

Media Release

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Refreshed stocktake to help renewables work with the grid

The Energy Networks Association (ENA), in partnership with the Australian Renewable Energy Agency (ARENA), has released an updated database of Australian and international renewable energy grid integration projects.

The *Integrating Renewables into the Grid Stocktake* catalogues 208 projects that add to Australia's collective knowledge and experience of integrating renewable energy into distribution networks.

ENA CEO John Bradley said Australia's electricity grid was the backbone of the energy system and would play a vital role in Australia's clean energy future.

"There are tangible benefits to be gained from increased integration of renewables into the network, though these come with some economic, technical and regulatory challenges," Mr Bradley said.

ARENA is supporting the development, updating and online hosting of the Stocktake.

ARENA CEO Ivor Frischknecht said enabling renewables and grids to work together effectively would be critical to increasing the supply of renewable energy in Australia.

"Our electricity grids and regulations were designed to cater for centralised power generation from large power plants. As more de-centralised renewable energy comes online, there will be a myriad of challenges and opportunities for utilities, energy retailers and policy makers to work through," Mr Frischknecht said.

"The Stocktake will be invaluable for facilitating this work by providing a one-stop-shop for information on current projects, along with the outcomes of past efforts."

ARENA, ENA and other partners have worked together since the first release in 2014 to ensure the Stocktake remains relevant to interested industry stakeholders.

Mr Bradley said the updated Stocktake would make it easier for the renewables and electricity network sectors to work together.

"It's critical that energy networks, the renewables sector, research institutions and technology developers collaborate to advance the evolution of the energy system."

One such collaboration between the Queensland University of Technology, Ergon Energy, Central Queensland University and international researchers – *Planning Future Energy Grids: Renewables* – developed viable tools for predicting output from rooftop solar panels and the optimal size and placement of batteries to support network peak demand and avoid network upgrade expenditure.

"This is a vital project given Australia leads the world in the penetration of rooftop solar panels, with 1.5 million installations delivering over 5000 megawatts (MW) of generation capacity," Mr Bradley said.

The updated Stocktake database and analysis can be accessed [here](#).

About ARENA

ARENA was established by the Australian Government to make renewable energy technologies more affordable and increase the supply of renewable energy in Australia. ARENA invests in renewable energy projects, supports research and development activities, boosts job creation and industry development, and increases knowledge about renewable energy. ARENA has a portfolio of more than 240 supported projects and is actively seeking new projects to fund in 2016. For more information, visit www.arena.gov.au.

About the Energy Networks Association (ENA)

The ENA is the national industry association representing Australia's electricity transmission and distribution networks and gas distribution networks. ENA members provide energy to virtually every household and business in Australia.

About the Stocktake

The latest *Integrating Renewables into the Grid Stocktake* sees the addition of 15 new Australian projects and updates to 25 existing projects, taking the total number of projects catalogued to 208.

It is of international significance with the inclusion of projects from across the globe – 131 originating in Australia and 77 from overseas.

To be included in the *Stocktake*, projects must address or inform one or more of 14 defined objectives relating to issues with the integration of renewable energy into the grid. Cataloguing projects on the basis of these objectives assists interested parties to identify projects of relevance to them.

The *Stocktake* analysis determined the objectives most commonly addressed include: the cost efficiency of renewable energy integration; the development of new business models to cater for a network with a high level of distributed energy resources; and improved network security necessary for higher renewable energy integration.

Through the *Stocktake*, five projects have been identified as leaders in their field, these being:

- Project 196: King Island Renewable Energy Integration Project (Hydro Tasmania)
- Project 316: PRIME PLC Evaluation (Energex)
- Project 245: Future Grid Forum (CSIRO)
- Project 186: SGSC: Smart Grid, Smart City Project (AusGrid)
- Project 265: Planning Future Energy Grid: Renewables (QUT)