

National Energy Market Operator: IT Operating Model Assessment and Design

Role: Executive Lead, Technology Strategy

Australia's national energy market operator was preparing to deliver a major multi year IT upgrade programme at a time when the markets it runs were changing faster than ever. The rapid growth of rooftop solar, batteries and other distributed energy resources, the move to five minute settlement, new market roles and participants, and rising expectations of gas market transparency were all placing new demands on its critical production systems and on the data it held for every electricity and gas meter point in the market.

Past delivery experience suggested that the organisation's IT operating model was not shaped to support a programme of this scale. The leadership team wanted to understand how IT should be organised to deliver the roadmap reliably, keep critical market systems secure and available, and remain flexible enough to respond to future disruption.

I led the engagement, working with the executive team and technology leadership to answer three questions: is IT aligned to the organisation's direction, does it have the right capabilities to meet demand, and is it focused where it adds most value. Our hypotheses focused attention on the areas of greatest risk.

Key areas of focus included:

- Security and reliability controls for critical market systems, extending to participant interfaces and operational technology
- Data governance, architecture and quality for a rapidly expanding set of meter and distributed energy data sources
- Ownership and control of forecasting models shared between business and technology teams
- Organisational structure, roles and the balance between centralised and decentralised capability
- Sourcing and service integration options, including which capabilities to retain, partner for or take to market
- An implementation roadmap aligned to the IT upgrade programme

The work followed a fast paced, structured path from current state assessment through target operating model design to an implementation plan, with three executive reviews providing clear decision points along the way. Each stage was tested against the practical realities of running markets that cannot afford outages.

The outcome was an agreed target IT operating model, a clear view of the capability gaps and risks in the existing model, and a sequenced change programme that positioned the organisation to deliver its upgrade programme and adapt to a rapidly transforming energy system.

For more information about this case or to discuss how similar operating model reviews could be applied in your organisation, please contact me at marco@marcociobo.com or visit www.marcociobo.com.