

Information Sheet - Electricity Accounts and Solar Generation

The industry standard for solar generation is based on 5 hours a day in optimum conditions. Generation in some instances is higher due to fine weather conditions or lower in overcast conditions. Schools are generally on Electricity Tariff 20 which is currently costed at 19.20¢ per kwh. This will increase by 13.29% in July 2010. A 4kw solar system on average would generate 20kwh (4kw x 5 hr) per day of renewable energy which is equivalent to 7300kwh per year. Based on the 7300kwh per year scenario @19.20¢/kwh the school would save on average \$1400 per annum from the renewable energy generated.

A Solar Bonus Scheme does operate in Queensland for small customers (customers that have an energy consumption of 100MWh or less per annum). The Queensland scheme is a net based scheme where solar power is first used by the customer and surplus or excess power generated is exported to the grid. Schools that are small customers and fit the criteria above are eligible to participate in the Solar Bonus Scheme.

Example: A school uses 684.69MWh per annum which equates to 1.87MWh per day or 1,870kwh per day. This school would not be in a position to export any surplus power to the grid and is not eligible for the Solar Bonus Scheme Payment.

The solar that is generated at the school is not fed directly into the grid, but is firstly used by the school and if there is surplus energy generated, it will then be fed back into the grid. On average most schools are using upwards of 80kwh per day. Surplus power that is exported to the grid under the Solar Bonus Scheme is paid at the rate of 44c per kwh. Any payment for surplus power exported will reduce the school electricity account payment and will be identified on the school's electricity account. Unlike domestic solar installations, the major power usage from schools is during the day - when solar is being generated. Opportunities for generating surplus power will therefore mostly occur during weekends or school holidays.

All schools are being provided with a smart meter which will read the energy imported by the school. The National Solar Schools Program requires that the energy consumption from the grid is metered with a minimum of 65% usage being recorded. If a school only has one main meter, it will record 100% of the energy imported from the grid. If there is two or more meters at the school the smart meter will be placed to record the energy imported from the meter which provides at least the 65% of school energy consumption for display on the IT system. The information displayed on the IT system is delayed by 24 hours – this allows for the collection, formatting and uploading of the information to <http://www.eq.solarschools.net>. The school energy account received from the supplier will still record all energy used at the school.

Included is the link to the DET Year of Sustainability website - <http://deta.qld.gov.au/yes/>. This site has a link to the Solar Program, but schools also have the option of linking directly with the internet site <http://www.eq.solarschools.net>. All schools that are on line will show the renewable energy generated as well as the energy consumed by the school – try Kimberley Park State School (KPSS) in the search function. All schools will show the same type of information as KPSS when connected to the IT package.

When a school is connected to the DET IT package the school will be able to see how much renewable energy is being generated on a daily basis and also how much energy from the grid the school is using. However, the solar inverters normally have a display on them and the energy being generated is also visible from this display.

If you require further information please review the Information Sheet on the Delivery of the IT System for the Solar and Energy Efficiency in State School Program.