

TRY TALKING

December 2020



2020!

As I sit here contemplating what 2020 has delivered, TRY's projects seem a tiny part of the years events. But I can also see that they are extraordinarily significant, building a life-enhancing energy transition for our area, and forging a path for others to follow.



TRY members celebrating a win in the Premiers Sustainability Award on the 16 December!

After a summer of devastating bushfires, TRY participated in two pivotal reviews this year: we made a submission to the Victorian legislative committee for the Inquiry into Tackling Climate Change; and over several months [participated](#) in an expert panel which helped shape [The Local Power Plan](#) developed by Helen Haines MP. Both of these reviews made recommendations for energy policy and detailed the significant regenerative benefits that community energy brings to communities. We were pleased to be able to contribute and have hope that the benefits of

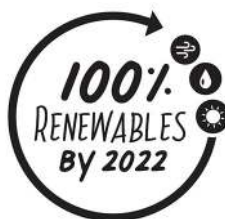
community energy will soon be accelerated through transformative legislation.

As the COVID-19 pandemic grew and completely altered our world, we kept working on our projects with online meetings, including our [AGM](#) in October; Indigo Power also conducted their community energy hub launches and the roadshow for their share offering online, the latter of which was quickly fully subscribed.

Despite the challenges, we successfully obtained two very significant grants: one from the federal government to conduct a [feasibility study](#) on the best way to reach 100% renewables by using microgrids (update below); and another from the Victorian New Energy Jobs Fund to [supersize a community-scale battery](#), *Yack01* (also see below for an update).

Then there was another heat pump hot water offering to replace inefficient electric hot water systems, featuring in a [podcast](#) on community energy groups, a nomination and shortlisting for our very own Matthew Charles-Jones in the Australia Day Awards, and much to our surprise and delight, we won a Victorian Premiers Sustainability Award (see below).

And none of that is to ignore the huge hardships that many local communities have suffered through this year, first with the bushfires and then with the pandemic restrictions. Many TRY members helped with recovery efforts or made donations after the bushfires, and some inspiring projects have arisen out of last summer's devastation as the recovery efforts continue. As they rebuild we hope



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they find the resilience they need to bolster their communities against future disaster events.

So with a year unlike any other now behind us, we gratefully acknowledge our tremendous supporters and sponsors and so many generous contributors. We also couldn't forge the path we do without the dedicated committee members and volunteers who contribute hours and hours of unpaid time to make TRY's vision a reality. A regenerative energy transition is materialising and inspiring us onwards.

After such a significant year on many fronts, we are looking forward to 2021!

— Juliette Milbank

Premiers Sustainability Award

In December we were thrilled to win a Premiers Sustainability Award in the Community Category. *And* the Premiers Regional Recognition Award! It was fantastic recognition for our public [Virtual Power Plant](#) (VPP) project that launched in September 2019.



The award was for leadership and excellence in sustainable initiatives with demonstrated benefits for communities. The communal benefits of a network of public buildings that generate their own power, with some of them also storing

energy, must have made a compelling submission!

Heartfelt thanks go to our partners and sponsors, including the Department of Environment, Land, Water and Planning, Indigo Shire Council, Into Our Hands Foundation, Yackandandah Folk Festival and YCDCo. For further details on the VPP and award nomination, see [here](#).

Yack microgrids

This year the Yackandandah Microgrid Development Initiative (MDI) from 2019 continued on with its testing and evaluation. The third microgrid in Yackandandah is in the final six months of the trial period with some interesting results coming out of it.

The sixth and final report to the sponsor, the Victorian Department of Environment, Land, Water and Planning (DEWLP), is due in June next year. Early in 2021 TRY will prepare a video to communicate learnings from the project so keep an eye out for that!

First community energy storage for Yack!

This time last year we told you that Yack's very first community-scale battery, *Yack01*, was about to be installed in early 2020. We were excited and impatient to get the 136 kWh battery and ~66 kW solar generation project underway.

But then an opportunity came up to increase the size of the battery that we and our partner Indigo Power simply couldn't turn down. We applied to the Victorian government's *New Energy Jobs Fund* and in early October were thrilled to find out we had successfully secured an extra \$171,000 for the project. *Yack01* will now be



double the size with 274 kWh and able to power up to 40 average-sized households overnight.

After a flurry of paperwork in recent months, the contracts and agreements are finally signed, our partner [Indigo Power](#) has placed the order and the battery should be on its way to Yack in March 2021.

It's a year later than planned but at double the size it will provide a significant first step for community-scale storage in our town: taking the excess clean solar energy generated during the day and saving it for use during the evening by members of the Indigo Power *Yackandandah Community Energy Hub*.

