# TOWARDS ZERO

# JOURNEY TOWARDS ZERO EMISSIONS SUPPORTING CONGREGATIONS TO TAKE ACTION



# 1. Usage: measure your total usage of carbon and emissions footprint

A thousand-mile journey begins with simple steps. Climate action begins with the knowledge of your baseline.

- **1.1.** Use the calculator to measure the total footprint of your congregation.
- **1.2.** Include all utility bills and measurable items listed in the calculator.
- **1.3.** Develop an emission inventory and show reduction in a three-year circle.

# 2. Reduction: reduce waste and increase efficiency

*Climate change is a waste management problem. The first principle of climate action is to reduce waste.* 

# 2.1. Work on passive heating and cooling

- 2.1.1. Close the vents.
- 2.1.2. Increase insulation.
- 2.1.3. Check window and door leakage.
- 2.1.4. Install window films to increase heat transfer resistance.
- 2.1.5. Install shading for north facing windows in summer.
- 2.1.6. Increase passive heating and direct sunlight in winter.

# 2.2. Heater, heater, and heater

- 2.2.1. Heaters are the most energy draining appliance in church communities.
- 2.2.2. Remove old underfloor or in-ceiling heaters and install reverse circle air condition units.
- 2.2.3. Remove old electric hot water units, install solar hot water units or heat pump units. (Various government rebates are available.)
- 2.2.4. Remove old wall mounted hot water urns and install efficient units. Or simply put a timer on the urns.
- 2.2.5. Insulate your roof.
- 2.2.6. Replace active heating with passive heating technologies.

# 2.3. Cooling

- 2.3.1. Install efficient evaporative cooling in low humidity locations.
- 2.3.2. Use ceiling fan.
- 2.3.3. Install efficient reverse cycle air conditioning unit in high humidity locations.
- 2.3.4. Increase shading for north facing windows.

# 2.4. Temperature control

- 2.4.1. Set room temperature at 19-20°C in winter. In Victoria, every degree higher increase heating costs by around 15%.
- 2.4.2. Set room temperature at 25-26°C in summer. Every degree lower will increase cooling cost by around 10-15% (in relation to outside temperature).

- 2.4.3. Only heat or cool the areas in use
- 2.4.4. Only use your heating or cooling systems when you need them switch off ßafter use.

# 3. Environmental behaviour

The third principle is about "walking the talk". The Uniting Church will model our stewardship of God's creation through our environmental behaviour.

# 3.1. Saving water

- 3.1.1 Pumping water throughout the city uses a lot of electricity. Waste water treatment also releases emissions.
- 3.1.2 Install rainwater tanks for your garden and toilets.
- 3.1.3 Switch to water saving toilet fittings and taps.

# 3.2. Saving electricity

- 3.2.1. Switch off lights and appliances when you don't use them.
- 3.2.2. Switch to LED lights (Various rebates and free installation are available).
- 3.2.3. Switch off computers and stand-by equipment at the power point.
- 3.2.4. Shut doors and close curtains while using active heating and cooling.
- 3.2.5. Switch to new generation refrigerators, remove inefficient freezers.
- 3.2.6. Remove cold drink vending machine.

#### 3.3. Reduce, reuse, recycle

- 3.3.1. Reduce waste and landfill.
- 3.3.2. Reuse items.
- 3.3.3. Procure low carbon and potentially reusable items.
- 3.3.4. Recycle all the recyclable things.

#### 3.4. Better garden

- 3.4.1. Less English garden, more Australian native flowers.
- 3.4.2. Increasing green areas.
- 3.4.3. Increase shading.
- 3.4.4. Increase water saving.
- 3.4.5. Manage and redirect stormwater.

# 4. Set an ambitious target

The Uniting Church Assembly has set a 2040 net-zero emission target. The Synod of NSW/ACT Synod is working with Uniting to develop a comparable target.

#### 4.1. Set a target for your congregation's emissions reduction.

- 4.2. Become a carbon neutral community.
- 4.3. Invest in sustainability as a key measure of climate action.
- 4.4. Switch to a hybrid or electric vehicle.

# 5. Production: generating renewable energy

The third principle is producing renewable energy locally. For a congregation it is easy to install solar panels and save.

- 5.1. Switch to renewables now
- 5.2. Use the formula: *Emission/Offset = Usage Reduction Generation*
- 5.3. Install a PV system three times the capacity of your electricity consumption.
- 5.4. Use solar to offset other emissions.
- 5.5. Today solar and wind projects are generating electricity cheaper than coal. If your congregation is not in a position to have PV installation, switch to renewable energy.
- 6. Climate Justice = Economic Justice
  - 6.1. Measure your emissions together with dollar savings.
  - 6.2. Demonstrate the result in a three-year circle.
  - 6.3. Make all you can, save all you can, give all you can.
  - 6.4. Support other congregations and partner churches for climate justice.
- 7. Full electrification
  - 7.1. Full electrification is an important part of net-zero emission future.
  - 7.2. Plan a near future (about in 2025) when battery storage is installed locally.
  - 7.3. Prepare for a future (about in 2030) when your car park will have EV chargers.
  - 7.4. Measure your risk of dependency on non-renewable energy, take into consideration that any inaction now will have a major impact from 2030 onwards.

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