



HIGH ENERGY SOLUTIONS

Nilsen have a long and established history in providing High Energy solutions in the contracting applications. Whether it is for privately owned assets to 66KV in the industrial and resource sector to qualification for relevant state authorities, Nilsen have a highly specialised and experienced technical workforce to deliver. These resources are underpinned by significant design capacity both within and external to the business.

This specialised sector requires constant training to ensure we are delivering relevant solutions to our client base. The business has flexibility to meet the changing demands within the market place and has long established supply chain agreements to key suppliers.

Our Contracting capacity is supplemented by our Engineering Services division that supplies the technical insight to ensure we supply a turn key solution from inception to design, construction and commissioning.

OUR PEOPLE

Nilsen have accredited and qualified teams of test engineers and specialist tradespersons across the country who specialise in design, installation and testing capabilities for High Voltage installations, as well as circuit breaker and transformer maintenance. They are strongly supported by our AS4801 certified Safety System and internal ISO9001 compliant Quality procedures.







POWER GENERATION PLANT & SUBSTATION COMMISSIONING

- Check installation against GA with OEM requirements
- Pre-commissioning tests
- Design, setup and testing of protection systems, earthing and lightning protection systems
- Winding resistance, ratio tests, insulation resistance checks
- Substation retrofits

SERVICE AND SUPPORT 24/7

- High Voltage Switching
- High Voltage Substation and Switchgear installation, testing, commissioning and maintenance
- High Voltage circuit breaker testing, installation, retrofitting and maintenance
- Installation, termination and testing to 132kV
- Thermographic (infrared) surveying of electrical equipment
- Cable locating and cable fault locating
- Very Low Frequency (VLF) testing of high voltage cables
- Hi-Pot testing of HV electrical equipment (AC, DC and VLF)
- Transformer testing including oil samples and filtration, on line dry outs, turns ratio, winding and insulation resistance
- Primary injection testing for Main 415v circuit breakers and secondary injection testing of protection relays
- Asset Life cycle planning and critical asset maintenance plans

OUR HIGH ENERGY PROJECTS

In New South Wales, Nilsen have completed a wide range of high energy projects including University Technology of Sydney (UTS) Central, Sydney Airport Corporation Limited (SACL) HV Maintenance Contract, SACL International Zone Substation and the SACL Keith Smith Substation Upgrade.

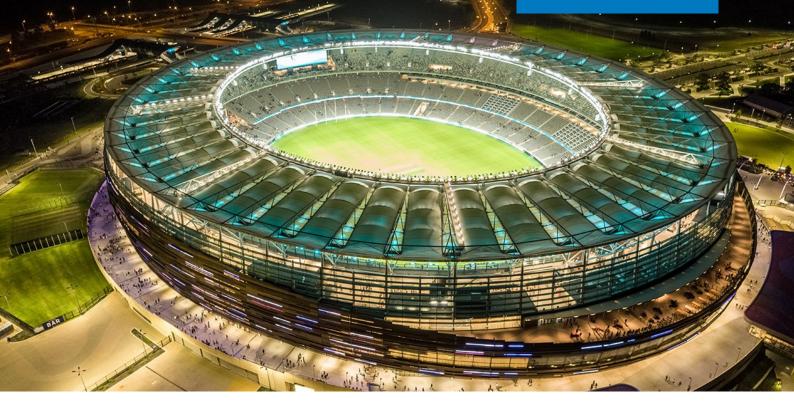
Nilsen have also completed the **Air7000 Defence HV Network**, **Osborne Naval Shipping Precinct** site, **Parabanks HV works** as well as many small upgrades and change-overs in South Australia.

Nilsen, founded in 1916, has an unbroken record of excellence in electrical and communications engineering, contracting and maintenance services. The rewards have come by way of major infrastructure, commercial, industrial, defence and other government projects and in the recognition received by Australia's

leading industry association, NECA.







In Victoria, Nilsen completed **Substation 42 Melbourne Airport** project, **Metro Trains** and various projects at **LOY YANG Power Station** including conveyer systems and dredger upgrades. Nilsen have also received NECA awards for several Victorian HV projects including the **Austin Hospital MV/HV Upgrade**, **Bendigo Hospital** and **Webb Dock**.

