



ILLAWARRA SHOALHAVEN: PROVIDING GREENER ENERGY WHILE REDUCING COSTS

Commercial, Healthcare

| The challenge

The Illawarra Shoalhaven Local Health District extends approximately 250km along the coastal strip of NSW, servicing a population of more than 400,000 residents with a workforce of over 7,300 employees across 8 hospital sites and community health services.

The client was searching for a solution to a range of objectives to improve three of their major hospitals: Wollongong Hospital, Shoalhaven District Memorial Hospital, and Shoalhaven Cancer Care Centre.

The primary objectives were:

- reducing operational costs;
- reducing greenhouse gas emissions; and
- improving the sites' energy and water efficiency.

Optimising energy performance at healthcare facilities can be challenging due to the energy-intensive and sensitive nature of their operational requirements.

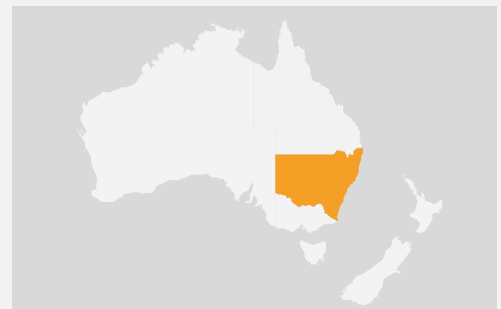
After successfully conducting a detailed facility assessment from 2015 to 2017, Veolia was selected to provide energy performance services to Illawarra Shoalhaven.

| Veolia's solution

Veolia undertook long-term asset master planning to identify where significant water, waste, and energy efficiency improvements could be implemented across the three facilities, in accordance to NSW Health's energy requirements.

Key considerations of the planning included:

- Energy management for optimised efficiency;
- Mechanical upgrades for heating, ventilation, and air conditioning (HVAC) systems;
- Renewable energy utilisation to reduce carbon footprint and enable energy independence; and
- Implementation of Hubgrade to provide continuous monitoring of the upgraded equipment's performance.



Warrawong, NSW, Australia



Contract Facts:

Duration: 2018-2026

Type: Energy Performance Contract

4,000 tonnes

carbon emissions saved each year

\$6M AUD total savings
(energy & operational) over 8 years



Updated HVAC systems installed

Solar photovoltaic systems

Solar panels were installed to supply up to 245,000kWh of renewable energy per year to reduce carbon emissions while promoting energy independence.

LED Solutions

3,500 LED light fittings were installed in indoor, outdoor, and street settings for a scalable energy reduction solution that saves the equivalent of 3,390,000kWh per year.



Solar photovoltaic panels installed on site rooftops

HVAC upgrade

Installation of an upgraded HVAC system improved energy efficiency. Veolia's approach ensured there was no operational downtime of service disruption during the installation.

Hubgrade platform implementation

Illawarra Shoalhaven was equipped with Veolia's Hubgrade advanced data management platform, which provides ongoing insights into emission and energy efficiency monitoring and optimisation, and acts as a single-source support for the customer's reporting needs.

| The benefits

Wollongong Hospital, Shoalhaven District Memorial Hospital and Shoalhaven Cancer Care Centre will continue to benefit from Illawarra Shoalhaven's investment in resilient and cost-effective solutions that have helped adapt to regulatory, technological, and climate changes.

Support through qualified expertise

Through detailed analysis and collaboration with the Illawarra Shoalhaven team, Veolia was able to develop solutions which embraced modern technology and was tailored to the customer's specific needs. The project required a significant level of operational expertise and a highly sophisticated project delivery with a core emphasis on the extensive HVAC upgrade to ensure no operational downtime or service disruption for the health service. The team also explored non-conventional solutions to maximise outcomes, including the replacement of pan sanitisers with a more energy- and water-efficient model.

Greater energy self-sufficiency

The new solar photovoltaic systems at Illawarra Shoalhaven's sites reduce reliance on fossil fuel-sourced energy, resulting in a lower carbon footprint and expected cost savings.

Optimised systems

Veolia's energy performance assessment of Illawarra Shoalhaven's sites identified areas for optimisation. Guided by these insights, Veolia improved the customer's energy efficiency by conducting lighting and HVAC system upgrades as well as introducing renewable energy systems. Additionally, Veolia's Hubgrade system ensures that optimised performance is ongoing.

Alignment with government sustainability targets

This contract aligns with the NSW government's Energy Efficiency Action Plan as it delivers both short- and long-term financial and operational benefits through system optimisation.

www.anz.veolia.com/energy-services



SOCIAL

Supporting the customer's environmental objectives and advancing sustainable healthcare.
Meeting stringent environmental regulatory obligations.



ENVIRONMENTAL

Reducing carbon footprint, encouraging energy self-sufficiency through the uptake of renewable technology.



HUMAN RESOURCES

Ensuring all procedures were executed with care and diligence.