



Renewable  
Newstead

COMMUNITY POWERED









# Who we are

- 512 people in town (about 800 in the wider suburb) - 2011 Census
- About the same in the surrounding bush and farmland
- 288 private dwellings – 2011 Census
- Housing development is occurring, largely fed by people moving from cities
- Expect 2016 Census to show significant population growth
- No big industry
- One supermarket, two pubs, a milkbar, café, butcher, a Rural Transaction Centre with a Community Bank agency, mechanic, a motel, several wedding venues & many home-based businesses & tradies, an environment shop with a car charging station . ([enviroshop.com.au](http://enviroshop.com.au))



# A little town dreams a future (2008)

- Solar powered town
- Electric lines underground
- Solar power – natural gas
- Insulate all roofs & walls of houses in Newstead
- Community purchase of solar power
- Environmental energy & excellence
- Solar hot water for all
- Address challenges around preserving what we have and preparing for looming climate change
- An independent power generation and supply network
- Solar street lighting



# What's important

- Strengthening our community
- Taking care of our community – doing no harm, ensuring prices are fair. For example, what risks lie ahead for those not up with the latest energy developments when batteries come on line?
- Seeking social licence from our community. We operate as Renewable Newstead under the umbrella of Newstead 2021Inc which was formed after our 2008 summit & hold
- Ensuring reliable power supply
- Having fun









# My, how time passes!

- 2008 – Newstead 2021 (town) summit prompting formation of town group Newstead 2021Inc
- 2009 – Mt Alexander Sustainability Group installs solar panels on houses
- 2009 - Newstead surveys its energy use household by household with partners Central Vic Greenhouse Alliance and Castlemaine 500
- 2010 – Free home and business energy assessments – more than 170 completed
- **2010 – Renewable Newstead launched**
- 2011- Newstead Energy Feasibility shows powering Newstead with 100% renewable energy is viable. RN agrees to pursue this idea.
- 2012-13 – RN gathers energy & works on strategy
- 2014 – New recreation reserve building is built with solar panels
- 2014 – Proposal to shift Newstead to 100% renewable energy is developed and locals lobby MPs from all parties.
- 2014 – Labor elected to government in Victoria
- 2015 – Solar PV panel penetration = 1 in 5 houses
- **2015 – Victoria's new Energy Minister Lily D'Ambrosio visits Newstead to announce a \$200,000 grant for our project**



# Current project – purpose/aim

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- **To develop & implement a model for supplying Newstead with 100% renewable energy, embedded within a community-scale micro-grid**
  - To incorporate community ownership

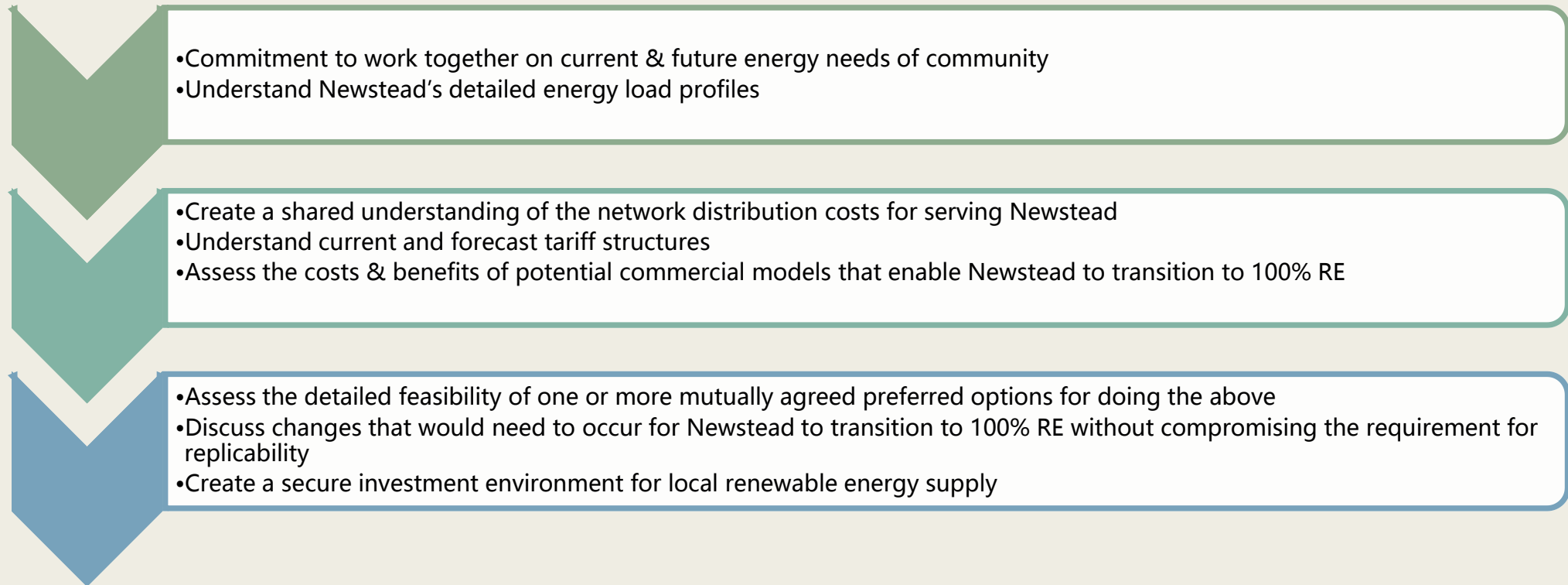
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- To balance social equity & commercial viability
  - To ensure social equity via low prices and price protections for residents vulnerable to rising energy costs

