

Renewable Newstead: Creating Opportunities for Sustainable Growth

Release date: Monday 21 November
EOI closing date: Friday 16 December

Contact for queries:
Don Culvenor: Renewable Newstead. deculvenor@gmail.com +61 427 573536

About this document

This document calls for expressions of interest from energy solution providers, to participate in a ground-breaking project, transitioning the town of Newstead, in Central Victoria, to 100% renewable energy. Expressions of interest have been invited directly to a select group of organisations, as well as being open to the public more broadly.

The Expressions of Interest phase is being used by project proponents, Renewable Newstead, to assist with feasibility planning and solution design. A subsequent request for tender phase is likely to commence 3in 2017, which will result in project partners being selected and a solution delivered to Newstead and surrounds.

TABLE OF CONTENTS

About Newstead	2
About Renewable Newstead	2
The Project Opportunity	3
Newstead Energy Demand	3
Newstead Energy Customers: What are they saying?	4
What we are seeking from EOI respondents	5
Renewable Newstead: Our preferred solution	6
Renewable Newstead: Format of Responses	7
Next steps	8
Submitting your EOI	8

About Newstead

Newstead is a thriving, vibrant town on the Loddon River in Central Victoria, 15 minutes from Castlemaine and about 1.5 hours north-west of Melbourne. Newstead has a central high street and township with about 400 homes and businesses and a further catchment of about 1,000 homes and businesses that identify themselves as belonging to Newstead.

About Renewable Newstead

Renewable Newstead has a vision to run the town of Newstead on 100% locally generated, grid-connected, reliable, affordable renewable energy that also generates other benefits for our community. Renewable Newstead is a project of Newstead 2021, an incorporated association working for the benefit of the Newstead community.

Importantly, Renewable Newstead has signed an MOU with local distribution network business Powercor, enabling collaboration on the design of a commercial model for rolling out the solution, as well as access to network data to assist with feasibility assessment.

Any model developed by Renewable Newstead must:

- Be optional for Newstead households & businesses
- Maximise the use, and value, of power generated from locally based renewable sources
- Generate additional benefits for our community, such as local employment, tourism opportunities or other spill-over benefits
- Be grid-connected (for those customers currently connected to the grid)
- Be price sensitive
- Be compliant with all legal and regulatory requirements

Renewable Newstead has been funded by a \$200,000 grant from the Victorian State Government, as part of an election commitment made by the Minister for Energy, Environment and Climate Change, Lily D'Ambrosio, and is working with consultancy Energy for the People Pty Ltd, on the design and delivery of a preferred solution for Newstead.

The Project Opportunity

Renewable Newstead is one of a number of towns across Australia in transition to zero emission or off-grid energy supply, as part of a fundamental shift in how Australians produce and consume energy. Being part of demonstrating an integrated, community-wide solution will position project stakeholders for further projects, with the potential for scale through replication.

The community of Newstead has a history of delivering on community ambitions, from small projects such as an upgrade of the local children's playground and community garden, through to large projects such as the redevelopment of the local sports ground (\$1m+), turning the disused train station into an arts hub (\$500k+) and a shared water infrastructure project that delivers secure supply to our sports oval, school and community garden across multiple title boundaries.

Renewable Newstead has an ambition to demonstrate a community-wide solution in Newstead, as well as helping to drive replication of the solution across Victoria, with customisation of the solution to regional towns as required.

Newstead Energy Demand

The annual energy demand of the Newstead township (approximately 400 homes and businesses) has been assessed and is approximately 2.34GWh. Approximately 1.7MW of solar assets are needed to transition to "carbon neutral" 100 per cent new renewable energy supply, defined in terms of producing as much clean energy as is consumed by the town, throughout a given 12-month period.

An assessment of half-hourly load and solar production, assuming all systems face north at 20-degrees tilt, shows that with 1.7MW of solar installed:

- 30% of all generation would be consumed within the Newstead township, and 70% would be exported more widely;
- Of all peak energy demand, 67% would be supplied by solar power production. 33% would be imported from outside Newstead to supply peak energy demand;
- 72% of all exported solar power occurs at peak times, and 28% of exported solar power at off-peak times.

Peak and off-peak times have been defined in line with local network tariffs, with 7am-11pm being peak times.

The assessment also shows that battery storage will only enhance project viability, where it can be installed for approximately \$250/kWh¹. We have also assessed, at a high level, the potential for local bioenergy to improve project viability, by supplying “baseload” energy that ramps up in winter in order to reduce investment in solar assets, and so reduce exports to the grid. Our findings suggest that this is unlikely to improve the business case.

Discussions with Powercor highlight that no new investment in network assets is planned for the area in the next 10 years, and so there is no immediate opportunity to enhance project viability by reducing network supply costs.

Newstead Energy Customers: What are they saying?

