%
Scenario 14	Н	NTRL	HICV		YES									3.52%
Scenario 15	н	EXPT	LOCV		YES									5.27%
Scenario 16	н	EXPT	HICV		YES									2.28%
Scenario 17	н	IMPT	LOCV		YES									2.41%
Scenario 18	Н	IMPT	HICV		YES									0.99%
Prob	Probability of Proceeding in this Year:			0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which બ project proceeds	Percentage of relevant scenarios							
LOW	6	6	100%							
MED	6	6	100%							
HI	6	6	100%							

Inter-Regional Trade										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
NTRL	6	6	100%							
EXPT	6	6	100%							

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	9	100%						
HICV	9	9	100%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

Appendix	C (Pro	jects) o	f Report to:			20	007 So	uth Au	straliar	n Gene	ration	and Lo		M Forecasting enario Analysi
))	Elect	tricity transmiss	sion											Eln0001 28th May 200
Potential Project #	Dry Cree Initia At the corr	Ily this proje	<i>w Plant)</i> 40 OCGT) ct was rated a le scenario analysis os that were develop	Hi project, th	d in the gh e FINAL F	correspor	of procee nd to a	-	h was dee oject was o			probability		
	The follow	ing table illus	strates the year in wh	nich (for e	ach scena	ario) the pla	ant is assu	med to be	e fully oper	ational:				
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV									YES		9.74%
Scenario 2	LOW	NTRL	HICV								YES			4.5%
Scenario 3	LOW	EXPT	LOCV						YES					6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV		YES									3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV		YES									11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV		YES									5.29%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 13	н	NTRL	LOCV		YES									8.04%
Scenario 14	н	NTRL	HICV		YES									3.52%
Scenario 15	н	EXPT	LOCV		YES									5.27%
Scenario 16	н	EXPT	HICV		YES									2.28%
Scenario 17	н	IMPT	LOCV				YES							2.41%
Scenario 18	Н	IMPT	HICV		YES									0.99%
Prol	bability of	f Proceedi	ing in this Year:	0%	42%	0%	2%	0%	7%	0%	5%	10%	0%	
		Cumula	ative Probability	0%	42%	42%	45%	45%	52%	52%	56%	66%	66%	
			-										l	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOW	6	4	67%							
MED	6	3	50%							
HI	6	6	100%							

Inter-Regional Trade										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
NTRL	6	4	67%							
EXPT	6	4	67%							

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	8	89%						
HICV	9	5	56%						





Potential Project #

5

(This is a potential New Plant)

Mallala A (160 OCGT)

located in the ADE node.

Initially this project was rated a

likelihood of proceeding, which was deemed to

High correspond to a 70% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 100.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV		YES									9.74%
Scenario 2	LOW	NTRL	HICV		YES									4.5%
Scenario 3	LOW	EXPT	LOCV		YES									6.83%
Scenario 4	LOW	EXPT	HICV		YES									2.76%
Scenario 5	LOW	IMPT	LOCV					YES						3.27%
Scenario 6	LOW	IMPT	HICV					YES						1.29%
Scenario 7	MED	NTRL	LOCV		YES									17.73%
Scenario 8	MED	NTRL	HICV		YES									6.97%
Scenario 9	MED	EXPT	LOCV		YES									11.51%
Scenario 10	MED	EXPT	HICV		YES									5.48%
Scenario 11	MED	IMPT	LOCV			YES								5.29%
Scenario 12	MED	IMPT	HICV			YES								2.12%
Scenario 13	н	NTRL	LOCV		YES									8.04%
Scenario 14	н	NTRL	HICV		YES									3.52%
Scenario 15	н	EXPT	LOCV		YES									5.27%
Scenario 16	н	EXPT	HICV		YES									2.28%
Scenario 17	н	IMPT	LOCV		YES									2.41%
Scenario 18	н	IMPT	HICV			YES								0.99%
Prob	Probability of Proceeding in this Year:			0%	87%	8%	0%	5%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	87%	95%	95%	100%	100%	100%	100%	100%	100%	

Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	6	100%						
MED	6	6	100%						
HI	6	6	100%						

		Inter-Regional Trade										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios									
NTRL	6	6	100%									
EXPT	6	6	100%									

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	9	100%						
HICV	9	9	100%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

ppendix			f Report to:			20	007 So	uth Au	stralia	n Gene	ration	and Lo		<i>M Forecasti</i> enario Analy
3	Elect	raNet ctricity transmiss	ion										:	Eln000 28th May 20
Potential Project #	1	ootential Nev	,											
6	Tailem E	Bend A (15	0 OCGT)	located	d in the	ADE	node.							
	Initia	Ily this project	ct was rated a	Hi	gh	likelihood correspoi	of procee	ding, whic	h was dee	med to	70%	orobability	/ of proce	eding
	(across all	the scenario	e scenario analysis p os that were develop strates the year in wh	ed) to be		Project Pr	obability		-		100.0%	probabili	ity of proo	_
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV			YES								9.74%
Scenario 2	LOW	NTRL	HICV			YES								4.5%
Scenario 3	LOW	EXPT	LOCV			YES								6.83%
Scenario 4	LOW	EXPT	HICV			YES								2.76%
Scenario 5	LOW	IMPT	LOCV							YES				3.27%
Scenario 6	LOW	IMPT	HICV								YES			1.29%
Scenario 7	MED	NTRL	LOCV			YES								17.73%
Scenario 8	MED	NTRL	HICV				YES							6.97%
Scenario 9	MED	EXPT	LOCV			YES								11.51%
Scenario 10	MED	EXPT	HICV			YES								5.48%
Scenario 11	MED	IMPT	LOCV					YES						5.29%
Scenario 12	MED	IMPT	HICV					YES						2.12%
Scenario 13	н	NTRL	LOCV				YES							8.04%
Scenario 14	н	NTRL	HICV					YES						3.52%
Scenario 15	н	EXPT	LOCV				YES							5.27%
Scenario 16	н	EXPT	HICV				YES							2.28%
Scenario 17	н	IMPT	LOCV					YES						2.41%
Scenario 18	HI	IMPT	HICV						YES					0.99%
Prot	bability of	f Proceedi	ng in this Year:	0%	0%	59%	23%	13%	1%	3%	1%	0%	0%	
		Cumula	tive Probability	0%	0%	59%	81%	94%	95%	99%	100%	100%	100%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOW	6	6	100%							
MED	6	6	100%							
HI	6	6	100%							

Inter-Regional Trade									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
NTRL	6	6	100%						
EXPT	6	6	100%						
EAFT	0	0	100 /6						

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	9	100%					
HICV	9	9	100%					

Appendix	C (Pro	jects) o	f Report to:			20	007 So	uth Au	stralia	n Gene	eration	and Lo		<i>M Forecas</i> enario Anal	•
H	Elect	raNet stricity transmiss	sion										:	Eln00 28th May 2	-
Potential Project #	Tailem E		<i>w Plant)</i> 50 OCGT) ct was rated a		d in the gh	ADE likelihood correspor	of procee	ding, whic	h was dee	med to	70% p	probabilit	y of proce	eeding	
	(across all	the scenari	e scenario analysis os that were develop strates the year in w	ed) to be		-	-		-		96.7%	probabili	ty of proc	eeding	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV					YES						9.74%	
Scenario 2	LOW	NTRL	HICV					YES						4.5%	
Scenario 3	LOW	EXPT	LOCV					YES						6.83%	
Scenario 4	LOW	EXPT	HICV					YES						2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV										YES	1.29%	
Scenario 7	MED	NTRL	LOCV			YES								17.73%	
Scenario 8	MED	NTRL	HICV					YES						6.97%	
Scenario 9	MED	EXPT	LOCV			YES								11.51%	
Scenario 10	MED	EXPT	HICV				YES							5.48%	
Scenario 11	MED	IMPT	LOCV						YES					5.29%	
Scenario 12	MED	IMPT	HICV						YES					2.12%	
Scenario 13	HI	NTRL	LOCV					YES						8.04%	
Scenario 14	HI	NTRL	HICV						YES					3.52%	
Scenario 15	HI	EXPT	LOCV				YES							5.27%	
Scenario 16	HI	EXPT	HICV					YES						2.28%	
Scenario 17	HI	IMPT	LOCV						YES					2.41%	
Scenario 18	HI	IMPT	HICV					YES						0.99%	
Prot	ability of	Proceed	ing in this Year:	0%	0%	29%	11%	42%	13%	0%	0%	0%	1%		
		Cumula	ative Probability	0%	0%	29%	40%	82%	95%	95%	95%	95%	97%		
<u> </u>							1		1	1	1	1	I		

	Load Growth									
	Number of scenarios with this ۵ theme	Number of scenarios in which ۲۰ project proceeds	Percentage of relevant scenarios							
LOW	6	5	83%							
MED	6	6	100%							
HI	6	6	100%							

