

Attachment 5.02

2014 Spatial demand forecast January 2015



Ausgrid revised regulatory proposal attachment

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The historical summer coincident system total demand at Ausgrid's network is obtained from bulk supply point (BSP) readings. The forecast summer coincident system total demand is the diversified sum of all 132kV substation weather corrected forecast demand excluding certain major customers & generators.¹

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.

The spatial demand forecast completed in July 2014 for the Ausgrid coincident system total maximum summer demand is shown below. This forecast has incorporated the latest actual demand data from summer 2013/14 to forecast from summer 2014/15 to summer 2038/39. Compared to the forecast completed in 2013, the first year of forecast has reduced by 655 MW, or 11.8%. The average growth rate for the first 3 years has reduced from 0.74% to -1.17%.

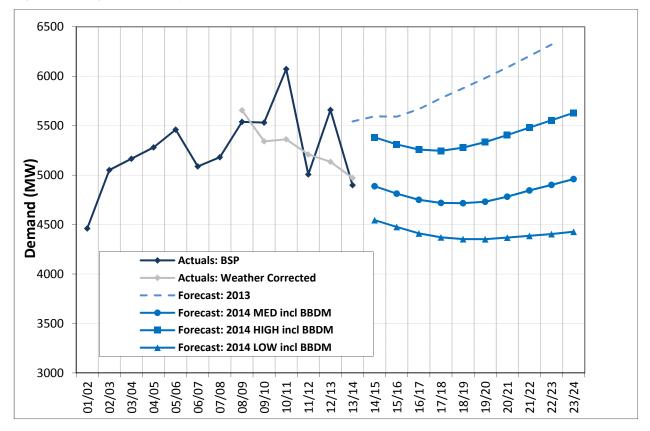


Figure 1 – Ausgrid summer system coincident peak demand (MW)

	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Actuals: BSP	4461	5051	5165	5280	5460	5088	5181	5538	5531	6072	5007	5659	4898										
Actuals: Weather Corrected								5656	5341	5362	5209	5134	4971										
Forecast: 2013													5543	5594	5591	5667	5778	5878	5981	6088	6203	6319	
Forecast: 2014 MED incl BBDM														4888	4812	4750	4719	4716	4731	4782	4845	4901	4960
Forecast: 2014 HIGH incl BBDM														5382	5310	5258	5245	5278	5333	5405	5480	5555	5630
Forecast: 2014 LOW incl BBDM														4544	4476	4411	4371	4353	4352	4368	4386	4404	4428

¹ BHP Onesteel, Kurri Smelter, and Redbank Generator are excluded from all actual and forecast demand.

The historical winter coincident system total demand at Ausgrid's network is obtained from bulk supply point (BSP) readings. The forecast winter coincident system total demand is the diversified sum of all 132kV substation weather corrected forecast demand excluding certain major customers & generators.²

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.

The spatial demand forecast completed in July 2014 for the Ausgrid coincident system total maximum summer demand is shown below. This forecast has incorporated the latest actual demand data from winter 2013 to forecast from winter 2014 to winter 2038. Compared to the forecast completed in 2013, the first year of forecast has reduced by 306 MW, or 6.3%. The average growth rate for the first 3 years has reduced from 0.74% to -0.34%.

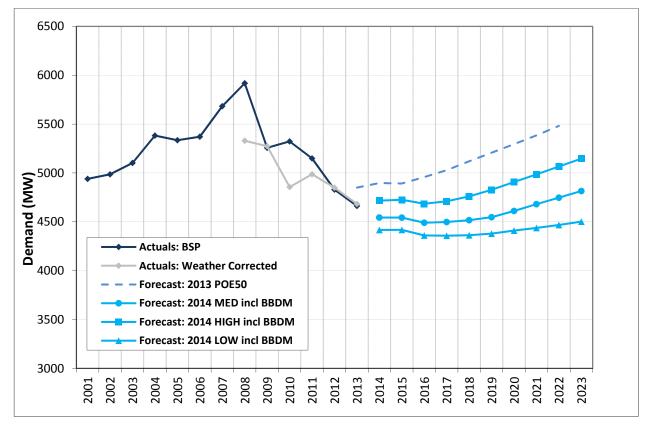


Figure 2 – Ausgrid winter system coincident peak demand (MW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Actuals: BSP	4939	4986	5102	5382	5335	5371	5683	5918	5257	5322	5149	4829	4662										
Actuals: Weather Corrected								5330	5273	4856	4986	4849	4682										
Forecast: 2013 POE50													4849	4897	4891	4957	5029	5119	5207	5294	5385	5481	
Forecast: 2014 MED incl BBDM														4544	4543	4490	4497	4516	4547	4611	4680	4746	4815
Forecast: 2014 HIGH incl BBDM														4716	4725	4684	4710	4760	4827	4907	4985	5066	5146
Forecast: 2014 LOW incl BBDM														4417	4418	4360	4358	4363	4379	4410	4437	4467	4502

² BHP Onesteel, Kurri Smelter, and Redbank Generator are excluded from all actual and forecast demand.

Appendix A: Zip File Contents – Supporting Documents

Attached are the spatial demand forecasts as completed in July 2014. For a summary of all zone and subtransmission substations, please refer to the summary file '25yr Summary POE50 +BBDM +S55.xls'.

For details on the forecast for each zone substation, please refer to the detailed forecast contained in the area plan summary forecast. The summary document identifies the zone substations included within each area plan area. For details on the forecast for the sub-transmission substations, please refer to 'FC Summer 2015 POE50 Sydney STS +BBDM +S55.xls'.

