

- ✔ Oil and Gas
- ✔ Power – Traditional
- ✔ **Power – Renewables**
- ✔ Coal Mining
- ✔ Water Utilities
- ✔ Non-Ferrous Works
- ✔ Rail
- ✔ Defence
- ✔ Civil Onsite
- ✔ General Engineering



# Power – Renewables

capability statement



# WHAT WE DO

Berg are committed to supporting cleaner energy solutions for Australia and overseas. As part of this commitment we are proud to have partnered with a number of leading green energy providers to help reduce costs and increase the service life of their key assets.

## Hydro Power Stations

Berg has extensive experience working on large scale hydro power stations. Whether it be manufacture or refurbishment of pumps and components, turbine units, inlet valves, guard gate doors and tracks, high end machining of large scale equipment or on-site servicing and machining; Berg have the capability to service these assets and provide significant time and cost benefits to our clients.



## PROJECT SPOTLIGHT

### Wivenhoe Dam Pump Works for CS Energy

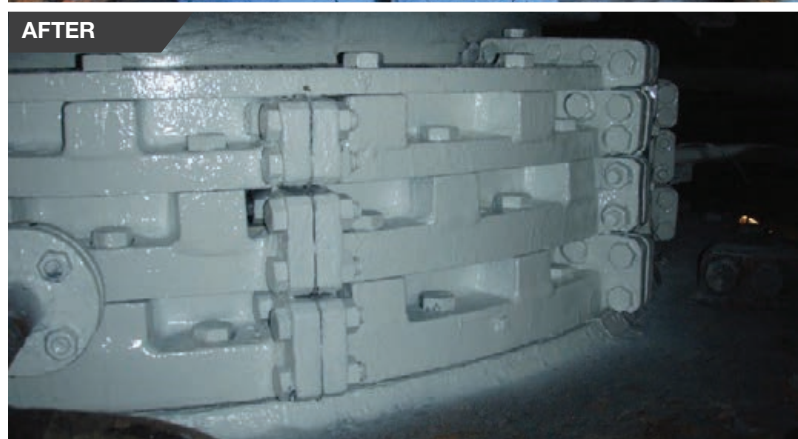
Wivenhoe Power Station is a 500 MW pumped storage hydroelectric plant and houses the largest hydro machines in Australasia. The 1.4 metre shafts have a gland seal arrangement around the shaft which have corrosion issues causing large leaks. In order for CS Energy to repair these leaks with minimal downtime, they tasked Berg to come up with an engineered refurbishment solution for the gland packing arrangement. Berg implemented the following solution carried out through 620 hours of work over 4 weeks:

- Repair of segment mating faces by building up with stainless steel welding and re-machining to the original surface;
- Plating of all seal faces with a 304-grade stainless plate full seal welded to the gland segments;
- Repair of shaft clearance bores with stainless steel welding and re-machining to original size to achieve correct clearance on shaft.
- Protective treatment of segments by painting with Amerlock 400; a two pack, high solids, high performance coating;
- Full assembly of pump and turbine gland segment arrangements on to the custom mandrels that replicate how they are fitted on site. This ensured that when the glands were delivered to site the fitting time was reduced.

BEFORE



AFTER





## Wind Farms

Berg has the in-house capability and experience to provide a number of services to key Wind Farm assets. This includes manufacture and refurbishment of turbines and bearings including laser surveying and flange and flume works for towers. To provide further cost and time benefits to our clients, a number of these machining services can be performed onsite.



## PROJECT SPOTLIGHT

### Turbine Wind Farm Flange Testing & Realignment Project for Victorian Government

In late 2017, Berg were engaged by Sendion on behalf of the Victorian Government to undertake works on the turbines and bearings at their Adelaide Wind Farm project. Sendion were building new towers to expand the Wind Farm's existing operations, however the flanges were going out of specification. Therefore, Berg were engaged to undertake onsite laser survey and machining to restore a flat surface and bring them back to acceptable tolerances.



## HOW WE DO IT

Our reputation for on time and on budget delivery is what sets Berg apart from our competitors and with our industry leading facilities in our Brisbane, Gladstone and New Caledonia workshops, Berg can comfortably deliver contracts up to \$15 million in value across the Asia Pacific region.

### Our workshop capabilities include:

**Fabrication** – Berg can undertake **complete fabrication & installation** of complex items and functional structures;

**Lifting & Manipulation Equipment** – Hard stand areas and overhead cranes with **20 tonne** lifting capacities;

**Large Capacity Machining** – Berg has over **\$20 million** invested in modern computer controlled machinery and expert fitting capabilities, enabling us to provide an extensive range of products and build a reputation for specialising in large, complex and difficult to source items and components;

**Welding** – Berg have significant inhouse welding capabilities including exotic material welding and plasma transferred arc facing technology. We are NATA Accredited in the field of non-destructive testing in accordance with ISO/IEC 17025 and employ international coded welding inspectors and pressure code AS 1796 Cert No 10 Welding supervision.

# WHO WE DO IT FOR

Having been in operation for over **4 decades**, Berg have evolved, matured and diversified in tandem with our clients and today work with a wide range of blue chip businesses across the Asia Pacific Region.



Berg are a proud Queensland owned engineering business that has built a reputation for excellence on the back of two generations and more than four decades of Berg family passion.

Headquartered in Brisbane and with bases in the Asia Pacific we strive to provide our clients with a diverse range of machining, fabrication, welding and reverse engineering services; working in tandem with them to optimise assets and achieve exceptional cost savings while ensuring we meet our ISO accredited quality and safety standards.

## Brisbane

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