Inter-Regional Trade

Number of scenarios in which of project proceeds

6

6

Percentage of relevant scenarios

<u>100%</u> 100%

Number of scenarios with this theme

6

6

NTRL EXPT

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	8	89%						
HICV	9	9	100%						

Appendix	C (Pro	ojects) o	f Report to:			20	007 So	uth Au	straliar	n Gene	eration	and Lo		<i>M Forecas</i> enario Anal	
1		ctricity transmiss	sion										:	Eln00 28th May 2	-
Potential Project #	1	potential Ne a (13.6 Wit		located	d in the	NSA	node.	This	is a wind	farm wit	h a maxi	mum rati	ng of 17	OMW.	
	. Initia	Illy this proje	ct was rated a	Mod	erate	likelihood correspoi	of procee	ding, whic	h was dee	med to	50% p	probability	/ of proce	eding	
	(across all	the scenari	e scenario analysis p os that were develop strates the year in wh	ed) to be		Project Pr	obability		-		24.1%	probabili	ty of proc	eeding	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV								YES			2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV										YES	6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV		YES									5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV			YES								2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV			YES								3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV		YES									2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	н	IMPT	HICV							YES				0.99%	
Prot	bability of	f Proceed	ing in this Year:	0%	8%	6%	0%	0%	0%	1%	3%	0%	7%		
		Cumula	ative Probability	0%	8%	13%	13%	13%	13%	14%	17%	17%	24%		

Load Growth									
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	1	17%						
MED	6	3	50%						
HI	6	3	50%						

	Number of scenarios with this theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios
NTRL	6	2	33% 50%
EXPT	6	3	50%

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Inter-Regional Trade

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	7	78%						

Appendix	C (Pro	jects) o	f Report to:			20	007 So	uth Au	stralia	n Gene	ration	and Lo		M Forecastil enario Analys
E	Elect	raNet	sion										:	Eln000 28th May 20
Potential Project # 9	Coorong Initia At the corr (across all	npletion of the scenario		Mod project, th ed) to be		correspor Project Pr	of proceend to a obability	ding, whic for this pro	h was dee oject was o	med to calculated	50% j	mum rati probability probabilit	of proce	eeding
	Growth	Regional Trade	Value Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV					YES						4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV					YES						2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV		YES									1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV		YES									6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV		YES									5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV									YES		2.12%
Scenario 13	Н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV								YES			3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	HI	EXPT	HICV				YES							2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV				YES							0.99%
Prot	ability of	f Proceed	ing in this Year:	0%	14%	0%	3%	7%	0%	0%	4%	2%	0%	
		Cumula	ative Probability	0%	14%	14%	17%	24%	24%	24%	28%	30%	30%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which თ project proceeds	Percentage of relevant scenarios							
LOW	6	3	50%							
MED	6	3	50%							
HI	6	3	50%							

	Number of scenarios with this theme	Number of scenarios in which თ project proceeds	Percentage of relevant scenarios
NTRL	6	3	50%
EXPT	6	3	50%

Inter-Regional Trade

Γ

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	9	100%						



Potential Project #

10

(This is a potential New Plant)

Hallett B (250 OCGT)

located in the ADE node.

Initially this project was rated a

Moderate

likelihood of proceeding, which was deemed to correspond to a

50% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be

100.0% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV										YES	9.74%
Scenario 2	LOW	NTRL	HICV										YES	4.5%
Scenario 3	LOW	EXPT	LOCV										YES	6.83%
Scenario 4	LOW	EXPT	HICV										YES	2.76%
Scenario 5	LOW	IMPT	LOCV										YES	3.27%
Scenario 6	LOW	IMPT	HICV										YES	1.29%
Scenario 7	MED	NTRL	LOCV						YES					17.73%
Scenario 8	MED	NTRL	HICV						YES					6.97%
Scenario 9	MED	EXPT	LOCV						YES					11.51%
Scenario 10	MED	EXPT	HICV						YES					5.48%
Scenario 11	MED	IMPT	LOCV						YES					5.29%
Scenario 12	MED	IMPT	HICV						YES					2.12%
Scenario 13	Н	NTRL	LOCV						YES					8.04%
Scenario 14	Н	NTRL	HICV						YES					3.52%
Scenario 15	н	EXPT	LOCV						YES					5.27%
Scenario 16	н	EXPT	HICV						YES					2.28%
Scenario 17	Н	IMPT	LOCV						YES					2.41%
Scenario 18	Н	IMPT	HICV						YES					0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	72%	0%	0%	0%	28%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	72%	72%	72%	72%	100%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOW	6	6	100%							
MED	6	6	100%							
HI	6	6	100%							

Inter-Regional Trade									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
NTRL	6	6	100%						
EXPT	6	6	100%						

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	9	100%						
HICV	9	9	100%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

Appendix	k C (Pro	ojects) o	of Report to:			20	007 So	uth Au	stralia	n Gene	ration	and Lo			<i>ecasting</i> Analysis
		ctricity transmis	sion										:		ln00011 ay 2007
Potential Project #	Hamley Initia	lly this proje	w <i>Plant)</i> (160 OCGT) act was rated a ne scenario analysis os that were develop	Mod project, th	d in the erate e FINAL I	correspoi	of procee nd to a	-				probability	-	-	
	The follow	ing table illu	strates the year in w	hich (for e	ach scena	ario) the pla	ant is assu	med to be	e fully oper	ational:					
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV							YES				9.74%	
Scenario 2	LOW	NTRL	HICV									YES		4.5%	
Scenario 3	LOW	EXPT	LOCV								YES			6.83%	
Scenario 4	LOW	EXPT	HICV								YES			2.76%	
Scenario 5	LOW	IMPT	LOCV									YES		3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV						YES					17.73%	
Scenario 8	MED	NTRL	HICV						YES					6.97%	
Scenario 9	MED	EXPT	LOCV						YES					11.51%	
Scenario 10	MED	EXPT	HICV						YES					5.48%	
Scenario 11	MED	IMPT	LOCV							YES				5.29%	
Scenario 12	MED	IMPT	HICV								YES			2.12%	
Scenario 13	н	NTRL	LOCV							YES				8.04%	
Scenario 14	н	NTRL	HICV							YES				3.52%	
Scenario 15	н	EXPT	LOCV						YES					5.27%	
Scenario 16	н	EXPT	HICV						YES					2.28%	
Scenario 17	н	IMPT	LOCV							YES				2.41%	
Scenario 18	HI	IMPT	HICV										YES	0.99%	
Pro	bability of	f Proceed	ing in this Year:	0%	0%	0%	0%	0%	49%	29%	12%	8%	1%		
		Cumula	ative Probability	0%	0%	0%	0%	0%	49%	78%	90%	98%	99%		

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which ہ project proceeds	Percentage of relevant scenarios							
LOW	6	5	83%							
MED	6	6	100%							
HI	6	6	100%							

Percentage of % relevant 00 % scenarios 1 100 project proceeds Number of scenarios with this 6 theme NTRL EXPT	Inter-Regional Trade									
		Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
EXPT 6 6 100%	NTRL	6	6	100%						
	EXPT	6	6	100%						

CONSULTING

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	9	100%						
HICV	9	8	89%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

Appendix	C (Pro	jects) o	of Report to:			20	007 So	uth Au	stralia	n Gene	ration	and Lo			<i>casting</i> Analysis
	Elect	tricity transmis	sion												n00011 ay 2007
Potential Project #	(This is a p	potential Ne	w Plant)												
12	Hamley	Bridge B	(160 OCGT)	located	d in the	ADE	node.								
	Initia	Ily this proje	ct was rated a	Mod	erate	likelihood correspor	of procee	ding, whic	h was dee	med to	50% p	orobability	y of proce	eding	
	At the corr	npletion of th	ne scenario analysis	project, th	e FINAL I			for this pro	oject was o	calculated	o4 o0/				
			os that were develop					·			81.6%	probabili	ty of proc	eeding	
	The follow	ing table illu	strates the year in w	hich (for e	ach scena	ario) the pla	ant is assu	imed to be	e fully oper	ational:					
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV										YES	9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV									YES		6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV								YES			17.73%	
Scenario 8	MED	NTRL	HICV								YES			6.97%	
Scenario 9	MED	EXPT	LOCV							YES				11.51%	
Scenario 10	MED	EXPT	HICV									YES		5.48%	
Scenario 11	MED	IMPT	LOCV								YES			5.29%	
Scenario 12	MED	IMPT	HICV											2.12%	
Scenario 13	н	NTRL	LOCV								YES			8.04%	
Scenario 14	н	NTRL	HICV											3.52%	
Scenario 15	н	EXPT	LOCV								YES			5.27%	
Scenario 16	н	EXPT	HICV									YES		2.28%	
Scenario 17	HI	IMPT	LOCV								YES			2.41%	
Scenario 18	HI	IMPT	HICV											0.99%	
Prot	bability of	f Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	12%	46%	15%	10%		
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	12%	57%	72%	82%		
										1		1	1		

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios							
LOW	6	2	33%							
MED	6	5	83%							
HI	6	4	67%							

Inter-Regional Trade

Number of scenarios in which project proceeds

4

5

Percentage of relevant scenarios

67% 83%

Number of scenarios with this theme

6

6

NTRL EXPT

Carbon Value										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOCV	9	8	89%							
HICV	9	3	33%							





Potential Project #

13

(This is a potential New Plant)

Mallala B (160 OCGT)

located in the ADE node.

