

# Electricity Network Access Project: Project Overview

Jon Parker - Ofgem

## Recap: what are access rights & forward-looking charges?

### Network access rights

- The network capacity a user has allocated to them in order to import or export electricity from their target market
- Requires a connection from the user's equipment to the wider network, and then **allocated capacity on that wider network**

### Forward-looking charges

- The elements of network charges that look to **provide signals to users about how their behaviours can increase or reduce future costs on the network**
- Includes connection charges and elements of use of system charges

# ➤ What are we trying to achieve?

Accommodate new loads while minimising network costs

Support effective competition, including across T&D users

Help reveal the need for and achieve efficient risk allocation of network investment

To help minimise consumers' bills while supporting decarbonisation and the maintenance of security of supply



Provision of network access to consumers as befits an essential service, particularly for those in vulnerable situations



# Why are we looking at this now?

Prospect of increased network constraints as use of the network changes

New opportunities from smart and flexible technology to maximise capacity

Growth of embedded generation – need for more consistency across transmission and distribution

# ➤ Building blocks of access and forward-looking charges

Network access arrangements		Forward looking network charges	
Nature of access rights	Time aspects	Structure of the charge	Types of costs
	Firmness		Types of charge
	Geographical nature		Basis of charge
	Associated conditions		Timing of payment and degree of user commitment
Allocation and reallocation	Initial allocation	Level of granularity	Locational granularity
	Reallocation and trading		Types of locational signal
			Temporal granularity



## The work to date

- > In November 2017, we published a working paper on “Reform of electricity network access and forward looking charges. We also held workshops on some potential options for change in Glasgow and London (at the last CFF).
- > We commissioned Baringa to develop and implement an analytical framework and gather evidence to assess the materiality of current inefficiencies.
- > We set up two industry Task Forces under the CFF to help assess the options for the change. The TFs have published three outputs. The latest report – a document identifying the initial options for further assessment was published last week.

**We want to use today’s session to provide you with an overview of Baringa and the TF’s work**



## Our way forward

- > The TF report, Baringa work, the feedback that received via the CFF/workshops and our own analysis will inform how we intend to take this forward. We expect to publish a consultation on the direction of travel in Summer 2018.
- > **We want to hear views from you on our high-level direction of travel.**
  - > Once it is published, please response to our consultation.
  - > We intend to present and seek views from the next CFF.
  - > We also want to use other mechanisms to engage with stakeholders and receive feedback (eg webinars, podcasts). If you have ideas for how we could do this – let us know.
- > We envisage making a decision on the high-level direction of travel around the end of the year.

