

IEA ENARD – Annex II: DG System Integration into Distribution Networks

Helfried Brunner
Operating Agent AnnexII

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Contents

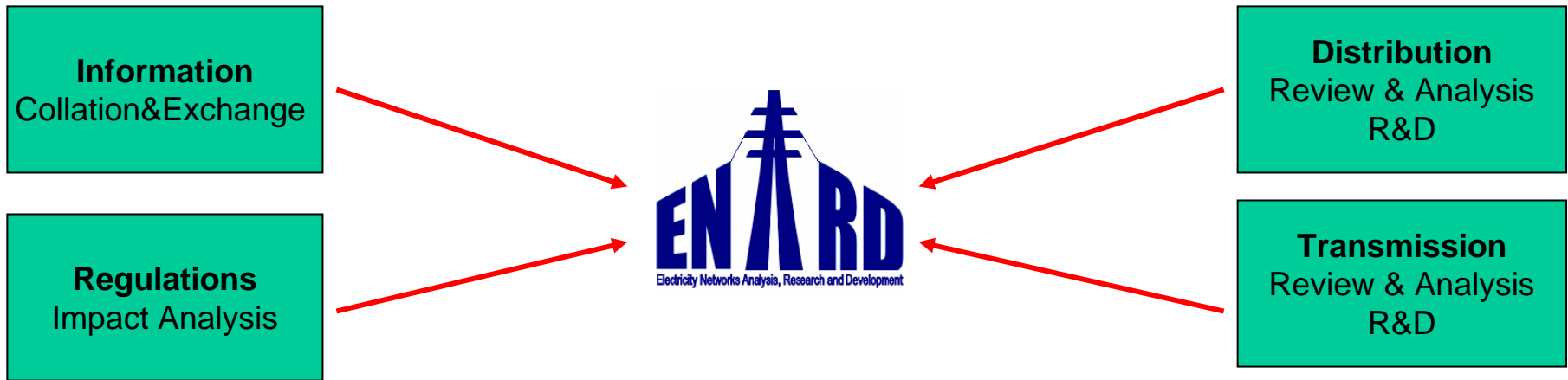
- Vision
- Benefits
- Participants
- Overview



- ENARD – Electricity Networks Analysis, Research and Development
- Vision: “To facilitate the uptake of new operating procedures, architectures, methodologies and technologies in electricity T&D networks, such as to enhance their overall performance in relation to the developing challenges of network renewal, renewables integration and network resilience”



ENARD - Benefits

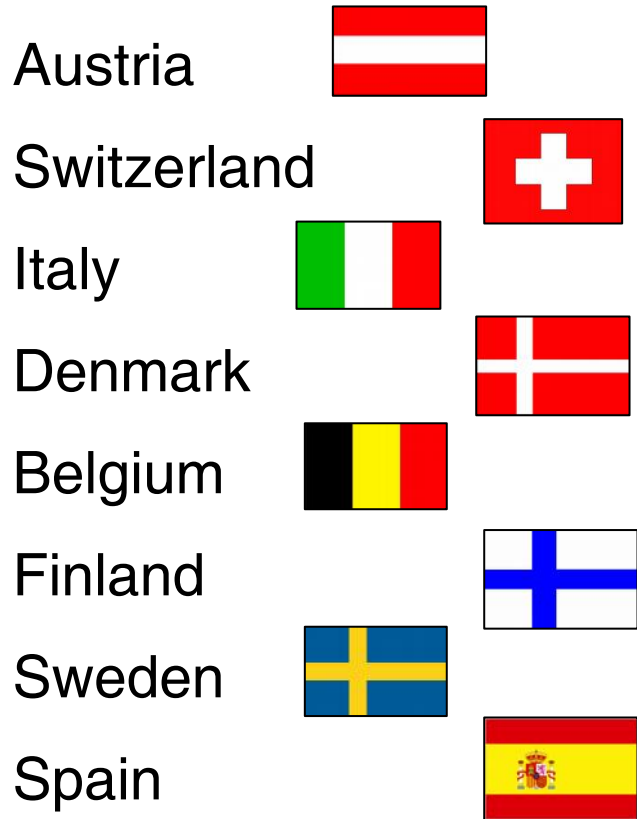


What ENARD does for you

- Experts networking and joint research platform – **world wide**
- ENARD is listened by the member governments and G8 – **political role**
- Peer group information exchange – **first hand**



Status Participating Countries



United Kingdom



United States



France (t.b.c.)



