

Bruny Island Battery Trial

Information Night



The research aspects of the Bruny Battery Trial?

- This project is funded in part via ARENA's R&D Round: it is a research project!
- Strong focus on *Research Outcomes* and *Knowledge Sharing*... with the community, with government, with industry, with other researchers.
- The outcomes of this project will influence battery deployment and operation elsewhere in Australia and the world.



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- The outcomes of this project will influence battery deployment and operation elsewhere in Australia and the world.
- Bruny has a fantastic opportunity to show the world how to do it!



What are the aims of the research?

- Good research is always framed by clear *Research Questions*
- The research questions we will be trying to answer belong in one of three distinct (yet distinctively overlapping) research themes: *Technical, Financial, and Social*



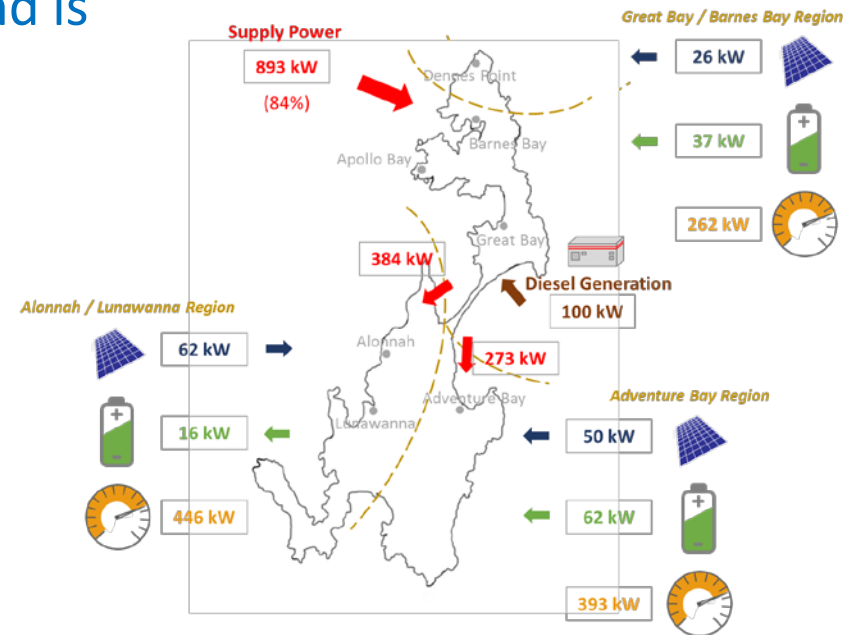
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- Good research of course also requires good research material and willing research participants ... *for us this means you!*



Technical Research Questions

- How do we successfully *co-ordinate multiple, independent resources* in an electricity grid to simultaneously meet multiple objectives?
- Can we prove that our *distributed co-ordination approach* provides optimal solutions and is scalable for widespread application?



Financial Research Questions

- How do we work out a fair and easy-to-understand method for *valuing the contribution* of solar and battery systems in managing the electricity network?
- What sort of *reward mechanisms* are most appropriate for encouraging battery owners to work together with the network operator?



Source: REneweconomy



Social Research Questions

- *How will people feel about the battery technology and about helping to managing the network?*
- Does hosting the technology and having a better understanding of it *change the way they use energy?*

Source: SMH



How might the research *impact participants*?

- Participants will not ‘see’ a lot of the research happening.
- But, you will be committing to allowing us to send signals to your battery which reflect network needs and *may influence the battery operation*.
- And we may sometimes even *do ‘funky’ things* with your batteries – like discharge to the grid even when you’re not using much energy yourself.
- You will also need to willingly engage in surveys, interviews and energy diaries that form part of the social research.
- Participants are encouraged to stay engaged in other ways: check our web page often, read about our research findings and give feedback.



Why do we exist?



Two identical devices.....
with very different experiences



Consumer



Consumer



Retailer



Network



Australian
National
University



UNIVERSITY of
TASMANIA



THE UNIVERSITY OF
SYDNEY

ARENA



reposit



We enable the same relationships, but with batteries.



Two identical devices.....
with very different experiences



Consumer



Consumer



Retailer



Network



Australian
National
University



UNIVERSITY of
TASMANIA



THE UNIVERSITY OF
SYDNEY

ARENA



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What does Reposit make?