For all spatial demand forecasts, please refer to the 'Inclusions and Exclusions' tab for information on key assumptions contained within the forecast. For example, all forecasts include the impact of the proposed broad based demand management program (BBDM).

A note on nomenclature; for spatial demand forecast files, Ausgrid uses the first forecast year in the title to define the file rather than the year the forecast is produced. So the file 'FC Summer 2015 POE50 Singleton +BBDM +S55. xls' refers to the 50% POE summer forecast for Singleton zone substation where the first year of the forecast is in 2015. The spatial demand forecast completed in July 2014 comprises of forecasts for summer starting in 2015 and forecasts for winter starting in 2014.

- 1. 25yr Summary POE50 +BBDM +S55.xls
- 2. FC Summer 2015 POE50 Auburn _ Homebush +BBDM +S55.xls
- 3. FC Summer 2015 POE50 Camperdown and Blackwattle Bay +BBDM +S55. xls
- 4. FC Summer 2015 POE50 Canterbury Bankstown +BBDM +S55. xls
- 5. FC Summer 2015 POE50 Carlingford +BBDM +S55. xls
- 6. FC Summer 2015 POE50 Eastern Suburbs +BBDM +S55. xls
- 7. FC Summer 2015 POE50 Greater Cessnock +BBDM +S55. xls
- 8. FC Summer 2015 POE50 Hunter STS +BBDM +S55. xls
- 9. FC Summer 2015 POE50 Lower Central Coast +BBDM +S55. xls
- 10. FC Summer 2015 POE50 Lower North Shore +BBDM +S55. xls
- 11. FC Summer 2015 POE50 Maitland +BBDM +S55. xls
- 12. FC Summer 2015 POE50 Manly Warringah +BBDM +S55. xls
- 13. FC Summer 2015 POE50 Newcastle Inner City +BBDM +S55. xls
- 14. FC Summer 2015 POE50 Newcastle Port +BBDM +S55. xls
- 15. FC Summer 2015 POE50 Newcastle Western Corridor +BBDM +S55. xls
- 16. FC Summer 2015 POE50 North East Lake Macquarie +BBDM +S55. xls
- 17. FC Summer 2015 POE50 North West +BBDM +S55. xls
- 18. FC Summer 2015 POE50 Pittwater and Terrey Hills +BBDM +S55. xls
- 19. FC Summer 2015 POE50 Port Stephens +BBDM +S55. xls
- 20. FC Summer 2015 POE50 Singleton +BBDM +S55. xls
- 21. FC Summer 2015 POE50 St George +BBDM +S55. xls
- 22. FC Summer 2015 POE50 Sutherland +BBDM +S55. xls
- 23. FC Summer 2015 POE50 Sydney CBD +BBDM +S55. xls
- 24. FC Summer 2015 POE50 Sydney STS +BBDM +S55. xls
- 25. FC Summer 2015 POE50 Upper Central Coast +BBDM +S55. xls
- 26. FC Summer 2015 POE50 Upper Hunter +BBDM +S55. xls
- 27. FC Summer 2015 POE50 Upper North Shore +BBDM +S55. xls
- 28. FC Summer 2015 POE50 West Lake Macquarie +BBDM +S55. xls
- 29. FC Winter 2014 POE50 Auburn _ Homebush +BBDM +S55.xls
- 30. FC Winter 2014 POE50 Camperdown and Blackwattle Bay +BBDM +S55. xls

- 31. FC Winter 2014 POE50 Canterbury Bankstown +BBDM +S55. xls
- 32. FC Winter 2014 POE50 Carlingford +BBDM +S55. xls
- 33. FC Winter 2014 POE50 Eastern Suburbs +BBDM +S55. xls
- 34. FC Winter 2014 POE50 Greater Cessnock +BBDM +S55. xls
- 35. FC Winter 2014 POE50 Hunter STS +BBDM +S55. xls
- 36. FC Winter 2014 POE50 Lower Central Coast +BBDM +S55. xls
- 37. FC Winter 2014 POE50 Lower North Shore +BBDM +S55. xls
- 38. FC Winter 2014 POE50 Maitland +BBDM +S55. xls
- 39. FC Winter 2014 POE50 Manly Warringah +BBDM +S55. xls
- 40. FC Winter 2014 POE50 Newcastle Inner City +BBDM +S55. xls
- 41. FC Winter 2014 POE50 Newcastle Port +BBDM +S55. xls
- 42. FC Winter 2014 POE50 Newcastle Western Corridor +BBDM +S55. xls
- 43. FC Winter 2014 POE50 North East Lake Macquarie +BBDM +S55. xls
- 44. FC Winter 2014 POE50 North West +BBDM +S55. xls
- 45. FC Winter 2014 POE50 Pittwater and Terrey Hills +BBDM +S55. xls
- 46. FC Winter 2014 POE50 Port Stephens +BBDM +S55. xls
- 47. FC Winter 2014 POE50 Singleton +BBDM +S55. xls
- 48. FC Winter 2014 POE50 St George +BBDM +S55. xls
- 49. FC Winter 2014 POE50 Sutherland +BBDM +S55. XIs
- 50. FC Winter 2014 POE50 Sydney CBD +BBDM +S55. xls
- 51. FC Winter 2014 POE50 Sydney STS +BBDM +S55. xls
- 52. FC Winter 2014 POE50 Upper Central Coast +BBDM +S55. xls
- 53. FC Winter 2014 POE50 Upper Hunter +BBDM +S55. xls
- 54. FC Winter 2014 POE50 Upper North Shore +BBDM +S55. xls
- 55. FC Winter 2014 POE50 West Lake Macquarie +BBDM +S55. xls