Paris Session 2022

Assessing the Quantitative Resilience in Integrated Energy Systems

SC SC1 POWER SYSTEM DEVELOPMENT AND ECONOMICS

PS 1 System transition resilience & asset management response

Question 1.11 Have others applied asset management tools and methods to set resilience measures or metrics?

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Motivation

- Optimization ↔ Dynamic Simulation
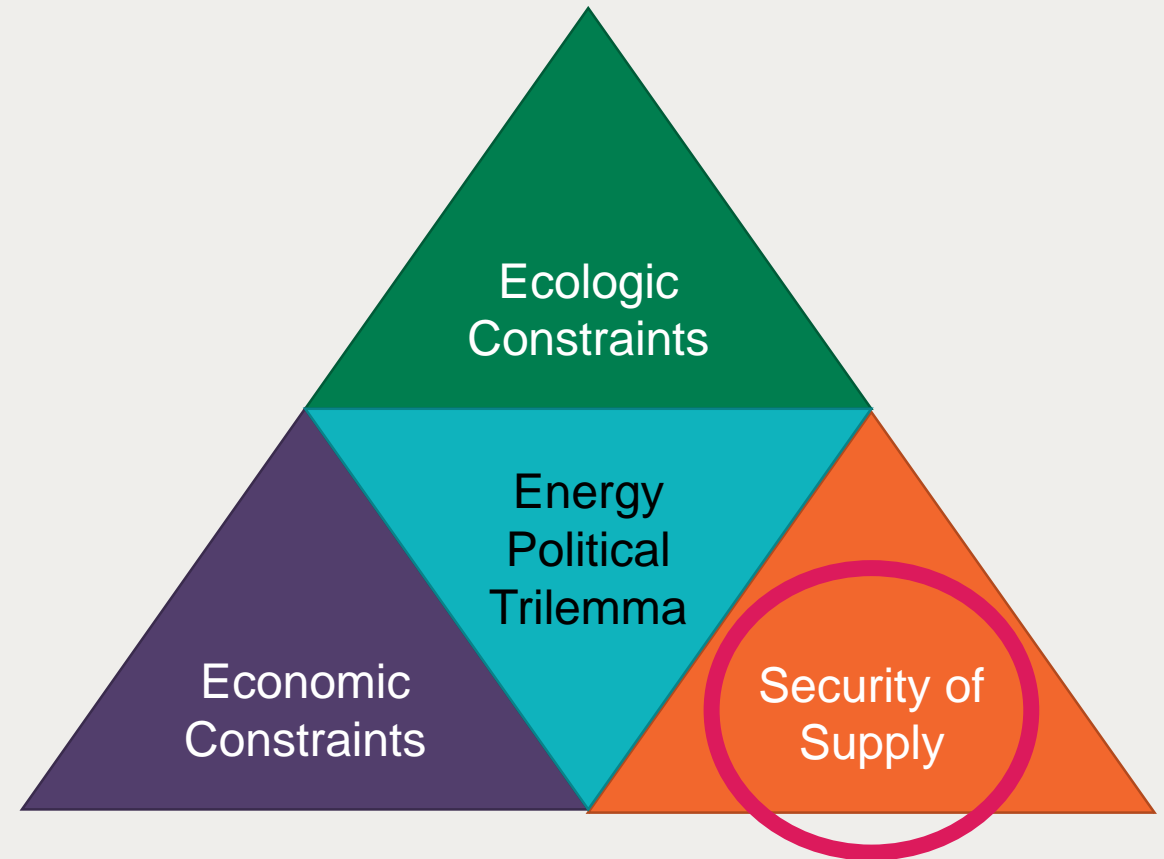
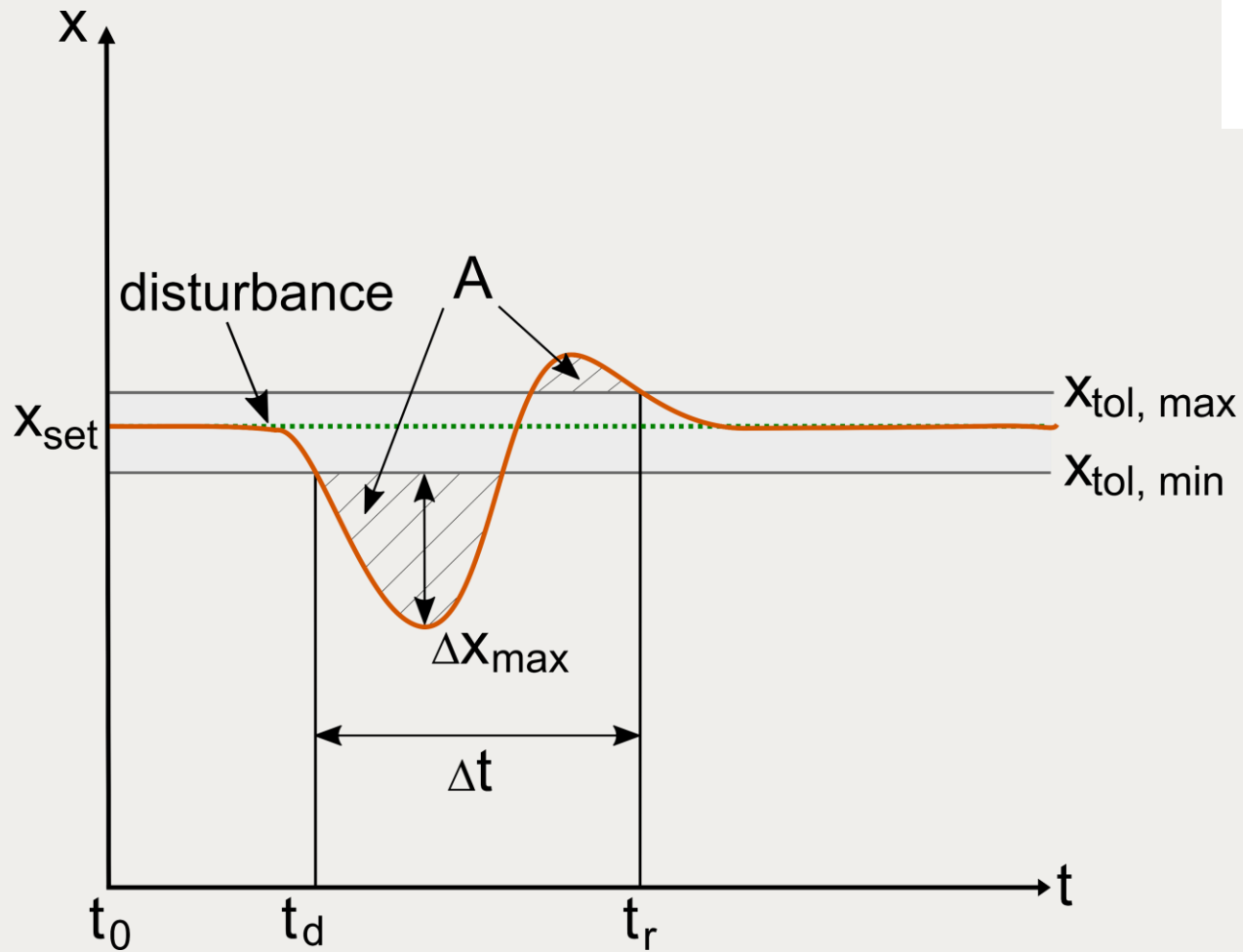- National Energy Systems

- Stability and **Resilience**

Group Discussion Meeting

Resilience Index

1. Maximum Deviation

2. Recovery Time

3. Performance Loss

$$RI_{\text{overall}} = \sum_{\text{cons}} a_{\text{cons}} \cdot RI_{\text{cons}}$$

with $\quad a_{\text{cons}} = \dfrac{E_{\text{cons}}}{E_{\text{tot}}}$

Results