

Participant Information Sheet

1. Introduction

This information sheet is for householders taking part (or considering taking part) in the CONSORT Bruny Island Battery Trial. It outlines what you can expect to happen in the trial, what you can do if you have any questions or issues, and what sort of research contact we will have with you if you decide to participate.

The CONSORT Bruny Island Battery Trial (the Trial) is a research project looking at how the electricity network can work with householder-owned battery systems to help manage the network more efficiently, especially during periods of peak electricity demand. The trial runs until the middle of 2019 and will work with (about) 40 households to install batteries, battery controllers and, in most cases, solar panels at their homes. CONSORT will provide a large subsidy to householders to help buy this technology. The CONSORT team will monitor the installed technology and will also evaluate how the systems perform from each household's point of view.

2. Who is CONSORT?

CONSORT stands for CONsumer Energy Systems Providing Cost-Effective Grid SupportORT.

The CONSORT Trial is being undertaken by The Australian National University (ANU), The University of Sydney (USyd), the University of Tasmania (UTAS), battery control software business Reposit Power and network provider TasNetworks. The project is funded by the Australian Renewable Energy Agency (ARENA).

TasNetworks will be the main contact for householders and will provide introductory project information, manage household applications, and provide technical network data to the CONSORT team.

Reposit Power will provide a 'smart' energy monitoring and control system, installed alongside the batteries, to monitor and predict household energy use and solar power generation. This system automatically controls the batteries so they can provide energy to meet household needs and also provide energy to the electricity network when it is needed. Further, Reposit's 'smart' energy monitoring learns about household energy use and then predicts future use and uses this information to help manage solar energy produced.

ANU will use participant household and network-wide electricity data to develop and test software that will enable solar power and battery systems to optimally meet household energy demand while also helping to manage the electricity network.

USyd will use participant electricity and battery control data to work out the best way to structure network payments to householders for trading electricity with the network. USyd are seeking to find

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pricing solutions where the benefits of supporting the electricity network with batteries are shared fairly between the network operator and battery owners.

UTAS will interact several times with all the households involved in the Trial in order to better understand responses to the installed technologies, what is working well, and, what might need improvement before the technologies are used elsewhere.

ARENA is funding this Trial as part of its efforts to support research that explores new renewable energy innovations and investigates ways to improve renewable energy supply and affordability in Australia.

3. What is the purpose of this Trial?

The aim of the Trial is to understand how an electricity network can work with householder-owned battery systems in order to better manage the electricity network, alleviate problems caused by peak demand, and create benefits for householders at the same time.

The aim of the UTAS household research is to examine the response of participating households to the installed battery, solar power and control technologies. UTAS will research a number of issues including how households interact with the installed technologies, how households process and apply information supplied by the Reposit Power smart energy system monitoring and control system, and how energy use and management are being affected (if at all) by the installed technologies.

4. Why am I being asked to participate?

You are invited to consider participating because you live on Bruny Island. Bruny Island has been chosen for the Trial because of the nature of the electricity network on the island – in particular the regular demand peaks that occur during holiday periods. Deployment of household batteries can make a real and measurable difference to the performance of the local electricity network. Bruny has a good solar resource by global standards, better than many locations around the world where solar energy has already been used successfully. Bruny Island presents a fantastic opportunity to learn how batteries could be used, in Australia and internationally, in the future.

Please read all information provided on the website and in the handouts before deciding if you would like to apply for the Trial.

5. What will I be asked to do?

In the Trial overall

Participants will have batteries installed at their home along with a 'smart' energy monitoring and control system. For most participants, this will include the installation of solar panels (or upgrading existing solar systems) to provide electricity for the batteries. The technology will be heavily subsidised by CONSORT, with householders contributing a part of the total system price.

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Householders will own all of the technology installed on their property and will be responsible for its up keep. Participating householders will be required to take part in the Trial for two years.

The energy monitoring and control system needs to be connected to the internet to do its job; therefore households will also be asked to maintain a continuous connection to the internet for the duration of the trial.

The *Bruny Island Battery Trial – Application for Subsidy Factsheet* provides more information about participating in the Trial, including the eligibility requirements, the technology to be installed, the subsidies provided, the costs for householders, how to apply, and the selection process. After the application and selection process, selected households will sign an agreement with TasNetworks (that will set out all terms and conditions); choose a local solar power / battery installer to install the technology in their homes (from an approved installer list); and will enter into a normal system purchase contract with their chosen installer.

In the household research with UTAS

All households taking part in the Trial must also agree to take part in the household (social) research component of the Trial. In other words, when you agree to take part in the trial, you also make a commitment to participate in the household research for the Trial.

A representative from each participating household will take part in four interviews (held over 2 years) and will fill out an 'energy diary' for a period of two weeks. A subset of households in the Trial will also take part in additional focus groups (1 or 2) and digitally recorded 'energy tours' of their homes. UTAS researchers may also report comments made in the online chat group forum for participants (which is on the Bruny Island Battery Trial website).

