

Regional Health Solar Program

Victorian Health and Human Services Building Authority (VHHSBA), a Branch of
the Department of Health and Human Services Victoria (DHHS)

GGHH Agenda Goals

- Energy
- Buildings

VHHSBA/DHHS Goals

- Cut greenhouse gas emissions
- Make the running of public hospitals greener
- Contribute to lower energy bills
- Support partnerships and collaboration for better sustainability

Progress Achieved

- Installation of solar arrays across 37 health facilities with an aggregate generating capacity of 5.5 megawatt-peak
Completed sites include:
 - Gippsland (Pilot) - 12 sites across 7 health services
 - Barwon South West - 20 sites across 11 health services
- Current installation across an additional 36 facilities with a capacity of 3.4 megawatt-peak due for completion mid 2021.
Installation sites:
 - Grampians - 15 sites across 8 health services
 - Loddon Mallee - 12 sites across 11 health services
 - Hume began mid-2020 - 9 sites across 7 health services.
- Five ambulance branches will also receive solar panels as part of this program.

The Issue

Hospitals have a large environmental footprint through high energy and resource use. Hospital energy consumption is a large contributor of greenhouse gas

emissions and is responsible for around a quarter of Victoria's public sector emissions.

Sustainability Strategy Implemented

The Regional Health Solar Program is a \$13.5 million initiative funded by the Victorian Government to install solar panels in regional and rural public health services across Victoria. The 8.6 megawatt-peak solar photovoltaic (PV) arrays will be installed across 73 regional Victorian health facilities generating more than 11 gigawatt-hours of renewable energy/year. This equates to two per cent of statewide hospital electricity consumption and up to 30 per cent of the electricity required by some regional hospitals. DHHS's renewable energy goal is for at least 5% of hospital electricity to be sourced from on-site renewable energy by 2023.

The program is estimated to reduce carbon emissions by more than 13,000 tonnes per year. The solar panels are set to generate two per cent of the statewide hospital electricity consumption and up to 30 per cent of the electricity used by some hospitals. This helps minimise the environmental impact of Victoria's health care system.

Opportunities to lessen these emissions through switching to renewable energy supports the aim of significantly reducing carbon emissions and achieving the Victorian Government's long-term target of net zero emissions by 2050.

The program will also create opportunities for local suppliers to work collaboratively under a cluster sourcing model to enhance community benefits and outcomes.

Implementation process

A partnership between the Victorian Health and Human Services Building Authority (VHHSBA) and Health Purchasing Victoria (HPV) was created to deliver this program through identification of site and administration loans, generating collective contracts for design supply, and installation of solar PV arrays. A competitive tender process was then undertaken for the selection of suppliers.

- Gippsland region – Energis and Gippsland Solar
- Barwon South West region – Keppel Prince Engineering

- Loddon Mallee region – Energis, Cola Solar and Solgen
- Hume region – Energis, Suntrix and Watters
- Grampians region – Energis and Committed Solar Solutions.

Following a successful pilot in Gippsland in 2017, the Regional Health Solar Fund program adopted an innovative ‘cluster’ sourcing approach for the design, supply and installation of solar PV arrays.

This approach increased opportunities for suppliers by grouping health services into regions to enable bulk procurement opportunities and deliver lower purchase costs. For health services, cluster sourcing enabled them to pool resources, reduce duplication of effort and achieve better pricing and service delivery.

The cluster sourcing model aligns with the [Victorian Government’s Social Procurement Framework](#) to support greater local community benefits and outcomes.



Image: Solar array on Bendigo Hospital roof

Tracking Progress

Gippsland region: Pilot

Commenced Oct 2017, completed late 2018

12 sites across seven health services

Barwon South West Region

Completed mid 2019

20 sites across 11 health services

Grampians region

Commenced late 2019 - ongoing

15 sites across eight health services

Loddon Mallee region

Commenced mid 2020 - ongoing

12 sites across 11 health services

Hume region

Commenced mid 2020 - ongoing

9 sites across 7 health services

The program is estimated to be completed by mid-2021.

Once completed, it is estimated that the Regional Health Solar Program will:

- Reduce carbon emissions by 13,000 tonnes annually
- Save on electricity expenditure by \$2.7M/annum
- Supply 2% of statewide public hospital electricity
- Result in 30% of electricity generated for some regional hospitals.

The Victorian Health and Human Services Building Authority is gathering net generation data from solar installations to assist in monitoring performance of the program.

Challenges and lessons learned

As the project was broken down regionally, the regions were separated on a timeline, allowing earlier projects to be audited by an independent technical consultant prior to commissioning to inform future projects.

The use of supply chain networks already established between regional hospitals was highly beneficial. This ensured better pricing and supply, and reduced workload through the pooling of resources.

While there have been some delays due to COVID-19, the program has continued during the pandemic.

Next Steps

Completion of ongoing projects is the priority, and is expected to occur in 2021 as scheduled.

Post completion, the solar arrays will be maintained and operated by the health service providers. VHHSBA has prepared three guidance documents to support the health services in operating and maintaining the arrays:

1. Solar array self-assessment check list -
<https://www.vhhsba.vic.gov.au/sites/default/files/2020-05/VHHSBA-solar-array-self-assessment-checklist-20200227.DOCX>
2. Solar array maintenance check list -
<https://www.vhhsba.vic.gov.au/sites/default/files/2020-05/VHHSBA-solar-array-maintenance-checklist-20200227.docx>
3. Reporting solar photovoltaic data -
https://www.vhhsba.vic.gov.au/sites/default/files/2020-07/VHHSBA-Resource-Sustainability-Solar-data-guide-July-2020_0.pdf

Demographic information

The Victorian Health and Human Services Building Authority (VHHSBA) is a branch of the Department of Health and Human Services (DHHS) in the Victorian State Government. Established in 2017, VHHSBA leads the planning, delivery and oversight of Victoria's public health infrastructure. This includes metropolitan, regional and rural hospitals, community health services, residential aged care and

mental health facilities, and ambulance branches across Victoria. VHHSBA is also responsible for oversight of almost \$24 billion of built infrastructure, totaling over 2,500 critical health assets across the state.

Health Purchasing Victoria (HPV) is a state-wide health organisation that partners with Victoria's public health services to procure best-value goods and services. HPV negotiates and manages common-use contracts on behalf of Victoria's public health services, leveraging hospitals' collective buying power to deliver better value across the sector. Health services purchase the goods and services they need from the suppliers that are party to HPV contracts

Links

- Regional Health Solar Program. (2019, June).
<https://www.vhhsba.vic.gov.au/health/sustainability/regional-health-solar-program>
- Environmental sustainability strategy 2018-2019 to 2022-2023
<https://www.vhhsba.vic.gov.au/sites/default/files/2019-10/VHHSBA-Environmental-sustainability-strategy-2018-19-to-2022-23.pdf>

Quote

"The \$13.5 million Regional Health Solar program is a tangible outcome of our ongoing commitment to reduce the carbon footprint of Victoria's public health system and transition to a net zero carbon economy. It is an example of a portfolio wide approach to the procurement and installation of solar panels across a large and diverse asset base", Tiernan Humphrys, Manager Environmental Sustainability, Victorian Health and Human Services Building Authority

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