Unlocking the Energy Future for the North - 7 December 2018

Discuss with us:

The transition to a low carbon, decentralised and much more active network

Delivering an energy network that is prepared for the realities of a changing climate

Reshaping our network, enabled by new technology, so that it is more responsive to the needs and views of our customers



Keeping our promises Innovation to drive long-term customer benefit

Jim Cardwell Head of Policy Development







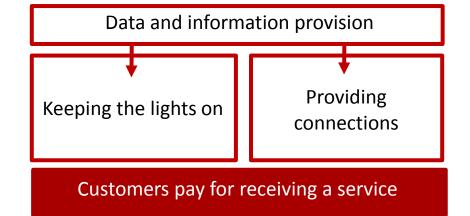
An evolving world





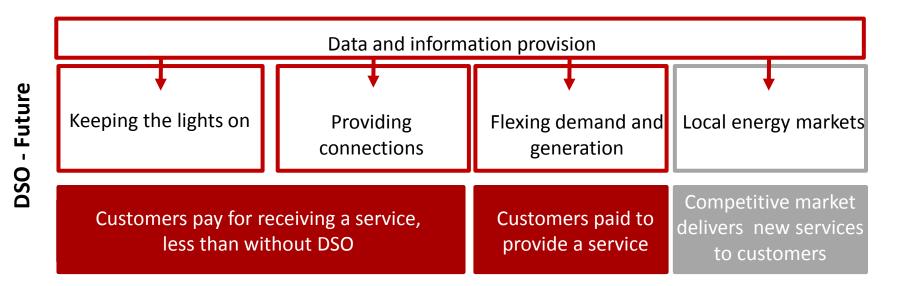
What DSO means for our customers

DNO - Today



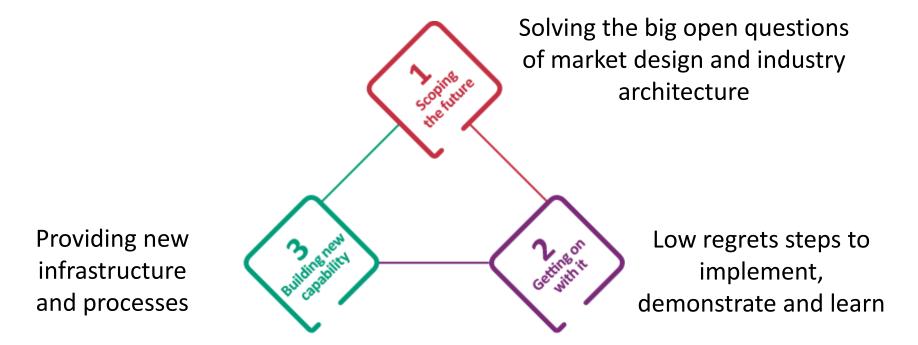


What DSO means for our customers





Our approach to being the DSO





Exploring the future: our innovation portfolio











Future services: our guiding principles

1. Led by our customers' needs

2. Promotes sustainability by being efficient, fair and inclusive, and better for the environment

3. Requires a right-sized regulated business supporting competitive markets for flexibility

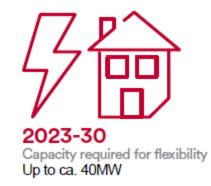
4. Changes to duties that optimise the system as the volume of distributed energy resources increase



DSO V1.0: implementing first phase of customer flexibility



2019-2023 Capacity required for flexibility up to 14 sites, 16MW





Our emerging thinking: potential pathways to 2030

	Current	Short term (2019/20)	Medium term (2020–23)	Beyond ED1 – Long term (2024–30)
	Trials and local initiatives		Standard	sation of processes across the industry
Customer and Commercial Development	Flexible connections offering	Wider roll out of ANM schemes	Smart meter benefits/DGO tariffs & products	Operating as regional DSO
		Refined vulnerability approach		DSO Commercial Observations becoming
	Flexibility services: Building our competency	Enhanced methodology for calculation of network charges		core business capability
	Understanding customer behaviour and technologies		Network charges: seeking fair and efficient charges for a changed system	
		Flexibility services markets design		
		Film Ibility services stimulating the market	Flexibility services: Utilise, integrate and converge	
õ	Changes to licence, industry codes, le	gislation		
Technical Development	- Operation of constrained	Wider roll out of regional planning	Network flexibility solutions	Active System
	generation connections	in collaboration with the ESO		Management
	Collaboration with ESO	Trialing forecasting options	Network visibility, tracking & optioneering	Provision of flexible services to ESO and other DSOs
	Scenario-based demand forecasting	Technology trials to support resilience		
		Improve visibility on our invostment decisions	Smart grid enablers deployed	Whole system planning
	Revision of technical standards, comp	my policy and training		
20 T	Data and systems assessment		Data strategy in place	
			Growing our data analytics abilities and functions	
	Investment in digitalisation	Investment in IT and OT enablers		
Systems pment	Order security stepping up IT	Investment in I7 and OT enables Upgrading our network design tools		Extensive use of data analytics
Development			Upgrading of our network management system	Estataive use of stata analytics

- **Customer and commercial development** developing deep and liquid flexibility markets through co-ordinated actions with customers and the sector
- *Technical development* cost effective deployment of well-targeted and well-timed investment smart grids
- **Data and systems development** embracing the opportunities to revolutionise our service delivery



Engagement objectives:

Provide clear information

Ensure opportunity to inform our thinking Seek challenge



Dialogue welcomed

- Today stakeholder validation of our DSO
 V1.0 thinking
- Events 23 January 2019, DSO event, London
- Newsletter
- ✓ Email:

yourpowergrid@northernowergrid.com

Northern Powergrid Stakeholder Summit – 7 December 2018

DRAFT DISTRIBUTION SYSTEM OPERATOR (DSO) VL0 DOCUMENT

STAKEHOLDER VALIDATION STAGE

The attached document is a pre-design and well-developed draft of our DSO v1.0 next steps and emerging thinking document. We are seeking and welcome your comments today.

We are planning to complete and sign this off with our executive team net week following the Stakeholder Scamme. Our expectation coming in to touch a that we will graditly prior to Christman such that all stakeholders, not just those present, may engage with its context prior to further events touched for Q1 2019. However, this plan is not set in stone and depends on what you say today.

We hope that we will bring to life some of the content in the discussions today. We would also welcome any comments on Silds or even annotated on this front sheet (or document pages) and placed in the drop hox before you laws.

Thank you

NAME		
COMMENTS		