The next step, our 100% Feasibility Study, will determine what other community-scale storage and generation is required to reach our 100% goal – we look forward to hearing the results of that during 2021.

For more about *Yack01* go to:

<https://totallyrenewableyack.org.au/2020/10/supersizing-a-community-battery/>

— Juliette Milbank

Added resilience for CFA station

In the lead up to Christmas, TRY and the Yackandandah CFA Brigade were delighted to receive notice of a successful grant application to install an automatic hard-wired generator to back-up the existing energy system at the fire station.

[FRRR](#), via their *Community Group Futures* program, have approved just under \$10,000 to add a diesel generator to the existing 6 kW Q Cell solar system, 13 kWh LG Chem battery, SP Pro off-grid battery inverter and a Mondo Ubi

smart energy control system. The Ubi provides the orchestration to connect to the Yackandandah mini-grid.

It is with enormous gratitude TRY extends warm thanks to FRRR for their remarkable support. The Foundation for Rural and Regional Recovery continues to provide great focus and support for communities to build and strengthen in the face of the many challenges we seem to face; and 2020 seems to offer no exception!!



The existing 6 kW of solar panels and 13 kWh battery at the Yack CFA station will be backed up by a generator for emergencies. Matthew Charles-Jones showing the CFA clean energy installation to the Victorian government climate change enquiry earlier this year.

Currently the battery cuts in automatically during electricity supply outages and allows the facility to have power to the communication systems, lights, electrically operated garage doors, fridge and air conditioner. The fridge and air-conditioner were left part of the emergency supply, noting the importance of rehydration and coolth to support recovering volunteers during fire events.

Whilst the solar and battery system strives daily to reduce the carbon emissions and costs of the fire station electricity supply, the generator will cut in automatically when the battery runs low during emergencies. In so doing, the important emergency work of volunteers can be underpinned by a truly resilient energy source. It is anticipated the generator will be installed in



late January 2021, and with luck it won't ever be called to earnest duty beyond monthly automatic operation.

Brigade Captain Yves Quaglio was thrilled about the result and noted, "This is another great addition to the fire station energy system and a testament to what can be achieved by hard working, determined and cooperating volunteers. This has been a terrific, shared journey between the CFA (locally and at Head office), TRY and the local community."

All we need to do now is add a second battery and we will have the hoped-for exemplar for a robust, low carbon and locally focused energy supply. Watch this space!

— Matthew Charles-Jones

Bringing power to the people

TRY's big project at the moment is the 100% Feasibility Study. Six months into our project, and its cracking along at quite a pace! This project aims to identify the optimal mix and size for power generation and storage, to achieve the goal of 100% renewables for the Yackandandah community. Funding is by the Department of Industry, Science, Energy and Resources via their Regional and Remote Communities Reliability Fund.

Mach2 Consulting is managing the overall project and financial feasibility with oversight by a TRY Project Control Group. With solar as the likeliest candidate for power generation, and pumped hydro and batteries for power storage, we've also engaged two companies, Mondo and Tamar Hydro, to analyse the technical feasibility of these options.

Every journey starts with a single step, but to start this journey that single step has been more

like a Bollywood dance routine – we needed to determine the amount of power currently used, and predict likely future demand for Yackandandah and, most importantly, how the demand changes daily and seasonally.

So there's lots of data, lots of modelling, and another question to be answered: in shooting for 100% renewables, are we happy with covering 100% of our power on average (which implies some days we produce excess power and some days draw from the established grid), or do we want to use 100% local renewables at all times? The first is readily achieved, the second requires a lot more capacity to generate and store power.



Mark McKenzie McHarg, Mach2 Consulting, gives an update at the Yack Public Hall in early December as part of ongoing community engagement for the feasibility study.

Having estimated the required demand, we can then estimate the size of generation and storage installations and look at the possible sites for them around the Yackandandah area. It's been important to discuss the concerns of visibility and placement on agricultural land, and promote understanding of the relative size of a Yackandandah specific solar installation compared with larger commercial solar farms. We've started some community discussions to address this.

We are now working with Mondo to assess three solar farm sites with the best potential grid



connections, typography and size, and landholder interest. Three potential sites for a pumped hydro installation have also been identified. All are a work in progress.