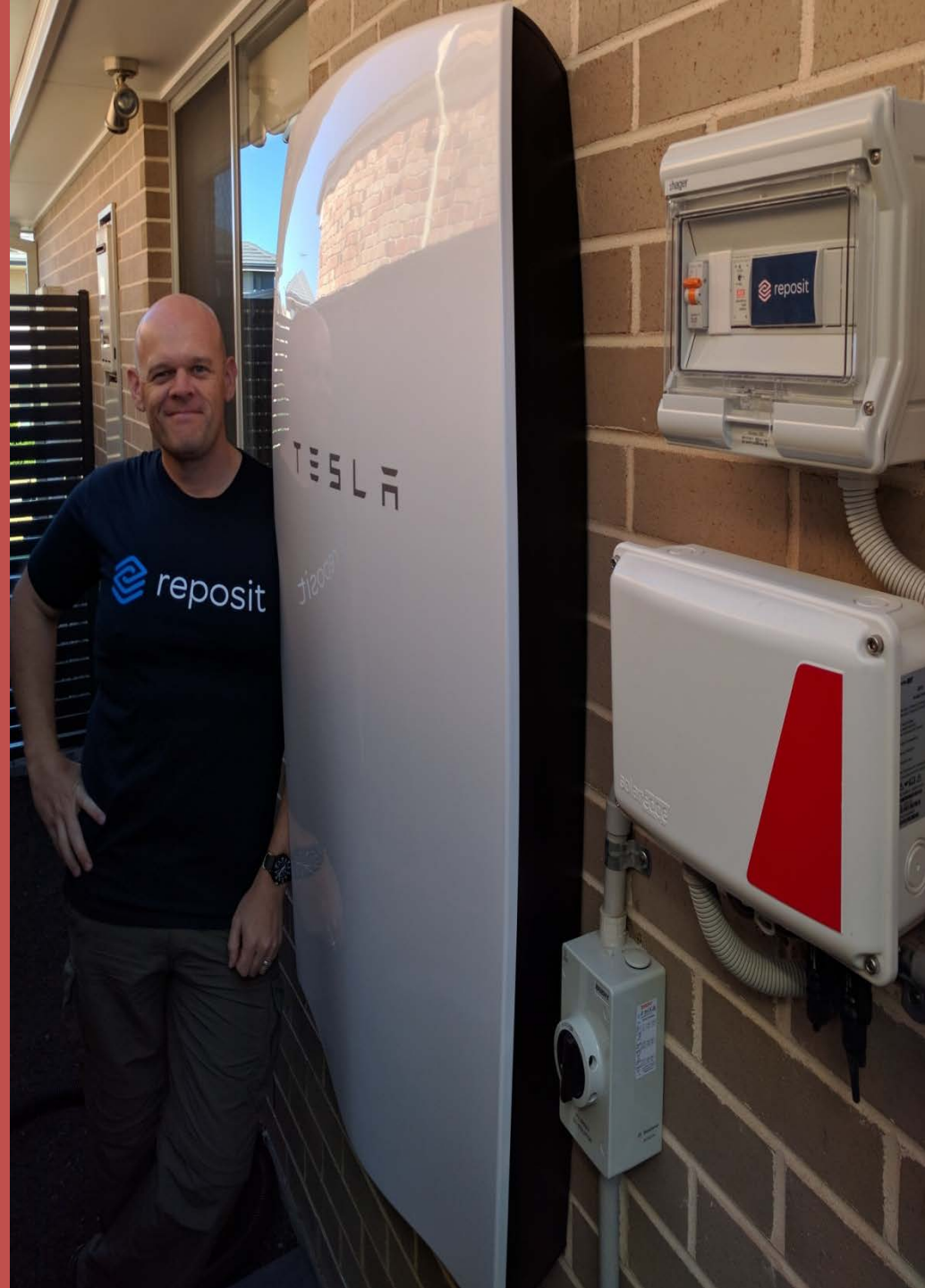
- Fundamentally Reposit is an IT company who produce two things;
 - 1. Hardware & 2. Software



