



## **"Switch to Sunshine"**

### **FAITH GROUPS THINKING ABOUT SOLAR**

**Information Sheet and How to Guide** (last up-dated 10 September, 2018)

#### **Introduction: thinking about solar?**

There's never been a better time for faith communities and faith-based organisations to install solar capacity on available rooftops. It's affordable, pays itself off in approximately 4 – 5 years, and helps address the urgent need for action. Why not encourage your community to participate in "Living the Change" by engaging with solar providers that ARRCC members have found to provide good service? Wherever you live in Australia, your community could take part in the "Faith Communities Switch to Sunshine" as a demonstration of their commitment to a flourishing world.

This is a short guide produced to encourage and help faith groups work through the issues relevant to deciding to "Switching to Sunshine" as a renewable power source. It deals with both the ethical issues and the financing considerations which are fundamental to deciding to look into a switch. It also deals with the tricky issue of trust in deciding what you need and who should supply it. It provides information about how to make decisions – not what decisions to make. Other faith groups have gone through this decision-making process and can help you as you proceed.

Not that we know everything! ARRCC has made a point of gathering up-to-date information and the experience of other faith groups so that people new to thinking about the issue can be assisted to find the type of information that they can trust. We would like to connect you with people who are really interested in seeing solar blossom, and can provide help to negotiate what has become a very crowded and confusing business space.

For specific resources, please see our "Resources" section at the end of this page.

#### **Why are faith-communities are making the switch to sunshine?**

In a climate emergency there is definitely an ethical reason to take every opportunity to stop contributing to the continual burning of coal. In Australia, coal supplies about 75% of electricity sourced from the grid. The big electricity generators are among both Australia's biggest and most profitable companies and the largest greenhouse gas polluters.

Fossil fuel resources (coal, oil and natural gas) are being depleted at an increasing rate. At the same time, climate change from human activity is already severely impacting on vulnerable communities across the globe. If left unabated, climate change threatens catastrophic changes that cannot be reversed.

Now more than ever, people of faith and faith-communities have a calling to witness to a more hopeful future. We have an opportunity to be part of the healing and renewal of all creation. Our buildings require electricity for their day to day operations. One way that we can directly reduce our reliance on fossil fuels and our contribution to climate change is to generate our own solar electricity.

The significant fall in the price of solar and several developments in government policy have now put this within the financial reach of more faith organisations. The fact that there are Australia-wide subsidies on installation costs in the form of renewable energy certificates, means that there has never been a better time for faith-communities to make the switch to sunshine.

Solar photovoltaic systems on the roofs of faith organisations:

- Reduce communities' real impact on the biosphere.
- Are a concrete, practical expression of environmental responsibility and concern.
- Provide an opportunity for faith organisations to engage with their members and local communities on environmental issues.
- Protect faith-communities from inevitable increases in electricity costs in the coming years and decades.
- Make financial sense. Calculations suggest that many systems up to 10 kilowatts in size pay for themselves in less than five years, though this will depend on the type of financing or whether a battery is also being used. After this time, solar panels earn an income for the organisation.

If you opt to buy GreenPower (see below) instead, you are sourcing energy from renewable sources which is optimal for the climate, but it does increase the cost of your usage. The premium cost of GreenPower from the grid further contributes to the economic benefit of installing your own renewable power source.

### **What is "solar power"?**

When people think about renewable energy, the first image that comes to mind is often large solar panels on rooftops or even portable road signs that have a small panel attached. These solar panels, also known as photovoltaic modules (or PV modules), convert sunlight into electricity, and they have been the backbone of renewable energy for decades.

The Photovoltaic Effect (how sunlight is converted into electrical energy) was discovered over a hundred years ago! Yet widespread implementation of this technology has been very gradual. Only in very recent years has photovoltaics gained wide popularity as an alternative way to produce electricity.

In 1958 the first PV modules were launched into space to power satellites. Even today, solar power is the primary source of energy at the International Space Station. On Earth as well, PV has traditionally been used in areas where there is no practical alternative.

### **Energy audit**

Some faith communities have undertaken an overall audit of their current energy use as well as considering solar power. There are a number of checklists available online. It involves thinking about matters such as lighting, heating, insulation, moving to GreenPower and solar power. In addition to options for faith-communities, an energy audit raises general awareness of renewable energy and helps reinforce things that individuals, families or households can do.

