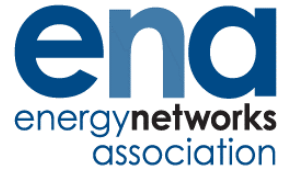


The Voice of the Networks



# Energy Networks Association

## Transforming Our Networks

GEODE Autumn Seminar  
Paul Fidler, Director of Operations & Safety  
October 2018

# UK - Open Networks – Why?



ENA's Open Networks Project is a major energy industry initiative that will transform the way that both local Distribution Networks and national Transmission Networks will operate and work for customers.



The Open Networks Project will help customers connect and realise value; as well as reducing cost for consumers through more cost effective planning

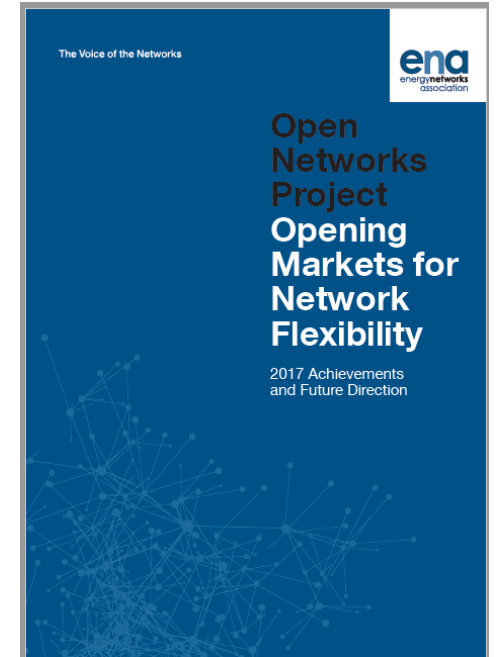


Making a positive difference  
for energy consumers



HM Government

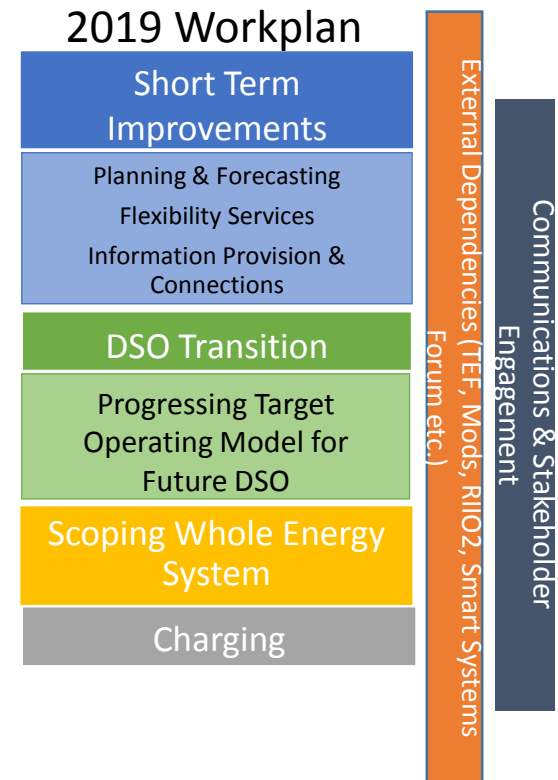
The Open Networks Project is a key initiative to deliver Government policy set out in the Ofgem and BEIS Smart Systems and Flexibility Plan, the Government's Industrial Strategy and the Clean Growth Plan.



# Project Scope & Evolution

The objectives of the Open Networks Project are to:

1. Develop improved **T-D processes** around connections, planning, shared TSO/DSO services and operation
2. Assess the gaps between the **experience our customers** currently receive and what they would like and identify any further changes to close the gaps within the context of 'level playing field' and a common T & D approach
3. Develop a more detailed view of the required **transition from DNO to DSO** including the impacts on existing organisation capability
4. Consider the **charging** requirements of enduring electricity transmission/distribution systems



# Alignment to Industry (Europe & Beyond)

- ENA is contributing to the following European initiatives:
  - European DSO Associations’ *“Joint Report on Flexibility for the energy transition: a toolbox for electricity and gas DSOs”*
  - European Associations TSO-DSO Active System Management Working Group
  - Various GEODE & Eurelectric subcommittees

