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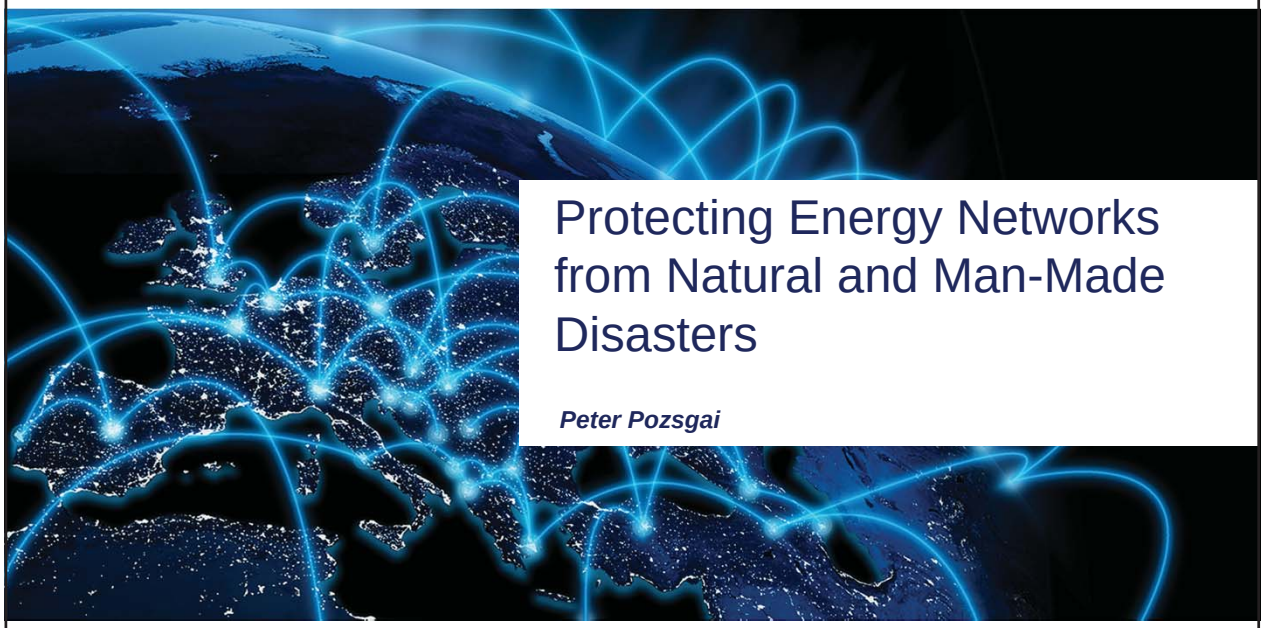
ENGLISH only

Energy Community



Protecting Energy Networks from Natural and Man-Made Disasters

Peter Pozsgai

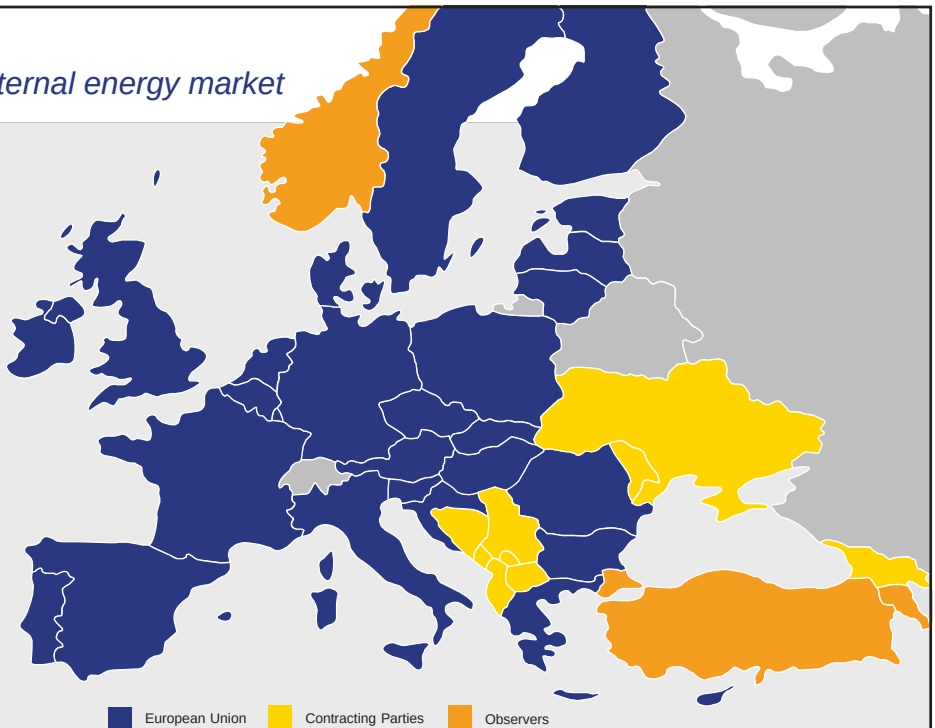
Energy Community
- Extending the EU internal energy market