Nilsen have a great deal of HV project experience right across the state of Queensland, including the major Port of Brisbane Berth 10 Container Terminal project, various transformer replacements for Energex, Westfield (Scentre Group) and Stocklands as well as ongoing maintenance for clients such as Gladstone Ports Corporation and Cement Australia.

Nilsen have completed a vast array of large HV projects in the Northern Territory including the 11kV Casuarina Zone Substation, 11kV Nightcliff Undergrounding project, 22kV Palmerston Regional Hospital, 11kV Northern Territory Secure Facility (Jail), 11kV Woolner Substation, 11kV Darwin Waterfront Precinct, 66kV HV Feeder Zuccoli, 11kV Bellamak and Muirhead Subdivisions.

Past Defence Force projects in the Territory have also included HV works at 1CSR, Single Leap, 1st Aviation and 1st Command and ATC Tindal.

Nilsen have also been awarded Northern Territory Master Builder Electrical Contractor Awards for the 132kv Switchyard Channel Island Power Station, 11kV Royal Darwin Hospital Oncology, 11kV Leanyer Zone Substation Feeders, Mary McKillop and Roseberry School projects.

In Western Australia, Nilsen have carried out Perth Airport HV Maintenance, the Donhad Transformer Upgrade and the Legacy Transformer and HV Switchgear Replacement for Department of Defence. Nilsen been awarded two national NECA Awards for projects in Perth; Australia's Best 2016 Small Industrial project for the Perth Airport T1 RMU Replacement (HV Switchboard installation and commissioning) and more recently, Australia's Best Large Commercial project for the Perth Stadium (HV installation and commissioning).









INFRASTRUCTURE

Nilsen are well versed in infrastructure projects, which typically encompass LV/HV electrical and communication installations, lighting control and energy management systems.

Moreover, Nilsen has the ability to provide design assistance with lighting control and energy management systems from its Nilsen Networks business, based in Victoria. In addition, due to our in-house switchboard manufacturing, Nilsen can assist with switchboard design and compliance.

OUR INFRASTRUCTURE PROJECTS

Nilsen has delivered a wide range of large infrastructure projects in Victoria, including the Caulfield to Dandenong Rail Corridor Upgrade, WEBB Dock HV/LV, CityLink Maintenance, EastLink Tolling System, Melbourne Airport Terminal 4, Melbourne Water Treatment Facilities as well as Train Stations (Electrical & OCS).

In South Australia, Nilsen have worked on several major infrastructure projects such as the Adelaide Airport Upgrade, Adelaide Rail Operations and Control Centre relocation, South Road Superway and Port River Expressway.

Nilsen have handed over various infrastructure projects in Northern Territory including the **Nightcliff Undergrounding** project, **Northern Territory Secure Facility** (Jail), **Darwin Waterfront Precinct** and the **Bellamak and Muirhead Subdivisions**.

In New South Wales, Nilsen have delivered the **Northwest Rail Transport Facility** and **Sydney Light Rail Inner West Extension**infrastructure projects along with various smaller projects for **Sydney Airport Corporation Limited**, **Telstra** and **WestConnex**.

In Western Australia, Nilsen have completed the Perth Busport, Cannington Greyhound Complex, Cockburn Recreation Centre & Fremantle Football Club Facility as well as the Perth Stadium infrastructure projects.

Nilsen also completed majority of the **Airport Link Tunnel** project in Brisbane as well as the **Richlands Railway** and **Cairns Domestic Airport Terminal** projects further afield in Queensland.

OUR SAFETY COMMITMENT

Nationally, Nilsen Senior Management has a very active role in all HSE matters and culture at Nilsen. Our safety commitment is top down and bottom up approach with all employees being responsible and accountable for their health and wellbeing and those they deal with. Nilsen have a practical, advanced company-wide national safety system accredited to AS 4801 and follow the mantra of ZERO HARM.

Nilsen are experienced in working on unique infrastructure sites and are equipped to implement plant and exclusion zone security related preventative measures. We prepare a Site Specific Safety Plan in accordance with the Builder's requirements for every project and complete internal audits on a monthly basis.



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