The interviews will be spread out so we can record your initial and your longer term responses to the installed technologies. The first interview will be held just before the battery and solar power technologies are installed in your home. The second interview will be held about 2 weeks after the technologies are installed. Another interview will be held one year after the installation and the final interview will be held 2 years after the technologies are installed. At least two of these interviews will be conducted face-to-face in your home so that we can talk about the technology in-situ and see how it is all set up. The other two interviews will most likely be carried out over the phone. The first interview may take around an hour. The other three interviews should take approximately 30 minutes. Interview times tend to vary house to house as each household has different subject matter to discuss.

We plan to record interviews wherever possible because it helps us to recall the detail of the conversations we have. If you do not want to be recorded in the interviews, we can take notes instead. Please be aware that note-taking tends to take a little more time during the actual interview.

Sometimes it is useful to take photos as it helps us recall and analyse information and to communicate ideas and contexts. We will ask you if we can take some photographs of the installed technologies and elements of your home. You can say yes or no to this request.

6. What are the benefits of participating in this Trial?

Households who participate in the Bruny Island Battery Trial will be provided with a large subsidy to install solar power and/or a 'smart' battery storage system. Householders will then be able to generate solar power for their own use, store it for use later or sell it back to the grid when the electricity network needs it. Reposit's 'smart' monitor/controller works to ensure the best financial outcome for the householder. This benefit will likely be seen via savings on electricity bills both during and beyond the period of the Trial and possibly from additional network support payments provided by CONSORT during the trial. Further information on the technologies, the costs and the subsidy that will be provided is contained in the *Bruny Island Battery Trial – Application for Subsidy Factsheet*.

Participating in the UTAS household research ensures that the CONSORT team learns from household experiences with the installed technologies. Participant feedback is important. With your input we can ensure that any future deployments of these technologies better understand householder needs, the way householders like to use the solar power and battery technology, and the types of feedback information that best support household decisions.

7. Are there any possible risks from participation in this study?

If you decide to participate you will have to pay for a proportion of the cost of the technologies. The anticipated range of costs and benefits is provided in the FactSheet with actual costs and expected savings being provided by your selected installer in their quotation.

The household social research component of this project is judged to be low risk.

This study will only have about 40 households involved and all the participants will be on Bruny Island. There is a slight chance that information participants share, even after information has been made anonymous, might be identified by someone who knows the participating householders well.

Please note that involvement in the Trial will span approximately two years. However, participating households will own the solar and battery system outright, and can benefit from the associated savings well beyond the Trial. Please ensure you consider whether you are able to stay involved in the social research components of the Trial for the full two-year period. If you drop out of the study early and your reasons are not covered in the agreement, you may need to return the installed technologies to the CONSORT team or to repay the subsidy.

The solar and battery system hardware provided by the Trial will be high-quality and reliable off-the-shelf equipment which is covered by standard warranty conditions. Installations will comply with all Australian standards and guidelines. As such, any technology risks associated with the Trial are the same as those associated with standard grid-connected solar and battery installations. Please ensure you read manufacturer warranties before finalising the battery-solar technology you are to

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have installed. If you have any concerns or questions please contact a TasNetworks CONSORT team member on the phone number listed at the end of this information sheet.

If you make comments in the online (participant only) chat group on the Bruny Island Battery Trial website, your comments and user name may be identified by other Bruny Island Battery Trial participants who are also taking part in the chat group.

8. What happens with the information I share?

All information you provide will be de-identified before it is published. Personal information will be collected by TasNetworks for project purposes, by UTAS for research purposes and by REPOSIT and installers as part of their installation processes. All the organizations involved in the CONSORT project will collect, use, share and store your personal information as per: The Australian Privacy Principles (as described in the Federal Privacy Legislation- <https://www.oaic.gov.au/privacy-law/privacy-act/australian-privacy-principles>); their respective Research and Development Program Funding Agreements with ARENA; and, any individual contract with you.

The electricity data you share will be analysed by ANU, USyd and TasNetworks to better understand electricity network trading and how electricity pricing works in relation to this. ANU and USyd generally do not need to know much personal information and will most often work with de-identified information and data.

The household research undertaken by UTAS will mainly be used in social research aspects of the Trial and will be analysed by UTAS researchers. All the information you provide will be made anonymous before it is published and will be kept secure in offices that can be locked and on password protected computers. You can request to view the data that you have contributed for the household research by contacting the UTAS researcher listed in this information sheet.

Findings from analysis will be presented in project reports, papers and in presentations. In publications, information participants share will either be presented with an alias or with a participant number (to maintain anonymity). We would normally use aliases when sharing opinions and household stories and numbers as identifiers when the information is in databases or as part of a statistical study.

Limited information may be shared within the CONSORT team (between organizations); some of this may contain basic personal information. For example, a CONSORT team member might need to know your street number so they can analyse your electricity data. We will de-identify information before we send it within the team wherever we can.

9. How will the results of the Trial be published?

After the Trial findings are developed they will be shared through a variety of formats. At first, findings will be listed in ARENA reports. Findings will also be shared: in academic journal papers; at conferences; through presentations to the public and relevant stakeholders; and on the CONSORT Bruny Battery Trial website. It is likely that the CONSORT team will also communicate with media

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organizations and conduct some formal information dissemination programs. We would like to make sure that we share what we learn as widely as possible.