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***



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)

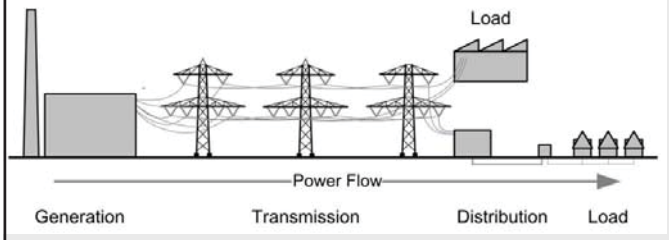
Disasters and their impact on energy security

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



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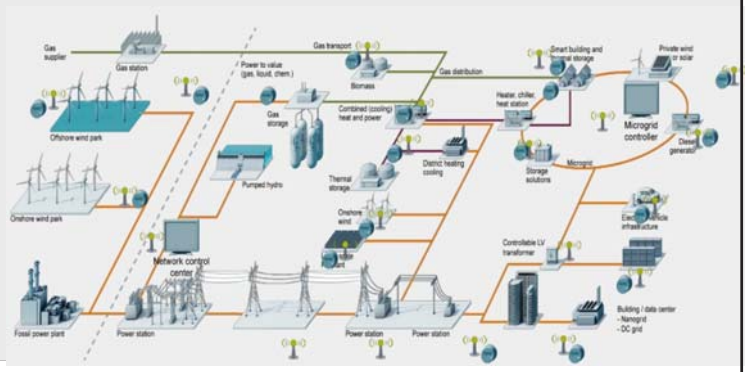

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(Source)

New technologies – opportunities and challenges

Going digital

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;
- Lack of awareness – human negligence.

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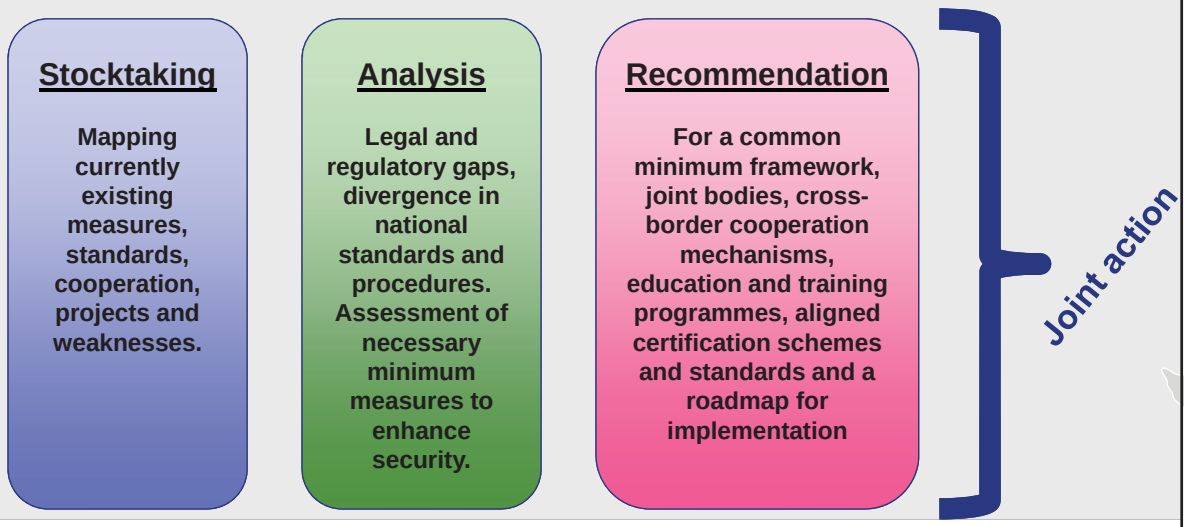
Increasing resilience

Only a coordinated action can be effective



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.**

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