Protecting Energy Networks from Natural and Man-Made Disasters

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Energy Community
- Extending the EU internal energy market

Domain
South East Europe and the Black Sea Region

Mission
Creating a regulatory framework to increase:
- competition in the energy markets
- security of supply
- investments in infrastructure
- environment protection

Method
Through the Rule of Law

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Disasters and their impact on energy security

Hazards and threats

- Direct impact:
  - disruption of access to energy (sources);
  - pollution;
  - loss of human lives;
  - other indirect impacts.

Risks – concentrated on facilities and infrastructure – possible to tackle with direct and indirect responses (preparedness vs restructuring the energy networks)

Mitigation/prevention strategies

Aim: to reduce the likelihood or the impact of the accident

- Direct: tackles how to “handle” the situation in case an accident happens
  - Risk Assessments, Preventive and Emergency Plans, Business Continuity measures;
  - Safety standards, protocols;
  - Backup capacities, N-1 etc.

- Indirect: focuses on how to diminish the risk, how to avoid that the event can have devastating effects
  - Diversification of supplies (source, route, counterparty etc.);
  - Decentralized production (mostly relevant for electricity);
  - Meshed network;
  - Functioning market with multiple market players.
Disasters and their impact on energy security

The quest to avoid “traditional” disasters brought about new threats

- Complex systems, automated processes, less human control, no “key actor” to do damage control;
- High-level of connectivity:
  - Expanding scope of objects connected to the Net;
  - Smart meters, smart homes;
  - Electromobility;
  - IT – OT.
- Hardware producers not yet prepared to provide state-of-the-art secure solutions;

New technologies – opportunities and challenges
Increasing resilience

Only a coordinated action can be effective

**Stocktaking**
Mapping currently existing measures, standards, cooperation, projects and weaknesses.

**Analysis**
Legal and regulatory gaps, divergence in national standards and procedures. Assessment of necessary minimum measures to enhance security.

**Recommendation**
For a common minimum framework, joint bodies, cross-border cooperation mechanisms, education and training programmes, aligned certification schemes and standards and a roadmap for implementation.

Keep up the work

- Overall higher level of preparedness vis-à-vis “traditional” threats – BUT!;
- These threats are evolving / transforming, which increases exposure (climate related threats);
- New hazards appear (mainly due to digitalization);
- Must continue addressing new challenges.