

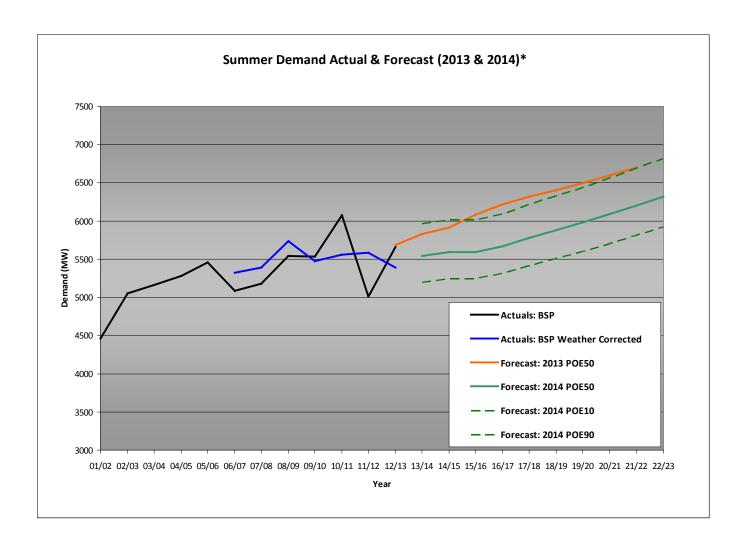
## Attachment 5.03 Spatial demand forecast by zones and substations May 2014



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## 1. Summer Coincident System Total Demand Summary 2013



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
BSP Actuals	4461	5051	5165	5280	5460	5088	5181	5538	5531	6072	5007	5659										
BSP Actuals (WC)						5325	5392	5736	5478	5558	5581	5389										
Forecast 2013 POE50*												5689	5828	5912	6078	6213	6318	6405	6499	6599	6698	
Forecast 2014 POE50*													5543	5594	5591	5667	5778	5878	5981	6088	6203	6319
Forecast 2014 POE10													5965	6015	6010	6092	6215	6325	6440	6559	6687	6816
Forecast 2014 POE90													5192	5245	5243	5313	5415	5506	5603	5704	5811	5921

The historical summer coincident system total demand at Ausgrid's network is obtained from BSP readings whilst the forecast summer coincident system total demand is the diversified sum of all 132kV substation weather corrected forecast demand excluding certain major customers & generators.\*

The first 3 years of the forecast are based on statistically derived spatial growth rates and include known future spot loads. Beyond 3 years, the system aggregated total demand is based on the econometric factors, which include the impact of recent electricity price rises, energy efficiency improvements, solar PV, and soft economic conditions, all of which have contributed to the lower

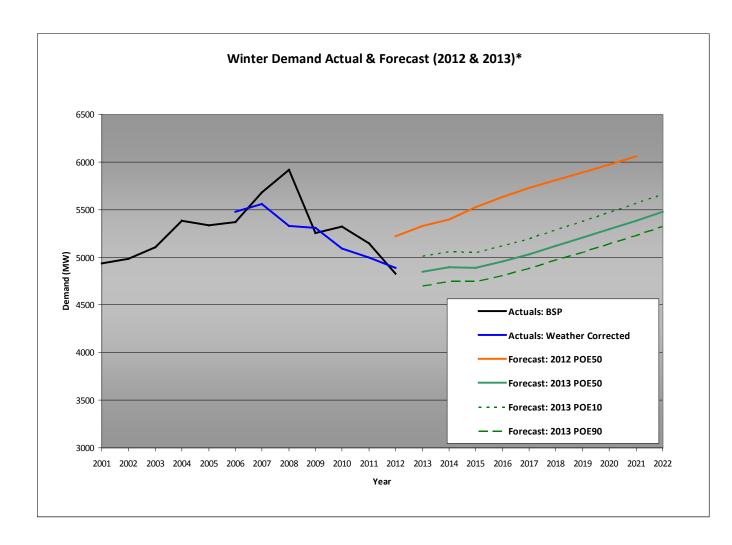
system demand in the recent years. Improvements were made in the latest forecast, which mainly include weather correction enhancements and the introduction of a probabilistic scaling factor for spot loads.

Comparing with forecast 2013, the first year of forecast load for forecast 2014 has reduced by 146MW, or 2.57%. The average growth rate for the first 3 years has reduced from 2.23% to 0.74%. The first year of forecast is now at a similar level to the summer 2008/09 and 2009/10 historical demand. \*

\* Forecast 2013 means the forecast is produced based on summer 2011/12 actuals and so forth.

<sup>\*</sup> BHP Onesteel, Kurri Smelter, and Redbank Generator are excluded from all actual and forecast demand.

