



MARCHMENT HILL

- consulting -

ENA NTR Program: Embedded Generation Project

the challenge

The Energy Networks Association (ENA) has launched the Electricity Network Transformation Roadmap (NTR) project to identify the preferred transition which the electricity network industry must make in the next decade, to be ready to support better customer outcomes under a diverse range of long-term energy scenarios. This included investigating the impacts of continued embedded generation (EG, including storage and EVs) growth on Australian electricity network service providers (NSPs) and determining how EG integration can be undertaken in a way that is beneficial for both customers and NSPs. The Embedded Generation Project was a foundational piece for the NTR project and was scoped to provide an overview of the key technical, commercial and regulatory impacts of EG. The scope also included investigating the opportunities EG presents for NSPs, how regulatory and policy options can be pursued to address the impacts, and how customers can receive greater value as either consumers, producers or prosumers of electricity.

what Marchment Hill did

Marchment Hill Consulting partnered with the CSIRO and undertook an extensive literature review, in addition to a survey of ENA members, in-depth interviews and a series of workshops with the ENA and its members to gather views and insights on the particular impacts EG has had their network. This process informed the development of the final report co-authored by MHC and the CSIRO, which sets out the technical, commercial and regulatory challenges and opportunities currently arising from EG, as well as key recommendations for how these may be addressed.

the benefit

This report has provided the ENA with key insights regarding the technical, regulatory and commercial impacts of EG currently affecting Australian NSPs. The information provided in this report is to be leveraged by the ENA to focus their efforts under the NTR on the key challenges facing the industry in relation to EG and developing solutions beneficial to network providers and their customers. The final report includes:

- 24 key findings detailing the technical, commercial and regulatory impacts of EG;

- 8 key recommendations for the ENA and its members to act upon in order to address these impacts for the benefit of customers;
- 21 recommendations for policy and regulatory options that should be considered in future stages of the NTR project to support the recommendations; and
- 29 recommendations for further work to progress the policy and regulatory options recommended in the report.

The recommendations provided in the report were prepared with the overarching principle that investment in and operation of the network should maximise the efficiency of the electricity supply chain so that consumers can enjoy the quality, safety, reliability and security of supply that reflects their long term interests, at the lowest cost. This in turn should result in the efficient deployment, integration and use of EG at times, in locations and at scales that reflect the value of EG to the customer, community and the network, to the long-term benefit of all stakeholders.

MHC and the CSIRO also supported the ENA to summarise many of the technical findings of the report to include in Chapter 3 of the Interim Program Report of the NTR Program launched on Thursday 3rd December, 2015.

More on the NTR program can be found at

<http://www.ena.asn.au/electricity-network-transformation-roadmap>