Surveys and community workshops have revealed important insights into community needs and likely drivers of behaviour. In summary, the five insights are:

1. Newstead energy customers are spending significant money on wood and gas during winter
2. Summer energy demand is typically low
3. Most customers are capital constrained, highlighting the importance of a financed energy solution
4. Most customers are struggling to make sense of their options for reducing energy bills and need assistance
5. Most customers are driven by the desire to reduce bills, as opposed to environmental or community benefits

Combined, these insights point to an opportunity to encourage fuel switching from wood and gas to electricity, combined with financed energy upgrades (secured or unsecured) and a service model that gives households and businesses targeted, independent advice.

¹ We assume \$250/kWh is based on useable storage, with a full daily charge/discharge cycle, each day for 10-years

What we are seeking from EOI respondents

Renewable Newstead is seeking to test and refine its understanding of how best to deliver 100% renewable energy to Newstead, and to attract innovative, partnership-focused organisations as project partners, who can participate in the request for tender phase, expected in the first quarter of 2017. Specifically, we are seeking responses from organisations that can provide one or more of the following services:

1. Solar and storage suppliers, including supply, install, finance and/or maintenance services;
2. Financial services (wealth management funds and retail banks), including a call for interest in direct investment in the project, and/or facilitation of community investment;
3. Electricity retail partners, for providing energy to Newstead Power, or white label services that facilitate re-selling of energy to locals as per the model outlined in this paper;
4. Platform/service providers:
 - Community finance, including white label service providers, and/or partners that can help facilitate projects at low-cost
 - Retail services including metering, billing and customer management software;
 - Independent energy services such as energy auditing, advice on optimising solutions for customers and management of installation
5. Energy efficiency product and service providers, offering hot water, insulation, draught sealing solutions, as well as advice on appliances;
6. Institutional partners, such as businesses, NGOs, philanthropic trusts, that are looking to invest in renewable energy assets for a combination of financial, social or environmental returns

Where organisations have established relationships in the sector, we welcome and encourage them to form consortia, to provide integrated responses to this expression of interest.

Renewable Newstead: Our preferred solution

Renewable Newstead anticipates the most viable renewable energy solution to consist of a combination of the following:

- Deploying rooftop solar power to supply clean energy, with a mechanism for sharing the value of exported energy locally, developed in collaboration with Powercor and with other project partners;
- A financing vehicle that enables community investment in renewable energy assets, predominantly rooftop solar power, alongside external/institutional investment, with community investors receiving a mix of financial dividends and/or savings on energy bills;
- A locally managed service to help households and business determine the most suitable energy efficiency solutions for their situation;
- A retail power solution that facilitates provision of low cost, clean energy supply and related services. This may consist of a preferred retail partner to the project, or a white-label solution that enables Renewable Newstead branding on the bill, and some customisation of the customer experience;
- One or more institutional/organisational partners with an appetite for investing in the project in exchange for financial, social, branding, marketing, staff development or environmental benefits.

We have a strong preference for external organisations working collaboratively with local service providers where possible, for example, contracting locals to install solar power or energy efficiency assets.

Renewable Newstead: Format of Responses

At this stage, Renewable Newstead is seeking the following information from respondents:

- Informal (written or verbal) impressions and feedback on the project opportunity, and the preferred solution as outlined above including alternative suggestions that may enhance the project;
- Where relevant, a documented overview of the respondent's capabilities and experience, highlighting any comparable project experience of the organisation and/or individuals employed at the organisation;
- Information (written or verbal) that will inform our feasibility assessment and give us confidence in proceeding to a request for tender and implementation phase, including:
 - The costs of products and services offered by the supplier, given the volume anticipated by the project. For example, we anticipate 1.7MW of solar assets to be deployed and signing up 400 retail customers in the first instance, with scope to expand uptake by 3-5 times over the next 2-3 years. We are undertaking further work to also quantify the level of demand for energy efficiency and electric mobility solutions (shared electric vehicles);
 - Whether any cash or in-kind support can be provided by prospective partner organisations to help deliver the project. For example, making budget contributions for marketing and project development costs, or providing in-kind staff time to help with energy assessments, developing marketing collateral, or implementing marketing activities;
 - Any additional project support that would be likely to arise from a deep(er) partnership, involving branding rights and an alliance for rolling out community-led solutions more broadly in Australia. For example, would prospective partners reduce the cost of products and services, or provide additional support, in exchange for an exclusive, time-bound brand alliance? Or an alternative arrangement?
- Any further information regarding the project deemed relevant by the prospective partner, and the respondent's suitability for involvement, including opportunities for external funding, R&D opportunities, etc...

Next steps

- Documentation released - current;
- Parties invited to make a written response - closes December 16;
- Parties invited to participate in face-to-face and/or phone-based meetings - December 16 - January 30;
- Renewable Newstead refines its preferred model with prospective partners before releasing a final request for tender - January 30 - March 30;
- Commence roll-out of solutions - by July 2017.

Submitting your EoI

By e-mail: info@renewablenewstead.com.au

By snail mail: Hard copies should be postmarked before 5pm, Friday December 16 and mailed to:
Renewable Newstead EoI, PO Box 123, Newstead. Vic. 3462