Initially this project was rated a

likelihood of proceeding, which was deemed to

Moderate correspond to a 50% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be

64.0% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV					YES						17.73%
Scenario 8	MED	NTRL	HICV								YES			6.97%
Scenario 9	MED	EXPT	LOCV				YES							11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV									YES		5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV			YES								8.04%
Scenario 14	н	NTRL	HICV			YES								3.52%
Scenario 15	н	EXPT	LOCV			YES								5.27%
Scenario 16	н	EXPT	HICV			YES								2.28%
Scenario 17	Н	IMPT	LOCV			YES								2.41%
Scenario 18	Н	IMPT	HICV									YES		0.99%
Prob	ability of	f Proceed	ing in this Year:	0%	0%	22%	12%	18%	0%	0%	7%	6%	0%	
	Cumulative Probability		0%	0%	22%	33%	51%	51%	51%	58%	64%	64%		

	Load Growth											
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios									
LOW	6	0	0%									
MED	6	4	67%									
HI	6	6	100%									

	(0		
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	4	67%
EXPT	6	3	50%

Carbon Value										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOCV	9	6	67%							
HICV	9	4	44%							

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au



Potential Project

(This is a potential New Plant)



Mannum (100 Geothermal / located in the

Initially this project was rated a

ADE node.

likelihood of proceeding, which was deemed to Low correspond to a

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 4.5% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV			YES								3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	Η	IMPT	HICV				YES							0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	4%	1%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	4%	5%	5%	5%	5%	5%	5%	5%	

	Load Growth										
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios								
LOW	6	0	0%								
MED	6	0	0%								
HI	6	2	33%								

Inter-Regional Trade										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
NTRL	6	1	17%							
EXPT	6	0	0%							

Carbon Value											
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios								
LOCV	9	0	0%								
HICV	9	2	22%								

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au



Potential Project # (This is a

15

(This is a potential New Plant)

Mintaro 2 (70 OCGT)

located in the ADE node.

Initially this project was rated a

likelihood of

a Moderate

likelihood of proceeding, which was deemed to correspond to a

50% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 28.3% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV			YES								6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV									YES		2.12%
Scenario 13	н	NTRL	LOCV		YES									8.04%
Scenario 14	н	NTRL	HICV		YES									3.52%
Scenario 15	н	EXPT	LOCV		YES									5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV									YES		2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	17%	7%	0%	0%	0%	0%	0%	5%	0%	
	Cumulative Probability		0%	17%	24%	24%	24%	24%	24%	24%	28%	28%		

Load Growth					
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios		
LOW	6	0	0%		
MED	6	2	33%		
HI	6	4	67%		

Number of scenarios in which project proceeds theme 1 Number of scenarios with this o theme 1 NTRL 7	Inter-Regional Trade					
			Number of scenarios in which project proceeds			
EXPT 6 1 17%	NTRL	6	3	50%		
	EXPT	6	1	17%		

Carbon Value					
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios		
LOCV	9	3	33%		
HICV	9	3	33%		

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

28/05/2007

Potential Project # (Thi 16 Mt At th (acr	electr his is a poor t Bensoo Initially the comp cross all ti e followin	y this project oletion of the he scenario ng table illus		Mod project, th bed) to be		correspor Project Pr	of procee nd to a	ding, whicl	h was dee	med to	50% p	mum rati probability probabilit	ng of 13	
Project # (1717 16 Mt At th (acr	t Benso Initially the comp cross all the e followin	on (10.4 V y this project pletion of the he scenario ng table illus	Vind Farm) et was rated a e scenario analysis is that were develop	Mod project, th bed) to be	erate le FINAL I	likelihood correspoi Project Pr	of procee nd to a	ding, whicl	h was dee	med to	50% p	probability	0	
The		-					ant is assu	mod to be	fully oper	ational			y of proc	eeding
Growth	Load	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV								YES			9.74%
Scenario 2 L	LOW	NTRL	HICV											4.5%
Scenario 3 L	LOW	EXPT	LOCV											6.83%
Scenario 4 L	LOW	EXPT	HICV					YES						2.76%
Scenario 5 L	LOW	IMPT	LOCV											3.27%
Scenario 6 L	LOW	IMPT	HICV			YES								1.29%
Scenario 7 N	MED	NTRL	LOCV											17.73%
Scenario 8 N	MED	NTRL	HICV		YES									6.97%
Scenario 9 N	MED	EXPT	LOCV											11.51%
Scenario 10 N	MED	EXPT	HICV											5.48%
Scenario 11 N	MED	IMPT	LOCV											5.29%
Scenario 12 N	MED	IMPT	HICV						YES					2.12%
Scenario 13	HI	NTRL	LOCV		YES									8.04%
Scenario 14	HI	NTRL	HICV						YES					3.52%
Scenario 15	HI	EXPT	LOCV		YES									5.27%
Scenario 16	HI	EXPT	HICV											2.28%
Scenario 17	HI	IMPT	LOCV											2.41%
Scenario 18	НІ	IMPT	HICV						YES					0.99%
Probabi	ility of	Proceedi	ng in this Year:	0%	20%	1%	0%	3%	7%	0%	10%	0%	0%	
		Cumula	tive Probability	0%	20%	22%	22%	24%	31%	31%	41%	41%	41%	

Load Growth						
	Number of scenarios with this theme	Number of scenarios in which თ project proceeds	Percentage of relevant scenarios			
LOW	6	3	50%			
MED	6	2	33%			
HI	6	4	67%			

	Number of scenarios with this ۵ theme	Number of scenarios in which 4 project proceeds	Percentage of relevant scenarios
NTRL	6	4	67%
EXPT	6	2	33%

Inter-Regional Trade

Carbon Value					
	Number of scenarios with this theme	Number of scenarios in which თ project proceeds	Percentage of relevant scenarios		
LOCV	9	3	33%		
HICV	9	6	67%		

Appendix	C (Pro	jects) o	of Report to:			2	007 So	uth Au	stralia	n Gene	eration	and Lo		M Forecasti enario Analy	
	Elect	raNet	sion											Eln000 28th May 20	
Potential Project #	(This is a p	potential Ne	w Plant)												
17	Pelican	Point S2 ((168 OCGT)	located	d in the	ADE	node.								
	Initia	Ily this proje	ct was rated a	Mod	erate	likelihood correspo	l of procee	ding, whic	h was dee	med to	ا 50%	probability	y of proce	eding	
	At the corr	npletion of th	ne scenario analysis	project, th	e FINAL I			for this pro	oject was o	calculated	40.00/				
			os that were develop			•		·			42.6%	probabili	ty of proc	eeding	
	The follow	ing table illu	strates the year in w	hich (for e	ach scena	ario) the pl	ant is assu	med to be	e fully oper	ational:					
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV									YES		17.73%	
Scenario 8	MED	NTRL	HICV											6.97%	
Scenario 9	MED	EXPT	LOCV									YES		11.51%	
Scenario 10	MED	EXPT	HICV											5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV											2.12%	
Scenario 13	HI	NTRL	LOCV										YES	8.04%	
Scenario 14	HI	NTRL	HICV											3.52%	
Scenario 15	HI	EXPT	LOCV									YES		5.27%	
Scenario 16	HI	EXPT	HICV											2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV											0.99%	
Prot	ability of	f Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	35%	8%		
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	35%	43%		
													I		

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOW	6	0	0%							
MED	6	2	33%							
HI	6	2	33%							

Number of scenarios in which of project proceeds

2

2

Percentage of relevant scenarios

33% 33%

Number of scenarios with this theme

6

6

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	4	44%					
HICV	9	0	0%					

Appendix	C (Pro	jects) c	of Report to:			2	007 So	uth Au	stralia	n Gene	ration	and Lo		M Forecastin enario Analys
	Elect	raNet	ssion										:	Eln0001 28th May 200
Potential Project # 18			w Plant) Myponga) (3.2	located	d in the	ADE	node.	This	is a wind	l farm wi	th a max	imum rat	ting of 40	DMW.
	Initia	Ily this proje	ect was rated a	Mod	erate	likelihood correspo	of procee	ding, whic	h was dee	med to	50%	probability	y of proce	eding
	(across all	the scenar	he scenario analysis p ios that were develop ustrates the year in wh	ed) to be		Project Pr	obability		-		29.9%	probabili	ty of proc	eeding
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV				YES							4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV			YES								2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV							YES				1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV				YES							6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV				YES							5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV					YES						2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV			YES								3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV			YES								2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV				YES							0.99%
Prot	bability of	f Proceed	ling in this Year:	0%	0%	9%	18%	2%	0%	1%	0%	0%	0%	
		Cumul	ative Probability	0%	0%	9%	26%	29%	29%	30%	30%	30%	30%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which თ project proceeds	Percentage of relevant scenarios							
LOW	6	3	50%							
MED	6	3	50%							
HI	6	3	50%							

CONSULTING

Inter-Regional Trade

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	9	100%					



Potential Project #

(This is a potential New Plant)

 Snowtown Stage 1 (13.68 Wind Farm)
 Iocated in the
 ADE
 node.
 This is a wind farm with a maximum rating of 171MW.