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- This is action research. It includes documenting the steps for possible replication.





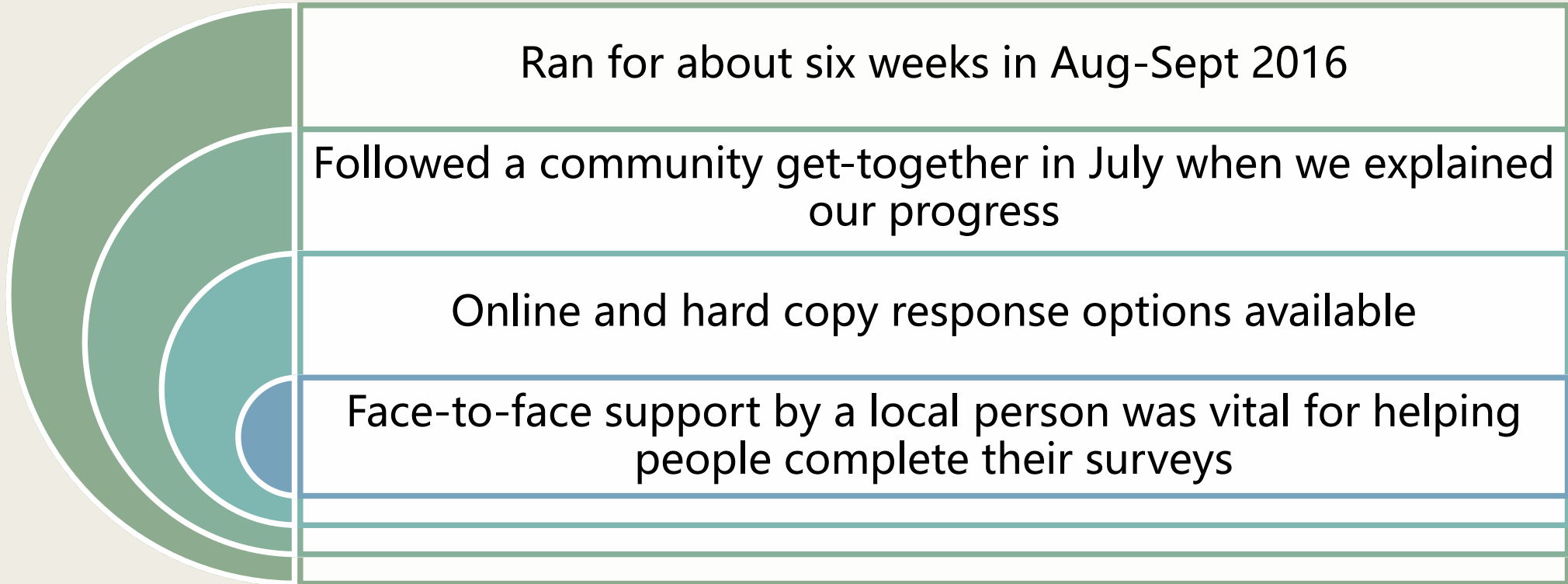
# Step 1: MoU with Powercor (2016)







# Step 2: Survey



# Survey reflections

Huge variation in household energy use in all seasons

Wood is a major heating source

**Many residents who spend lots on energy said they couldn't afford to invest in energy efficiency or renewable energy**

Businesses in leased premises have big energy bills & owners of those premises have little incentive to switch to RE (so far!)

