

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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Group Discussion Meeting

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TUHH
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Motivation

- Optimization ↔ Dynamic Simulation
- National Energy Systems
- Stability and **Resilience**

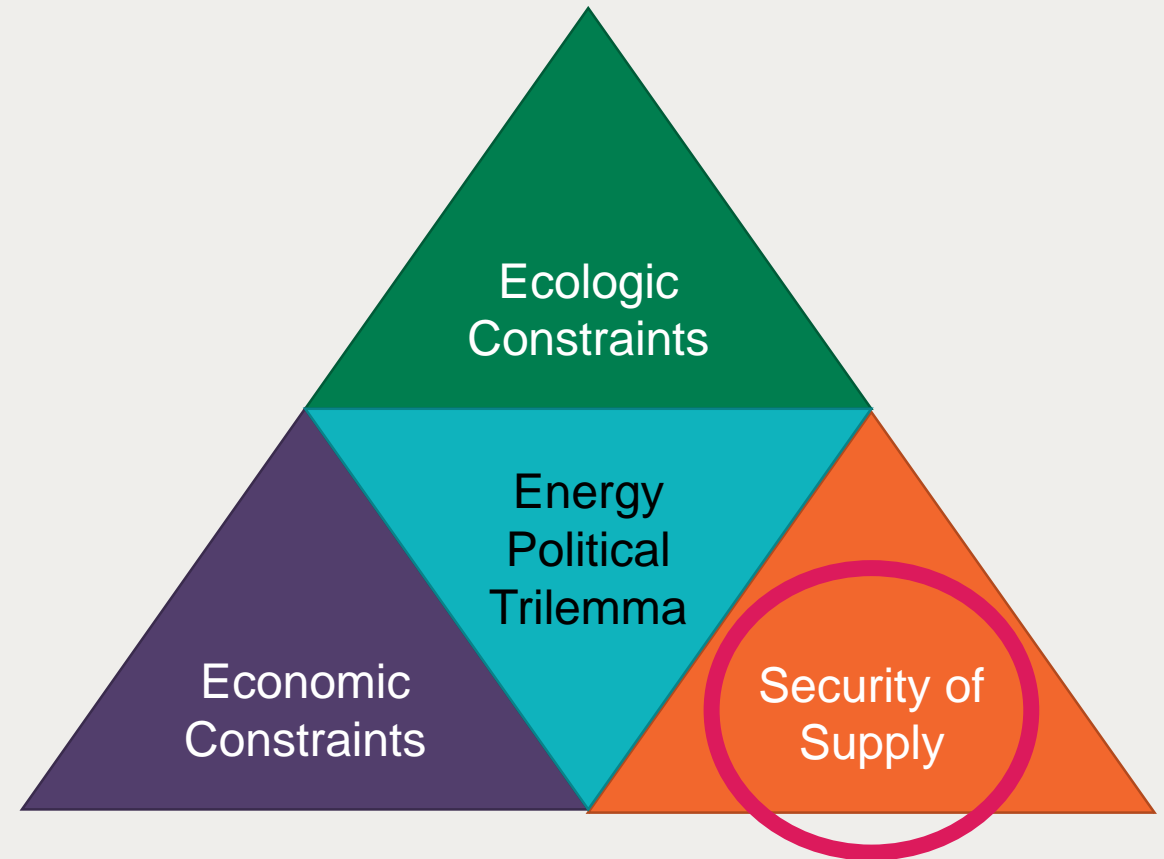


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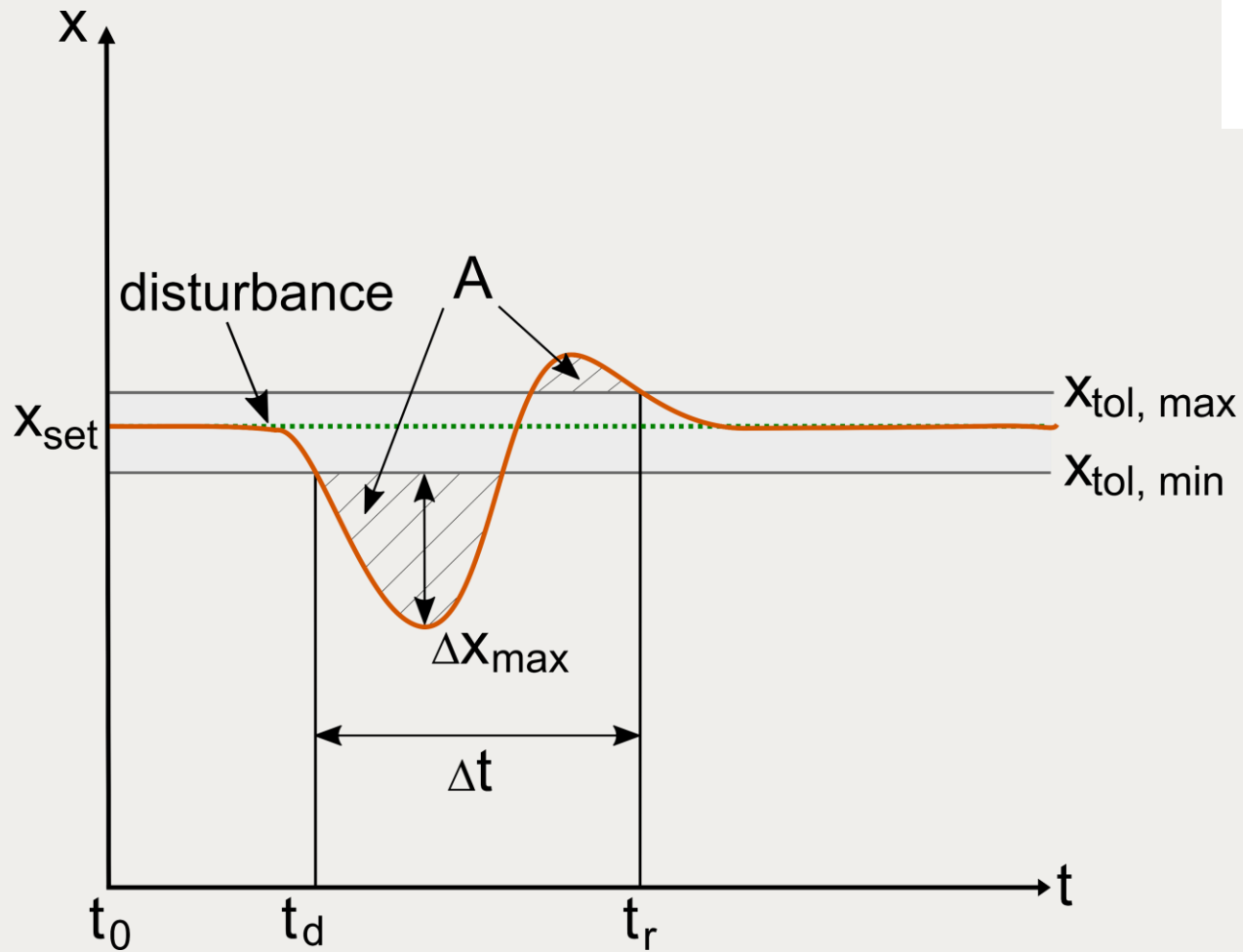
Federal Ministry
for Economic Affairs
and Energy

on the basis of a decision
by the German Bundestag



Group Discussion Meeting

Resilience Index



Group Discussion Meeting



1. Maximum Deviation
2. Recovery Time
3. Performance Loss

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

with
$$a_{cons} = \frac{E_{cons}}{E_{tot}}$$

Results

