

PROJECTS LIST

POWER TRANSMISSION AND DISTRIBUTION INDUSTRY

TransGrid/ActewAGL Williamsdale 330kV to 132kV Switching Station (Southern Supply to Australian Capital Territory)

- ActewAGL & TransGrid joint consultation with NEMMCO (now AEMO), National Electricity Market registered participants and other interested parties for the development of Southern supply connection options.
- Application of regulatory tests with TransGrid (to meet the requirements of the ACT Jurisdiction) and determination of the option that satisfied the test.
- Investigation and selection of two feasible network augmentation options for an independent 330kV line and a switching station for TransGrid and a substation and extension of ActewAGL 132kV transmission lines.
- Delivery phase coordination with TransGrid for detailed planning, design, construction and commissioning of new transmission assets at Williamsdale with TransGrid network.

TransGrid Coordination - Angle Crossing 132kV T – Off Station

- Coordination and negotiation with TransGrid on technical requirements and a separate fiber optic connection for the new assets to be established by ActewAGL.
- Coordination with TransGrid during define and delivery phases of the project including commissioning of the Angle Crossing substation.

Eastlake Zone Substation 132kV cable selection

- Load flow modeling of 132kV network to access the transfer capability and Voltage profile of the system under various operating conditions and contingencies.
- HV cable selection (132kV) to meet established network performance and planning standards under the business financial constraints.
- Technical specification and documentation for cable procurement.

TEAM

Our Team has to offer wealth of technical know-how from their previous experience in Transmission & Distribution industry.

Team members have previously worked in Utilities and Design Consultancies. Their collective experience and involvement is broad and have many collaborative interactions with the key assets owners to provide solutions to their problems.

The projects listed are some of the key projects and our Principals have contributed to these projects at different stages of their career.

FRV Royalla 20MW Solar Farm connection

- Technical review and response to the customer enquiry and application including the applicable requirements and recommendations of the National Electricity Rules (NER).
- Negotiation with TransGrid and AEMO to agree on the performance and technical access standards to be satisfied by the connection.

West Belconnen development and establishment of new 330kV TransGrid Switching Station

- Coordination with TransGrid and ACT Government (ACTPLA & LDA) to select a site for the proposed TransGrid 330kV Switching Station and fulfil ACT Government legislative requirements.
- Coordination with TransGrid to establish the site for new ActewAGL 132kV zone substation and connection to the TransGrid's 330kV transmission network.
- Negotiation with TransGrid to establish a 330kV dual circuit line as a part of the long term planning requirement and to use ActewAGL easement.

Wanniassa – Gilmore 132kV Transmission line

- Option analysis for the selection of line route including the coordination & negotiation with stakeholders (land holders and ACT Government agencies) to finalise the preferred route.
- Preliminary design including detailed survey, line sketch plans and environmental protection plan and obtained Development Approval (DA) from ACT Government agencies.
- Detailed design of the line including technical specifications, budget estimates for the material and services.
- Project management including tendering, assessment, selection and engagement of the construction contractor and the review of the construction design, on site assessment as the owner's engineer, and witness the asset take over process.

Williamsdale – Theodore 132kV Transmission line

- Option analysis for the selection of the line route selection including the coordination & negotiation with stakeholders (land holders and ACT Government agencies) to finalise the preferred route.
- Preliminary design including detailed survey, line sketch plans and environmental protection plan and obtained Development Approval (DA) from ACT Government agencies.
- Detailed design of a double circuit single pole bundle conductor line to reduce the standard 60m easement to 45m, prepared technical specifications, budget estimates for the material (Uranus and OPGW conductors) and services.
- Coordination and management of the 25 hectare compensatory habitat site for the endangered species.
- Project management including tendering, assessment, selection and engagement of the construction contractor and the review of the construction design, on site assessment as owner's engineer to ensure the remediation of the disturbed land, and witness the asset take over process.

Lawson 132kV Transmission line Undergrounding

- Detailed project brief to relocate part of the 132kV overhead line by undergrounding to facilitate the land development activities of the ACT Government.
- Managed the design through a consultant to meet the specific design requirements including line termination structures, the new cable route, detailed cable rating study and selection of cable, and technical specifications.
- Investigated and scoped the civil and structural design modifications as required at the zone substations and the secondary systems including bus section protection panel and control panel upgrades.
- Safety in design workshops and constructability reviews to finalise the designs.
- Preparation of the technical specification for detailed design and implementation of the project including procurement of materials, installation and commissioning.

