

Electrical services





Electrical services

NSW Public Works specialist electrical services team provide a range of technical and advisory services to streamline the design, approval and implementation of the electrical aspects of infrastructure projects.

We are uniquely placed to facilitate engagement between design consultants and supply authorities, ensuring that, where network upgrades are required, design solutions are optimised and costs are reduced. The experienced gained on hundreds of sites requiring electrical network upgrades has allowed us to advise on setting up a design process, which to date is estimated to have saved Schools Infrastructure NSW in the order of \$26M by reviewing and challenging power requirements for schools in NSW.

From low voltage solar photovoltaic projects, to high voltage network upgrade, NSW Public Works has the experience and expertise to assist with the electrical requirements throughout NSW.

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Our expertise

NSW Public Works has the **breath** of experience and **state-wide presence** to assist with all your **infrastructure project** electrical servicing requirements.

- Design process management
- Electrical maximum demand reviews
- Electrical drawing and design reviews
- Preliminary options analysis for sites requiring ASP1/3 works
- Stakeholder and supply authority engagement
- Energy efficiency advice
- Procurement
- Supply Authority design information reviews
- Validation of Supply Authority directions
- Project and contract management
- Easement advice
- Advice on ASP1, 2 and 3 works
- Solar reviews
- Zone substation planning advice
- Special Activation Precincts planning advice



School Infrastructure

NSW Cooler Classrooms

Baradine Central School

The original requirements for the network upgrade included replacement of approximately 14km of high voltage lines. Following considerable liaison with the supply authority, network requirements were revised with a significantly reduced scope.

This resulted in cost savings in the order of \$6 million and significant reduction in delivery time.



Coffs Harbour High School

The original supply authority requirements for the network upgrade included a new pad mounted kiosk substation. NSW Public Works electrical specialists proposed an alternative solution and negotiated with the supply authority for a revision and scope reduction.

This resulted in an estimated cost saving of \$1 million and a significant reduction in delivery time.



Canobolas Rural Technology High School

The supply authority had issued a directive in the design information package (DIP) requiring a return to site to examine approximately 600m of overhead cabling approximately 1.5 kilometers away from the school and the replacement of cabling is deemed necessary. NSW Public Works challenged this directive on the basis that the works should be treated as shared network and upgraded by the supply authority if required.

The supply authority agreed and re-issued a new DIP at no extra cost.



Other electrical services projects

Belmont Mass Vaccination Hub

Health NSW engaged NSW Public Works to advise on a new vaccination hub located at Belmont.

NSW Public Works provided specialist technical advice on how to reduce power consumption and improve efficiency to gain the best value for money on the hub's internal constructions, thus avoiding the need for a high cost electrical network upgrade.



NSW Rural Fire Service Fire Control Centre Tamworth

A detailed electrical assessment by NSW Public Works of the construction issued electrical documents identified a number of issues. These included an under rated fuse supplying the new centre, and the lack of confirmation of the consumer main pathway with the site designer.

NSW Public Works led the engagement with the designers and supply authority, which led to a design resubmission and rectification at no additional cost to RFS.



Air Quality Compound Rouse Hill

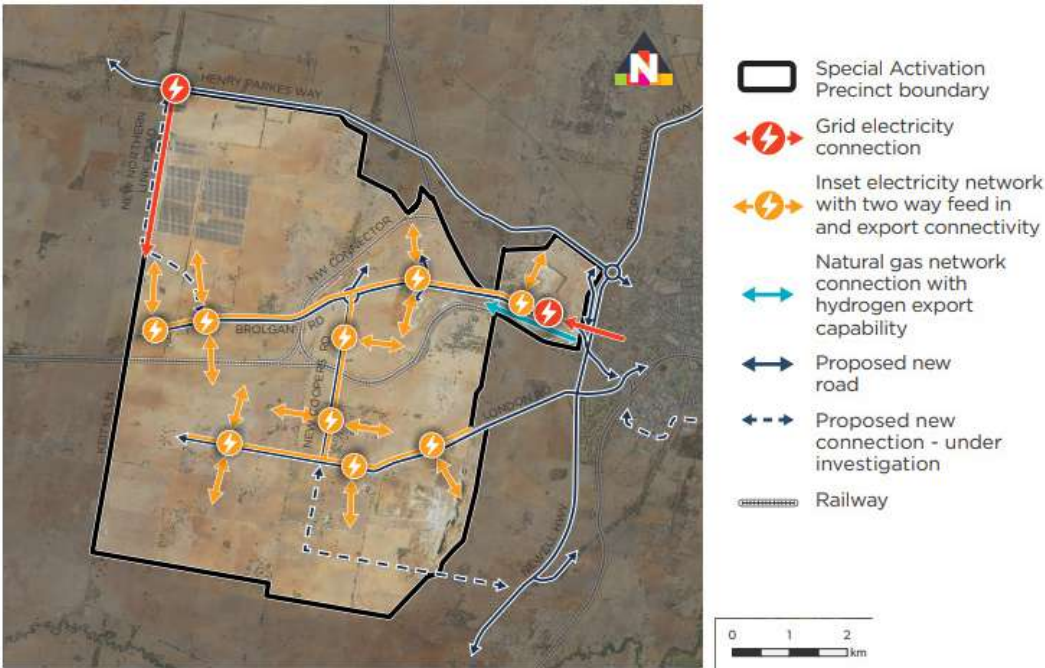
NSW Public Works successfully negotiated dual supplies to site for the Office of Environment and Heritage. Had dispensation not been received the compound would not have been able to be installed at the Rouse Hill site. This would have necessitated the investigation of alternative sites, which would have significantly delayed the projects.



