

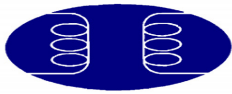
# Electric Power Consulting Pty Ltd

## Power System Generation Mix Model Output

Scenario: Case 5 - Replace all Coal Generation with Combined Cycle Gas (CCGT) (updated 10/10/2019)

Version 2.1 Run Number 281

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	19,000		94.5%	20,106	91.4%	84.7%	\$88.30	\$74.76	0.42	0.35	
<b>Total .....</b>	<b>37,623</b>	<b>Total .....</b>	<b>38,889</b>				<b>Subtotal Generation.....</b>	<b>\$92.69 /MWh</b>	<b>Total.....</b>	<b>0.36</b>	
<b>System Wide Generation Capacity Factor....</b>				<b>55.8%</b>			<b>** Extra Transmission and Related Costs</b>		<b>\$4.04 /MWh</b>	<b>CO2 Emission Abatement Analysis</b>	
Energy storage decrease				0.0%			<b>System Levelised Cost of Energy</b>		<b>\$96.72 /MWh</b>	Reference	<b>\$69.20/MWh</b>
Total.....				100.0%			<b>** Base Transmission and Related Costs</b>		<b>\$42.25 /MWh</b>	Base level....	<b>0.82 T/MWh</b>
							<b>Delivered Cost of Energy for Large Industrial Customers</b>		<b>\$138.97 /MWh</b>	<b>Cost of Abatement \$60.42 /Tonne</b>	
							Distribution and Retail...		<b>\$100.00 /MWh</b>		
							<b>Delivered Cost of Energy for small LV Customers</b>		<b>\$238.97 /MWh</b>		
<p><b>** see note on next page for an explanation of costs</b></p>											



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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

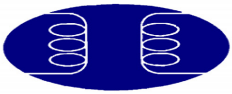
Peak 34,342 MW      190,051,953 MWhs

### 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

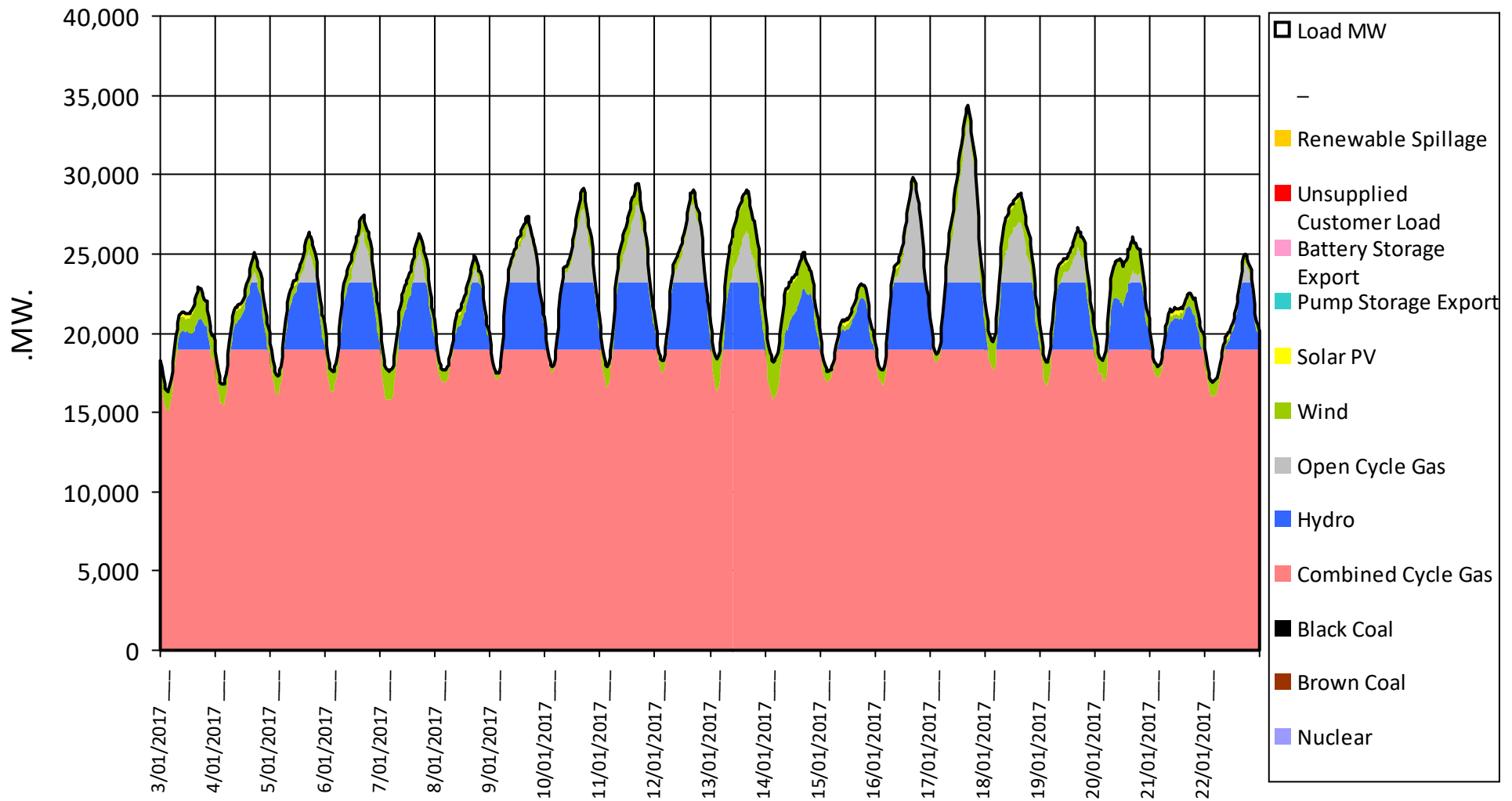
Transmission and related costs include transmission, subtransmission, generator connection, system strength provision, voltage control, congestion costs and a component of network losses.

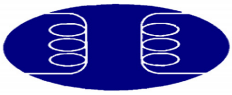


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