Future Do’s and Don’ts of DSOs
Joint IEA/CEER Workshop

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Overview

- Background and Context
The Council of European Energy Regulators (CEER) is the voice of Europe's national regulators of electricity and gas at EU and international level. Through CEER, a non-for-profit association, the national regulators cooperate and exchange best practice. A key objective of the CEER is to facilitate the creation of a single, competitive, efficient and sustainable EU internal energy market that works in the public interest.

CEER works closely with and supports the work of the Agency for the Cooperation of Energy Regulators (ACER) – a statutory body established by EU law.
Why the Increasing Focus on DSOs?

- Technological advances
- Energy efficiency and demand response drivers
- Changing generation profile
- Other dynamics – the “internet of things” etc.
A Bridge to 2025
“A Bridge to 2025”

• A Green Paper setting out ACER’s and CEER’s *strategic* thinking and priorities on regulating energy over next decade.

• Builds on anticipated market and technological changes and changing energy priorities.

• Areas covered

  ► Electricity wholesale markets

  ► Gas wholesale markets

  ► Infrastructure investment

  ► Consumers, retail markets and the role of DSOs
“DSOs’ traditional mission has been to operate, maintain and develop efficient distribution systems. However, many of the developments related to smart grids, demand response and distributed RES generation will require a new, more active role for electricity DSOs.”
“The remit of DSOs is perhaps changing faster than any other single actor in the energy sector. Some networks are beginning to require a more active management as huge volumes of small-scale bi-directional generation connect to distribution grids.”
“Access to metering data will be crucial for market actors who want to offer smart services to customers. Where DSOs manage this data flow they have potentially a competitive edge through the advanced detailed knowledge of their customers. However, DSOs will increasingly need to undertake actions in the energy market in order actively to operate their networks……and it will be important that any such interventions are undertaken in a commercially neutral manner.”
Bridge Conclusions on DSOs

• DSOs must be **neutral market facilitators** to enable the development of new market-based services to consumers by third parties and to ensure secure system operation.

• DSOs will need to manage their networks actively; also through **smart grid solutions** and **innovative investments**.

• **Coordination between DSOs and TSOs** for network operational matters. DSOs should increase resilience to new threats, including cyber-security.

• Where **data management** is entrusted to them, DSOs should ensure that consumer’s **data privacy** is maintained.

• DSOs will need to **adapt their networks to meet new demands**, (e.g. EV recharging stations and compressed natural gas filling stations).
CEER Public Consultation on DSOs

The Future Role of DSOs

A CEER Public Consultation Paper

Ref: C14-DSO-09-03
16 December 2014
Key Issues addressed in Consultation Paper

1. The Role of the DSO and Unbundling
2. Distribution Tariffs
3. Data Management
4. Smart Metering
5. Incentives
6. DSO/TSO Co-ordination
Significant differences between DSOs in terms of

- physical characteristics.
  - Size
  - Voltage levels
  - Connection to TSO
  - Network automation and smart metering
  - Level of RES and distributed generation

- functions, especially
  - Metering operations
  - Data management responsibilities

- degree of unbundling
So – beware “one size fits all” approach

Focus instead on

► **Key Principles**. These should apply regardless of individual DSO “specification”

► **A Framework**. This would be a conceptual tool for policy makers and regulators on future “do’s and don’ts” for DSOs
Key Principles

• **Principle 1**: The DSO must run its business in a way which reflects the reasonable expectations of network users and other stakeholders.

• **Principle 2**: The DSO must act as a neutral market facilitator in undertaking its core functions.

• **Principle 3**: The DSO must act in the public interest taking account of costs and benefits.
Framework

Need to distinguish between categories of future DSO activities:

i. Core activities

ii. Grey areas (“Yes, but only if conditions and controls apply…..”)

iii. Prohibited activities
Possible Framework for Do’s and Don’ts

DSO Activity

No (monopoly) → Yes

Is it a new activity?

No

Is there potential for the activity to be open to competition?

No

Are there special justifications for DSOs to carry out the activity?

Yes

Core activity

No

Allowed under conditions

Not allowed

Yes

No (competition exists)
Examples of Core Activities

- Planning, developing, operating and maintaining the network
- Connecting users to grid
- “Traditional” load shedding
- Managing *technical* data
- Managing network losses
Examples of Prohibited Activities

- Energy generation

- Energy supply

- DSOs may be called upon to carry out / facilitate these activities where justified by 'exceptional circumstances and on temporary basis', but not

- Supplier of last resort.
Examples of Grey Areas

• Managing metering data for small end customers

• Monitoring grid and voltage related constraints as more RES connects to DS

• Infrastructure for EVs/GVs

• Ownership/management of meters

• Sharing smart meter infrastructures

• Flexibility services – but don’t inhibit market for aggregators
DSO Unbundling

• Different models allowed under EU Third Package

• The more a DSO engages in “grey areas” the more “unbundled” and strictly separated it should be from other competitive activities.
Contractual Arrangements

• Sensitive issue – when can/should DSO engage directly with end consumer?

• Need for clarity on role of each stakeholder

• Paper considers alternative types of contract in light of Key Principles and Conceptual Framework

• Stakeholders’ views sought.
DSO/TSO Relationship

• With increasing penetration of *local* generation, DSOs may have to take on more active role in traditionally TSO activities such as

  ▶ Congestion management

  ▶ Dynamic power flow management
DSOs and Economic Incentives

• Does traditional NRA economic regulation (allowable revenues, economic incentives, regulated WACC etc.) discourage DSO investment in R&D and innovation?

• Are there incremental risks for DSOs for such investments?

• Does traditional regulation put too much emphasis on assets and the physical RAB?
Next Steps

• Responses to Consultation Paper by 27 February
• CEER will evaluate responses
• Workshop with stakeholders on key issues
• Final CEER Report
• Regulatory Initiatives Roadmap
Thank you for your attention!

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