## 2. Winter Coincident System Total Demand Summary 2013



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BSP Actuals	4939	4986	5102	5382	5335	5371	5683	5918	5257	5322	5149	4829										
BSP Actuals (WC)						5477	5561	5331	5310	5091	4994	4886										
Forecast 2012 POE50*												5222	5327	5394	5524	5636	5726	5811	5888	5973	6061	
Forecast 2013 POE50*													4849	4897	4891	4957	5029	5119	5207	5294	5385	5481
Forecast 2013 POE10													5013	5057	5049	5118	5192	5286	5378	5469	5563	5663
Forecast 2013 POE90													4697	4747	4745	4809	4879	4967	5053	5138	5226	5320

The historical winter coincident system total demand at Ausgrid's network is obtained from BSP readings whilst the forecast winter coincident system total demand is the diversified sum of all 132kV substation weather corrected forecast demand excluding certain major customers & generators.\*

The first 3 years of the forecast are based on statistically derived spatial growth rates and include known future spot loads. Beyond 3 years, the system aggregated total demand is based on the econometric factors, which include the impact of recent electricity price rises, energy efficiency improvements, and soft economic conditions, all of which have contributed to the lower system

demand in the recent years. Improvements were made in the latest forecast, which mainly include weather correction enhancements and the introduction of a probabilistic scaling factor for spot loads.

Comparing with forecast 2012, the first year of forecast load for forecast 2013 has reduced by 373MW, or 7.14%. The average growth rate for the first 3 years has reduced from 1.89% to 0.74%. The first year of forecast is now below the level last seen in winter 2001.  $^{\dagger}$ 

\* Forecast 2012 means the forecast is produced based on winter 2011 actuals and so forth.

<sup>\*</sup> BHP Onesteel, Kurri Smelter, and Redbank Generator are excluded from all actual and forecast demand.

- 3. Zip file contents Supporting documents
- 1. filename:25yr Summary POE50 +BBDM +S80.xls
- 2. filename:FC Summer 2014 POE50 Auburn \_ Homebush +BBDM +S80.xls
- 3. filename:FC Summer 2014 POE50 Camperdown and Blackwattle Bay +BBDM +S80.xls
- 4. filename:FC Summer 2014 POE50 Canterbury Bankstown +BBDM +S80.xls
- 5. filename:FC Summer 2014 POE50 Carlingford +BBDM +S80.xls
- 6. filename:FC Summer 2014 POE50 Eastern Suburbs +BBDM +S80.xls
- 7. filename:FC Summer 2014 POE50 Greater Cessnock +BBDM +S80.xls
- 8. filename:FC Summer 2014 POE50 Hunter STS +BBDM +S80.xls
- 9. filename:FC Summer 2014 POE50 Lower Central Coast +BBDM +S80.xls
- 10. filename:FC Summer 2014 POE50 Lower North Shore +BBDM +S80.xls
- 11. filename:FC Summer 2014 POE50 Maitland +BBDM +S80.xls
- 12. filename:FC Summer 2014 POE50 Manly Warringah +BBDM +S80.xls
- 13. filename:FC Summer 2014 POE50 Newcastle Inner City +BBDM +S80.xls
- 14. filename:FC Summer 2014 POE50 Newcastle Port +BBDM +S80.xls
- 15. filename:FC Summer 2014 POE50 Newcastle Western Corridor +BBDM +S80.xls
- 16. filename:FC Summer 2014 POE50 North East Lake Macquarie +BBDM +S80.xls
- 17. filename:FC Summer 2014 POE50 North West +BBDM +S80.xls
- 18. filename:FC Summer 2014 POE50 Pittwater and Terrey Hills +BBDM +S80.xls
- 19. filename:FC Summer 2014 POE50 Port Stephens +BBDM +S80.xls
- 20. filename:FC Summer 2014 POE50 Singleton +BBDM +S80.xls
- 21. filename:FC Summer 2014 POE50 St George +BBDM +S80.xls
- 22. filename: FC Summer 2014 POE50 Sutherland +BBDM +S80.xls
- 23. filename:FC Summer 2014 POE50 Sydney CBD +BBDM +S100.xls
- 24. filename:FC Summer 2014 POE50 Sydney STS +BBDM +S80.xls
- 25. filename:FC Summer 2014 POE50 Upper Central Coast +BBDM +S80.xls
- 26. filename:FC Summer 2014 POE50 Upper Hunter +BBDM +S80.xls
- 27. filename:FC Summer 2014 POE50 Upper North Shore +BBDM +S80.xls
- 28. filename:FC Summer 2014 POE50 West Lake Macquarie +BBDM +S80.xls
- 29. filename:FC Winter 2013 POE50 Auburn \_ Homebush +BBDM +S80.xls
- 30. filename:FC Winter 2013 POE50 Camperdown and Blackwattle Bay +BBDM +S80.xls
- 31. filename:FC Winter 2013 POE50 Canterbury Bankstown +BBDM +S80.xls
- 32. filename:FC Winter 2013 POE50 Carlingford +BBDM +S80.xls
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- 34. filename:FC Winter 2013 POE50 Greater Cessnock +BBDM +S80.xls
- 35. filename:FC Winter 2013 POE50 Hunter STS +BBDM +S80.xls
- 36. filename:FC Winter 2013 POE50 Lower Central Coast +BBDM +S80.xls

- 37. filename:FC Winter 2013 POE50 Lower North Shore +BBDM +S80.xls
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