

Why we need to invest

✓ **Compliance**

To operate as an electricity distributor in NSW, Essential Energy needs to comply with the conditions of our operating licence.

In February 2019, the NSW Minister for Energy and Utilities varied our licence conditions, placing new obligations on Essential Energy to secure our critical infrastructure assets from the growing threat of cyber security attack.

Essential Energy has worked with the NSW Independent Pricing and Regulatory Tribunal (IPART) to establish a practical plan to achieve compliance with the revised licence conditions by June 2024.

✓ **Risk Mitigation**

As operator of the electricity distribution network serving the regional NSW community, we take prudent steps to manage and mitigate risk. This investment in cyber security controls will mitigate risks to our infrastructure consistent with our obligations under the licence conditions.

Why not leave things as they are?

While Essential Energy’s cyber security practices and controls have proven effective until now, without the proposed investment moving forward, we will:

- > Become non-compliant with the new conditions of our operating licence; and
- > Expose our network and the community to growing risk, given increasing threats posed through terrorism and by other malicious actors.

What are the options?

We can’t leave things as they are, as we’ll become non-compliant. However, the following alternative option has also been considered to achieve compliance:

Alternative Option: Compliance, Cyber Security Maturity Improvement and Sustainability

Implement improvements consistent with the IPART-approved compliance plan, but as part of a broader strategy of cyber security redesign for long term sustainability and for uplift in cyber security practice maturity. (Total Expenditure FY20-FY24: \$35.9M)

- > Although this alternative option is more strategic, the scope of its implementation is greater than required to address Essential Energy’s licence compliance obligations.
- > Therefore, in support of the Cost Pass Through Application the alternative option is not proposed. However, Essential Energy remains focussed on the case for strategic improvements in cyber security, building upon the licence compliance investment.

What are we proposing?

Proposed Option: Compliance Plan Implementation

To comply with the licence conditions, we will progressively implement cyber security improvements consistent with the IPART-approved compliance plan, including:

- > **Network and Remote Access Controls**
Controls and procedures to restrict distribution system access to authorised persons located within Australia, except in accordance with approved emergency access protocols agreed with the Australian Critical Infrastructure Centre.
- > **Vulnerability Management**
Processes and capability to mitigate the potential for exploitation of systems and network vulnerabilities.
- > **Incident Detection and Management**
Security Information and Event Management processes and capability for detecting and responding to overseas threats and incidents.
- > **Change Control**
Controls and procedures to assess and manage the impact of changes to Operational Technology (OT) and Information Technology (IT) environments to prevent overseas access or control of the distribution system.
- > **Device and Environment Hardening**
Use of cryptographic and key management standards for data network and device security.
- > **Data Security**
Identification and repatriation of sensitive data potentially accessible outside of Australia.

What will it cost?

Priority compliance actions began in financial year 2020 (FY20), with further compliance actions planned to continue until 2024 (FY24). Total costs are as follows:

Expenditure	\$M (FY21 Real)
Project Capital Expenditure (including avoided costs)	10.04
Project Operating Expenditure (including avoided costs)	16.66
Total Project Expenditure (including avoided costs)	26.70
Ongoing Operating Expenditure (including avoided costs)	4.02
Total Expenditure FY20-FY24	30.72

What are the benefits?

This proposal delivers benefits and addresses the identified investment needs as follows:

Need	Benefit	\$M p.a. (FY21 Real)
✓ Compliance	Essential Energy will ensure compliance with the revised critical infrastructure licence conditions in accordance with the Compliance Plan approved by IPART.	Non-financial
✓ Risk Mitigation	Essential Energy will mitigate risks posed by the threats anticipated by the NSW Government through its variation to the licence conditions.	Non-financial
Total ongoing financial benefits (p.a.)		Non-financial

Options Comparison	Option		NPV (NPC) \$M (FY21 Real)
	Base Case	Maintain Existing Cyber Security Controls (including cyclic technology asset maintenance and ad hoc response to cyber security threat response)	Non-compliant
	Proposed	Compliance Plan Implementation	(\$20.86)
	Alternative	Compliance, Cyber Security Maturity Improvement and Sustainability	(\$24.38)
Next Steps	<p>Consultation with consumer advocates and stakeholders on the options began in June 2021 and was followed by further consultation in July. The Business Case and Cost Pass Through Application will be finalised and submitted to the Australian Energy Regulator in September.</p>		