 Initially this project was rated a
 Moderate
 likelihood of proceeding, which was deemed to correspond to a
 50% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 29.9% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV							YES				4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV					YES						2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV		YES									1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV		YES									6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV		YES									5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV						YES					2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV				YES							3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV		YES									2.28%
Scenario 17	Н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV				YES							0.99%
Prob	ability of	Proceed	ing in this Year:	0%	16%	0%	5%	3%	2%	5%	0%	0%	0%	
		Cumula	ative Probability	0%	16%	16%	21%	23%	25%	30%	30%	30%	30%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios							
LOW	6	3	50%							
MED	6	3	50%							
HI	6	3	50%							

Inter-Regional Trade								
	Number of scenarios with this theme	Number of scenarios in which თ project proceeds	Percentage of relevant scenarios					
NTRL	6	3	50%					
EXPT	6	3	50%					

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	9	100%					

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

28/05/2007

ppendix			f Report to:			2	007 So	uth Au	straliar	n Gene	eration	and Lo		M Forecasti enario Analy
1	Elect	raNet ctricity transmiss	iion										:	Eln000 28th May 20
Potential Project #		potential Nev												
20	Tailem E	Bend C (15	50 OCGT)	located	d in the	ADE	node.							
	Initia	Ily this project	ct was rated a	Mod	erate	likelihood correspo	l of procee	ding, whic	h was dee	med to	50% p	probability	of proce	eding
	(across all	the scenario	e scenario analysis p os that were develop strates the year in wh	ed) to be		Project Pr	obability		-		47.2%	probabili	ty of proc	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV								YES			17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV								YES			11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	HI	NTRL	LOCV						YES					8.04%
Scenario 14	HI	NTRL	HICV			<u> </u>	<u> </u>							3.52%
Scenario 15	HI	EXPT	LOCV			<u> </u>	<u> </u>		YES					5.27%
Scenario 16	HI	EXPT	HICV										YES	2.28%
Scenario 17	HI	IMPT	LOCV								YES			2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Prob	ability of	f Proceedi	ing in this Year:	0%	0%	0%	0%	0%	13%	0%	32%	0%	2%	
		Cumula	tive Probability	0%	0%	0%	0%	0%	13%	13%	45%	45%	47%	
		Cumula	tive Probability	0%	0%	0%	0%	0%	13%	13%	45%	45%	47%	

	Load Growth								
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	0	0%						
MED	6	2	33%						
HI	6	4	67%						

ROAM CONSULTING
ENERGY MODELLING EXPERTISE

Number of scenarios in which of project proceeds

2

3

Percentage of relevant scenarios

33% 50%

Number of scenarios with this theme

6

6

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	5	56%				
HICV	9	1	11%				

Appendix	C (Pro	ojects) o	f Report to:			20	007 So	uth Au	straliar	n Gene	eration	and Lo		<i>M Forec</i> enario A	
	Elect	ctricity transmiss	sion										:	Elr 28th Ma	n00011 iy 2007
Potential Project #		potential Net End (16 V	^{w Plant)} Vind Farm)	located	d in the	ADE	node.	This i	s a wind	farm wit	h a maxi	mum rati	ng of 20	OMW.	
	Initia	Ilv this proie	ct was rated a	Mod	erate		of procee	ding, whic	h was dee	med to	50% r	probability	of proce	eedina	
	At the con (across all	npletion of th I the scenario	e scenario analysis p os that were develop strates the year in wh	oroject, th ed) to be	e FINAL	-	obability					probabili	-	eeding	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV							YES				2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV			YES								6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV			YES								5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV							YES				2.12%	
Scenario 13	HI	NTRL	LOCV											8.04%	
Scenario 14	HI	NTRL	HICV									YES		3.52%	
Scenario 15	HI	EXPT	LOCV											5.27%	
Scenario 16	HI	EXPT	HICV							YES				2.28%	
Scenario 17	HI	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV				YES							0.99%	
Prob	ability of	f Proceed	ing in this Year:	0%	0%	12%	1%	0%	0%	7%	0%	4%	0%		
		Cumula	ative Probability	0%	0%	12%	13%	13%	13%	21%	21%	24%	24%		
		Canidi		070	070	12/0	1370	1070	1070	21/0	21/0	2-770	∠ - † /0		

	Load Growth								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	1	17%						
MED	6	3	50%						
HI	6	3	50%						

Percentage of relevant 33 55 scenarios in which 33 55 scenarios with chi 4 3 scenarios with this 6 4 Number of 4 scenarios with theme theme 5 4 NTRL EXPT	Inter-Regional Trade								
		Number of scenarios with this theme		Percentage of relevant scenarios					
EXPT 6 3 50%	NTRL	6	2	33%					
	EXPT	6	3	50%					

ROAM CONSULTING EXPERIISE

r

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	7	78%					

Appendix	Appendix C (Projects) of Report to: NEM Forecasting 2007 South Australian Generation and Load Scenario Analysis														
	ElectraNet electricity transmission														ln00011 ay 2007
Potential Project #	1	ootential Ne d Hill (9.8	<i>w Plant)</i> 34 Wind Farm)	located	d in the	NSA	node.	This i	s a wind	farm wit	h a maxi	mum rati	na of 12	3MW.	
			,					ding, whic					0		
	Initia	Ily this proje	ect was rated a	Lo	w	correspoi		ung, whic	n was uee	ineu io	20% p	probability	y of proce	eeding	
	At the completion of the scenario analy: (across all the scenarios that were deve The following table illustrates the year in					-	-	·			23.1%	probabili	ty of proc	ceeding	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV							YES				2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV				YES							6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV						YES					5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV							YES				2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV								YES			3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV							YES				2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV											0.99%	
Prot	pability of	f Proceed	ing in this Year:	0%	0%	0%	7%	0%	5%	7%	4%	0%	0%		

Load Growth								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOW	6	1	17%					
MED	6	3	50%					
HI	6	2	33%					

Cumulative Probability

0%

0%

0%

7%

7%

12%

20%

23%

inter regional reade									
	Number of scenarios with this ۵ theme	Number of scenarios in which 2 3 project proceeds	Percentage of structures scenarios						
NTRL		2	33%						
EXPT	6	3	50%						

CONSULTING

Inter-Regional Trade

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	6	67%					

23%

23%

Appendix	C (Pro	jects) o	f Report to:			20	007 So	uth Au	straliar	n Gene	ration	and Lo		M Forecasting enario Analysis
	Elect	raNet	sion										:	Eln0001 28th May 200
Potential Project #	1	potential Net	<i>w Plant)</i> ind Farm)	located	d in the	SESA	node.	This i	s a wind	farm wit	h a maxi	mum rati	ng of 20	OMW.
	Initia	Ily this proje	ct was rated a	Lo	w	likelihood correspor	of procee nd to a	ding, whic	h was dee	med to	20%	probability	y of proce	eeding
	(across all	the scenari	e scenario analysis p os that were develop strates the year in wh	ed) to be		-	-				20.4%	probabili	ty of proc	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV							YES				4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV			YES								6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV										YES	2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV						YES					3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV			YES								2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV			YES								0.99%
Prol	bability of	f Proceed	ing in this Year:	0%	0%	10%	0%	0%	4%	5%	0%	0%	2%	
		Cumula	ative Probability	0%	0%	10%	10%	10%	14%	18%	18%	18%	20%	

	Load G	rowth	
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
LOW	6	1	17%
MED	6	2	33%
HI	6	3	50%

	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	3	50%
EXPT	6	1	17%

ROAM CONSULTING EXPERIISE

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	6	67%				



Potential Project

2

al (This is a potential New Plant)

)/	Clements Farm)	Gap	(4.624	Wind	located in the	NSA	node.	This is a wind farm with a	maximum rating of 57.8MW.
	Initially t	his projec	ct was rated	la	Low	likelihood correspo		ing, which was deemed to	20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 24.4% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV									YES		2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV						YES					1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV								YES			6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV						YES					5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV								YES			2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV				YES							3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV					YES						2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	4%	2%	7%	0%	9%	3%	0%	
		Cumula	ative Probability	0%	0%	0%	4%	6%	13%	13%	22%	24%	24%	

Load Growth								
	Number of scenarios with this ۵ theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios					
LOW	6	2	33%					
MED	6	3	50%					
HI	6	2	33%					

Inter-Regional Trade								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
NTRL	6	2	33%					
EXPT	6	3	50%					

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	7	78%				

Appendix	C (Pro	ojects) o	f Report to:			2	007 So	uth Au	stralia	n Gene	ration	and Lo		<i>M Forecasti</i> enario Analy
H	Elect	ctricity transmiss	sion										:	Eln000 28th May 20
Potential Project #	7	potential Nev Hill (9.6 W	<i>w Plant)</i> Jind Farm)	located	d in the	NSA	node.	This	is a wind	farm wit	h a maxi	mum rati	ng of 12	DMW.
20							l of procee						-	
	At the con (across al	npletion of th I the scenario	ct was rated a le scenario analysis p os that were develop strates the year in wh	project, th ed) to be		correspo Project Pr	nd to a robability	for this pro	oject was o	calculated		probabilit <u>;</u> probabili	-	-
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV									YES		4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV						YES					2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV				YES							1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV									YES		6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV									YES		2.12%
Scenario 13	HI	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV						YES					3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Prol	bability o	f Proceedi	ing in this Year:	0%	0%	0%	1%	0%	6%	0%	0%	14%	0%	
		Cumula	ative Probability	0%	0%	0%	1%	1%	8%	8%	8%	21%	21%	

	Load G	rowth	
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios
LOW	6	3	50%
MED	6	2	33%
HI	6	1	17%

ROAM
CONSULTING ENERGY MODELLING EXPERTISE

Number of scenarios in which of project proceeds

3

1

Percentage of relevant scenarios

Number of scenarios with this theme

6

6

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	6	67%				

Appendix	C (Pro	ojects) o	f Report to:			20	007 So	uth Au	stralia	n Gene	eration	and Lo		<i>M Forecastin</i> enario Analys
	Elect	ctricity transmis	sion										:	Eln0001 28th May 200
Potential Project # 26	Elliston Initia At the com (across all	npletion of th I the scenari		Lo project, th ed) to be		correspor Project Pr	of proceend to a obability	ding, whic for this pro	h was dee bject was d	med to	20% p	imum rat probability probabili	of proce	eeding
	Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV								YES			4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV								YES			2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV								YES			1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV			YES								6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV						YES					5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 13	HI	NTRL	LOCV											8.04%
Scenario 14	HI	NTRL	HICV								YES			3.52%
Scenario 15	HI	EXPT	LOCV											5.27%
Scenario 16	HI	EXPT	HICV						YES					2.28%
Scenario 17	HI	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV		YES									0.99%
Prob	ability of	f Proceed	ing in this Year:	0%	3%	7%	0%	0%	8%	0%	12%	0%	0%	
		Cumula	ative Probability	0%	3%	10%	10%	10%	18%	18%	30%	30%	30%	

