

Trg00010 20th February 2008

Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would, in general terms, favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL, and smaller COAL units where annicable)
1	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Eraring Upgrade 1 (240MW COAL), Taralga 1 (105MW WIND), Gunning 1 (62MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2012-13			
2013-14	Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2014-15	Ulan 1 (500MW COAL), Spring Hill 1 (10MW WIND),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2015-16	Narrabri Reciprocating 1 (30MW Gas Engines),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2016-17	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#22 /36	1.2%	1.3%	1.4%





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Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
2	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this them set, whilst on even coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the unreliability of eace to AVIC.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Evandale Goulburn 1 (30MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Taralga 1 (105MW WIND), Gunning 1 (62MW WIND), Sydney West 1 (300MW OCGT), Conroys Gap Yass 1 (30MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2012-13	Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		
2013-14	Paling Yards 1 (90MW WIND), Narrabri 3 (300MW CCGT),		The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline.
2014-15	Tomago 1 (500MW OCGT), Spring Hill 1 (10MW WIND),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2015-16	Bega 1 (120MW CCGT), Molongolo 1 (120MW WIND),		The Bega power station has an initial probability of HIGH.
2016-17	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#17 /36	1.7%	1.7%	1.8%





Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
3	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT),		The Bega power station has an initial probability of HIGH. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2014-15	Taralga 1 (105MW WIND), Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2015-16	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Wellington 1 (300MW OCGT),		The Wellington peaking station is an unlikely addition, having a relatively high cost structure and not well positioned on a low capacity spur of the MSPS.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#11 /36	2.1%	2.4%	2.7%





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Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
4	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of gas to NSW.



- Surplus Capacity



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Rock Flat Creek 1 (100MW WIND),		
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT), Gunning 1 (62MW WIND),		The Bega power station has an initial probability of HIGH. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period (under Low load growth). The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2014-15	Taralga 1 (105MW WIND), Tomago 1 (500MW OCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2015-16	Leafs Gully 1 (300MW OCGT), Murrurundi 1 (35MW WIND),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Paling Yards 1 (90MW WIND), Wellington 1 (300MW OCGT),		The Wellington peaking station is an unlikely addition, having a relatively high cost structure and not well positioned on a low capacity spur of the MSPS.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#8 /36	3.2%	3.3%	3.5%







Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
5	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12			
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Harwood 1 (30MW Bagasse),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2015-16			
2016-17	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#29 /36	0.7%	0.9%	0.7%



- Wind

Bagasse

Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
6	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of and to NSM.



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Ben Lomond Guyra 1 (106MW WIND),		
2011-12	Gunning 1 (62MW WIND), Conroys Gap Yass 1 (30MW WIND),		
2012-13	Eraring Upgrade 1 (240MW COAL), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Molongolo 1 (120MW WIND), Tomago 1 (500MW OCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2014-15	Harwood 1 (30MW Bagasse),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2015-16	Black Springs 1 (40MW WIND),		
2016-17	Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Guily station until at least the tail end of TransGrid's revenue reset period.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#24 /36	1.1%	1.3%	1.0%





Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
7	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Snowy Plains (Berridale) 1 (30MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12			
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2014-15	Taralga 1 (105MW WIND), Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2015-16	Sydney West 1 (300MW OCGT), Paling Yards 1 (90MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out (under Low load growth) the introduction of the Sydney West or Leafs Gully stations until at least the tail end of TransGrid's revenue reset period.
2016-17	Rock Flat Creek 1 (100MW WIND),		
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#20 /36	1.4%	1.5%	1.5%





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Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
8	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% o the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the unvelocity of one to NCC.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Gunning 1 (62MW WIND),		
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Narrabri Stage 2 2 (172MW OCGT), Black Springs 1 (40MW WIND),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. The Bega power station has an initial probability of HIGH.
2014-15	Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT), Conroys Gap Yass 1 (30MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Paling Yards 1 (90MW WIND), Rock Flat Creek 1 (100MW WIND),		
2016-17	Leafs Gully 1 (300MW OCGT), Herons Creek 1 (120MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#14 /36	2.0%	2.1%	2.0%





Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
9	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Snowy Plains (Berridale) 1 (30MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14			
2014-15	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2015-16	Narrabri Reciprocating 1 (30MW Gas Engines),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2016-17	Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#36 /36	0.2%	0.2%	0.2%





Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
10	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of pas to NSW



- Surplus Capacity

Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Conroys Gap Yass 1 (30MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT),		The Bega power station has an initial probability of HIGH. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2014-15	Evandale Goulburn 1 (30MW WIND), Narrabri 3 (300MW CCGT),		The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline.
2015-16	Narrabri Stage 2 2 (172MW OCGT), Murrurundi 1 (35MW WIND),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further ~200MW OCGT.
2016-17	Molongolo 1 (120MW WIND), Black Springs 1 (40MW WIND), Herons Creek 1 (120MW OCGT),		Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#34 /36	0.3%	0.3%	0.3%





Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
11	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Snowy Plains (Berridale) 1 (30MW WIND), Gunning 1 (62MW WIND),		The Narrabri. Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Ulan 1 (500MW COAL), Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Paling Yards 1 (90MW WIND),		
2016-17	Bamarang 1 (300MW OCGT),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#31 /36	0.4%	0.4%	0.5%



Appendix B (Scenarios) of Report to:



Scenario #	Load Growth Theme:	L10	15% theme weighting	A low rate of load growth would favour incremental, smaller-sized generation developments (e.g. smaller CCGT over COAL).
12	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of as to NSM.







	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Conroys Gap Yass 1 (30MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT), Gunning 1 (62MW WIND), Herons Creek 1 (120MW OCGT),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. The Bega power station has an initial probability of HIGH. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2014-15	Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT), Evandale Goulburn 1 (30MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Paling Yards 1 (90MW WIND),		
2016-17	Bamarang 1 (300MW OCGT), Cooma 1 (100MW WIND),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#30 /36	0.6%	0.6%	0.6%



Scenario #	Load Growth Theme:	M10	70% theme weighting	
13	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tailawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Eraring Upgrade 1 (240MW COAL), Taralga 1 (105MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2012-13	Bega 1 (120MW CCGT), Ben Lomond Guyra 1 (106MW WIND),		The Bega power station has an initial probability of HIGH.
2013-14	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2015-16			
2016-17	Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#6 /36	5.4%	5.9%	6.3%



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Scenario #	Load Growth Theme:	M10	70% theme weighting	
14	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this them set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of case to NSU.





	C C C C -×- Surplus Capacity	2011	<i>5 5 5 5 5 5 5 5 5</i>
	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Evandale Goulburn 1 (30MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Eraring Upgrade 1 (240MW COAL), Taralga 1 (105MW WIND), Gunning 1 (62MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2012-13	Bega 1 (120MW CCGT), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Bega power station has an initial probability of HIGH.
2013-14	Harwood 1 (30MW Bagasse), Sydney West 1 (300MW OCGT), Buronga 1 (120MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. The Buronga Power Station has been assigned an initial probability of MEDIUM. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Tomago 1 (500MW OCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2015-16	Leafs Gully 1 (300MW OCGT), Murrurundi 1 (35MW WIND),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#3 /36	8.1%	8.3%	9.3%





Scenario #	Load Growth Theme:	M10	70% theme weighting	
15	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tailawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Sydney West 1 (300MW OCGT), Molongoio 1 (120MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independent of this theme set. The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT),		The Bega power station has an initial probability of HIGH. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL), Snowy Plains (Berridale) 1 (30MW WIND), Ben Lomond Guyra 1 (106MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Ulan 1 (500MW COAL), Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Taralga 1 (105MW WIND),		
2015-16	Paling Yards 1 (90MW WIND), Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
2016-17	Rock Flat Creek 1 (100MW WIND),		
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#2 /36	10.0%	10.4%	11.1%





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Scenario #	Load Growth Theme:	M10	70% theme weighting	
<mark>16</mark>	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% o the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of gas to NSW.