Hardware

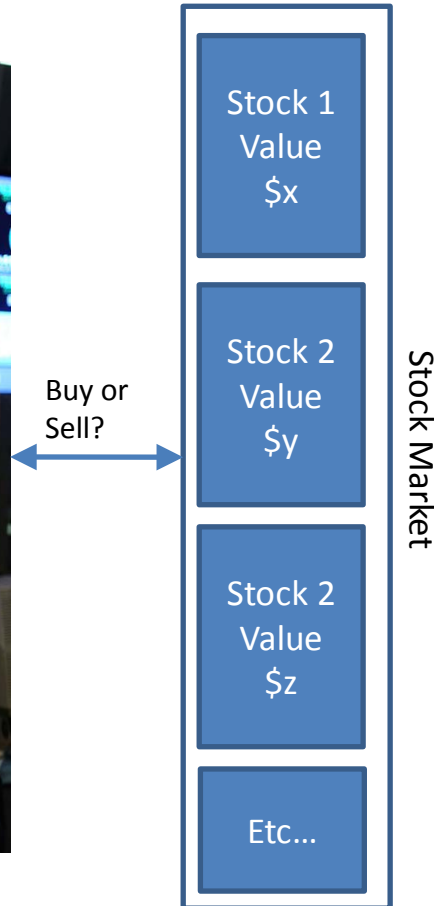
The Reposit Hardware is all DIN rail mounted and is installed along side your energy storage system

This Is Nick, one of Reposit's happy customers with his Reposit controlled energy storage system.

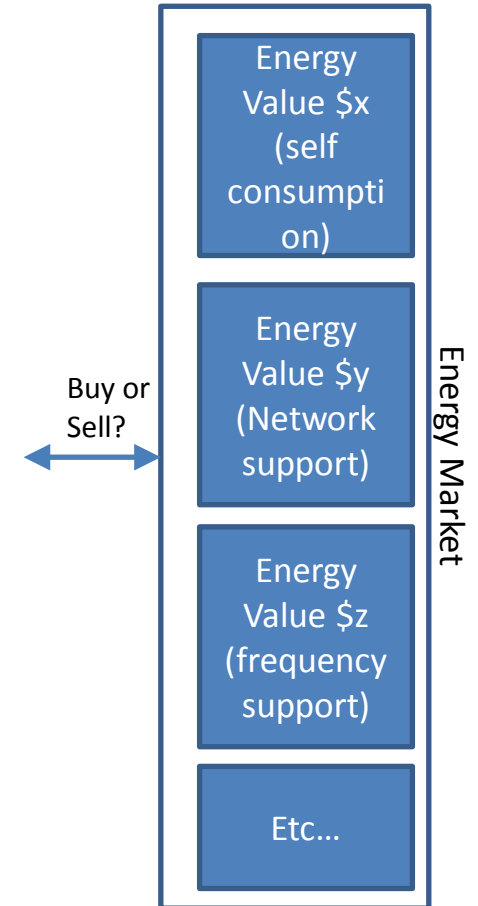


An analogy...

Stock Market Broker



Energy Market Broker

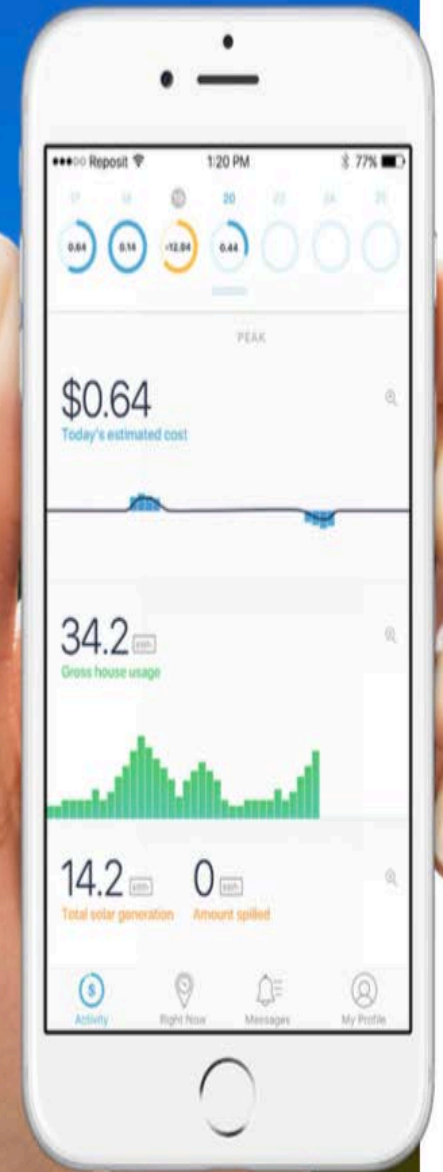




How do I see what is happening?