Most people don't know how much energy they use. Dollars mean more to them than kWh

Residents have little spare \$ to invest

Residents do not want to surrender their primary feed-in tariffs

Many older residents are too tired to tackle change

People are looking for a reliable, locally based source they can trust for energy info

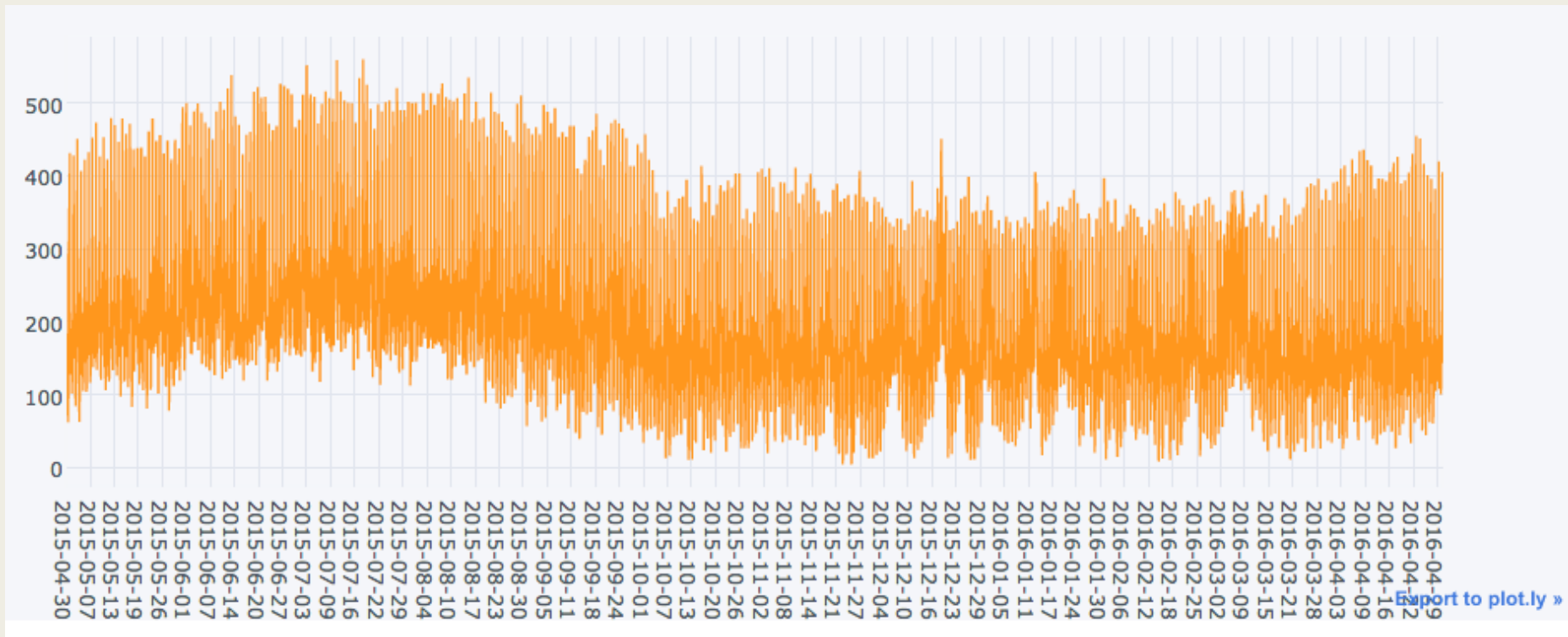
Financial self-interest is a greater driver of change than community interest

Energy use is lower in summer than winter





# We are power hungry in winter



# Step 3: Developing a business plan

Key players we are interacting with:

- The Victorian Government
- Powercor
- Australian Energy Regulator





# What we know

- Despite concerns about climate change, financial self-interest continues to be the greater driver of change
- To be commercially viable, we need to not only generate energy but to sell it, therefore ....
- We want to stay connected to the grid so we see that .....
- The electricity network is a key enabler
- Electricity networks have much to gain by being connected with us as their customers



# Blockers

- Our electricity system & its players are not at the point of making step changes ... yet



# Contact details

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