## International Analysis

Our consultants have referenced and considered the following international projects in developing our DSO Market Models:

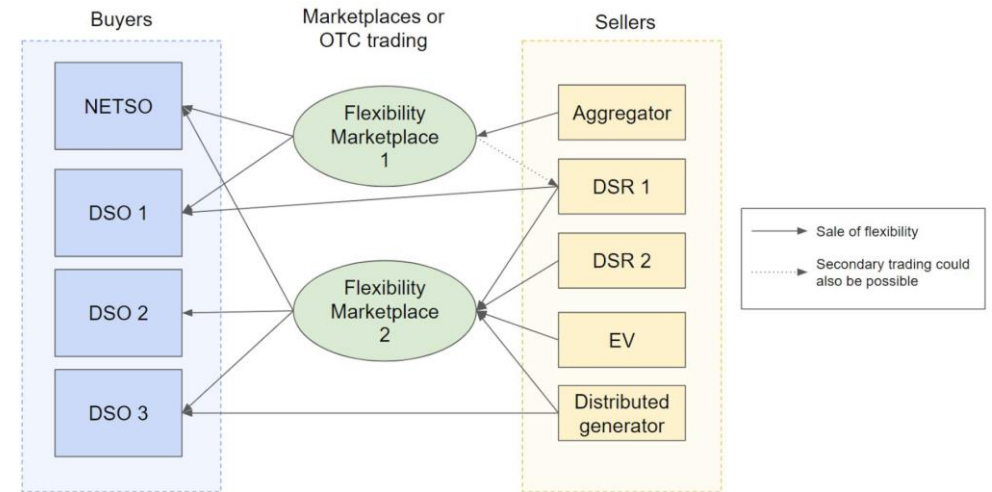
	SmartNet Project (European Commission, Horizon 2020 framework) <a href="http://smartnet-project.eu">http://smartnet-project.eu</a>
	evolvDSO Project (European Commission, FP7 framework) <a href="http://www.evolvdsso.eu/">http://www.evolvdsso.eu/</a>
	‘The Role of DSOs in Tomorrow Electricity Market’, EDSO, May 2015
	‘General Guidelines for Improving TSO-DSO Cooperation’, entso-e, Nov. 2015 ‘TSO-DSO Data Management Report’, entso-e, Jul. 2016
	‘Eurelectric Vision about the Role of DSOs’, Eurelectric, Feb. 2016 ‘DSO Viewpoints on Flexibility’, Eurelectric, Mar. 2017
	‘The Future Role of DSOs’, CEER, Jul. 2015 ‘CEER Position Paper on the Future DSO and TSO Relationship’, CEER, Sep. 2016
	The State of New York’s Reforming the Energy Vision (REV)
	‘TSO-DSO Active System Management Workshop’, Nov 2016 Other ENA provided materials

# Opening Markets for Flexibility Services

It is a key principle that any party executing DSO functions must act as a neutral market facilitator for flexibility services.

We can make things easier for customers who may want to participate by setting some standardisation for:

- Definition of DSO services
- Procurement processes
- DSO Market platforms/interfaces
- Open platforms will facilitate tertiary markets, e.g.:
  - Peer to Peer trading; marketplaces
  - Aggregation
  - Community service provision



Ref: Open Utility Piclo

# Case Studies for Flexibility services

- Co-ordinated NIC Projects related to Flexibility & DSO:
  - Transition (SSEN & ENW); EFFS (WPD); Fusion (SPEN)
- WPD – Flexibility First
- UKPN launch of Flexibility Zones
- ENW tenders
- SSEN Constraint Managed Zones
- Regional Development Programmes: National Grid, WPD, UKPN
- **Philosophy of Open Networks is to Learn By Doing**

# Modelling DSO Market Model Options



## World A

DSO Coordinates – a World where the DSO acts as the neutral market facilitator for all DER and provides services on a locational basis to National Grid in its role as the Electricity System Operator (ESO).