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios				
LOW	6	3	50%				
MED	6	3	50%				
HI	6	3	50%				

Number of scenarios in which of project proceeds

3 3 Percentage of relevant scenarios

Number of scenarios with this theme

6

6

Carbon Value						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios			
LOCV	9	0	0%			
HICV	9	9	100%			

Appendix	C (Pro	ojects) o	of Report to:			2	007 So	uth Au	Istralia	n Gene	ration	and Lo		M Forecast	
	Elect	ctricity transmis	sion										:	Eln000 28th May 20	-
Potential Project # 27	1	potential Ne 2 (5.2 Wi		located	d in the	NSA	node.	This	is a wind	l farm wit	th a max	imum rat	ing of 65	smw.	
	Initia	ally this proje	ect was rated a	Lo	w	likelihood correspo	of procee	ding, whic	h was dee	med to	20%	orobability	y of proce	eeding	
	(across all	I the scenari	ne scenario analysis p los that were develop strates the year in wh	ed) to be		Project Pr	obability		-		24.1%	probabili	ty of proc	eeding	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV									YES		2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV						YES					6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV							YES				5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV										YES	2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV		YES									3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV							YES				2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV				YES							0.99%	
Prob	ability o	f Proceed	ing in this Year:	0%	4%	0%	1%	0%	7%	8%	0%	3%	2%		
		Cumula	ative Probability	0%	4%	4%	5%	5%	11%	19%	19%	22%	24%		

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	1	17%				
MED	6	3	50%				
HI	6	3	50%				

ROAM	-
CONSULTIN	G

Number of scenarios in which 2 of project proceeds

3

Percentage of relevant scenarios

<u>″ ∓ ∓</u> 33% 50%

Number of scenarios with this theme

6

6

NTRL EXPT Carbon Value

Number of scenarios in which of project proceeds

0

7

Percentage of relevant % scenarios

Number of scenarios with this ອາອາ

LOCV HICV

Appendix	C (Pro	ojects) o	f Report to:			2	007 So	uth Au	straliar	n Gene	ration	and Lo		M Forecastin enario Analys
3	Elect	ctricity transmis	sion											Eln0001 28th May 200
Potential Project # 28	1	potential Ne oint (3.52	^{w Plant)} Wind Farm)	located	d in the	SESA	node.			I farm wi			-	
	Initia	Illy this proje	ct was rated a	Lo	w	correspo		ung, whic	n was uee	med to	20%	orobabilit	y of proc	eeding
	(across all	the scenari	e scenario analysis p os that were develop strates the year in wh	ed) to be		-	-		-		3.6%	probabilit	y of proc	eeding
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV							YES				1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV						YES					2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Prob	bability of	f Proceed	ing in this Year:	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	2%	4%	4%	4%	4%	
L										l				

	Load Growth							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOW	6	1	17%					
MED	6	0	0%					
HI	6	1	17%					

Inter-Regional Trade						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios			
NTRL	6	0	0%			
EXPT	6	1	17%			

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	2	22%				

Appendix	c C (Pro	jects) o	of Report to:			2	007 So	uth Au	stralia	n Gene	eration	and Lo		<i>M Forec</i> enario Ar	0
	Elect	traNet	sion											Eln 28th May	00011 y 2007
Potential Project #	(This is a j	potential Ne	w Plant)												
29	Hamley	Bridge C	(160 OCGT)	locate	d in the	ADE	nodo								
29	lianiey	Bridge C	(100 0001)	localed											
	Initia	Illy this proje	ect was rated a	Lo	w	likelihood correspo	of procee nd to a	ding, whic	h was dee	med to	20%	probabilit	y of proce	eeding	
			ne scenario analysis		e FINAL I	Project Pr	obability	for this pro	oject was	alculated	5.3%	probabilit	v of proc	eedina	
	(across al	I the scenari	os that were develop	ed) to be							0.070	probabilit	y er pree	county	
	The follow	ing table illu	strates the year in w	hich (for e	ach scena	ario) the pl	ant is assu	med to be	e fully oper	ational:					
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV											6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV											5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV											2.12%	
Scenario 13	HI	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV											3.52%	
Scenario 15	н	EXPT	LOCV										YES	5.27%	
Scenario 16	н	EXPT	HICV											2.28%	
Scenario 17	HI	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV						ļ					0.99%	
Pro	bability of	f Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%		
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%		

	Load Growth							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOW	6	0	0%					
MED	6	0	0%					
HI	6	1	17%					

Number of scenarios in which of project proceeds

0

1

Percentage of relevant scenarios

<u>″ ∓ ⊣</u> 0% 17%

Number of scenarios with this theme

6

6

	Carbo	n Value	
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
LOCV	9	1	11%
HICV	9	0	0%



Potential Project

ial (This is a potential New Plant)



Innamincka B (300 Geothermal /

located in the NSA node.

Initially this project was rated a

likelihood of proceeding, which was deemed to

Low correspond to a

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 12.3% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV								YES			5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	Н	NTRL	LOCV											8.04%
Scenario 14	Н	NTRL	HICV										YES	3.52%
Scenario 15	Н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV								YES			2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV								YES			0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	9%	0%	4%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	9%	9%	12%	

	Load Growth							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOW	6	0	0%					
MED	6	1	17%					
HI	6	3	50%					

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	4	44%				

Appendix	C (Pro	jects) o	f Report to:			2	007 So	uth Au	Istralia	n Gene	ration	and Lo		M Forecasti enario Analy	•
	Elect	raNet	sion											Eln000 28th May 20	
Potential Project # 31	1	po <i>tential Ne</i> v ong (2.4 V	<i>« Plant)</i> Vind Farm)	located	d in the	SESA	node.	This	is a wind	d farm wi	th a max	imum rat	ing of 30	DMW.	
	Initia	Illy this proje	ct was rated a	Lo	w		of procee	ding, whic	h was dee	med to	20%	probabilit	y of proce	eeding	
	At the con (across al	npletion of th I the scenario	e scenario analysis p os that were develop strates the year in wh	ed) to be		-	obability		-			probabilit		-	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV							YES				1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV											6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV											5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV				YES							2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV											3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV											2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV											0.99%	
Prot	bability o	f Proceedi	ing in this Year:	0%	0%	0%	2%	0%	0%	1%	0%	0%	0%		
		Cumula	ative Probability	0%	0%	0%	2%	2%	2%	3%	3%	3%	3%		

	Load Growth								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	1	17%						
MED	6	1	17%						
HI	6	0	0%						

	nter-Regi	onal Trad	е
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	0	0%
EXPT	6	0	0%

ROAM CONSULTING EXPERIISE

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	2	22%				

Appendix	C (Pro	jects) c	of Report to:			20	007 So	uth Au	stralia	n Gene	ration	and Lo		<i>M Forecas</i> enario Anal	
	Elect	raNet tricity transmis	sion											Eln00 28th May 2	-
Potential Project #	1	potential Ne za (4 Win		located	d in the	SESA	node.	This	is a wind	l farm wit	th a max	imum rat	ting of 50	DMW.	
	• Initia	Illy this proje	ct was rated a	Lo	w		of procee	ding, whic	h was dee	med to	20% p	probabilit	y of proc	eeding	
	At the con (across all	npletion of th the scenari	he scenario analysis os that were develop strates the year in wi	ed) to be		-	obability		-			probabilit			
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV						YES					1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV											6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV											5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV			YES								2.12%	
Scenario 13	HI	NTRL	LOCV											8.04%	
Scenario 14	HI	NTRL	HICV											3.52%	
Scenario 15	HI	EXPT	LOCV											5.27%	
Scenario 16	HI	EXPT	HICV			YES								2.28%	
Scenario 17	HI	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV											0.99%	
Prob	ability of	f Proceed	ing in this Year:	0%	0%	4%	0%	0%	1%	0%	0%	0%	0%		
		Cumula	ative Probability	0%	0%	4%	4%	4%	6%	6%	6%	6%	6%		

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	1	17%				
MED	6	1	17%				
HI	6	1	17%				

Inter-Regional Trade							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
NTRL	6	0	0%				
EXPT	6	1	17%				

ROAM CONSULTING CONSULTING EXPERTISE

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	3	33%				

Appendix	C (Pro	jects) o	f Report to:			20	007 So	uth Au	straliar	n Gene	eration	and Lo		<i>M Foreca</i> enario An	
	Elect	ctricity transmiss	sion										:	Elní 28th May	00011 / 2007
Potential Project #	1	potential New corge (9.6	<i>w Plant)</i> Wind Farm)	located	d in the	SESA	node.	This	is a wind	farm wit	h a maxi	mum rati	ng of 12	OMW.	
	Initia	Illy this proje	ct was rated a	Lo	w		of procee	ding, whic	h was dee	med to	20% p	probability	y of proce	eding	
	At the con (across al	npletion of th I the scenario	e scenario analysis p os that were develop strates the year in wh	project, th ed) to be	e FINAL I	-	obability		-			probabili		-	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV										YES	4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV								YES			6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV						YES					5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV										YES	2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV								YES			3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV						YES					2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	н	IMPT	HICV											0.99%	
Prot	ability o	f Proceedi	ing in this Year:	0%	0%	0%	0%	0%	8%	0%	10%	0%	7%		
		Cumula	ative Probability	0%	0%	0%	0%	0%	8%	8%	18%	18%	25%		

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	1	17%				
MED	6	3	50%				
HI	6	2	33%				

ROAM	
ENERGY MODELLING EXPERTISE	

Number of scenarios in which of project proceeds

3

2

Percentage of relevant scenarios

<u>% ∓ →</u> 50% 33%

Number of scenarios with this theme

6

6

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	6	67%				



Potential Project

(This is a potential New Plant)



LES Port Lincoln (50 Geothermal

located in the NSA node.

