



TransGrid's Submission to the
Australian Competition & Consumer
Commission

**Revised Transmission Capital
Investment Program 2004-2009**

Attachment 1B

Master Project List

November 2004

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MASTER PROJECT LIST

Complex/Project	2004 APR Reference	Project Type	Project Status	Project Size	Outline Plan	Planning Document	No. of Backgrounds
ACT and Surrounding Areas Supply: Royalla 132 kV Switching Station	6.5.24	Load	Likely	Major	07	208	All
ACT and Surrounding Areas Supply: Royalla 330/132 kV Substation Stage 1	6.5.24	Load	Likely	Major	07	208	All
ACT and Surrounding Areas Supply: Royalla 330/132 kV Substation Stage 2	6.5.24	Load	Likely	Major	07	208	All
ANM – Albury Supply: Line Terminal Upgrading		Load	Committed	Minor	05	200	All
Armidale 132/66 kV Transformer Replacement	5.3.2	Combined	Committed	Minor	08	201	All
Armidale, Marulan, Vales Point, Vineyard, Wellington and Yass 330/132 kV Transformers: Armidale Transformers	6.3.1	Condition	Likely	Minor			All
Armidale, Marulan, Vales Point, Vineyard, Wellington and Yass 330/132 kV Transformers: Marulan Transformer	6.3.1	Load	Likely	Minor	07	234	All
Armidale, Marulan, Vales Point, Vineyard, Wellington and Yass 330/132 kV Transformers: Vales Point Transformers	6.3.1	Condition	Likely	Minor	09	220	All
Armidale, Marulan, Vales Point, Vineyard, Wellington and Yass 330/132 kV Transformers: Vineyard Transformers	6.3.1	Load	Committed	Minor		225	All
Armidale, Marulan, Vales Point, Vineyard, Wellington and Yass 330/132 kV Transformers: Wellington Transformers	6.3.1	Combined	Likely	Minor	06	228	All
Armidale, Marulan, Vales Point, Vineyard, Wellington and Yass 330/132 kV Transformers: Yass Transformer	6.3.1	Condition	Committed	Minor			All
Asset Replacement: Substations		Condition					All
Asset Replacement: Mains		Condition					All

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Asset Replacement: Protection and Metering		Condition					All
Asset Replacement: Communications		Condition					All
Asset Replacement: Security Projects							All
Asset Replacement: Queanbeyan		Condition		Major			All
Asset Replacement: Canberra		Condition		Minor			All
Asset Replacement: Taree		Condition		Minor			All
Asset Replacement: Regional Depots and Training Facilities							All
Bannaby – Sydney 500 kV Line	6.5.6	Load + Generation	Excluded	Major	01	Backgrounds	Some
Bayswater – Mount Piper 500 kV Development	6.5.6	Load	Likely	Major	01	Backgrounds	All
Boggabri supply	6.5.5	Load	Possible	Major	04	205	All
Bulahdelah supply	6.5.8	Load	Likely	Minor	08	206	All
Bus Coupling 330 kV Substations		Other	Likely	Minor			
Canberra Capacitor Bank	5.3.8	Interconnection	Likely	Minor		2004/ 2234	All
Central Coast 330 kV Line Rearrangements	5.3.5, 5.3.6	Load	Likely	Minor	01	Backgrounds	All
Close Northern 500 kV Ring	6.5.6	Load + Generation	Excluded	Major	01	Backgrounds	Some
Coal Fired Power Station Connections	7.2.2	Generation	Excluded	Major	01	Backgrounds	Some
Coffs Harbour: 330/132 kV Substation	5.3.1	Load	Committed	Major	09	216	All
Coffs Harbour: 89 Line Connections at Armidale	5.3.1	Load	Likely	Minor	09	216	All
Coleambally		Load	Being Completed				All
Cooma and Bega supply: Cooma capacitor	6.5.25-26	Load	Likely	Minor	07	208	All
Cooma and Bega supply: Cooma North	6.5.25-26	Load	Likely	Minor	07	208	All
Cooma and Bega supply: Royalla - Cooma 330 kV Line	6.5.25-26	Load	Likely	Major	07	208	
Cowra 132/66 kV Transformer Capacity	6.5.21	Load	Likely	Minor	06	209	All
Cowra, Parkes and Forbes: Capacitor Banks	6.3.7	Load	Likely	Minor	06	209	All
Cowra, Parkes and Forbes: Lines	6.5.20	Load	Likely	Major	06	209	All
Dapto 330/132 kV Substation: Capacitors		Combined	Likely	Minor	07	210	All
Dapto 330/132 kV Substation: Fault Levels	7.2.22	Load	Possible	Minor	07	210	All

