



<b>Customer</b>	TasNetworks
<b>Size of Project</b>	Confidential
<b>Start date</b>	October 2022
<b>End date</b>	July 2023

These were compared with the practice of no smart management strategies and costs were compared to quantify the savings available to TasNetworks from adopting these innovative network management approaches.

## Background

EA Technology was asked to develop options to facilitate the connection of low carbon technologies such as Solar Photovoltaics (PV) and Electric Vehicles (EVs) to the electricity distribution network of Tasmania, Australia.

The work was delivered for a distribution network service provider (DNSP) TasNetworks. The project aimed to identify the most cost-effective method for resolving network constraints predicted to arise due to forecast uptake rates of Distributed Energy Resources (DER), by minimising the need for costly network reinforcement.

## Our Approach

EA Technology utilized the Transform Model® to perform a Cost Benefit Analysis for Tasmania's electricity distribution network. The Transform model was populated with representative network data, forecast DER scenarios and usage profiles.

EA Technology was able to identify that the primary challenge TasNetworks were likely to face in future was due to the high adoption rates of EVs. This was noticeably different to previous assumptions based on analysis completed for South Australia Power Networks which recommended dynamic operating envelopes to manage solar PV related network constraints.

For TasNetworks, EA Technology performed multiple studies considering different management strategies available to manage the load on the LV network caused by EVs.

These included:

- Development of time of use tariffs
- Demand side management of EV charging.

## Client Benefits

EA Technology are experts in parametric modelling (utilising Transform), which ensured that the modelling was accurate and reliable. EA Technology drew from their international experience to ensure best practice and findings from across the globe were considered.

EA Technology produced a comprehensive report summarizing the findings from this project, and since the Transform model is EA Technology's own software, the models used in this project were able to be provided to TasNetworks along with a training session to ensure good understanding of the model and how to use it.

## Why this is relevant to your project?

While the results from this project are directly applicable to the electricity distribution network in Tasmania, the concepts of managing network constraints caused by DER uptake to extract better value from the existing network and minimise the need for costly network reinforcement is applicable across many other areas.

EA Technology can help you understand the challenges facing your network and opportunity for alternative and novel operating arrangements to minimise costs.



Safer, Stronger, Smarter Networks

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