

## **‘Sandy Point Community Power’ (SPCP)**

### ***What are we doing and what will be achieved?***

The SPCP collective will enable virtual aggregation of solar PV and batteries. Members will trade energy on a commercially proven retailing platform resulting in financial benefits to both members and the community. To build generation capacity to a commercially-viable level, additional community-owned solar PV and battery assets will be installed.

### **Why are we doing this project?**

The physical and contractual structures and relationships of the Australian energy system are complex, dominated by large corporations, and therefore difficult for the layperson in the community to understand. In attempting to interface with this context, the community feel confused and disempowered, and view energy costs as being exorbitant. Adding to this context, in response to the threat of global warming there is a ground-swell of community support to transition from fossil fuel-based energy generation to a sustainable, carbon-neutral society. In response, there is a strong desire for more community control and self-determination.

The Southern Gippsland Renewable Energy Roadmap promotes a vision that *‘Southern Gippsland will show strong leadership in the renewable energy transition and continue to grow and adapt in a way that empowers and activates its people. Through the development of energy partnerships, local households, communities and businesses will own, operate and benefit from renewable energy generation and use across the region’*. (p.28)

The report highlighted that respondents to community surveys *‘want to see a mix of:*

- *Households and businesses generating and using their own electricity*
- *Communities owning renewable electricity generation*
- *People sharing and/or trading electricity with one another across a network, and*
- *local areas having their own secure electricity supply.’* (p. 31)

Building on this vision, the proposed project which will undertake a ‘test of concept’ of the creation of a community power collective to be known as Sandy Point Community Power (SPCP), to ‘retail’ an aggregate of community-owned and member-generated renewable energy. Aggregated excess community energy will be offered on a proven, commercially operational trading platform run by Oxamii Pty Ltd. for purchase by ‘member-consumers’ or consumers from the general public. The following diagram describes the proposed model.

## Sandy Point Community Power Model:



The objectives of the community power collective scheme are to;

- Give back control of the energy system to the community through the creation of a community power collective, a virtual aggregate of solar PV and batteries
- Provide a mechanism for the community collective to set its own trading price
- Provide a level of protection for community power generators from falling Feed-In-Tariffs
- Allow trading between members of the collective at rates lower than those offered by commercial retailers, thereby lowering energy costs for members.
- Allow trades between the collective and external customers at rates lower than those offered by commercial retailers
- Provide 'Behind-the-Meter' community-owned renewable energy generation and storage facilities, thereby increasing the aggregated generation capacity of the town to a level that justifies its inclusion on a commercial trading platform
- Provide community-owned EV charging stations to encourage the use of electric vehicles
- Generate a return to the community through both a 'community rate' on trading transactions and through Power Purchase Agreements between the community collective and the energy account holders who 'host' the community's facilities
- Increase the incentive to install renewable energy infrastructure
- Provide a scalable scheme prototype readily transferrable to other communities.

**Affordability** – seeks to lower the consumption tariff and maintain the return on exported energy and thereby return on investment of renewables

**Sustainability** – positions Sandy Point, and through future expansion to other communities, to support the State Government's push towards a 2050 zero emissions target

**Grid Stability** – encourages further community investment in battery storage with the directional effect of dampening the variability in renewable energy generation

Reliability – directionally reduces the load on the single power feeder line to the township. Will provide black-out protection at the community facility chosen as the community-owned generation system host site eg. The Marine Rescue shed which relies on power for emergency radio operation, or the community hall which is the ‘Location of last Resort’ and needs power for water reticulation and waste management

Expandability – the project is scalable with scope to continue to add customers, add storage and other innovations such as EV charging

Equity – As a community-managed scheme, members facing financial difficulties can be supported through reduced power rates. Projects financed from the community fund generated by this scheme can be aimed at supporting the disadvantaged in projects such as providing accessibility support and adaptive children’s playground equipment.

### **What will be delivered?**

This project will have the following deliverables;

1. A 30kW community-owned ‘Behind-the-meter’ solar PV system, and associated lease and Power Purchase Agreements
2. A 30kW community-owned ‘Behind-the-Meter’ battery system, and associated lease and Power Purchase Agreements
3. 2 x EV charging stations, and associated lease agreements
4. The creation of a community energy collective entity, Sandy Point Community Power
5. The establishment of Sandy Point Community Power on the Oxamii energy retailing platform
6. A final report outlining the economic feasibility of the community collective energy trading model inclusive of learnings for Government and other communities seeking to mimic the model

There are a number of site options for installation of community-owned renewable energy hardware. These include the Men’s Shed/Marine Rescue shed, CFA shed, Community Hall , or at one of the town’s commercial business.