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Sydney West 1 (300MW OCGT), Molongolo 1 (120MW WIND), Broken Hill Windfarm 1 (150MW WIND),		The Sydney West project could be brought in by around 2010-11 if the right circumstances arise. In this case, the limited availability of cooling water for large thermal stations and the introduction of a significant carbon trading system are drivers for the development of the station.
2011-12	Gunning 1 (62MW WIND), Leafs Gully 1 (300MW OCGT),		The Leafs Gully project is also well advanced and, like Sydney West, is favoured in the conditions of this Scenario.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND), Black Springs 1 (40MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is still considered likely even in the event of the carbon theme due to it being an upgrade rather than a new power station.
2013-14	Harwood 1 (30MW Bagasse), Tomago 1 (500MW OCGT), Buronga 1 (120MW OCGT), Richmond Valley Project 1 (30MW Gas Engines),	Munmorah 3 (-300MW COAL), Munmorah 4 (- 300MW COAL),	The Buronga Power Station has been assigned an initial probability of MEDIUM. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely. The Richmond Power Station is largely dependant upon the successful delivery of local coal seam methane.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Taralga 1 (105MW WIND), Bamarang 1 (300MW OCGT),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP. The initial small-scale Narrabri installation is likely to proceed.
2015-16	Paling Yards 1 (90MW WIND), Narrabri Stage 2 2 (172MW OCGT), Cooma 1 (100MW WIND), Wellington 1 (300MW OCGT), Tallawarra 2 (300MW OCGT),		Tallawarra Stage 2 would be a logical solution to meet growing demand with Tallawarra 1 already in place. The load growth also requires more plant to be installed, with the second stage of Narrabri and Wellington being good candidates as both were assigned MEDIUM likelihoods.
2016-17	Rock Flat Creek 1 (100MW WIND),		
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#1 /36	15.0%	13.0%	12.6%





Scenario #	Load Growth Theme:	M10	70% theme weighting	
17	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Bega power station has an initial probability of HIGH. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15			
2015-16	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
2016-17			
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#9 /36	3.4%	4.0%	3.3%





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Scenario #	Load Growth Theme:	M10	70% theme weighting	
18	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of cas to NSW.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Bega power station has an initial probability of HIGH. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Tomago 1 (500MW OCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2013-14	Conroys Gap Yass 1 (30MW WIND),		
2014-15	Herons Creek 1 (120MW OCGT), Cooma 1 (100MW WIND),		Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2015-16	Sydney West 1 (300MW OCGT), Black Springs 1 (40MW WIND), Murrurundi 1 (35MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2016-17	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#7 /36	5.1%	5.1%	4.0%





Scenario #	Load Growth Theme:	M10	70% theme weighting	
19	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Gunning 1 (62MW WIND),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Ulan 1 (500MW COAL),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Taralga 1 (105MW WIND), Bamarang 1 (300MW OCGT),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP.
2015-16	Paling Yards 1 (90MW WIND), Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
2016-17	Bega 1 (120MW CCGT), Rock Flat Creek 1 (100MW WIND),		The Bega power station has an initial probability of HIGH.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#5 /36	6.4%	6.8%	7.4%





Scenario #	Load Growth Theme:	M10	70% theme weighting	
20	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of and to NSU.







	N N N N N N N N N N N N N N N N N N N	2011	8 8 8 8 8 8 8 8 8 8 8
	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Conroys Gap Yass 1 (30MW WIND), Cooma 1 (100MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Gunning 1 (62MW WIND), Evandale Goulburn 1 (30MW WIND),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2014-15	Taraiga 1 (105MW WIND), Molongolo 1 (120MW WIND), Tomago 1 (500MW OCGT), Black Springs 1 (40MW WIND),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2015-16	Paling Yards 1 (90MW WIND), Parkes B 1 (70MW Gas Engines), Buronga 1 (120MW OCGT),		The Buronga Power Station has been assigned an initial probability of MEDIUM. The Parkes B gas engines have been assigned a LOW probability.
2016-17	Rock Flat Creek 1 (100MW WIND), Barnarang 1 (300MW OCGT),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#4 /36	9.6%	9.0%	8.4%



Scenario #	Load Growth Theme:	M10	70% theme weighting	
21	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development.
2009-10	Lake Munmorah 1 (668MW OCGT),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Harwood 1 (30MW Bagasse), Snowy Plains (Berridale) 1 (30MW WIND),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL),		The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value. The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2015-16	Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT.
2016-17	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#26 /36	1.0%	1.1%	1.0%

Appendix B (Scenarios) of Report to:



