

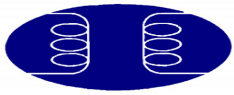
# Electric Power Consulting Pty Ltd

## Power System Generation Mix Model Output

Scenario: Case 2 - Replace Brown Coal with Nuclear (3,889MW) (updated 10/10/2019)

Version 2.1 Run Number 268

Generation Type	Model Inputs			Model Outputs							
	Net Available MW	Storage Days	Avail-ability	Installed MW	Capacity Factor	% of Load Energy Supplied	Levelised Cost of Energy (LCOE) \$/MWh	Contribution to System Levelised Cost of Energy (SLCOE) \$/MWh	Carbon Intensity T/MWh	Contribution to System Carbon Intensity T/MWh	
Battery Storage	100	0.06	100.0%	100		0.0%		\$0.13			
Solar PV	323		100.0%	323	27.3%	0.4%	\$117.32	\$0.48	0.03	0.00	
Wind	3,500		100.0%	3,500	32.0%	5.2%	\$93.08	\$4.80	0.01	0.00	
Open Cycle Gas	10,500		98.5%	10,660	3.5%	1.7%	\$348.91	\$6.02	0.61	0.01	
Hydro	4,200		100.0%	4,200	41.5%	8.0%	\$80.78	\$6.50	0.02	0.00	
Combined Cycle Gas	2,000		94.5%	2,116	71.5%	7.0%	\$92.23	\$6.43	0.42	0.03	
Black Coal Supercritical	13,500		94.5%	14,286	93.5%	61.6%	\$50.90	\$31.33	0.96	0.59	
Nuclear	3,500		90.0%	3,889	90.0%	16.1%	\$79.09	\$12.76	0.02	0.00	
<b>Total .....</b>	<b>37,623</b>		<b>Total .....</b>	<b>39,074</b>				<b>Subtotal Generation.....</b>	<b>\$68.45 /MWh</b>	<b>Total.....</b>	<b>0.64</b>
<b>System Wide Generation Capacity Factor....</b>				<b>55.5%</b>				<b>** Extra Transmission and Related Costs</b>		<b>\$4.04 /MWh</b>	
				Energy storage decrease		0.0%		<b>System Levelised Cost of Energy</b>		<b>\$72.48 /MWh</b>	
				<b>Total.....</b>		<b>100.0%</b>		<b>** Base Transmission and Related Costs</b>		<b>\$42.25 /MWh</b>	
								<b>Delivered Cost of Energy for Large Industrial Customers</b>		<b>\$114.73 /MWh</b>	
								<b>Distribution and Retail...</b>		<b>\$100.00 /MWh</b>	
								<b>Delivered Cost of Energy for small LV Customers</b>		<b>\$214.73 /MWh</b>	
<b>** see note on next page for an explanation of costs</b>										<b>CO2 Emission Abatement Analysis</b>	
										Reference Base level....	
										<b>\$69.20/MWh</b>	
										<b>0.82 T/MWh</b>	
										<b>Cost of Abatement \$18.07 /Tonne</b>	



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### Base Load Generation Analysis

**NPV Discount Rate**

**6.0%**

19,000 MW Maximum      18,368 MW Average      12,856 MW Minimum      LoadSelection Full NEM Load (2017)

### System Load

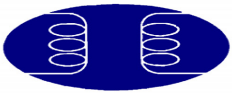
Peak 34,342 MW      190,051,953 MWhs

### Renewables

0.0% Wind and Solar PV MWhs spilled      100.0% Wind and Solar PV MWhs utilised      13.6% Load MWhs supplied by renewables  
(Wind, Solar PV and Hydro)

