

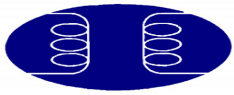
Electric Power Consulting Pty Ltd

Power System Generation Mix Model Output

Scenario: Case 3 - Replace all Coal Generation with Nuclear (18,889MW) (updated 10/10/2019)

Version 2.1 Run Number 269

Generation Type	Model Inputs			Model Outputs							
	Net Available MW	Storage Days	Availability	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	
Nuclear	17,000		90.0%	18,889	89.2%	77.7%	\$79.59	\$61.84	0.02	0.01	
Total	37,623		Total	39,788				Subtotal Generation.....	\$86.19 /MWh	Total.....	0.06
System Wide Generation Capacity Factor....				54.5%				** Extra Transmission and Related Costs		\$4.04 /MWh	
				Energy storage decrease		0.0%		System Levelised Cost of Energy		\$90.23 /MWh	
				Total.....		100.0%		** Base Transmission and Related Costs		\$42.25 /MWh	
								Delivered Cost of Energy for Large Industrial Customers		\$132.48 /MWh	
								Distribution and Retail...		\$100.00 /MWh	
								Delivered Cost of Energy for small LV Customers		\$232.48 /MWh	
<p>** see note on next page for an explanation of costs</p>											
										CO2 Emission Abatement Analysis Reference Base level.... \$69.20/MWh 0.82 T/MWh	
										Cost of Abatement \$27.55 /Tonne	



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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

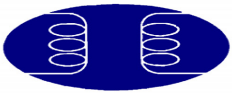
Peak 34,342 MW 190,051,953 MWhs

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

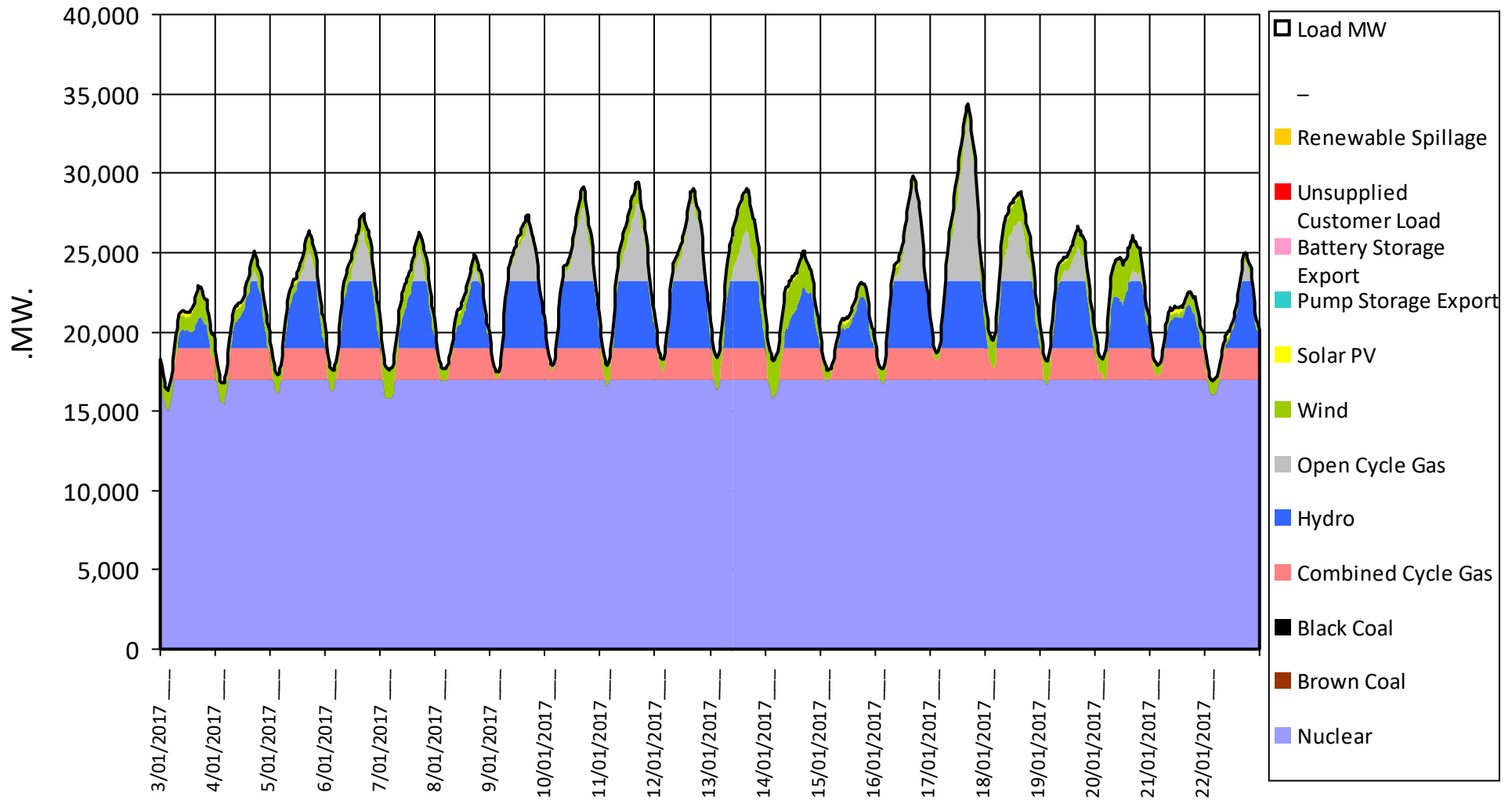
Transmission and related costs include transmission, subtransmission, generator connection, system strength provision, voltage control, congestion costs and a component of network losses.

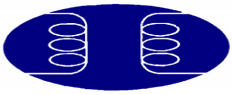


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