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Scenario #	Load Growth Theme:	M10	70% theme weighting	
22	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of are to NSU.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Herons Creek 1 (120MW OCGT),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2011-12	Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND), Black Springs 1 (40MW WIND),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Molongolo 1 (120MW WIND), Cooma 1 (100MW WIND), Narrabri 3 (300MW CCGT),		The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Pipeline.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT), Paling Yards 1 (90MW WIND),		The Narrabri Valley Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. The Bega power station has an initial probability of HIGH.
2015-16	Narrabri Stage 2 2 (172MW OCGT),		ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT.
2016-17	Wellington 1 (300MW OCGT),		
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#23 /36	1.5%	1.4%	1.2%





Scenario #	Load Growth Theme:	M10	70% theme weighting	
23	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Gunning 1 (62MW WIND),		The Narrabri. Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Ulan 1 (500MW COAL),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Guily station until at least the tail end of TransGrid's revenue reset period.
2015-16	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
2016-17	Bega 1 (120MW CCGT),		The Bega power station has an initial probability of HIGH.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#13 /36	1.8%	2.1%	2.3%





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Scenario #	Load Growth Theme:	M10	70% theme weighting	
24	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of as to NSV.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Gunning 1 (62MW WIND), Herons Creek 1 (120MW OCGT),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Black Springs 1 (40MW WIND), Narrabri 3 (300MW CCGT),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline.
2014-15	Bega 1 (120MW CCGT), Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT), Paling Yards 1 (90MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. The Bega power station has an initial probability of HIGH.
2015-16	Conroys Gap Yass 1 (30MW WIND), Molongolo 1 (120MW WIND), Leafs Gully 1 (300MW OCGT), Evandale Goulburn 1 (30MW WIND),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Parkes A 1 (120MW OCGT), Murrurundi 1 (35MW WIND), Cooma 1 (100MW WIND), Wellington 1 (300MW OCGT),		The Parkes A and Parkes B developments, which are separate generation proposals, are considered unlikely, given the unfavourable position relative to gas supply. The Wellington peaking station is an unlikely addition, having a relatively high cost structure and not well positioned on a low capacity spur of the MSPS.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#10 /36	2.7%	2.5%	2.9%





Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
25	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	

1.600MW





Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tailawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Eraring Upgrade 1 (240MW COAL), Taralga 1 (105MW WIND), Gunning 1 (62MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2012-13	Bega 1 (120MW CCGT), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Bega power station has an initial probability of HIGH.
2013-14	Sydney West 1 (300MW OCGT), Ulan 1 (500MW COAL),		The recent commitment of the Uranquinty. Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2015-16	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Tomago 1 (500MW OCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#21 /36	1.2%	1.2%	1.4%



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Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
26	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of gas to NSW.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Ben Lomond Guyra 1 (106MW WIND), Black Springs 1 (40MW WIND),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Eraring Upgrade 1 (240MW COAL), Taralga 1 (105MW WIND), Gunning 1 (62MW WIND), Conroys Gap Yass 1 (30MW WIND), Narrabri 3 (300MW CCGT),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set. The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline.
2012-13	Bega 1 (120MW CCGT), Capital Bungendore 1 (126MW WIND),		The Bega power station has an initial probability of HIGH.
2013-14	Sydney West 1 (300MW OCGT), Tomago 1 (500MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Molongolo 1 (120MW WIND), Herons Creek 1 (120MW OCGT),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2015-16	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Paling Yards 1 (90MW WIND), Murrurundi 1 (35MW WIND), Wellington 1 (300MW OCGT),		The Wellington peaking station is an unlikely addition, having a relatively high cost structure and not well positioned on a low capacity spur of the MSPS.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#16 /36	1.7%	1.7%	1.9%





Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
27	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL), Sydney West 1 (300MW OCGT),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set. The recent commitment of the Uranquinty, Munmorah and Tailawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station unit at least the tail end of TransGrid's revenue reset period.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT), Gunning 1 (62MW WIND),		The Bega power station has an initial probability of HIGH. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Parkes B 1 (70MW Gas Engines), Bayswater B 1 (750MW COAL),		Under high load growth conditions, the demand for considerable new baseload generation will force the development of coal fired generation, where no carbon trading mechanism exists. The Parkes B gas engines have been assigned a LOW probability.
2014-15	Taralga 1 (105MW WIND), Leafs Guily 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2015-16	Tomago 1 (500MW OCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2016-17	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#12 /36	2.1%	2.2%	2.4%