### Notes

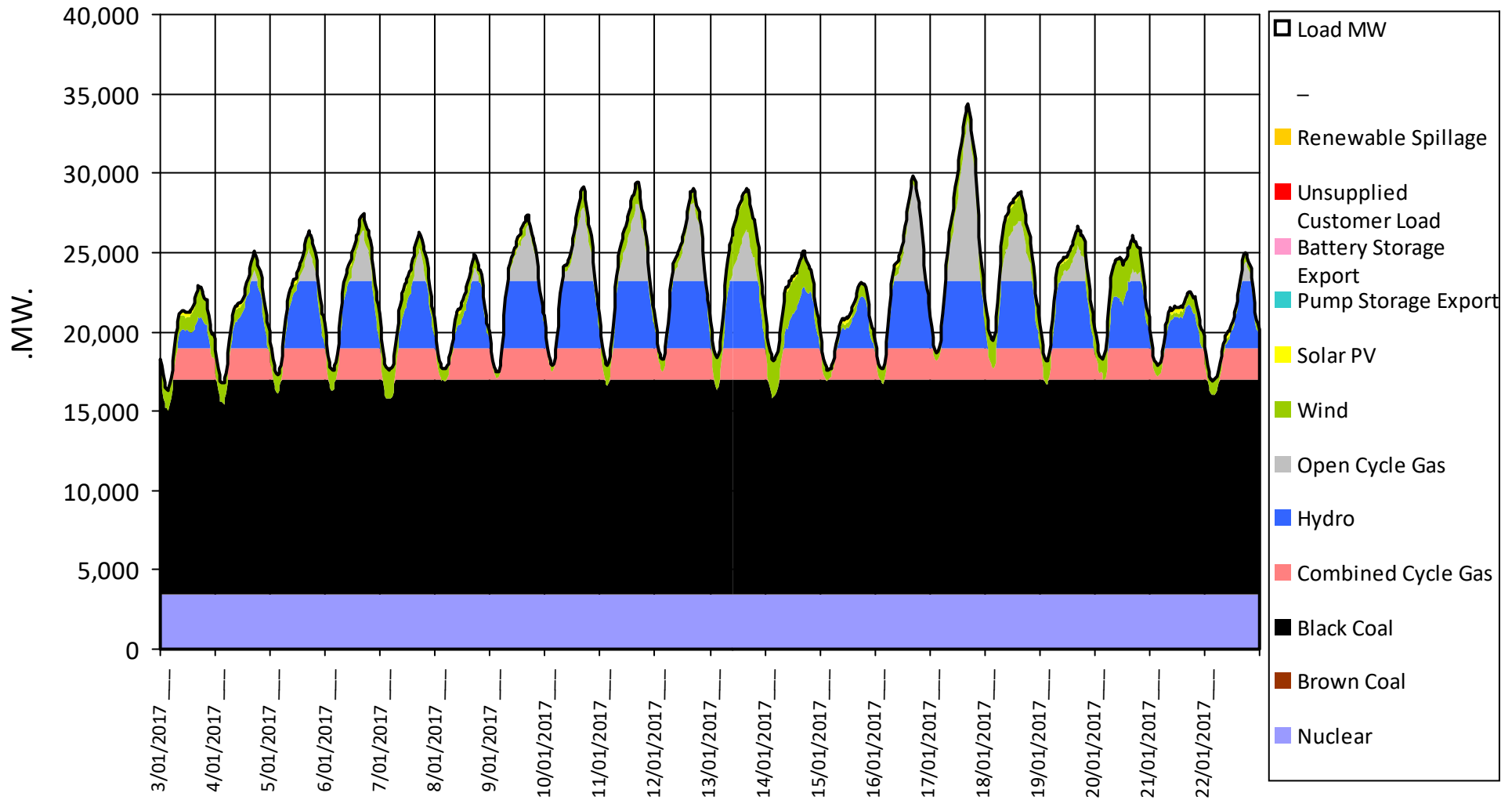
Transmission and related costs include transmission, subtransmission, generator connection, system strength provision, voltage control, congestion costs and a component of network losses.

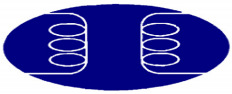


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