

Auditing security of energy infrastructure in

National Audit Office of Estonia

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(internal security and defence)

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Agenda

- Audit report on security of objects supplying electricity, focusing on **physical security**
 - Regulation of the vital services and critical infrastructure.



Audit „Security of objects supplying energy“

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The context

- The beginning of the audit:
 - News from UKR: attacks on the electricity providers and infrastructure
 - Autumn 2024: threat of sabotage in the Baltic sea (gas and lines of communications)
- During the audit
 - The service providers have to be responsible for continuity and proper preparation.
 - Effective measures are expensive and the state doesn't have the money.
- In the end of the audit:
 - „Christmas present“
 - Receptive environment for the messages (risk to be used for a political weapon)
 - Serious discussions about the physical security measures (concrete). The state cannot be a bystander.



The aim and scope

- **Aim** was to assess how the vital service providers (the transmission system operator, the distribution system operator and the electricity producer) have prepared for physical attacks against important objects supplying electricity.
- We assessed five objects:
 - one designated as a **national defence object** related to the provision of a vital service
 - four have been designated by the electricity companies themselves **as objects necessary for critical activities** in their business continuity risk analyses.

Regulation of the vital services (1/2)

- The Critical Entities Resilience Directive (CER) 2022
 - A wide range of companies with direct obligations
 - Whole-of-society risk analysis
 - Background check for employees
- The Emergency Act provides for the legal bases for crisis management, including ensuring the continuity of vital services
 - **The range of vital services** (inc infrastructure, ICT, social affairs, meedia, food)
 - **Obligations of providers of vital services**, including preparation a business continuity risk analysis and plan

Regulation of the vital services (2/2)

- In the business continuity risk analysis and plan,
 - electricity companies have to consider **physical attacks** against infrastructure as a threat,
 - have to prepare **corresponding scenarios** for which **preventive measures** have been outlined,
 - electricity companies have **to prepare a recovery plan** that meets the requirements,
 - the implementation of **plan has to be practiced**.
- Providers of electricity supply (= our auditees):
 - transmission system operator (AS Elering),
 - the distribution system operator (Elektrilevi OÜ) and
 - the electricity producer (Enefit Power AS)

Physical attacks as a concept

Audit addressed **external physical attacks**, which can be:

- vandalism,
- theft,
- transformation of a demonstration into a mass disorganised attack,
- lone wolf attack,
- planned attack (sudden attack, explosive device detonation, etc.)
- dangerous package (letter, parcel, etc.),
- attack through ventilation,
- attack by special forces or persons with military training.



National defence facilities

- Based on the concept of „vital services“ from the Emergency Act but in National Defence Act specifically meant to define objects with significant role in national resilience, ie. consistent functioning of a vital service.
- General obligations are in the Act, specific measures which have to be complied with, are in the Government level regulation (officially „procedure of national defence object guard“)



Criteria regarding national defence facilities (1/3)

- The **national defense facility protection procedure** has been followed, i.e.
 - (1) the risk analysis and plan comply with the regulation,
 - (2) physical protection measures have been implemented and
 - (3) security exercises have been conducted as required.
 - (4) the objects are equipped with necessary materiel and the necessary positions are manned with suitable personnel.

Criteria regarding national defence facilities (2/3)

- In the event of a **change in the threat level** at the national defense facility, the owner of the national defense facility has the ability to implement additional security measures and the security of the facility is also guaranteed during crisis.

Criteria regarding national defence facilities (3/3)

- The Estonian Security Police Board has fulfilled the tasks arising from the national defence facility protection procedure and has contributed to fulfilling the requirements arising from the national defence facility protection procedure.
- The Ministry of Climate and the Ministry of the Interior have assessed objects supplying electricity and found that only one object needs to be designated as a national defence object. The assessment has considered the impact of an attack on objects supplying electricity on the service and thereby on society.



Criteria regarding other critical infrastructure (1/2)

- In the business continuity risk analysis and plan,
 - (1) electricity companies have considered physical attacks against objects as a threat,
 - (2) have prepared corresponding scenarios for which preventive measures have been outlined,
 - (3) a recovery plan that meets the requirements has been prepared,
 - (4) the implementation of plan has been practiced.

Criteria regarding other critical infrastructure (2/2)

- The Ministry of Climate has advised electricity companies regarding the risk of physical attacks against important objects.

Methodical approach

- The fieldwork was carried out by 1 auditor with the help of the audit manager in **august and september 2024**
- **Mainly analysis of documents**, e.g. business continuity risk analysis and plans, documents regarding the capabilities of the electricity companies and documents regarding the results of exercises.
- A **visit** to all the chosen objects where the companies had to explain and show which kind of security measures and how are applied.

Main results (public) (1/2)

- Electricity supply is a vital service **and physical protection measures** of different levels **have been applied** on the objects related to the provision of this service.
- **Requirements** for ensuring physical security established by the procedure for protection of national defence objects have been **followed on the designated national defence object.**
- **Problem:** only one designated national defence object with specific requirements. The list hasn't been reconsidered from 2017.



Main results (public) (2/2)

- No specific physical security requirements have been established for other important objects ensuring energy supply. Security of objects depend on the knowledge of the owners and managers.
- Companies must decide for themselves which physical protection measures are appropriate, but to do this, they need more information from the Ministry of Climate as the authority that organises the vital service. So far, **some of the measures applied** by the companies **are weaker** than the requirements set for national defence objects.

Thank you for
listening!



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