### **Solar power and GreenPower**

Solar power differs significantly from purchasing GreenPower because when you have a solar system installed, you are generating the power yourself and become eligible for a number of renewable energy incentive schemes, including state-by-state Feed-in Tariffs and federal government-supported Renewable Energy Certificates (RECs). It is the smaller scale, locally-based generation of energy, including solar hot water and solar PV panels on people's homes (although, technically, solar hot water is an energy efficiency technology rather than an electricity generation technology.) It has particularly significant energy and cost benefits – depending on the size of your system it can reduce your building's electricity substantially and save you hundreds, if not thousands, a year on electricity bills.

### **Install solar PV cells**

ARRCC encourages people to opt for the installation of PV cells on their properties, because it reduces carbon pollution which disrupts the earth's climate, and it demonstrates that people of faith are actively concerned to reduce their environmental impact.

If you have the option available to you, you actually stand to save money in the long-run by installing a solar power generation system. After a period, your savings will have paid off the system, after which a substantial portion of your electricity is free.

### **Solar not suitable for everyone**

Not everyone can take advantage of PV cells. For example, many people living in units do not have roofs and others have unsuitable roofs; some people cannot access government rebates that they would need; people in short-term rental properties are rarely able to have their landlord install a solar system; solar PV panels are more expensive for property owners in States without gross feed-in tariffs. ARRCC is reliably informed that if a building uses less than 8kWh per day, it may not be economic to install solar.

For many people, GreenPower is really the only option. For more detailed information on Greenpower options please see the [GreenPower Fact Sheet](#) on the ARRCC website.

### **Paying for the “switch to sunshine”**

#### *Economics*

There is a huge differential between what you pay for electricity from the grid (current at August 2018 - 46c per kWh) and the cost of producing renewable electricity. This is what makes “Switching to Sunshine” an economically sensible thing to do. The key issue to think about is how to pay for and install the solar panels and associated equipment.

The starting point is to get out the electricity bills from the last year. You need to think about how much you are spending and the pattern of your usage.

How much you are spending will guide you to understand the urgency of taking control of your power generation and the size of the system you need. It will enable you to begin to think about whether you can afford to invest up front yourselves or whether you will need financial assistance.

If you are using electricity mainly in the day then you will probably focus on solar panels. If you are using electricity mainly at night, the economic benefit of solar is reduced. In the long term you may want to think about a battery to store electricity made in the daytime. Batteries are very expensive at this stage, but the costs are expected to fall.

#### *How to pay*

If you have the money available for an upfront purchase this is the easiest and financially most effective approach. If you have a supportive faith community you may find conducting a specific fundraiser or a crowdfunding campaign could offset some (or all) of the cost.

However, there is one more very attractive option. There is a whole new not-for-profit [community energy movement](#) which focuses on facilitating renewable installations by giving advice and raising community loans in order to facilitate early installation and payback of the loan from the money you save by not buying from the grid. Alternatively, they can give advice about how to decide what you need and who can install it. There are now over [80 Community Energy organisations](#) across Australia. They are a wonderful resource!

Community revolving loans schemes such as CORENA use voluntary contributions of any amount from citizens to provide a zero-interest loan to install solar PV and undertake energy efficiency measures at a community organisation’s building. The loan repayments, which can come from the money saved on bills, are used to fund even more community energy projects.

Some larger faith organisations have State-wide bodies that might be able to assist with loans, or to approve the use of existing invested funds. For example, that decision has been made in the Uniting Church NSW/ACT.

In the ACT a range of community organisations have formed Society, Environment, Economy (SEE). This group has assisted in a several organisations, including faith groups, for there to be 49 solar systems installed. As a group they negotiated with a single solar installer to undertake the work.

The policies of the different State/Territory governments vary in detail. A summary of policies, for each State/Territory is provided at [www.solarchoice.org.au](http://www.solarchoice.org.au)

### Promotional materials, webinars and video

In September – November 2018 ARRCC is offering webinars for faith leaders and community advocates about why and how communities can be involved in the "Switch to Sunshine". We'd like to see solar installed on as many religious sites as possible throughout Australia, and for this to be a witness to the religious community's understanding of the urgency of the need to transition towards 100% renewable energy. Register your interest by e-mailing [solarproject@arrcc.org.au](mailto:solarproject@arrcc.org.au)

Details of up-coming webinars are listed here: <https://www.arrcc.org.au/upcoming-events>

### We'd love to hear and share your story

ARRCC would like to share the stories of faith communities going solar with the wider community, and to celebrate the ways in which these efforts contribute to a safer climate. Please send your story, with pics (!) to [solarproject@arrcc.org.au](mailto:solarproject@arrcc.org.au) or phone Warren Talbot on 0458 852 882.

