

Why we need to invest

✓ **Compliance**

To comply with the critical infrastructure conditions contained in its Distributor's Licence, Essential Energy is required to ensure that only authorised personnel have access to the Operational Technology (OT) and IT systems that are used to control the electricity network. In 2020, Essential Energy conducted a physical security audit and gap analysis at all sites. This resulted in 369 physical security risks being identified, 281 of which relate directly to the new licence conditions. The proposed investment will address these 281 risks in a prudent and cost-efficient manner. The costs of this investment are not included in the current allowance for the 2019-24 Regulatory Period.

✓ **Risk Mitigation**

The investment in physical security will also reduce the risks of unauthorised access to Essential Energy premises, and the associated risks of loss, damage or compromise of physical assets

Why not leave things as they are?

Essential Energy's current physical security measures are inadequate and do not meet the requirements of the varied licence conditions. Key risks include:

- > access to many sites is currently via mechanical keys. 1,850 mechanical keys exist and currently almost 10 per cent are lost or unaccounted for, and we have no ability to remotely deactivate (or activate) them.
- > there is no centralised access management and control system that allows Essential Energy to remotely monitor and control access to its sites.
- > perimeter fencing and other physical barriers are, in some cases, non-existent or in poor condition resulting in the unauthorised access of key sites.
- > inconsistent tree and other vegetation management practises allow for unauthorised access and entry to key Essential Energy sites.

What options did we consider?

Several options were considered to achieve compliance with our critical infrastructure licence conditions.

Option 1: Base Case: Maintain existing physical security arrangements

This option would not address the risks identified in the physical security audit and gap analysis and would result in Essential Energy continuing to be non-compliant with its critical infrastructure licence conditions. Capex of \$0.35M, plus recurring opex of \$0.2M per annum.

Option 2: Recommended Option – Achieve compliance at the lowest possible cost

Total project expenditure of \$9.0M, comprising \$6.5M capex plus \$2.5M opex. \$0.1M opex recurring. These amounts include avoided capex costs of \$0.2M and avoided opex costs also of \$0.2M. (See next section for detail of what is being proposed)

Option 3: Best practise security arrangements at all Essential Energy sites

This option would result in a higher specification Gallagher / Genetec access control and management system being installed and common physical security standards across all sites. Essential Energy would achieve compliance with its licence conditions, but at far greater cost than Option 2. Total project expenditure of Option 3 is \$15.0M, comprising \$12.5M (capex) and \$2.5M (opex). Ongoing opex is \$0.1M per annum. These amounts include avoided costs of \$0.2M capex and \$0.2M opex.

All costs in \$FY21.

What are we proposing?

Option 2 is recommended and will result in:

- > the replacement of the mechanical keys with a modern Assa Abloy electronic keying system that will allow remote activation and deactivation of electronic keys;
- > the installation of a new Tecom C4 electronic security surveillance and management control system. This will provide centralised intrusion detection, alarm, CCTV and access management control capabilities, and integration with the Assa Abloy electronic keying system;
- > the upgrade or replacement of non-compliant perimeter fences at 18 high risk sites; and
- > tree trimming/removal and other vegetation management work necessary to prevent physical barriers (mainly fences and gates) being easily compromised.

Option 2 will result in Essential Energy achieving compliance with its critical infrastructure licence conditions at the lowest possible cost.

What will it (Option 2) cost?

This investment will occur over 4 years from FY21 to FY24 with total costs as follows:

Expenditure	\$M (FY21 Real)
Project Capital Expenditure (Project Capex, including avoided costs)	\$6.5
Project Operating Expenditure (Project Opex, including avoided costs)	\$2.5
Total Project Expenditure (including avoided costs)	\$9.0
Ongoing Operating Expenditure (p.a.) (Ongoing Opex, including avoided costs)	\$0.1

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 achieve compliance with its Critical Infrastructure Licence conditions.	Non-financial
✓ Risk Mitigation	Reduced risk of unauthorised access	Non-financial
	Reduced information security risk	Non-financial
	Reduced Depot Fencing Repair costs	\$0.1M
	Reduced Security Patrol costs	\$0.1M

Options NPV/NPC Comparison

Option		NPV (NPC) \$M (FY21 Real)
1 – Base Case	Maintain existing physical security arrangements. Minimal investment in new physical security capabilities.	(0.7) (Non-compliant)
2 – Low-Cost Compliance (Proposed)	Compliance at lowest possible cost – electronic keying system, Tecom C4 access management, improved physical barriers.	(6.5)
3 – High-Cost Compliance	Higher specification access management and control system, common physical security standards at all Essential Energy sites	(10.9)

Next Steps

Consultation with consumer advocates and stakeholders on the proposed option began in June 2021 and was followed by further consultation in July. The business case will be submitted to the Board for approval in September, then finalised and submitted to the Australian Energy Regulator.