Norway (t.b.c.)



Canada (t.b.c.)



Japan (t.b.c.)



Annex I - Information Collation and Dissemination (U.K)

- Central control & coordination (Ex-Co Meetings)
- Essential definition platform

Annex II – DG System Integration in Distribution Networks (Austria, arsenal research)

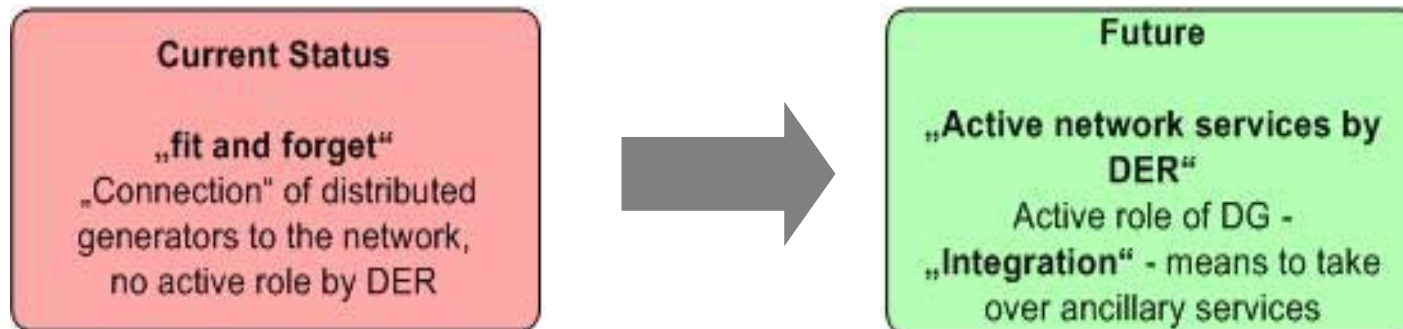
Annex III - Infrastructure Asset Management (U.K)

- Asses ageing, degradation, failure and EoL (End-of-Life) characteristics
- Case study of examples on how asset information is used
- Cross reference with available information transmission system

Annex IV - Transmission (Norway)

- Long term vision for developments in transmission systems

- The penetration of Distributed Generation (DG) **increases** continuously
- **new challenges** for distribution network operation
- **energy- and load management** is becoming increasingly important