# Electricity Network Access Project: Baringa Analysis

Nick Screen - Baringa



# Analytical framework for network access and forward looking charges

Presentation to Charging Futures Forum

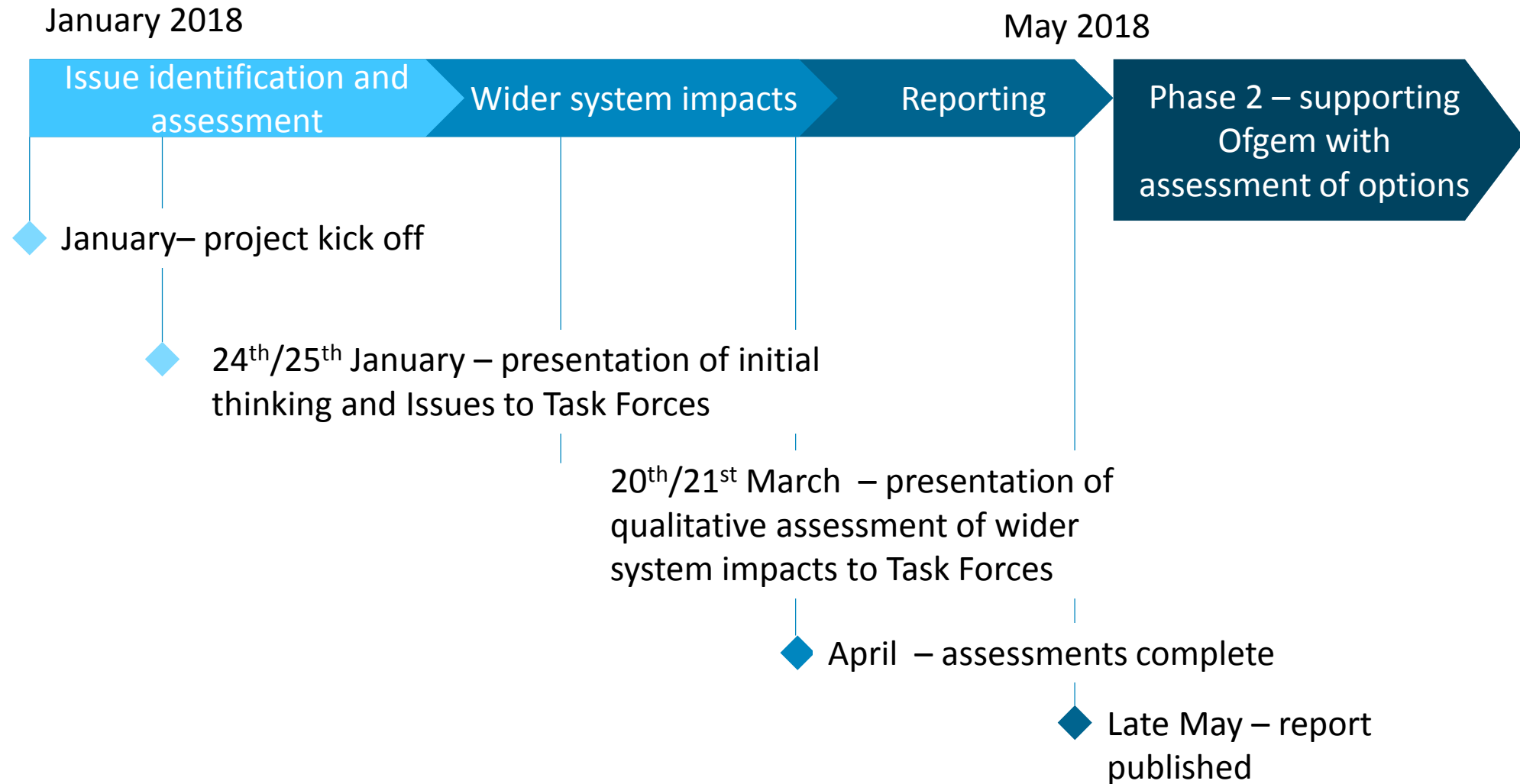
**Ofgem**

23 May 2018



# Introduction

We were commissioned to develop an assessment of the materiality of current inefficiencies in network access and forward looking charging



## Identifying issues with current arrangements

The issues are the defects in current network access and forward looking charging arrangements

- ▲ The scope of our assessment covered:
  - both **access (connection)** and **forward looking (use of system) charges**
  - at **all voltage levels**
  - both **entry** and **exit** capacity
  - for **all user types**
  
- ▲ We considered the critical interlinkages across connections policy, network charges, and possible distortions caused by differences in arrangements at different voltage levels
  
- ▲ Issues with residual charging are excluded as these fall under the scope of the TCR
  
- ▲ The issues draw on Ofgem's November 2017 working paper, and input from the Task Forces