Initially this project was rated a

likelihood of proceeding, which was deemed to

Low correspond to a 20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 0.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	0	0%				
MED	6	0	0% 0%				
HI	6	0	0%				

I	Inter-Regional Trade							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
NTRL	6	0	0%					
EXPT	6	0	0%					

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	0	0%				



Potential Project #

(This is a potential New Plant)

35

Initially this project was rated a

Lincoln Gap (9.912 Wind Farm)

located in the NSA node. This is a wind farm with a maximum rating of 123.9MW.

Low correspond to a

likelihood of proceeding, which was deemed to

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 22.1% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV										YES	4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV										YES	2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV									YES		6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV										YES	2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV								YES			3.52%
Scenario 15	Н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV										YES	2.28%
Scenario 17	Н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	4%	7%	12%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	4%	10%	22%	

	Load Growth								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	2	33%						
MED	6	2	33%						
HI	6	2	33%						

Inter-Regional Trade									
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios						
NTRL	6	3	50%						
EXPT	6	2	33%						

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	6	67%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

28/05/2007



Potential Project # (This is a p

(This is a potential New Plant)

36	Lochiel (16 Wind Farm)	located in the	NSA node.	This is a wind farm with	a maximum rating of 200MW.
	Initially this project was rated a	Low	likelihood of proceed correspond to a	ling, which was deemed to	20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 26.1% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV								YES			4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV				YES							1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV					YES						6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV				YES							5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV						YES					2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV					YES						3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV								YES			2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV											0.99%
Prob	ability of	f Proceed	ing in this Year:	0%	0%	0%	7%	10%	2%	0%	7%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	7%	17%	19%	19%	26%	26%	26%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which থ project proceeds	Percentage of relevant scenarios							
LOW	6	2	33%							
MED	6	3	50%							
HI	6	2	33%							

Inter-Regional Trade									
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios						
NTRL	6	3	50%						
EXPT	6	2	33%						

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	7	78%						

Appendix	С	(Projects)	of Report to:
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Potential Project

37

(This is a potential New Plant) Mallala C (160 OCGT)

located in the ADE node.

Initially this project was rated a

Low

likelihood of proceeding, which was deemed to correspond to a

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 19.2% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV								YES			8.04%
Scenario 14	н	NTRL	HICV								YES			3.52%
Scenario 15	н	EXPT	LOCV								YES			5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV										YES	2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	17%	0%	2%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	17%	17%	19%	

	Load Growth								
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	0	0%						
MED	6	0	0%						
HI	6	4	67%						

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	3	33%				
HICV	9	1	11%				

Appendix	k C (Pro	ojects) c	of Report to:			2	007 So	outh Au	stralia	n Gene	eration	and Lo			<i>ecasting</i> Analysis
	Elect	traNet ctricity transmis	sion												ln00011 ay 2007
Potential Project #	(This is a	potential Ne	w Plant)												
38	Meningi	ie (4 Wind	d Farm)	locate	d in the	ADE	node.	This	is a wind	d farm wi	th a max	imum rat	ting of 50	DMW.	
	Initia	ally this proje	ect was rated a	L	w	likelihood correspo	l of procee nd to a	ding, whic	h was dee	med to	20%	probability	y of proce	eeding	
			ne scenario analysis ios that were develop		e FINAL I	Project Pr	obability	for this pro	oject was o	calculated	18.4%	probabili	ty of proc	eeding	
	The follow	ing table illu	strates the year in w	hich (for e	ach scena	ario) the pl	ant is assu	umed to be	e fully oper	ational:					
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV			YES								4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV						YES					1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	1
Scenario 8	MED	NTRL	HICV				YES							6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV											5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV		YES									2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV				YES							3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV											2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	н	IMPT	HICV											0.99%	
Pro	bability o	f Proceed	ing in this Year:	0%	2%	5%	10%	0%	1%	0%	0%	0%	0%		

 Load Growth

 scenarios in which of theme
 scenarios in which of swith this of LOW
 scenarios argues of theme

 LOW
 6
 2
 33%

 HI
 6
 1
 17%

Cumulative Probability

0%

2%

I	nter-Regi	onal Trad	е
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios
NTRL	6	3	50%
EXPT	6	0	0%

ROAM CONSULTING ENERGY MODELLING EXPERTISE

17%

17%

18%

18%

18%

7%

	Carbor	n Value	
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
LOCV	9	0	0%
HICV	9	5	56%

18%

18%

Prol	bability o	f Proceedi	ing in this Year:	0%	13%	0%	0%	0%	4%	0%	0%	1%	0%	
Scenario 18	HI	IMPT	HICV						YES					0.99%
Scenario 17	HI	IMPT	LOCV											2.41%
Scenario 16	HI	EXPT	HICV											2.28%
Scenario 15	HI	EXPT	LOCV											5.27%
Scenario 14	HI	NTRL	HICV		YES									3.52%
Scenario 13	HI	NTRL	LOCV											8.04%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 8	MED	NTRL	HICV		YES									6.97%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 6	LOW	IMPT	HICV			1						YES		1.29%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 4	LOW	EXPT	HICV						YES					2.76%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 1	LOW	NTRL	LOCV											9.74%
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
	·		os that were develop strates the year in wh	,	ach scena	ario) the pla	ant is assu	med to be	e fully oper	ational:				-
			e scenario analysis j		e FINAL I	Project Pr	obability	ior this pro	oject was o	calculated	17.6%	probabili	ty of proc	eedina
	Initia	Illy this proje	ct was rated a	Lo	w	likelihood correspor	of procee nd to a	ding, whic	h was dee	med to	ا 20%	orobability	y of proce	eeding
39	Mt Brya	n (4.8 Win	nd Farm)	located	d in the	ADE	node.	This	is a wind	l farm wi	th a max	imum rat	ing of 60	MW.
otential oject #	(This is a	potential Nev	v Plant)											
	ele	ctricity transmiss	sion										:	Eln00 28th May 2
	Elect	raNet												
														enario Ana

	Load G	rowth	
	Number of scenarios with this theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios
LOW	6	2	33%
MED	6	2	33%
HI	6	2	33%

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	6	67%					

Potential Project # (7 40 N	This is a po lew Entr Initial! t the comp across all t he followir	otential New ry CCGT (y this proje pletion of th the scenario ng table illus		Lo project, th bed) to be		correspo Project Pr	of procee nd to a	-				probability	y of proce	-
Project # (1 40 N	lew Entr Initially t the comp across all t he followin	ry CCGT (ly this proje pletion of th the scenario ng table illus	(250 CCGT) ct was rated a le scenario analysis os that were develop	Lo project, th bed) to be	ow le FINAL	likelihood correspo Project Pr	of procee nd to a	-						-
	Initially t the comp across all t he followir	ly this proje pletion of th the scenario	ct was rated a le scenario analysis os that were develop	Lo project, th bed) to be	ow le FINAL	likelihood correspo Project Pr	of procee nd to a	-						-
	Initially t the comp across all t he followir	ly this proje pletion of th the scenario	ct was rated a le scenario analysis os that were develop	Lo project, th bed) to be	ow le FINAL	likelihood correspo Project Pr	of procee nd to a	-						-
At	t the comp across all t he followir	pletion of th the scenario	e scenario analysis os that were develop	project, th bed) to be	e FINAL	correspo Project Pr	nd to a	-						-
At	across all t he followir	the scenarions table illus	os that were develop	bed) to be		-	obability	for this pro	oject was o	calculated	0.0%	probabilit	y of proc	eeding
	he followir	ng table illus		,	ach scen								,	
(a		-	strates the year in wh	hich (for e	ach scon									
Tł					ach acell	ario) the pl	ant is assu	imed to be	e fully oper	ational:				
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	HI	NTRL	LOCV											8.04%
Scenario 14	HI	NTRL	HICV											3.52%
Scenario 15	HI	EXPT	LOCV											5.27%
Scenario 16	HI	EXPT	HICV											2.28%
Scenario 17	HI	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Probal	bility of	Proceedi	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load G	rowth	
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
LOW	6	0	0%
MED	6	0	0%
HI	6	0	0%

ROAM	
	G

Number of scenarios in which of project proceeds

0

0

Percentage of relevant scenarios

0% 0%

Number of scenarios with this theme

6

6

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	0	0%						

Appendix	С	(Projects)	of Report to:
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Potential (This is a potential New Plant) Project #

41

Osborne 2 (100 OCGT)

located in the ADE node.

Initially this project was rated a

Low

likelihood of proceeding, which was deemed to correspond to a

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 0.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth										
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios								
LOW	6	0	0%								
MED	6	0	0%								
HI	6	0	0%								

Inter-Regional Trade										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
NTRL	6	0	0%							
EXPT	6	0	0%							

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	0	0%						



Potential Project # (This is a potential New Plant)

42

Port Lincoln (25 OCGT) located in the

the NSA node.