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Dapto 330/132 kV Substation: Transformer Capacity	7.2.18	Load	Likely	Minor	07	210	All
Darlington Point Communications	7.3.6	Other	Being Completed	Minor	11		All
Deniliquin capacitor bank	6.3.8	Load	Likely	Minor	05	217	All
Darlington Point Capacitors	5.3.9	Load	Likely	Minor		2004/2234	All
Disturbance Monitoring		Other	In progress				
Finley 132/66kV Tx Capacity	6.5.30	Combined	Likely	Minor	05	217	All
Frequency Injection Points for Country Energy			Committed	Minor			All
Gas Turbine Power Station Connections	7.2.2	Generation	Excluded	Major	01		Some
Glen Innes supply	6.5.4	Load	Likely	Major	04	233	All
Glen Innes/Inverell supply	7.2.11	Load	Likely	Major	04	218	All
Holroyd Complex - Holroyd 132kV Switching Station	6.5.15	Load	Likely	Major	02	230	All
Holroyd Complex - Holroyd 330/132kV Substation	6.5.14	Load	Likely	Major	02	230	All
Holroyd Complex - 330 kV Cable to the Homebush/Chullora/Mason Park Area	6.5.13	Load	Excluded	Major	02	230	All
Inner City Substation and Cable Work		Load	Being Completed				All
Kemps Creek - Sydney South Reinforcement	6.5.12	Load	Excluded	Major	02	2004/0999	All
Kemps Creek 500 kV Transformers	6.5.12	Load + Generation	Possible	Major	02	Backgrounds	All
Kempsey 132/33 kV Transformer Capacity	7.2.14	Load	Likely	Minor	08	213	All
Koolkhan 132 kV Substation		Load	Being Completed				All
Koolkhan 132/66 kV Transformer Capacity	7.2.13	Load	Likely	Minor	08	212	All
Line Updatings	6.5.36	Load + Generation	Likely	Minor		Backgrounds	All
Line Ratings – Weather Monitoring	App1 -6	Other	Likely				
Lismore Area Supply: Koolkhan and Nambucca capacitor banks	6.3.4	Load	Likely	Minor	08	212	All
Lismore Area supply: 966 Upgrading	6.5.2	Load	Likely	Major	08	212	All
Liverpool Third 330/132 kV Transformer	5.2.3	Load	Committed	Minor	02	215	All

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Main Grid Capacitor Banks: Regentville, Sydney West, Vales Point	6.3.5	Load	Likely	Minor		2004/ 2234	All
Marulan – South Coast Reinforcement	6.5.23	Interconnection	Likely		01	Backgrounds	Some
Marulan – Yass/Canberra Reinforcement	6.5.23	Interconnection	Possible		01	ND/P/86	Some
Mason Park Area 330/132 kV Substation	6.5.13	Load	Excluded	Major	02		
Mid North Coast: Armidale - Kempsey 330 kV line	6.5.3	Load	Likely	Major	08	216	All
Mid North Coast: Coffs - Kempsey 132 kV line	6.5.3	Load	Likely	Major	08	216	All
Mid North Coast: Kempsey - Port Macquarie Line	6.4.1	Load	Likely	Major	08	216	All
Mid North Coast: Port Macquarie 330 kV Substation	6.5.3	Load	Likely	Major	08	216	All
Mount Piper – Marulan/Bannaby 500 kV	6.5.6	Load + Generation	Likely	Major	01	Backgrounds	Some
Mulwala, Finley and Deniliquin Supply	6.5.31	Load	Likely	Major	05	217	All
Narrabri capacitor bank	6.3.6	Load	Likely	Minor	04	218	All
Narrandera and Lockhart supply	6.5.29	Load	Likely	Minor	05	231	All
Newcastle 330 kV Substation Augmentation		Load	Being Completed	Minor			All
Newcastle and Lower North Coast Supply	6.5.7	Load	Excluded	Major	01		
Orange 132 kV Substation Augmentation	6.5.18	Combined	Likely	Major	06	229	All
Panorama 66k V Capacitors		Load	Likely	Minor	06	229	All
Parkes 132/66 kV Transformer	6.5.19	Load	Likely	Minor	06	209	All
Port Macquarie 132/33 kV Transformer Replacement	5.3.3	Combined	Committed	Minor	06	214	All
Quality of Supply Monitoring		Other	Likely				
QNI – Armidale SVC – System Damping	App1 - 5	Interconnection	Likely	Minor			
QNI – 132 kV Power Flow Control	6.5.1	Interconnection + Load	Possible			2004/ 2238	All
QNI Upgrade – Series Compensation	6.5.1	Interconnection	Excluded	Major		2003 / 3460	All
Refurbishment of 875 Tamworth – Gunnedah 66 kV Line		Condition	Likely	Minor			All
Refurbishment of 990 Yass – Wagga 132 kV 132 kV line		Condition	Likely	Major			All
Replace Newcastle No. 1 Transformer		Condition	Committed				All
Replace 41 Cable Shunt Reactor		Condition		Minor			All