Fyshwick 66kV Zone Substation

- Detailed design for the modifications of 66kV termination structures at the Fyshwick zone substation to accommodate the new non-standard transformers at the bays.
- Analysis of the pole strengths, stay wire arrangements and relocations as required.
- Provision of specific guidelines, construction design details and drawings to the construction crews to minimise the delays and to reenergize the impacted zone.

Gilmore – Causeway 132kV Transmission line

- Analysis and study for the incoming power supply arrangement and identified an acceptable line route to meet the requirements of leaseholders and ACT government agencies.
- Detailed line route survey and geotechnical survey on the preferred route.
- Preliminary design for the bundle conductor line, selection of structures suitable to meet the conductor strengths and preparation of technical specification and tender documentation.
- Design review of the detailed construction drawings, sag tension charts and line schedules prepared by the construction contractor.
- Asset acceptance process including inspection of construction work and witnessing the commissioning.

Newcastle Gas Storage Facility (NGSF) Supply from Raymond Terrace – Tomago 33kV Sub Transmission Line

- Management of the connection process from enquiry to grid connection agreement (inclusive).
- Analysis and study of the connection options to Ausgrid networks for the supply of NGSF loads.
- Coordination and negotiation with Ausgrid to finalise the preferred connection option and to obtain a design brief.
- Preliminary & detailed design of the 33kV underground sub transmission line loop in & out and the switching station for Ausgrid and the 33/6.6kV substation for NGSF loads.
- Analysis and studies on the network technical, protection and earthing aspects of the assets, and coordination and negotiation with Ausgrid to obtain final acceptance and endorsement.

Cotter 11kV Feeder Upgrade

- Justification of the need for feeder upgrade through network analysis and planning to cater for the new commercial customers at the end of the line.
- Consultation & negotiation with stakeholders (ACT government agencies and land owners) to agree with the proposed line upgrade on the existing alignment.
- Detailed line route survey and line design to maximize the use of existing poles and pole hardware for the new conductors' weight and tensions.
- Prepared line schedules and stringing charts for the new line and recommended the replacement of some of the poles through identifying and assessing the pole strengths.
- Coordination with the line crews to ensure the line was built to meet the design requirements.

Yamba 11kV Feeder Upgrade

- Justification of the need for feeder upgrade through network analysis and planning to improve the supply reliability to the Canberra Hospital.
- Cable and line route selection to meet the increased demand and to minimise the disturbances to built-up areas during construction.
- Detailed survey on all existing services and obtained Development Approval from the relevant government agencies.
- Procurement of construction services including tender documentation, technical brief and design specification.

Lawson Development 11kV Feeder Upgrade

- Justification of the need for feeder upgrade through network analysis and planning to pave way for the proposed development in Lawson.
- Coordination with developers to finalise the new cable routes and connection arrangements to the existing 11kV network.
- Identified and defined the scope of works at the Belconnen zone substation including new construction drawings, cable termination modifications and installation instructions.
- Developed and issued construction drawings and instructions to the field crews.

Moncrief Land Development 11kV Feeder Upgrade

- Justification of the need for feeder upgrade through network analysis and planning to pave way for the proposed development in Moncrief.
- Coordination with developers to finalise the new cable routes and connection arrangements to the existing 11kV network.
- Identified and defined the scope of works at the zone substation including new construction drawings, cable termination modifications and installation instructions.
- Developed and issued construction drawings and instructions to the field crews.

Street Lighting for Land Developments

- Street lighting designs for new land developments as per Australian Standards and Territory and Municipal Services (TAMS) guidelines.
- Use of specific lighting design software to design pole positions to meet the required lighting category for individual developments and major roads as specified by TAMS.
- Preparation of detailed design drawings for construction, detailed estimates, and bill of quantities for streetlights, cable and other hardware as required.
- Coordination with TAMS for the final approval of the detailed design and the as built lightning network.

Electrical Master Plans for Major Land developments

- Prepared Electrical Master Plans (EMPs) for each major land development project to optimize the use of HV cables and improve the utilisation of the existing and proposed substations.
- Location of substations to meet the network load flow and reliability criteria (e.g., Voltage drop at the customer premises).
- Integration of EMPs to the Estate Development Plans (EDPs) to finalise the low Voltage supply reticulation assets locations and cable routes.