Initially this project was rated a

likelihood of proceeding, which was deemed to

Low correspond to a

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 0.0% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	Probability of Proceeding in this Year:		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOW	6	0	0%							
MED	6	0	0% 0%							
HI	6	0	0%							

	nter-Regi	onal Trad	e
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	0	0%
EXPT	6	0	0%

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	0	0%						

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

28/05/2007

Appendix	Appendix C (Projects) of Report to					20	007 So	uth Au	straliar	n Gene	ration	and Lo		<i>M Foreca</i> enario Ana	•
	Elect	raNet	sion											Eln0 28th May	0011 2007
Potential Project # 43	1	potential Ne ak Flat (4.7	^{w Plant)} 72 Wind Farm)	located	d in the	NSA	node.	This	is a winc	l farm wi	th a max	imum rat	ting of 59	ÐMW.	
	Initia	Illv this proie	ct was rated a	Lo	w		of procee	ding, whic	h was dee	med to	20% ו	orobabilit	v of proc	eedina	
	At the con (across all	npletion of th I the scenari	ne scenario analysis os that were develop strates the year in w	project, th bed) to be	e FINAL	-	obability					probabilit		-	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV											6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV			YES								5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12 Scenario 13	MED	IMPT NTRL	HICV LOCV											2.12%	
Scenario 13 Scenario 14	н	NTRL	HICV											8.04% 3.52%	
Scenario 14	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV			1						YES		2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	н	IMPT	HICV											0.99%	
Prot	pability of	f Proceed	ing in this Year:	0%	0%	5%	0%	0%	0%	0%	0%	2%	0%		

Cumulative Probability 0%

	Load Growth						
	Number of scenarios with this ۵ theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	0	0%				
MED	6	1	17%				
HI	6	1	17%				

I	nter-Regi	onal Trad	e
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	0	0%
EXPT	6	2	33%

CONSULTING

5%

5%

5%

5%

5%

5%

0%

Carbon Value					
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios		
LOCV	9	0	0%		
HICV	9	2	22%		

8%

8%

ppendix	C (Pro	ojects) o	of Report to:			2	007 So	uth Au	straliar	n Gene	eration	and Lo			<i>ecasting</i> Analysis
H	Elect	traNet	sion										:		In00011 ay 2007
Potential Project #	(This is a	potential Ne	w Plant)												
44	Shering	a (8.8 Wiı	nd Farm)	locate	d in the	NSA	node.	This i	s a wind	farm wit	h a maxi	mum rati	ing of 11	OMW.	
	I nitia	Illy this proje	ect was rated a	L	ow	likelihood correspo	of procee nd to a	ding, whic	h was dee	med to	ا 20%	probabilit	y of proce	eding	
	(across al	the scenari	ne scenario analysis los that were develo strates the year in w	ped) to be		-	-	·			27.1%	probabili	ty of proc	eeding	
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV									YES		4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV											2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV			YES								1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV								YES			6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV				YES							5.48%	
		-			1	1					1	I	1		

		Culliu		0%	0%	170	170	170	0%	0%	10%	2170	2170
		Cumul	ative Probability	0%	0%	1%	7%	7%	8%	8%	18%	27%	27%
Prob	ability of	Proceed	ing in this Year:	0%	0%	1%	5%	0%	1%	0%	10%	9%	0%
Scenario 18	н	IMPT	HICV						YES				
Scenario 17	н	IMPT	LOCV										
Scenario 16	Н	EXPT	HICV									YES	
Scenario 15	н	EXPT	LOCV										
Scenario 14	н	NTRL	HICV								YES		
Scenario 13	н	NTRL	LOCV										
Scenario 12	MED	IMPT	HICV									YES	
Scenario 11	MED	IMPT	LOCV										
							-						

Load Growth						
	Number of scenarios with this theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios			
LOW	6	2	33%			
MED	6	3	50%			
HI	6	3	50%			

Inter-Regional Trade					
	Number of scenarios with this theme	Number of scenarios in which α project proceeds	Percentage of relevant scenarios		
NTRL	6	3	50%		
EXPT	6	2	33%		

CONSULTING

Carbon Value					
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios		
LOCV	9	0	0%		
HICV	9	8	89%		

5.29% 2.12% 8.04% 3.52% 5.27% 2.28% 2.41% 0.99%



Potential Project #

(This is a potential New Plant)

45

Sheringa Beach (8 Wind Farm)

Initially this project was rated a

located in the

NSA node. This is a wind farm with a maximum rating of 100MW.

Low correspond to a

likelihood of proceeding, which was deemed to

20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 19.1% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV									YES		6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV				YES							5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV								YES			3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV								YES			0.99%
Prob	ability of	Proceed	ing in this Year:	0%	2%	0%	5%	0%	0%	0%	5%	7%	0%	
		Cumula	ative Probability	0%	2%	2%	8%	8%	8%	8%	12%	19%	19%	

Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios			
LOW	6	0	0%			
MED	6	3	50%			
HI	6	2	33%			

Carbon Value					
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios		
LOCV	9	0	0%		
HICV	9	5	56%		



Potential Project

al (This is a potential New Plant)

 Snowtown Stage 2 (13.2 Wind Farm)
 Incated in the Low
 ADE node.
 This is a wind farm with a maximum rating of 165MW.

 Initially this project was rated a
 Low
 likelihood of proceeding, which was deemed to correspond to a
 20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 25.4% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV								YES			2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV					YES						1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV			YES								6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV			YES								5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV									YES		2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	Н	NTRL	HICV									YES		3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV								YES			2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV							YES				0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	12%	0%	1%	0%	1%	5%	6%	0%	
		Cumula	ative Probability	0%	0%	12%	12%	14%	14%	15%	20%	25%	25%	

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios				
LOW	6	2	33%				
MED	6	3	50%				
HI	6	3	50%				

Inter-Regional Trade							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
NTRL	6	2	33%				
EXPT	6	3	50%				

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	8	89%				

Appendix	opendix C (Projects) of Report to: NEM Forecasting 2007 South Australian Generation and Load Scenario Analysis						•								
	Elect	sion										:	Elr 28th Ma	n00011 ay 2007	
Potential Project # 47	The Blu	potential Ne	nd Farm)		d in the	ADE						imum rat	-		
	Initially this project was rated a Low likelihood of proceeding, which was deemed to correspond to a 20% probability of proceeding At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 16.4% probability of proceeding The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational: 16.4% probability of proceeding														
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV							YES				2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV		YES									6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV											5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV		YES									2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV		YES									3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV											2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	HI	IMPT	HICV			YES								0.99%	
Prol	bability of	f Proceed	ing in this Year:	0%	13%	1%	0%	0%	0%	3%	0%	0%	0%		
		Cumula	ative Probability	0%	13%	14%	14%	14%	14%	16%	16%	16%	16%		

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	1	17%				
MED	6	2	33%				
HI	6	2	33%				

Percentage of relevant Percentage of scenarios Number of project proceeds Scenarios Number of scenarios with this 6 33% NTRL 1 EXPT 6	Inter-Regional Trade							
		Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
EXPT 6 1 17%	NTRL	6	2	33%				
	EXPT	6	1	17%				

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	5	56%				

Appendix	C (Pro	jects) o	f Report to:			2	007 So	uth Au	ıstraliaı	n Gene	ration	and Lo		M Forecastin enario Analys
E	Elect	raNet	sion											Eln0001 28th May 200
Potential Project #		potential New Island (15		located	d in the	ADE	node.							
	Initia	Ily this proje	ct was rated a	Lo	w	likelihood correspo	l of procee	ding, whic	h was dee	med to	20%	orobabilit	y of proc	eeding
	(across all	the scenario	e scenario analysis p os that were develop strates the year in wh	ed) to be		Project Pr	robability		-		0.0%	probabilit	y of proc	eeding
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	HI	NTRL	LOCV											8.04%
Scenario 14	HI	NTRL	HICV											3.52%
Scenario 15	HI	EXPT	LOCV											5.27%
Scenario 16	HI	EXPT	HICV											2.28%
Scenario 17	HI	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Prob	ability of	f Proceedi	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
				0,0	/ -		- / •	070		270	270	/ 0	070	

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	0	0%				
MED	6	0	0%				
HI	6	0	0%				

ROAM
ENERGY MODELLING EXPERTISE

Number of scenarios in which of project proceeds

0

0

Percentage of relevant a scenarios

0% 0%

Number of scenarios with this theme

6

6

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	0	0%				

Appendix	C (Pro	jects) o	f Report to:			2	007 So	uth Au	straliar	n Gene	ration	and Lo		M Forecastir enario Analys
	Elect	raNet ctricity transmiss	sion										:	Eln000 ² 28th May 200
Potential Project # 49		oo <i>tential Nev</i> dge (2 Wir		located	d in the		node.				th a max	imum rat	ing of 25	SMW.
	Initia	Ily this proje	ct was rated a	Lo	w	correspo	l of procee nd to a	ding, whic	h was dee	med to	20%	probability	y of proce	eding
	(across all	the scenario	e scenario analysis p os that were develop strates the year in wh	ed) to be		-	-		-		15.3%	probabili	ty of proc	eeding
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV									YES		2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV							YES				1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV							YES				5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	HI	NTRL	HICV									YES		3.52%
Scenario 15	HI	EXPT	LOCV											5.27%
Scenario 16	HI	EXPT	HICV							YES				2.28%
Scenario 17	HI	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Prob	ability of	f Proceedi	ing in this Year:	0%	0%	0%	0%	0%	0%	9%	0%	6%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	9%	9%	15%	15%	
			,											

	Load Growth										
	Number of scenarios with this theme	Number of scenarios in which N project proceeds	Percentage of relevant scenarios								
LOW	6	2	33%								
MED	6	1	17%								
HI	6	2	33%								