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Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
28	Inter-regional Trade Theme:	BAU	55% theme weighting	
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of gas to NSW.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Sydney West 1 (300MW OCGT), Spring Hill 1 (10MW WIND), Broken Hill Windfarm 1 (150MW WIND),		The Sydney West project could be brought in by around 2010-11 if the right circumstances arise. In this case, the limited availability of cooling water for large thermal stations and the introduction of a significant carbon trading system are drivers for the development of the station.
2011-12	Gunning 1 (62MW WIND), Rock Flat Creek 1 (100MW WIND), Leafs Gully 1 (300MW OCGT),		The Leafs Gully project is also well advanced and, like Sydney West, is favoured in the conditions of this Scenario.
2012-13	Eraring Upgrade 1 (240MW COAL), Narrabir Reciprocating 1 (30MW Gas Engines), Ben Lomond Guyra 1 (106MW WIND), Paling Yards 1 (90MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered to be not impacted significantly by the carbon theme set.
2013-14	Taralga 1 (105MW WIND), Harwood 1 (30MW Bagasse), Conroys Gap Yass 1 (30MW WIND), Narrabri Stage 2 2 (172MW OCGT), Tomago 1 (500MW OCGT), Evandale Goulburn 1 (30MW WIND), Murrurundi 1 (35MW WIND), Wellington 1 (30MW OCGT), Richmond Valley Project 1 (30MW Gas Engines),	Munmorah 3 (-300MW COAL), Munmorah 4 (- 300MW COAL),	The large scale gas turbines at Tomago, the second stage of Narrabri and the Wellington unit were assigned an initial probability of MEDIUM. With a carbon trading regime, these plants are increasingly likely, and will be required to fill the shortfall caused by the retirment of the inefficient Munmorah coal units. A significant amount of wind capacity also proceeds as by this time the carbon trading scheme is in full effect.
2014-15	Molongolo 1 (120MW WIND), Black Springs 1 (40MW WIND), Bamarang 1 (300MW OCGT), Buronga 1 (120MW OCGT), Ocoma 1 (100MW WIND),		With moderate to high load growth, NSW requires increased levels of peaking plant. Load growth will continue to promote peaking generation, although the installation of Barnarang may require expansion of the EGP.
2015-16	Tallawarra 2 (300MW OCGT),		Tallawarra Stage 2 would be a logical solution to meet growing demand with Tallawarra 1 already in place.
2016-17	Narrabri 3 (300MW CCGT),		New plant will be needed to address the tight supply-demand balance arising in 2015-16.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#15 /36	3.2%	2.6%	2.0%



Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
29	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Bega power station has an initial probability of HIGH. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#27 /36	0.7%	0.8%	0.8%





NEM Forecasting Scenarios for Revenue Reset Application - 2009-10 to 2013-14

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Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
30	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the unreliability of each ANG.



Cumulative Capacity Additions (or Retirements)



	C C C C −×− Surplus Capacity	2014	6 78 78 78 78 78 78 78 78
	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Bega power station has an initial probability of HIGH. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Molongolo 1 (120MW WIND), Tomago 1 (500MW OCGT), Cooma 1 (100MW WIND),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2014-15	Sydney West 1 (300MW OCGT), Spring Hill 1 (10MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Leafs Gully 1 (300MW OCGT), Evandale Goulburn 1 (30MW WIND),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Narrabri Reciprocating 1 (30MW Gas Engines), Black Springs 1 (40MW WIND),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#25 /36	1.1%	1.1%	1.0%





Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
31	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tailawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT), Gunning 1 (62MW WIND),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. The Bega power station has an initial probability of HIGH.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Ulan 1 (500MW COAL), Marulan 1 (300MW OCGT),		The development of the Marulan open cycle station is considered very unlikely in the current revenue reset period, given Delta Electricity's commitment of the Munmorah and Uranquinty power stations. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Given recent comments at the Oven Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Paling Yards 1 (90MW WIND), Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Rock Flat Creek 1 (100MW WIND), Bamarang 1 (300MW OCGT),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#19 /36	1.4%	1.4%	1.5%



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Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
32	Inter-regional Trade Theme:	QNI	35% theme weighting	This theme set includes an increase of 500MW on the QNI interconnector. Queensland plant will therefore be able to supply NSW peak loads by this increased amount.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% o the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of gas to NSW.