## World B

Coordinated DSO-ESO procurement and dispatch – a World where the DSO and ESO work together to efficiently manage networks through coordinated procurement and dispatch of flexibility resource.



## World C

Price-Driven Flexibility – a World where changes developed through Ofgem's reform of electricity network access and forward-looking charges have improved access arrangements and forward-looking signals for Customers.



## World D

ESO Coordinate(s) – a World where the ESO is the counterparty for DER with DSO's informing the ESO of their requirements.



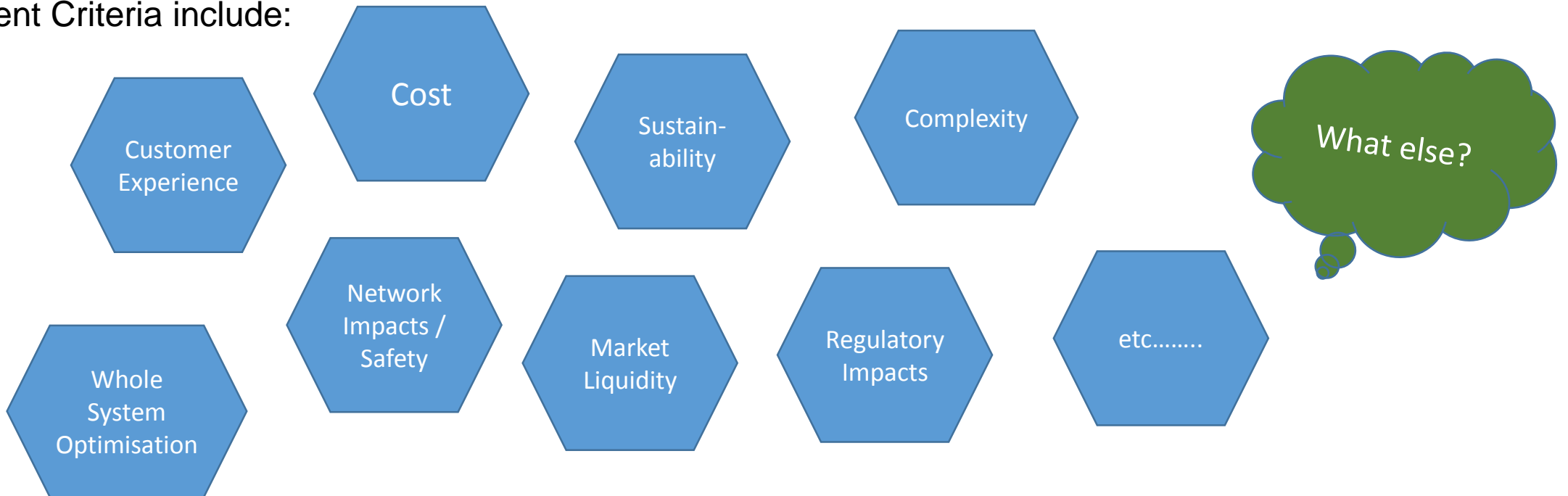
## World E

Flexibility Coordinator(s) – a World where a new national (or potentially regional) third-party acts as the neutral market facilitator for DER providing efficient services to the ESO and/or DSO as required.

- Up to 23 actors involved in each World
- Modelled based on 8 key Network functions
- Not saying these are the answer
- Provides potential models to understand better and trial
  - The DSO functions and activities
  - The principle of neutral market facilitation
- We have also used stakeholder feedback from;
  - The Commercial Principles paper
  - The 2018 Open Networks work programme
  - A series of industry workshops

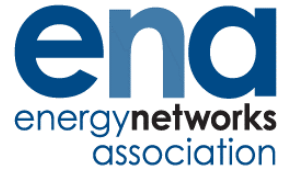
# Next Steps: Assessing the Worlds

- We will undertake a comprehensive and independent 'Impact Analysis' on the 5 worlds
- This will help us understand the relative costs and benefits between the different Worlds to provide an evidence base for future market structures and corresponding policy/regulatory thinking (BEIS and Ofgem)
- Assessment Criteria include:





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**Thank You!**

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