Number of scenarios in which project proceeds

1 3 Percentage of relevant scenarios

Number of scenarios with this theme

6 6

Carbon Value									
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOCV	9	0	0%						
HICV	9	5	56%						



Potential Project # (Thi

(This is a potential New Plant)

50	Uley (12.8 Wind Farm)	located in the	NSA node.	This is a wind farm with	a maximum rating of 160MW.
	Initially this project was rated a	Low	likelihood of proceed correspond to a	ding, which was deemed to	20% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated (across all the scenarios that were developed) to be 20.4% probability of proceeding

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV										YES	4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV									YES		1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV				YES							6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV				YES							5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV										YES	2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV											0.99%
Prob	Probability of Proceeding in this Year:			0%	0%	0%	12%	0%	0%	0%	0%	1%	7%	
		Cumula	ative Probability	0%	0%	0%	12%	12%	12%	12%	12%	14%	20%	

	Load Growth									
	Number of scenarios with this ۵ theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios							
LOW	6	2	33%							
MED	6	3	50% 0%							
HI	6	0	0%							

Carbon Value										
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios							
LOCV	9	0	0%							
HICV	9	5	56%							



Potential Project #

(This is a potential New Plant)

51

Vincent North (4.752 Wind Farm) located in the

NSA node. This is a wind farm with a maximum rating of 59.4MW.

likelihood of proceeding, which was deemed to

Low correspond to a 20% probability of proceeding

Initially this project was rated a

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 17.4% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV									YES		2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV									YES		1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV							YES				5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV		YES									2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV								YES			3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV							YES				2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV											0.99%
Prob	Probability of Proceeding in this Year:			0%	2%	0%	0%	0%	0%	8%	4%	4%	0%	
		Cumula	ative Probability	0%	2%	2%	2%	2%	2%	10%	13%	17%	17%	

	Load Growth									
	Number of scenarios with this ۵ theme	Number of scenarios in which 2 2 project proceeds	Percentage of relevant scenarios							
LOW	6	2	33%							
MED	6	2	33%							
HI	6	2	33%							

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	6	67%					

Appendix	k C (Pro	jects) o	of Report to:			20	007 So	outh Au	stralia	n Gene	ration	and Lo			<i>ecasting</i> Analysis
	Elect	ctricity transmis	sion										:		In00011 ay 2007
Potential Project # 52	Willogol Farm) Initia At the con (across al	Illy this proje npletion of th I the scenari	w Plant) II (4.16 Wind ect was rated a he scenario analysis ios that were develop strates the year in w	Lo project, th bed) to be		correspor Project Pr	of proceend to a obability	ding, whic for this pro	h was dee bject was d	calculated	20%	imum ral probability probabili	y of proce	eding	
	Growth	Regional Trade	Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability	
Scenario 1	LOW	NTRL	LOCV											9.74%	
Scenario 2	LOW	NTRL	HICV											4.5%	
Scenario 3	LOW	EXPT	LOCV											6.83%	
Scenario 4	LOW	EXPT	HICV							YES				2.76%	
Scenario 5	LOW	IMPT	LOCV											3.27%	
Scenario 6	LOW	IMPT	HICV											1.29%	
Scenario 7	MED	NTRL	LOCV											17.73%	
Scenario 8	MED	NTRL	HICV		YES									6.97%	
Scenario 9	MED	EXPT	LOCV											11.51%	
Scenario 10	MED	EXPT	HICV							YES				5.48%	
Scenario 11	MED	IMPT	LOCV											5.29%	
Scenario 12	MED	IMPT	HICV									YES		2.12%	
Scenario 13	н	NTRL	LOCV											8.04%	
Scenario 14	н	NTRL	HICV						YES					3.52%	
Scenario 15	н	EXPT	LOCV											5.27%	
Scenario 16	н	EXPT	HICV							YES				2.28%	
Scenario 17	н	IMPT	LOCV											2.41%	
Scenario 18	н	IMPT	HICV							YES				0.99%	
Pro	bability o	f Proceed	ing in this Year:	0%	7%	0%	0%	0%	4%	12%	0%	2%	0%		
		Cumula	ative Probability	0%	7%	7%	7%	7%	10%	22%	22%	24%	24%		

Load Growth Number of scenarios with this theme Number of scenarios in which project proceeds Percentage of relevant scenarios LOW 6 1 17% 50% MED 6 3 HI 50% 6 3

l	Inter-Regional Trade								
	Number of scenarios with this theme	Number of scenarios in which 2 project proceeds	Percentage of relevant scenarios						
NTRL	6	2	33%						
EXPT	6	3	50%						

CONSULTING

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV HICV	9	0	0%					
HICV	9	7	78%					

Appendix C	(Projects) of Report to:
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Potential Project

53

(This is a potential New Plant)

Far North SA (560 OCGT)

located in the NSA node.

Initially this project was rated a

Very Low

likelihood of proceeding, which was deemed to correspond to a

10% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 0.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Load Growth								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOW	6	0	0%					
MED	6	0	0%					
HI	6	0	0%					

Carbon Value								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOCV	9	0	0%					
HICV	9	0	0%					



Potential Project

54

(This is a potential New Plant)

Lock (500 Sub-critical)

located in the NSA node.

Initially this project was rated a

likelihood of proceeding, which was deemed to

Very Low correspond to a 10% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 0.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	Н	NTRL	LOCV											8.04%
Scenario 14	Н	NTRL	HICV											3.52%
Scenario 15	Н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth								
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios						
LOW	6	0	0%						
MED	6	0	0% 0%						
HI	6	0	0%						

	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
NTRL	6	0	0%
EXPT	6	0	0%

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	0	0%				



Potential Project

(This is a potential New Plant)

55

Millicent (KCA) (30 Sub-critical)

Initially this project was rated a

located in the SESA node.

likelihood of proceeding, which was deemed to Very Low correspond to a

10% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 0.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	Н	NTRL	LOCV											8.04%
Scenario 14	Н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	Н	IMPT	LOCV											2.41%
Scenario 18	Н	IMPT	HICV											0.99%
Prob	ability of	f Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	0	0%				
MED	6	0	0% 0%				
HI	6	0	0%				

Inter-Regional Trade							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
NTRL	6	0	0%				
EXPT	6	0	0%				

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	0	0%				

Scenarios for Electranet (Eln00011) - 2007-05-17.xls http://www.roamconsulting.com.au

28/05/2007

Appendix	C (Pro	jects) o	f Report to:			2	007 So	uth Au	stralia	n Gene	ration	and Lo		M Forecasti enario Analy
	Elect	tricity transmiss	sion											Eln000 28th May 20
Potential Project # 56	Olympic	ootential Nev : Dam (300	OCGT)		d in the	NSA	node. of procee	ding, whic	h was dee	med to	409/ -			
	At the con (across all	npletion of th the scenario	ct was rated a e scenario analysis p os that were develop strates the year in wh	project, th ed) to be		-	obability		-			probabilit		-
	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
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Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	HI	IMPT	HICV											0.99%
Prot	bability of	f Proceedi	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios					
LOW	6	0	0%					
MED	6	0	0%					
HI	6	0	0%					

Inter-Regional Trade							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
NTRL	6	0	0%				
EXPT	6	0	0%				

ROAM CONSULTING ENDER MODELLING EXPERTISE

Carbon Value							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOCV	9	0	0%				
HICV	9	0	0%				



Potential Project

(This is a potential New Plant)



SASE (Cooper Pedy) (250 Sublocated in the

NSA node.

Initially this project was rated a

Very Low

correspond to a

likelihood of proceeding, which was deemed to

10% probability of proceeding

At the completion of the scenario analysis project, the FINAL Project Probability for this project was calculated 0.0% probability of proceeding (across all the scenarios that were developed) to be

The following table illustrates the year in which (for each scenario) the plant is assumed to be fully operational:

	Load Growth	Inter Regional Trade	Carbon Value	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Final Scenario Probability
Scenario 1	LOW	NTRL	LOCV											9.74%
Scenario 2	LOW	NTRL	HICV											4.5%
Scenario 3	LOW	EXPT	LOCV											6.83%
Scenario 4	LOW	EXPT	HICV											2.76%
Scenario 5	LOW	IMPT	LOCV											3.27%
Scenario 6	LOW	IMPT	HICV											1.29%
Scenario 7	MED	NTRL	LOCV											17.73%
Scenario 8	MED	NTRL	HICV											6.97%
Scenario 9	MED	EXPT	LOCV											11.51%
Scenario 10	MED	EXPT	HICV											5.48%
Scenario 11	MED	IMPT	LOCV											5.29%
Scenario 12	MED	IMPT	HICV											2.12%
Scenario 13	н	NTRL	LOCV											8.04%
Scenario 14	н	NTRL	HICV											3.52%
Scenario 15	н	EXPT	LOCV											5.27%
Scenario 16	н	EXPT	HICV											2.28%
Scenario 17	н	IMPT	LOCV											2.41%
Scenario 18	н	IMPT	HICV											0.99%
Prob	ability of	Proceed	ing in this Year:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Cumula	ative Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

	Load Growth						
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
LOW	6	0	0%				
MED	6	0	0% 0%				
HI	6	0	0%				

Inter-Regional Trade							
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios				
NTRL	6	0	0%				
EXPT	6	0	0%				

Carbon Value			
	Number of scenarios with this theme	Number of scenarios in which project proceeds	Percentage of relevant scenarios
LOCV	9	0	0%
HICV	9	0	0%