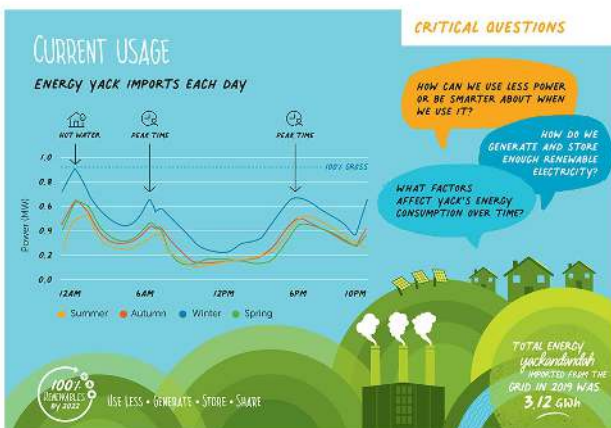
Finally, we finished the year with a town hall meeting and drop-in sessions during early December, so Yack locals are informed and can give feedback. We'll repeat these through the coming year, because power to the people means people having the power to raise their concerns and have their ideas considered.

If you missed the meeting and drop-in sessions, you can take a look at the project postcards here:

<https://totallyrenewableyack.org.au/2020/12/what-is-100-and-how-do-we-get-there/>

And then send us your comments, because bringing power to the people also involves the people exercising their power – and we'd love to hear from you!

— Kim McConchie



Take a look at the [infographic postcards](#) produced for the 100% Feasibility Study and tell us what you think!

North East clean energy trading platform

The north east of Victoria has pencilled in yet another great energy transition initiative. In early

December, the federal Australian Renewable Energy Agency (ARENA) [announced](#) a blistering fund of \$12.9M to the Hume region to help build a renewable energy marketplace.

Called project EDGE, the Energy Demand and Generation Exchange paves the way for an ambitious shift to clean energy.

Long-term partner of TRY, Mondo, will manage the program together with the Australian Energy Market Operator (AEMO) and network operator, AusNet Services. Deakin University will also work closely with local Government, communities and businesses across the north east to consider the behavioural dimension of an energy system based on renewable energy.

The total \$28M program will build an operating platform to trade electricity between small users and generators of electricity (homes, business and industry) and the wholesale electricity market – via entities termed 'aggregators.' An aggregator will group electricity customers together to orchestrate energy services to the AEMO – and allow a more dynamic and two-way management of the electricity market.

Customers can choose to participate by allowing their energy generation to be managed via the internet-of-things and some demand management. In so doing, the electricity network can respond to highly variable energy demands and the predictable but variable outputs of clean energy systems.

People in Yackandandah and Beechworth will be the first to be invited to participate followed by a broader roll out right across the Hume region, particularly for those in the AusNet Services distribution area. Beyond the three-year EDGE project it is anticipated the energy platform will become the trading platform for electricity right across the National Energy Market (NEM), which covers the entire eastern side of Australia, including South Australia and Tasmania.



Readers are invited to find out more by visiting the Mondo EDGE webpage and submitting an [expression of interest](#).

[TRY is thrilled](#) to be part of such a massive program and looks forward to supporting progress and transformation of our energy system.

— Matthew Charles-Jones

Indigo Power Yack Hub reaches 150!

In November of 2020, [Indigo Power's Yackandandah Community Energy Hub](#) reached 150 members! After a tumultuous year for so many people, that's a fantastic achievement. Keep your eye on the Indigo Power Facebook page early in the new year to participate in the milestone celebration.

Those following along on their Mondo Ubi (smart energy controller) can see that there remains a large solar surplus in the Yackandandah Hub. For those of you without an Ubi, Indigo Power has work underway to bring energy sharing information to all members of the Yack Hub through an update to the Indigo Power portal. We're hoping this will be live sometime in the new year.

Also keep an eye out as we update our pricing on February 1 to reflect a reduction in the wholesale cost of electricity. 2020 has been a challenging year but we're looking forward to expanding the Community Energy Hubs and facilitating more energy sharing in 2021!

— Ben McGowan (Indigo Power)



Hot tips and links

Paul McCormick, "Household battery storage still best fix for solar duck curve problem", *Renew Economy*, 24 December 2020, <<https://reneweconomy.com.au/household-battery-storage-still-best-fix-for-solar-duck-curve-problem-82656/>>.

And a few recent media articles with TRY:

Jackson Peck, "Renewable energy trial in Victoria's north-east aims to become template for nation", *ABC News*, ABC Goulburn Murray, 3 December 2020, <<https://www.abc.net.au/news/2020-12-03/victorias-northeast-to-benefit-from-world-first-energy-trial/12943582>>.

Georgia Smith, "Totally Renewable Yackandandah named winner of 2020 Premiers Sustainability Awards", *Border Mail*, 17 December 2020, <<https://www.bordermail.com.au/story/7060096/totally-renewable-yackandandah-recognised-at-premiers-sustainability-awards/>>.

Sarah Krieg, *PRIME7 News*, 17 December 2020, <<https://www.facebook.com/Prime7NewsBorder/posts/3661899717236871>>.



Yack locals at the 100% Feasibility Study presentation in December. Check out the project postcards (foreground), soon at the Yack Post Office!