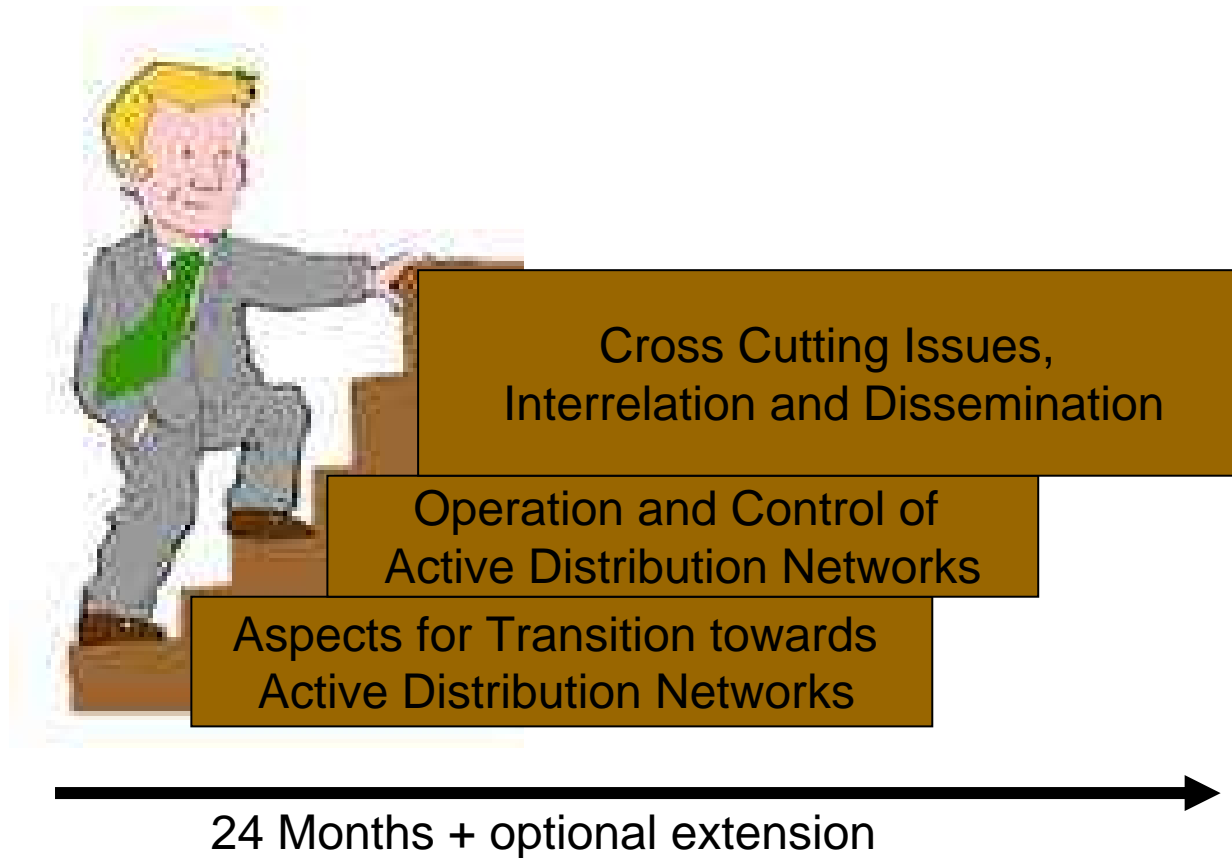
ENARD Annex II

Status

- Annex II is officially approved by the IEA ENARD ExCo
- Draft working program was worked out within Annex I Workshop “DG System Integration and New Business Models” in Vienna, March 20th-21st, 2007
- Operational since September 24th, 2008 (ExCo Meeting in Trondheim, Norway)
- Kick-off Meeting in Vienna, May 13th-14th, 2008 :
 - to make a commitment for a final working program
 - to define responsibilities
- Next Meeting: December 8th and 9th in London

ENARD Annex II - Tasks

DG System Integration in Distribution Networks



Objectives of Annex II

- to build up and **exchange knowledge** on DG system integration aspects and existing active network approaches **amongst the global players** in distribution networks
- to **promote implementation possibilities** for active distribution networks as an overall goal of this Annex II.
- to develop **guideline(s)** for network operators and political decision makers on how to manage and implement the **transition from a passive to an active distribution network**

Task 1: **Aspects for the transition towards active distribution networks**

- To review, analyze and document existing architectures and planning approaches of active distribution networks including barriers and models
 - survey of existing active networks
 - benchmarking and identification of needs
- Output: State of the art, trends, barriers and recommendations for active distribution networks **architectures and planning approaches**

Task 2: **Management of Active Distribution Networks**

- To foster the development of control and operational strategies that can be utilised to improve the reliability, operation and performance of active distribution grids
 - Surveying technical, economical and organisational Operation and Control Approaches
 - Organisational Framework and Business Models
 - Guideline and Recommendations
- Output: Current state of the art, trends, barriers and recommendations for **control and operation** of active distribution networks.

Task 3: **Cross Cutting Issues, Interrelation and Dissemination**

- To develop a clear vision of active distribution networks and evaluate the micro and macroeconomic benefit; to perform dissemination activities for active distribution
 - Workshops and dissemination
 - Vision and value analysis
- Output: Reports on interrelation and dissemination activities, guidelines for stakeholders to assist DNO's to progress from passive to active approach, vision and value report.

Danke für die Aufmerksamkeit



Kontakt

Helfried Brunner
arsenal research

Geschäftsfeld Erneuerbare Energietechnologien
Giefinggasse 2, 1210 Wien

helfried.brunner@arsenal.ac.at

www.arsenal.ac.at