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Snowy Assets Rehabilitation: Lines	5.3.7		Likely	Minor			All
Snowy Assets Rehabilitation: MSS	5.3.7		Likely	Minor			All
Snowy Assets Rehabilitation: UTSS	5.3.7		Likely	Minor			All
South West NSW and Possible Interconnection to Victoria	6.5.28	Load	Excluded	Major			None
South West of Greater Sydney supply (Mount Annan)	6.5.17	Load	Likely	Major	02	222	All
Southern Communications Upgrade			Being Completed				All
Special Protection Scheme – Multiple Contingency	App 1 - 12	Other	Possible				
Supply Point Site Acquisitions	6.4.3	Load	Likely	Minor		221	All
Support the Business: Property		Support					All
Support the Business: IT		Support					All
Support the Business: Mobile Plant		Support					All
Support the Business: Other		Support					All
Sydney North 330 kV Substation: 132 kV Fault Level Limits	6.5.10	Load	Likely	Minor	02		All
Sydney South 330 kV Substation: Replacement of two 330/132 kV Transformers	7.2.17	Load	Likely	Major	02	223	All
Sydney West 132 kV Switchbays	6.3.2	Load	Committed	Minor			All
Sydney West 330 kV Substation: Equipment Fault Level Upgrade	6.5.11	Load	Likely	Minor	02		All
Sydney West SVC		Condition	Being Completed	Major			All
Sydney West Transformer Replacements	6.5.16	Condition	Likely	Major			All
Sydney West – Liverpool Switching Arrangement		Other	Likely	Minor			
System Reactive Plant – capacitor banks on main system	6.5.35	Load + Generation	Likely	Major		Backgrounds	All
Tamworth Reactor	6.3.9	Condition	Likely				All
Tamworth Reactor – Black Start	6.3.9	Black start	Likely	Minor			
Taree 132/66 kV Transformer Capacity		Load		Minor	08	224	All
Telecommunications: Darlington Point	7.3.6	Other	Likely	Minor		11	All

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Technical Services: Hume	7.3.6	Other	Likely	Minor		11	All
Technical Services: Minor	7.3	Other	Likely	Minor			All
Telecommunications: New England	7.3.1	Other	Likely	Minor		11	All
Telecommunications: North Coast	7.3.2	Other	Likely	Minor		11	All
Telecommunications: OPGW Backup South	7.3.4	Other	Likely	Minor		11	All
Telecommunications: OPGW Backup West	7.3.3	Other	Likely	Minor		11	All
Telecommunications: Metropolitan Backup		Other	Likely	Minor		11	All
Telecommunications: Snowy	7.3.5	Other	Likely	Minor		11	All
Telecommunications: South West SCADA	7.3.6	Other	Likely	Minor		11	All
Telecommunications: Disaster Recovery		Other	Likely	Minor		11	All
Tomago 330 kV Switching Station		Load	Being Completed	Minor			All
Tomago Supply Point		Load	Likely	Major	03	219	All
Tuggerah – Sterland Upgrade		Load	Being Completed	Major			All
Tuggerah supply	6.5.9	Load	Likely	Major	09	207	All
Vales Point and Munmorah Switchyard Upgrading		Load	Being Completed	Minor			All
Vineyard 132 kV Line switchbays	6.2.5	Load	Likely	Minor			All
Wagga 132 kV line rearrangements	6.3.3	Load	Likely	Minor	05	226	All
Wagga 132/66 kV Substation Transformer Capacity (Wagga North)	6.5.27	Load	Likely	Major	05	227	All
Wind Farm Connection	7.2.2	Generation	Excluded	Major			Not considered
Wollar - Wellington 330 kV Line & Wollar 330 kV Switching Station	5.3.4	Load	Committed	Major	06	229	All
Waratah West 330 kV Substation		Load	Being Completed	Major			All
Yass 330 kV Substation		Condition	Being Completed				All
Yass 330 kV Transmission Lines		Condition	Being Completed				All

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Yass – Wagga 330 kV Line	6.4.2	Interconnection + Generation	Possible	Major	01	Backgrounds	Some

Planning Complex Attribute	Categories	Definition
Project Type	Load	Driven primarily by load growth
	Condition	Driven primarily by asset condition
	Generation	To connect generation or transmit its output to major load centres
	Interconnection	To enhance or maintain interconnector capability
	Other	Other driver such as a directive from a statutory authority or other body.
	Support	To support the business
Project Status	Being Completed	Works which are underway and largely completed
	Committed	Works covered by a Project Definition Report, Technical Services Plan or Customer agreement
	Likely	
	Possible	
	Excluded	A project which, due to uncertainty, is specifically excluded from the aggregate cost estimate
Project Size	Minor	Cost estimated to be less than \$10 million
	Major	Cost estimated to be more than \$10 million
Planning Document	XXX	XXX denotes the number of the planning report (drafts previously provided)
	YYY / ZZZZ	YYY / ZZZZ is the identifier for the file on which documentation is contained
	Backgrounds	This indicates that the project is described in the background analysis