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	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Molongolo 1 (120MW WIND),		
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Bega 1 (120MW CCGT), Gunning 1 (62MW WIND),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. The Bega power station has an initial probability of HIGH.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Harwood 1 (30MW Bagasse), Herons Creek 1 (120MW OCGT), Narrabri 3 (300MW CCGT),		Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline.
2014-15	Taralga 1 (105MW WIND), Sydney West 1 (300MW OCGT), Evandale Goulburn 1 (30MW WIND), Wellington 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. The Wellington peaking station is an unlikely addition, having a relatively high cost structure and not well positioned on a low capacity spur of the MSPS.
2015-16	Paling Yards 1 (90MW WIND), Leafs Gully 1 (300MW OCGT), Black Springs 1 (40MW WIND), Murrurundi 1 (35MW WIND),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
2016-17	Rock Flat Creek 1 (100MW WIND), Bamarang 1 (300MW OCGT), Spring Hill 1 (10MW WIND),		Load growth will continue to promote peaking generation, although the installation of Bamarang may require expansion of the EGP.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#18 /36	2.0%	1.9%	1.6%





Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
33	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Bega 1 (120MW CCGT), Ulan 1 (500MW COAL),		Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state. The Bega power station has an initial probability of HIGH.
2014-15	Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2015-16	Ulan 2 (500MW COAL),		NSW load growth will promote further low cost coal fired plant in the absence of a high cost for carbon emissions.
2016-17	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#35 /36	0.2%	0.2%	0.2%





Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
34	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	BAU	35% theme weighting	
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this theme set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of gas to NSU.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mili 1 (30MW Bagasse), Condong Sugar Mili 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Harwood 1 (30MW Bagasse), Gunning 1 (62MW WIND), Herons Creek 1 (120MW OCGT),		The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Conroys Gap Yass 1 (30MW WIND),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Tomago 1 (500MW OCGT), Narrabri 3 (300MW CCGT),		The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely. The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline.
2014-15	Narrabri Reciprocating 1 (30MW Gas Engines), Sydney West 1 (300MW OCGT), Black Springs 1 (40MW WIND),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Guily station until at least the tail end of TransGrid's revenue reset period. The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2015-16	Bega 1 (120MW CCGT),		The Bega power station has an initial probability of HIGH.
2016-17	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#33 /36	0.3%	0.3%	0.3%



Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
35	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	BAU	40% theme weighting	



Cumulative Capacity Additions (or Retirements)



	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Gunning 1 (62MW WIND),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial.
2012-13	Eraring Upgrade 1 (240MW COAL),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set.
2013-14	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Ulan 1 (500MW COAL),		The Bega power station has an initial probability of HIGH. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. Given recent comments at the Owen Inquiry regarding the NSW Government's current avoidance of further coal installations, a privately-owned proponent is more likely to develop additional coal fired generation in the state.
2014-15	Taralga 1 (105MW WIND), Bayswater B 1 (750MW COAL),		Under high load growth conditions, the demand for considerable new baseload generation will force the development of coal fired generation, where no carbon trading mechanism exists.
2015-16	Sydney West 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period.
2016-17	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#32 /36	0.4%	0.4%	0.4%



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Scenario #	Load Growth Theme:	H10	15% theme weighting	A high rate of load growth would, in general terms, favour larger-sized generation developments (e.g. COAL over gas) in order to maintain supply above demand.
36	Inter-regional Trade Theme:	NSW-SNO	10% theme weighting	An upgrade to the NSW-Snowy interconnector will increase the capacity for Snowy Hydro to supply NSW throughout the year, inclusive of peak periods. The upgrade will likely reduce the need for peaking plant.
	Water Availability Theme:	Limited	65% theme weighting	Under this theme set, Snowy Hydro will only be able to supply up to 75% of the NSW import capacity at peak load periods due to reduced water supplies.
	Greenhouse Gas / Gas Availability Theme:	CO2 Tax	60% theme weighting	The CO2 Tax theme set promotes reduced uptake of Coal and increased uptake of renewable technologies. Wind power in particular is likely to increase under this them set, whilst no new coal developments are anticipated. The Hunter Valley gas pipeline will likely proceed, increasing the availability of one to NSU.