The core of the retailing element of the project will be the Oxamii trading platform. The trading system is in commercial use in South Australia. In that example, a solar farmer is selling energy through the Oxamii platform to general public consumers at a rate lower than the underpinning Energy Locals retail rate. The scheme is marketed via the Oxamii website. In this project, negotiations with Energy Locals as to the appropriate network tariff to apply to scheme members is included as part of the project scope.

The ATA Sunulator tool has been used to model the financial impacts of the proposed scheme on i) a typical household, and ii) the community-owned renewable energy system host site. Indicative results indicate that a financially viable scheme is feasible.

### **Who will benefit?**

The township of Sandy Point which sits on beautiful Waratah Bay has a permanent population of around 300 people. Over school holidays and long weekends, the number of people staying in town swells to over 3000. Many of the 650 dwellings are owned by weekenders who share their time between Sandy Point and Melbourne. There is a small commercial centre comprising a mixed business, café, Real Estate agency, and mini-golf centre. A further commercial building is in the planning stage. Community-owned buildings include a hall – managed by the Hall Committee, surf club, a shed shared between the Men’s Shed group and also housing the Marine Rescue boat

(managed by the Surf Club), and a CFA shed. This project targets all these permanent residents, weekenders, absentee property owners, local business owners, and local community groups as participants in Sandy Point Community Power.

**SPCP Membership benefits** will include;

- for households with solar PV, or solar and battery stored energy in excess of their own demand, this excess energy will be offered on the Oxamii platform at the Matched rate. To create a financial incentive to join the scheme, the rate to the generator will be set at, or higher, than the current regulated Feed-In-Tariff (12c/kWh). Indicative modelling shows that a benefit up to \$150 per annum in energy costs will result at a typical household if all their excess energy is sold at Matched rate when regulated FiT is reduced to 10.2 c/kWh.
- When excess energy available, members will have the opportunity to consume energy from the scheme at the Matched rate. To create a financial incentive for properties to join the scheme, the Matched rate will be set at an attractive tariff when compared to commercial retail rates. Indicative modelling shows a reduction in energy costs up to \$100 per annum will result at a typical household.

**Community benefits:**

A small 'Community Rate' will be added to all transactions on the Oxamii platform. This rate will generate a fund to be distributed back to the community in the form of community-based projects. Indicative modelling shows that a fund in excess of \$1000 per annum will be generated.

Sandy Point Community Power will enter into roof-space lease and Power Purchase Agreements (PPAs) with host property owner/s and energy account holders respectively. Indicative modelling shows that the activation of these agreements will generate a benefit of the order \$5,000 per annum to the community fund. To facilitate broad community involvement in decision-making on how the community fund is spent, other community organisation's will be invited to have representation on the committee of Sandy Point Community Power.

**Benefits to the general public:**

Properties that are not Sandy Point Community Power members will have the opportunity to contract with Oxamii for the purchase of excess energy from SPCP at the Matched rate. To create a financial incentive for properties to buy energy from the scheme, the Matched rate will be set at an attractive tariff when compared to commercial retail rates.

**Social Justice Benefits:**

As a community-managed scheme, Sandy Point Community Power will be able to set reduced 'Matched' rates in circumstances where residents face financial difficulties.

**Other Benefits:**

A broad ranging community consultation process will be conducted as the SPCP scheme is developed and introduced. One of the aims of this process will be to build understanding in the community of how the scheme will work and the benefits it will bring to members and the community as a whole. For success, the energy literacy of community members will be enhanced.

The introduction of the scheme is anticipated to generate significant interest both within the local community and more-broadly across other communities. As a scalable and transferrable model, increased interest and adoption of renewable energy is anticipated, with the resultant environmental benefit of reduced green-house gas production.

### **How will the project be delivered?**

Grant funds to be used for;

- Purchase and installation of 30kW of community-owned 'behind the meter' solar PV
- Purchase and installation of 30kW of community-owned 'behind the meter' batteries
- Purchase and installation of 2 x community-owned EV charge points
- Legal costs; establishment of SPCP entity, establishment of Power Purchase Agreements, establishment of lease agreement, contract with Oxamii

The project scope includes the development and enactment of a comprehensive community engagement strategy to build on the work done so far. The aims of this strategy will be to build energy literacy and an understanding of the proposed scheme and its benefits, and through this understanding, attract SPCP members. This engagement will be undertaken via face-to-face community meetings, workshops, social media, emails to community group members, word-of-mouth, and public notices.

As community members express interest in the scheme they will be offered the opportunity to have a recent electricity bill analysed to assess the financial impact of transfer to the SPCP scheme. The Sunulator tool will be used to undertake this assessment. Community members will therefore be in a position to make an informed decision about becoming a scheme member.