Reposit have introduced mobile application's for Apple's Iphone and soon Google's android platforms.

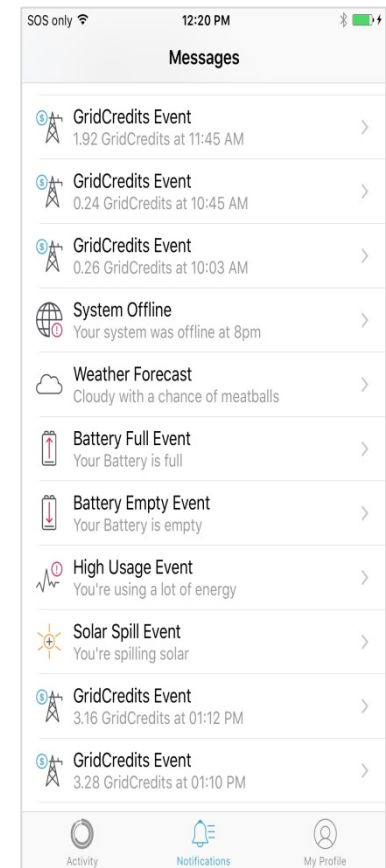
Our apps will make sure you're staying on top of your home's energy use, even when you're not at home. You can keep an eye on how your battery and solar are operating from anywhere





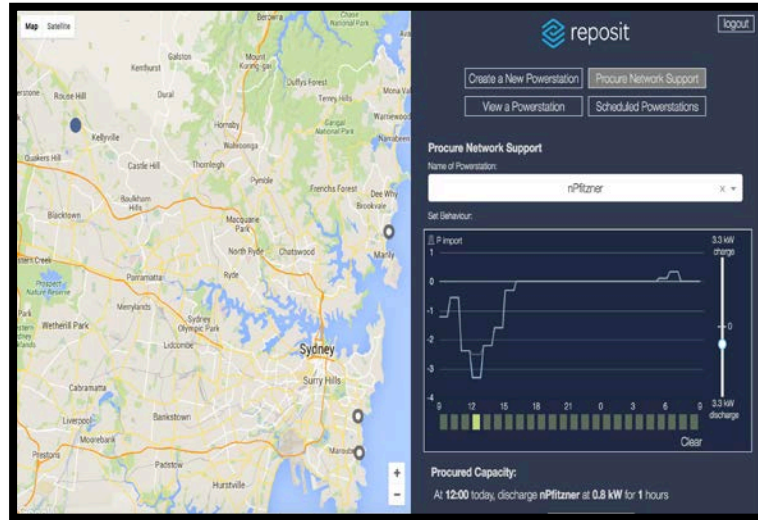
Live Notifications

The mobile application gives you real-time notifications for a wide range of events and alerts, including battery state of charge, communication interruptions, high usage alerts and when you've earned money for your energy.



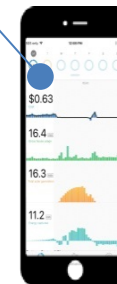
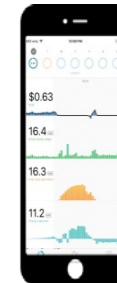
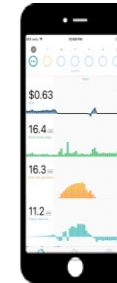
What is Reposit's roles in project CONSORT?

