

# Works Depot Solar Electricity Generation



## Quick Facts

|                                       |                |
|---------------------------------------|----------------|
| System size                           | 91.26 kW       |
| Location                              | Waratah, NSW   |
| Total project cost                    | \$198,000      |
| Date system switched on               | April 2013     |
| Solar generated electricity           | 132,600 kWh pa |
| Grid consumption reduction            | 21% pa *       |
| Electricity and peak capacity savings | \$25,000 pa    |

\* At the time the system was completed

## Technology

|                  |                  |
|------------------|------------------|
| Solar panel type | Multicrystalline |
| No. of panels    | 351              |
| Panel efficiency | ≥ 15%            |
| Panel wattage    | 260W             |

## Key Benefits

- Increase Council-owned electricity generation
- Reduce carbon emissions associated with the purchase of grid supplied electricity
- Reduce the financial impact of rising electricity prices
- Assist Council to attain its goal to have 30% of its electricity generated from low-carbon sources by 2020.

## Works Depot Solar Photovoltaic System

The City of Newcastle Works Depot is one of Council's highest energy-consuming sites. The workshop roof space provided a highly suitable location for the installation of photovoltaic technology. A 91.26 kW photovoltaic (PV) system was installed. The project ran from October to December 2012, and the system was 'switched on' on the 5 April 2013.

The project is contributing to the achievement of specific carbon reduction goals in The City of Newcastle 2020 Carbon and Water Management Action Plan. It specifically contributes to the goal for 30% of Council's electricity consumption to be derived from low-carbon sources. This solar system is Council's first large-scale photovoltaic project.

## Project Funding

The project funding of \$200,000 received by Council determined the system size, as the tender went out to find the 'best' system available for this figure. Essential criteria in the tender included quality of product, installation, service, maintenance and system capacity.