

Archangel Michael & St Bishoy Coptic Orthodox Church Case Study



Background:

St Bishoy built in Mt. Druiitt traces its history back to Friday the twenty fourth of January 1969 at six o'clock in the morning, when Major Edward Labib Nematalla Australia's First Coptic Orthodox Priest arrived in Sydney to set up the church. This magnificent Church was consecrated by His Holiness Pope Shenouda the third on Sunday, the twenty sixth of November 1989.

The Challenge:

The church had the challenge in front of it to bring down its energy cost which had risen to 57,760kwh or \$14,295 in 2013 and use the savings for more community projects. The task was given to Solar Bright to suggest a solution.

Project Tasks Identified:

Solar Bright identified the following:

- Based on the roof area the church could install a roof mounted solar PV system.
- The use of the latest generation of panels with higher efficiency could generate over 20 to 25%
- Would result in savings of over \$4,000 for the church.

Solution Provided:

- SolarBright analysed the energy consumption pattern for last 365 days mapped it on their special software.
- Site inspections and roof suitability including roof stress calculations were done
- SolarBright suggest a 50kW solar PV system using high efficiency panels and inverters suggested to maximise generation for the next 25 years.

System Solution & Impact:

	2013		2014
Consumption	57,760kwh	Consumption	40,320kwh
Consumption in kwh / day	648	Consumption in kwh / Day	443
Total electricity bill	\$14,295	Total electricity Bill	\$10,184
Electricity cost / day	\$160	Electricity Cost / day	
\$111			
		Total Saving	\$4,558
		Percentage of Energy Saved	30%
		Return on Investment	20%