TasNetworks control center

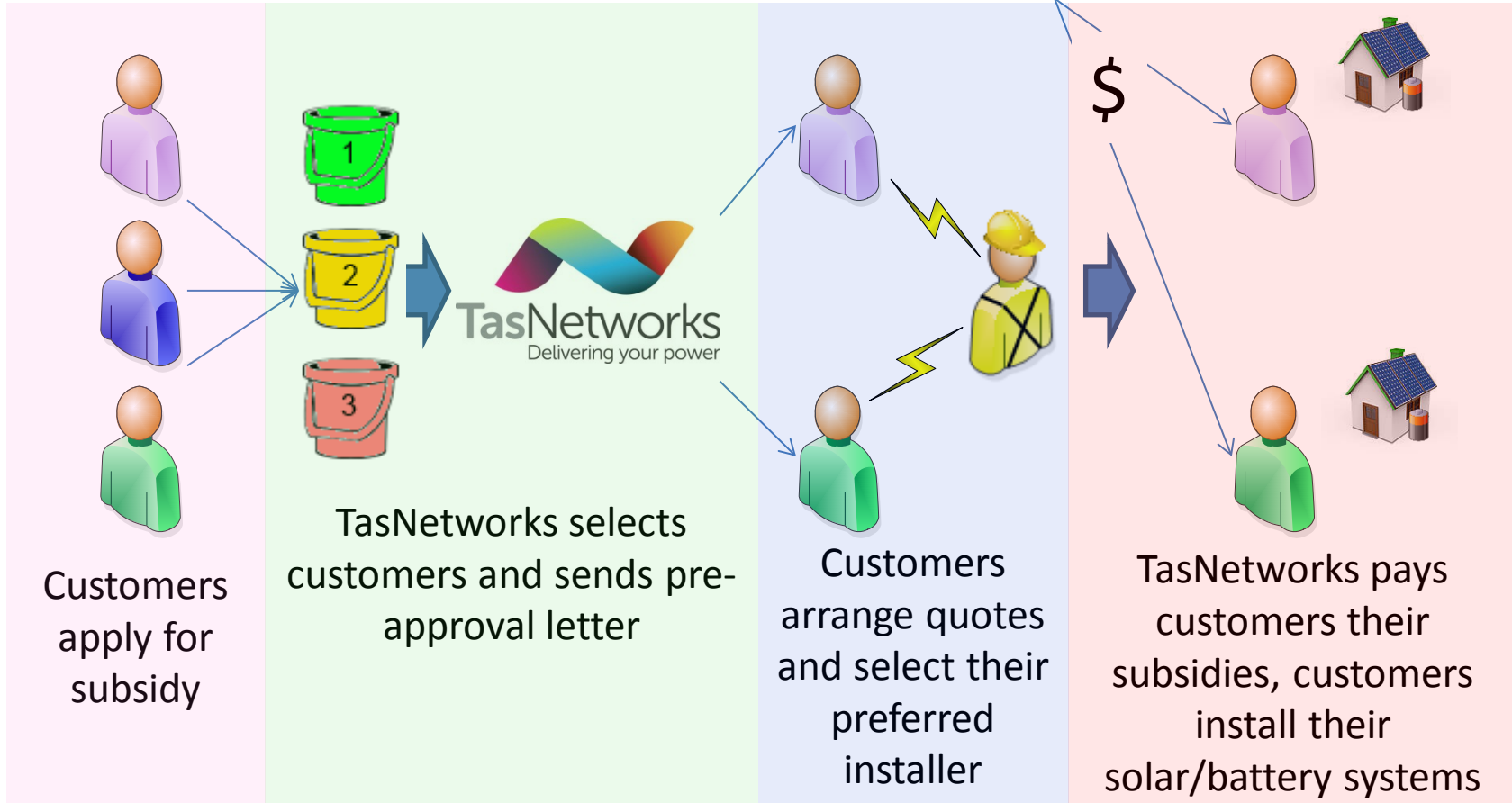


Your home

Home Internet Connection



Customer process - Install



Australian National University



UNIVERSITY of TASMANIA



THE UNIVERSITY OF SYDNEY

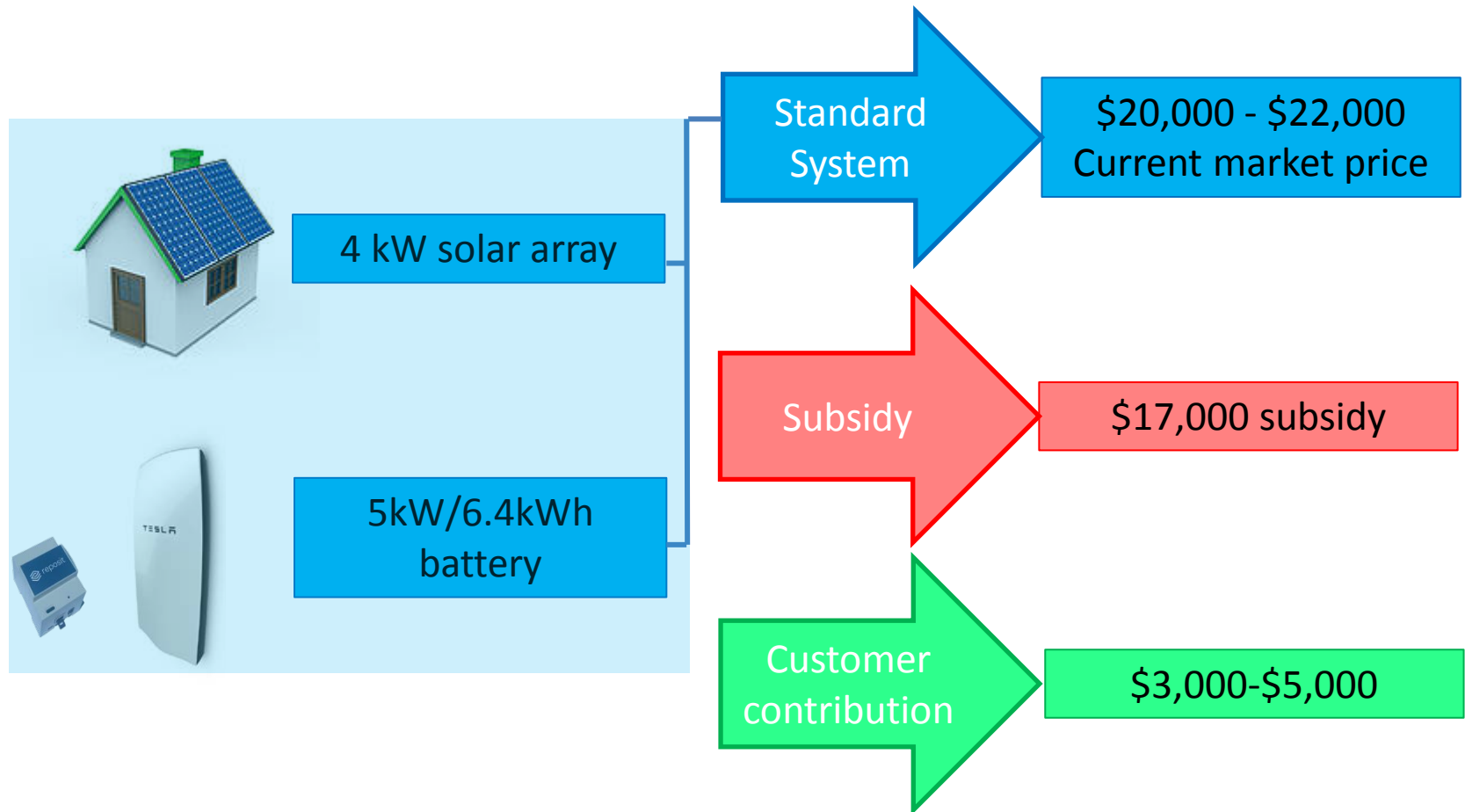
ARENA



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Subsidy design



Subsidy design

- Minimum customer contribution of \$2,000
- Maximum subsidy allowance of \$17,000



2-6 year payback



Post installation

- Trial is 2 years
- University participation
- CONSORT may ask for network support
 - Currently the network support payment that you will receive will be up to around \$150 a year depending on network requirements.



Bruny Island Battery Trial - Summary

- 3 year research project / 2 year trial period
- A collaboration - TasNetworks, Reposit, UTAS, ANU, USyd
- Up to 40 PV/battery systems installed across Bruny's "southern" feeder
- Large subsidy provided, participants pay around \$2k - \$5k
- Manage your energy use / reduce your bills
- Participants paid for network support
- Customers own systems during and beyond trial
- Applications open from today, close 26th August
- Systems will be installed by March 2017
- More info: <http://brunybatterytrial.org/>
- email: brunybattery@tasnetworks.com.au