10. What if I change my mind during or after the study?

Participants are free to withdraw from the Trial up until the time they receive their subsidy. Once the subsidy has been received and the systems have been installed, householders are required to continue to meet all participation requirements as set out in the consent form, the Factsheet and the signed agreement with TasNetworks. Failure to meet these participation requirements will result in households being removed from the trial as per the Terms and Conditions of their Agreement with TasNetworks.

As outlined in the subsidy application and the agreement, CONSORT will consider removing a household from the Trial if they are experiencing undue stress of a personal or emotional nature that means they are unable to continue being involved. Householders would need to contact CONSORT as soon as possible if they feel they are no longer able to participate. If your reasons for dropping out of the study are not covered in the agreement, you may need to return the installed technologies to the CONSORT team or repay the subsidy. Households therefore need to carefully consider their involvement before signing agreements to take part.

11. What else is required of me throughout the trial?

Continuing involvement over the Trial period includes:

- keeping your solar and battery system functioning;
- staying permanently connected to the electricity grid, even if you are away from your house for an extended period;
- staying permanently connected to the internet so that the CONSORT team can automatically collect electricity generation and load data and can communicate with the battery system; and,
- staying involved in the UTAS household research, including all activities described in this information sheet.

12. Can I take back something I said to UTAS researchers?

If you have talked about something that you feel you would like to take out of the transcripts or notes UTAS researchers have recorded, you can do so. UTAS researchers can remove comments you make or information you provide up until they publish the information. If you have concerns over something you have shared please call UTAS researchers (please see the contacts listed at the end of this sheet). If someone has asked for parts of their transcript or notes to be removed this particular data will be omitted from all future publications.

Due to the nature of this project, UTAS will be unable to entirely remove the data they have recorded from you unless you are formally removing yourself from the entire Trial (and are doing so according to the subsidy application and the agreement).

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For focus groups participants please note that while we can take comments (you have made) out of our research transcripts and notes, people present at the focus group will already have heard the comment you made. Comments made in the online participant chat group can also be deleted upon request, but other participants taking part in the chat group may remember the comment made after it has been deleted.

13. What will happen to the information when this study is over?

Raw data kept at UTAS (that is the notes and transcripts we record in your company) will be used throughout the life of this Trial. After that the raw data at UTAS will be kept securely for a minimum of 7 years before being destroyed.

Data you provide may be used in a de-identified way in further research after this Trial is complete. This further research would be conducted if it helped progress our understanding of the electricity network and household responses to the technology further. Any use of data after the Trial is complete would be done according to the privacy requirements that you agreed to for this Trial and would only be conducted by the CONSORT team organizations that originally collected and analysed the data.

The CONSORT team will not provide any raw data (information they collect from you) to other parties. The ARENA authority (as the funder of this Trial) may request and use de-identified data and analysis from this Trial. They may also publish de-identified data in their own publications.

When publishing information from the CONSORT Trial, the CONSORT team and ARENA will abide by the information set out here and the agreements you sign with us.

Energy system and household usage data will continue to be monitored and collected by Reposit for the life of the controller system. This data is essential to the operation of the 'smart' controller system and for you to continue to receive the benefits from its operation. The ongoing management arrangements for this data are outlined within the Reposit customer terms and conditions.

14. What documents should I read before making a decision to participate?

When considering participation please read:

- this Trial Information Sheet
- Bruny Island Battery Trial – Application for Subsidy Factsheet
- Bruny Island Battery Trial – Application Form
- TasNetworks Bruny Battery Trial Customer Agreement and
- Reposit Customer Terms and Conditions.

If you decide to participate you will need to fill out and/or and sign:

- Bruny Island Battery Trial – Application Form
- TasNetworks Bruny Battery Trial Customer Agreement

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- An 'Authority to act' from TasNetworks, if you require a third party to act on your behalf (for example, if you are away or require assistance) and
- The UTAS household research consent form.

Please note that the vendor / installer chosen to install the technology will also have their own supply contract with you.

We realize there is a lot to read and to sign, but we want to make sure you are well-informed before you sign up to the Trial.

For participants taking part in the online participant chat group on the Bruny Island Battery Trial website, you will be asked to read the *Terms of Use* for the chat group before you begin reading or contributing to the group. Your agreement to these terms of use will allow you access to the chat group.

15. What if I have questions about the Trial?

For general Bruny Island Battery Trial enquires please contact:

TasNetworks

Phone: 1300 127 777

Email: BrunyBattery@tasnetworks.com.au

Website: <http://brunybatterytrial.org>

For all UTAS household research enquiries please contact:

Heather Lovell (Lead Social Researcher)

Phone: 6226 7243

Email: Heather.Lovell@utas.edu.au

This Trial has been approved by the UTAS Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this Trial, please contact the Executive Officer of the HREC (Tasmania) Network on +61 3 6226 6254 or email human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number H15886.

This information sheet is for you to keep and refer to over the life of the CONSORT Trial. Please ensure you have provided consent by signing the subsidy application and the UTAS research consent form.