

Emissions and Environmental Enhancement Projects at Glen Waverley Uniting Church

This summary forms part of the papers for the Meeting of the Congregation on Sunday 24 November. The Chair of the Property Committee will present more information of the recommended projects, planning and activity. There will also be an opportunity to ask questions.

The 2023 Synod of Victoria and Tasmania meeting resolved that "all sections of the UCA Victoria and Tasmania were to aim for zero emissions by 2040". In response, the Glen Waverley Uniting Church Property Committee, with approval from the Finance Committee, Treasurer, and Church Council, formed a project team to recommend steps to help the congregation achieve zero emissions (or as close as possible) by 2040.

These recommendations are designed to ensure responsible stewardship of physical resources and remain within the financial capabilities of the congregation.

This document summarises the proposed projects, with further details available in the full report from the Project Team. If you would like a copy of the full report, please contact the Church Office.

The project team recommends moving forward with these projects because:

- They benefit the environment and are financially responsible.

- They provide positive outcomes for the Glen Waverley Uniting Church.

- They address the Synod resolution.

The proposed projects are scheduled to be implemented over time until 2040, with a total estimated cost of approximately \$100,000. Many projects will be funded through the church's regular annual property budgets and rental income. Some projects may pay for themselves over time due to savings on energy costs, while others may require capital outlay without direct financial returns but will significantly reduce emissions. Our purpose is to replace and update on a needs basis as items require replacement

Church Council has accepted the report, requested that it be communicated across our Congregation and Property Committee and Treasurer (Finance Committee) have been authorised to determine project sequence based on GWUC financial abilities as demonstrated by timely business cases.

Recommended Projects

Worship Complex

1. Installation of solar batteries to the worship complex solar array.

It is expected that Installation of solar batteries would lift the effective use of our solar generation in any full year from currently around 40% to approximately 70% plus annually.

Estimated cost: initially \$20,000 to \$25,000, but fully recovered over a defined period with energy cost savings. We do not wish to put electricity back to the grid, we want and need to use the maximum in our facilities.

When: 2025

Funding: It is proposed that this project be funded in the same way the solar panels were funded, that is, via the estimated annual savings. There would be a "loan" of congregational funds from our reserves, which would be "repaid" annually.

2. Replacing the remaining incandescent and fluorescent lighting with LED lighting.

Around half of our existing lighting is already LED (both Internal and External), but there is opportunity to replace the remaining units with low cost, lower power consumption LED units. This project has two parts: the hall, and the rest of the worship complex.

Hall

Estimated cost: initially \$2,500 - \$3,000 but offset over time with lower energy costs.

When: As soon as a hoist becomes available.

Funding: Financing to be from either special project funds and/or Deferred Maintenance 2024/2025.

Rest of the worship complex

Estimated Cost: initially \$3,500 but offset over time with lower energy costs.

When: As soon as possible.

Funding: Financing to be from 2024 and 2025 annual budgets, the Future Fund, or other alternatives at the Treasurers discretion.

3. Hall Heating

The existing 8 x 1500-watt radiator heating uses a lot of electricity. There is no cooling for the hall. This project will replace the existing radiator heating with reverse cycle air conditioning that is much more efficient and will provide cooling as well as heating.

Estimated Cost: initially \$12,000 - \$15,000

When: 2028/2029 budget year.

Funding: Possible grants to be investigated.

4. Reducing reliance on gas

The worship complex has four gas appliances: rooms 1/2/3 have gas heaters, and there is a gas cooktop in the kitchen. This project involves removal of the existing gas heaters and replacement of the old and obsolete air conditioners in rooms 2 and 3 with new reverse cycle air conditioners that provide heating and cooling. It is not proposed to change the gas cooktop in the kitchen until it fails or 2040, and the recommended project does not include the kitchen gas cooktop.

Estimated Cost: \$2,900. There would be energy savings and emission reductions by this project. It is believed that 90% of current gas usage is heater related and the savings are quantifiable and will be reflected in the Business Case presented by Properties.

When: 2025. This is considered a priority project.

Funding: 2025 property budget or Deferred Maintenance.

Manses 15/17/19 Southdown Ave

1. Gas heating replacement - 15/17/19 Southdown Ave.

All manses have gas central heating. It is recommended that a special project team be established to perform a detailed analysis of available options and get detailed quotes on this project recommendation. It is recommended that existing arrangement continue until the heater units fail.

Estimated cost: \$42,000 (3 x \$14,000). There are no cost savings to the congregation. Savings will accrue to the people using the Manses. The Business Case will define the costs etc.

When: As and when the existing units fail or by 2040

Funding: Either from Deferred Maintenance reserve as and when the existing units fail or special funding if prior to failure.

2. Adding batteries to 15/17 Southdown Ave existing solar array

15/17 Southdown Ave have 5.0 kW and 7.5 kW solar arrays, respectively. Batteries could be added to these manses at an

estimated cost of \$8,000 to \$10,000 each. If approved to proceed, this should be investigated in greater detail as a separate project.

Estimated cost: \$16,000 - \$20,000 (2 x \$8,000 - \$10,000).

When: 2030/2035 or sooner if the opportunity or need arises.

Funding: Options for funding need further consideration. It is possible that special purpose fund-raising within the congregation may be needed.

3. Adding solar panels and batteries to 19 Southdown Ave.

19 Southdown Ave has no solar arrays. This project would be a standard installation of a solar array and battery. The project team do not see this as a priority, but it is listed as a future "to do" project. It is recommended that we wait until the picture becomes clearer on solar and battery options available to the community.

Estimated cost: \$10,000 - \$14,000.

When: 2030/2035.

Funding: Options for funding need further consideration. It is possible that special purpose fund-raising within the congregation may be needed.

4. Hot Water

15 Southdown Ave. has a heat pump electric boosted hot water system. 17 Southdown Ave. manse has a gas boosted solar hot water system. 19 Southdown Ave. has an all-gas hot water system. This project has two separate parts for 17 and 19 Southdown Ave. It involves removal of the existing gas-dependent hot water systems and replacing them with systems like that used in 15 Southdown Ave. These projects will have similar costs but will be done at different times depending on when the existing systems fails and will have different emissions impacts. It is recommended that existing arrangements continue until the hot water units fail.

17 Southdown Ave

Estimated cost: \$4,000 - \$5,000.

When: when existing unit fails or 2030/2031 whichever is earlier.

Funding: funded from Deferred Maintenance Reserves that exist for this purpose.

19 Southdown Ave

Estimated cost: \$4,000 - \$5,000.

When: when existing unit fails or 2030/2031 whichever is earlier.

Funding: funded from Deferred Maintenance Reserves that exist for this purpose.