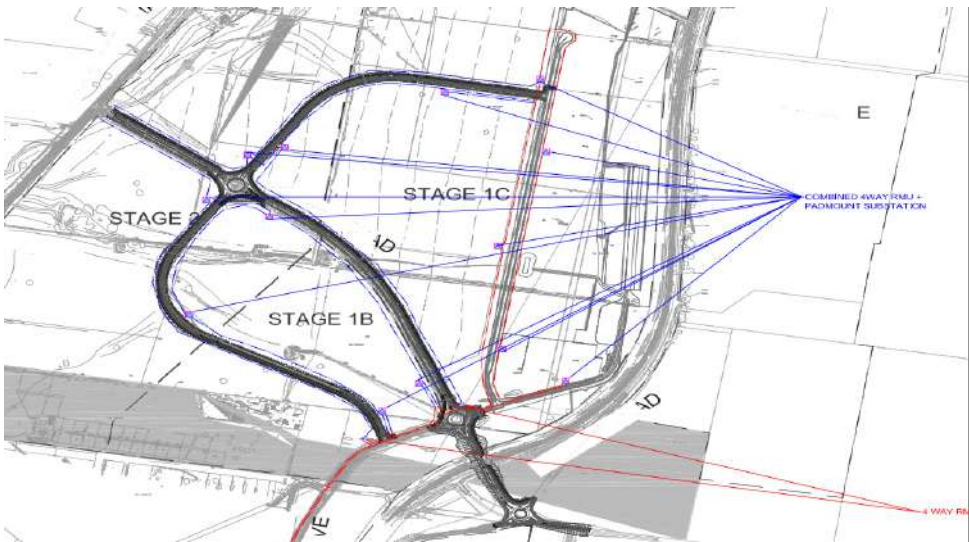
Special Activation Precincts

NSW Public Works is uniquely placed to help with the following aspects of Special Activation Precincts (SAP)

- Early planning advice
- Working with clients to determine load predictions for large precincts for loads greater than SMVA
- Proposing method of supplies to Supply Authorities to obtain value for money solutions
- Location and suitability of zone substations and pad mounted kiosk substations
- Supply Authority design information reviews
- Verification of Supply Authority assessments
- Upstream restrictions/supply constraints from TransGrid
- Verification of contestable works/non-contestable works



Energy Network



Why choose NSW Public Works?



**Accredited
for planning
and delivery of
capital works**

NSW Public Works is accredited under the NSW Government Agency Accreditation Scheme for Construction to manage the planning and delivery phases of construction and capital works procurement. NSW State and Local Government entities can directly engage the services of NSW Public Works under the provision of NSW Government Procurement Board Direction PBD 2020-04 and Section 55 of the Local Government Act 1993, providing efficiencies and cost savings.



**Strong focus
on quality,
environmental
and safety
management**

NSW Public Works operates under triple certification for quality, occupational health and safety (WHS) and environmental (QSE) management systems. These systems and processes provide the foundation for delivering quality projects and a continuous improvement culture, that embraces QSE leadership at all levels and integrates QSE into all activities. NSW Public Works' Project Management Framework is the backbone of our quality system and is used to manage our projects and ensure we deliver to agreed requirements.



**State-wide
resources**

Regional clients benefit from our state-wide network of offices enabling them to source expert project management personnel familiar with the conditions and construction industry issues in their area. This proximity reduces servicing costs, facilitates improved stakeholder communications and enables us to respond quickly to your needs, providing a single point of contact for all services.



**Government
relationships
and knowledge**

Successful delivery of complex infrastructure projects relies on effective interaction with stakeholders and regulatory government agencies. NSW Public Works' unique position within NSW Government enables us to bridge the gap between our clients and Government stakeholders to ensure necessary consultations and approvals are undertaken efficiently and effectively.



Managed risks

We place considerable emphasis on advising clients of their risks on projects, including the options and costs to manage these risks. Wherever possible, risks are identified early and inform our planning and procurement strategy development processes. Risks are continuously monitored and updated as projects progress and discussed and managed with clients and contractors.

Working across NSW

HUNTER NEW ENGLAND REGION

Newcastle
117 Bull Street
Newcastle West NSW 2302

Tamworth
155-157 Marius Street
Tamworth NSW 2340

Inverell
240 Byron St
Inverell NSW 2360

Armidale
85 Faulkner St
Armidale NSW 2350

NORTH COAST REGION

Lismore
120 Dally Street
Lismore NSW 2480

Coffs Harbour
359 Harbour Drive
Coffs Harbour NSW 2450

Port Macquarie
Level 2, 41-47 Horton Street
Port Macquarie NSW 2444

SYDNEY METRO REGION

Parramatta
4 Parramatta Square
12 Darcy Street
Parramatta NSW 2150

The Rocks
66 Harrington Street
Sydney NSW 2000

SOUTH COAST REGION

Wollongong
Level 3, Block E
84 Crown Street
Wollongong NSW 2500

Goulburn
Suite 5, 167 Auburn Street
Goulburn NSW 2580

Moruya
66 Campbell Street
Moruya NSW 2537

Queanbeyan
Ground Floor East
11 Farrer Place
Queanbeyan 2620

Nowra
5 O’Keefe Avenue
Nowra NSW 254

RIVERINA/WESTERN REGION

Bathurst
Level 1, 346 Panorama Avenue
Bathurst NSW 2795

Dubbo
34 White Street
Dubbo NSW 2830

Broken Hill
Level 1, 32 Sulphide Street
Broken Hill NSW 2880

Griffith
104 - 110 Banna Avenue
Griffith NSW 2680

Wagga Wagga
2-6 Coleman Street
Wagga Wagga NSW 2650

Dareton
1998 Silver City Highway
Dareton NSW 2717



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