	New Projects	Retirements	Comments
2006-07			
2007-08	Eraring Black Start Turbine 1 (40MW OCGT), Broadwater Sugar Mill 1 (30MW Bagasse), Condong Sugar Mill 1 (30MW Bagasse),		Eraring Power Station has completed installation of a small gas turbine to provide Eraring PS with black start capabilities. The Broadwater and Condong Sugar Mills are committed cogeneration projects.
2008-09	Crookwell 2 (92MW WIND), Tallawarra 1 (422MW CCGT), Uranquinty 1 (628MW OCGT),		The Tallawarra Power Station is a committed development. The Uranquinty Power Station is also a committed development. The anticipation of a Federal carbon trading regime, as has been committed by both Federal political parties, will provide significant incentives for a reasonable degree of wind installations in NSW, with more installations likely were a trading regime introduced with a high carbon value.
2009-10	Lake Munmorah 1 (668MW OCGT), Snowy Plains (Berridale) 1 (30MW WIND), Cullerin Range 1 (30MW WIND),		The gas turbines at Munmorah are a further committed addition to the NSW generation portfolio
2010-11	Mt Piper Upgrade 1 (100MW COAL),		The proposed Mt Piper upgrade will increase the capacity of the two existing units by 50MW. We consider that this development will be capable of entering the market prior to the introduction of any Federal carbon regime, and is therefore largely independant of this theme set.
2011-12	Narrabri Reciprocating 1 (30MW Gas Engines), Gunning 1 (62MW WIND), Herons Creek 1 (120MW OCGT),		The Narrabri Power Station is largely dependant upon the successful delivery of local coal seam methane. If successful, the station may be installed, and further expanded if additional reserves are made commercial. Herons Creek has been assigned an initial probability of MEDIUM. Its installation may be focused on network support.
2012-13	Eraring Upgrade 1 (240MW COAL), Ben Lomond Guyra 1 (106MW WIND), Capital Bungendore 1 (126MW WIND), Tomago 1 (500MW OCGT),		The Eraring upgrade will add 90MW to each of the four existing Eraring units, bringing each to 750MW capacity. This development is considered independent of the carbon theme set. The large scale gas turbines at Tomago are assigned an initial probability of MEDIUM. With a carbon trading regime, this plant is increasingly likely.
2013-14	Bega 1 (120MW CCGT), Harwood 1 (30MW Bagasse), Parkes A 1 (120MW OCGT),		The Bega power station has an initial probability of HIGH. The Harwood power station is a small Bagasse project which ROAM considers to be dependant on external drivers rather than any theme set. The Parkes A and Parkes B developments, which are separate generation proposals, are considered unlikely, given the unfavourable position relative to gas supply.
2014-15	Taraiga 1 (105MW WIND), Narrabri Stage 2 2 (172MW OCGT), Narrabri 3 (300MW CCGT),		The proposed Narrabri development has an initial probability of MEDIUM. It is likely to be fuelled by CSM or from the development of the Hunter Valley Pipeline. ROAM has assigned an initial value of MEDIUM to the successful delivery of CSM at Narrabri, and the subsequent installation of a further 200MW OCGT.
2015-16	Sydney West 1 (300MW OCGT), Wellington 1 (300MW OCGT),		The recent commitment of the Uranquinty, Munmorah and Tallawarra gas turbines has effectively ruled out the introduction of the Sydney West / Leafs Gully station until at least the tail end of TransGrid's revenue reset period. ROAM has assigned an initial value of LOW to the second expansion and third stage of a CSM fuelled CCGT at Richmond.
2016-17	Leafs Gully 1 (300MW OCGT),		With moderate to high load growth, NSW requires increased levels of peaking plant. The second OCGT near Sydney has a LOW probability, given the commitment of Uranquinty and Munmorah peaking stations.
Ranking	Combined Theme-Set Ranking	INITIAL Scenario Probability	FINAL Scenario Probability (after moderation)
#28 /36	0.6%	0.6%	0.7%