### ARRCC's role in Switch to Sunshine

As part of its Living the Change Campaign, ARRCC decided to explore possibilities to encourage, help and empower faith groups to tackle the administrative and financial hurdles associated with installing renewables. ARRCC has made contacts with faith groups who have successfully navigated the decision making and installation process and can help build confidence to make the decision necessary.

#### *Faith group 'ownership' of decision making about electricity*

ARRCC realises that faith groups which are part of a larger religious body where the premises are 'centrally owned' by a State or regional body may not have authority to make independent decisions about installing renewables.

ARRCC is a movement of faith communities and individuals concerned about meaningful action on climate change. We are keen to share information between our members and encourage significantly greater use of renewable energy. ARRCC is not able to offer professional advice on either the technical or financial aspects of making the switch to solar power. Each faith organisation will need to properly investigate and make their own decisions about if, when and how to move to solar power.

### Ready to make the switch?

You are not alone. If you want to make the move to solar the first thing to do is dig out your bills, then work out how much you are spending, and whether you can afford to pay for a system up front or whether you need to get financial assistance.

Look into the resources on offer below and then, if you need to, call ARRCC and see what we can offer you in terms of help!

### RESOURCES

The following includes providers of solar installations, organisations which assist with financing, information sources and advocacy organisations.

The **Clean Energy Council** is the national industry body for clean energy, which certifies providers of solar energy. It is strongly suggested that if you are deciding on a provider, it should be one certified by

the Clean Energy Council. There are approximately five thousand certified solar installers in Australia. On their website they have comprehensive manuals for households and businesses. FAQs and a range of other information is available from [cleanenergycouncil.org.au](http://cleanenergycouncil.org.au)

In addition, the website allows visitors to find out a solar of certified installers based on a postcode search: [www.cleanenergy.com.au](http://www.cleanenergy.com.au)

**Coalition for Community Energy** (C4CE) is a grouping of not-for-profit community organisations promoting community energy: <http://c4ce.net.au/>

A good site for information, including obtaining quotes and financing is [solarchoice.org.au](http://solarchoice.org.au)

**Pingala's** website says, "Pingala has a vision of a fairer energy system, where communities are empowered to own and operate their own energy systems, sharing the benefits of this opportunity. We want to generate unstoppable momentum for 100% renewable energy, so that we build a green future and reduce our footprint.

Pingala's mission is to become a major community energy services provider in the NSW energy system, with a focus on local Sydney sites and communities in need." <https://pingala.org.au/>

**Moreland Energy Foundation's** website says, "Moreland Energy Foundation Ltd (MEFL) is an independent not-for-profit organisation. We are dedicated to tackling climate change and committed to accelerating the energy transition by empowering communities to take action. We work hard to ensure communities play a meaningful part in this transition and that no one gets left behind.

We are a trusted educator, partner, advisor and service provider. Our job is to build partnerships that demonstrate what's possible; to give the right advice; and make sure people have access to the information and technology they need to take action. Our customers include councils, business, schools, community groups and members of the community." <https://www.mefl.com.au/>

**Enervest** is a solar installation provider, for both large and small projects, that operates across Australia and has been found by a Catholic Religious Order affiliated with ARRCC to be responsive, professional and prompt. Prices are reasonable but may not be the lowest: <https://www.enervest.com.au/>

**Solar Citizens** is an independent not-for-profit researching and advocating for solar energy: [solarcitizens.org.au](http://solarcitizens.org.au)

**CORENA's** funds from donations are the key that frees them to provide finance for community solar projects and solar installations for community-serving organisations. This is done by using donated funds to give interest-free loans. As the loans are repaid out of savings on power bills, the funds then revolve into the next community solar project, and the next: <https://corenafund.org.au/>

**Pyramid Power** is a pioneer in the design, installation, implementation and maintenance of clean energy systems. Over the last 32 years, our teams have assisted individuals, communities and businesses to realise the savings and environmentally friendly benefits of clean energy: <https://www.pyramidpower.com.au/>

**Embark Australia** is a not-for-profit organisation acting to eliminate any barriers to the growth of a powerful community renewable energy sector in Australia. Whether those barriers are lack of project funding, specialist information and advice or the impact of poor policy settings: <http://www.embark.com.au>

**The Justice and Peace Office, Catholic Archdiocese of Sydney**, has a program called "Caring for Creation through Solar". It has a range of resources for Catholic parishes in Sydney, including price options from two preferred solar installers. [justiceandpeace.org.au](http://justiceandpeace.org.au)

**SEE-ACT** is an environmental group in the ACT which has arranged solar installations for some faith organisations. Details are at: [see-change.org.au](http://see-change.org.au)