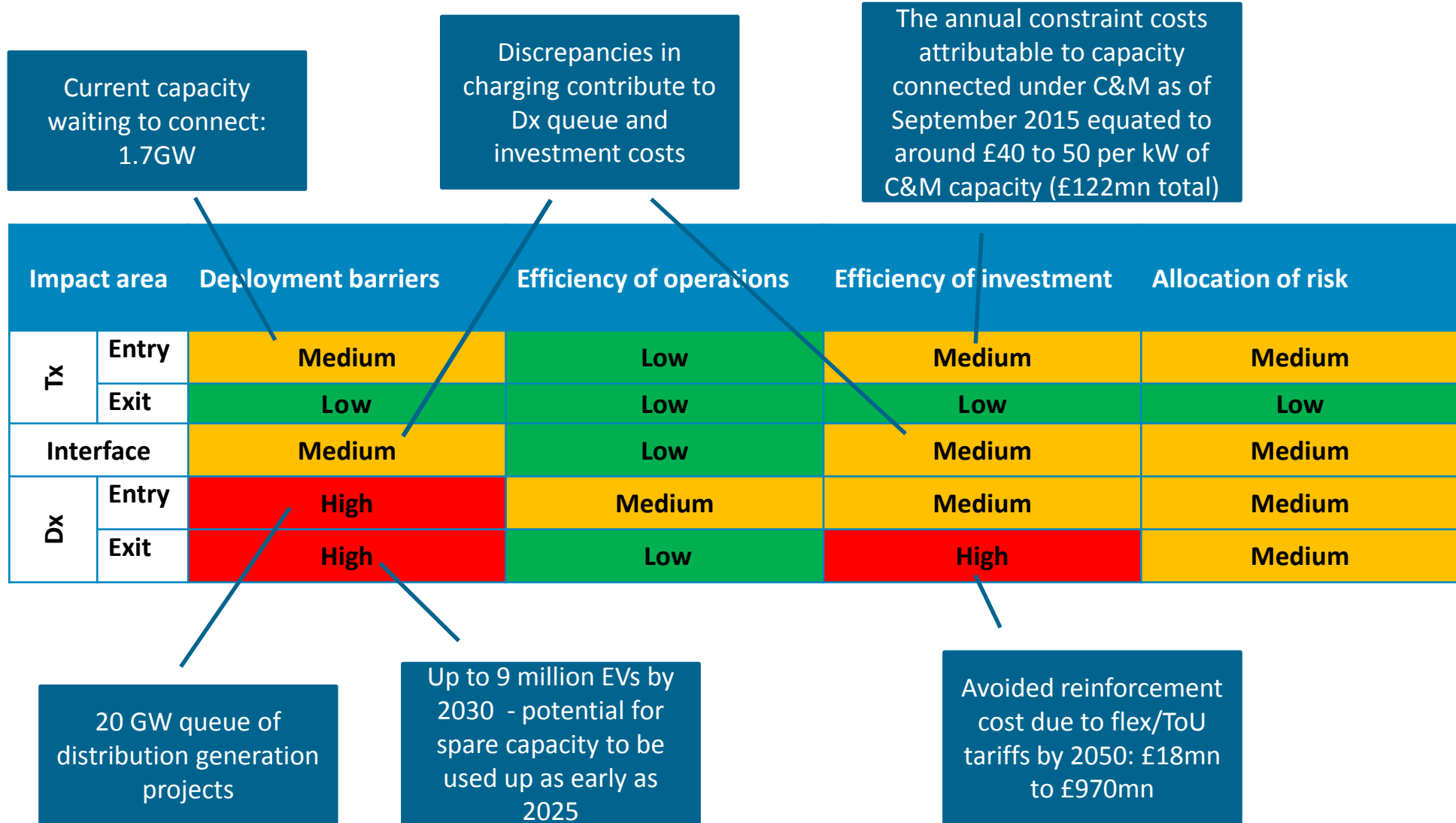
# We identified 22 distinct issues with current arrangements

The Issues cut across Transmission and Distribution, and a number of categories

	Capacity allocation	Locational signals	Inefficient Dispatch	Signal predictability	Cost and risk allocation
<b>Transmission</b>		7. Constraint costs are socialised	11. Inefficient time of use signal from Triad methodology	14. TNUoS charge predictability	
<b>Common</b>	1. Lack of capacity options			15. BSUoS charge predictability	
	2. No measure of value to user of connection	8. Inefficient signals for capacity planning and network investment	12. Inefficient volumetric based network charges		
	3. Lack of transmission import capacity rights for distribution network users				
<b>Distribution</b>	4. Lack of defined access rights and barriers to access right trading	9. Lack of LV/HV locational signals			17. No clear mechanism for how the costs of enabling platforms are allocated to network users
	5. Smaller user network usage may exceed capacity of distribution network	10. Lack of locational line loss signals	13. Lack of efficient principles of congestion management at distribution	16. EDCM charge predictability	18. No clear mechanism for DSO operating cost recovery
	6. Access and charging arrangements for IDNOs may not be cost reflective				
<b>Discrepancy between T &amp; D</b>	20. Different depths in connection charging across T and D	22. Voltage level differences in network cost charging methodologies		21. Voltage level differences in operating cost charging methodologies	19. Different risk allocation across T and D

# We assessed wider system impacts of the issues

Each of these impacts is explained in our report, along with further assessment and metrics



We identified key high priority areas for reform, which address a number of the impacts

### 3. Aligning access and charging between transmission and distribution, and across voltage level boundaries

Impact area		Deployment barriers	Efficiency of operations	Efficiency of investment	Allocation of risk
Tx	Entry	Medium	Low	Medium	Medium
	Exit	Low	Low	Low	Low
Interface		Medium	Low	Medium	Medium
Dx	Entry	High	Medium	Medium	Medium
	Exit	High	Low	High	Medium

2. Ensuring that access for distribution connected generation and storage is properly valued and signalled to users

1. Ensuring that access and charging arrangements for households are ready for the uptake of LCTs



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