Charging Futures
Reforming electricity charging together

Charging Delivery Body

Charging Delivery Body

8th August 2018

	Agenda Item	Lead	Timing
1	Introductions	Chair	10.00 – 10.10
2	Review of Action log	All	10.10 – 10.15
3	Targeted Charging Review update • Next Charging Futures Forum meeting date	Ofgem	10.15. – 10.30
4	Access and Forward-looking charging reform update	Ofgem	10.30 – 11.00
5	Charging Futures Forum – agenda planning	Ofgem/Lead Secretariat	11.00 – 11.30
	Break – 11.30 – 11.40		
6	Updates on new & existing Charging Modifications	Code Administrators/ Ofgem	11.40 – 12.00
7	Updates on charging reform related initiatives a. Open Networks Project b. User commitment Open Letter	All	12.00 – 12.30
8	Key messages to be shared with Panels/industry forums	All	12.30 – 12.45
9	Charging Delivery Body Meeting date	Lead Secretariat	12.45 – 12.50
10	Any other business	All	12.50 – 13.00

2. Review of Actions Log

Actions Log 21st June 2018

Action number	CDB Meeting action raised	Min ref no.	Owner	Action	Status	Due by	Status
CDB02	27 Sep 17	2.3	C CDB Members	Review in September 2018 of how effectively CDB is achieving its objectives		Sept 18	Open
CDB65	21st June 18	8.2	Ofgem/Lead Secretariat	Confirm CFF & CBD meeting dates and venues	Charging Futures Forum 5th Sep & August CDB meeting date	July 18	Closed
CDB66	21st June 18	9.4	Lead Secretariat	Standard agenda item for, Standard Publications eg, consultations	Agenda item for August meeting	August	Closed

Charging Futures

3. Targeted Charging Review update

Ofgem

4. Access Project update

Ofgem

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Network access and forward-looking charging consultation

What do we want to achieve?

- Energy system is going through a radical transformation.



- These changes could create challenges and opportunities for our electricity networks.

- We want to ensure that electricity networks can be used more efficiently and flexibly so that users can have the access needed, and benefit from new technologies and services, whilst avoiding unnecessary costs.

The work to date

- In November 2017, we published a working paper on “Reform of electricity network access and forward looking charges”.
- We commissioned Baringa to gather evidence to assess the materiality of current inefficiencies.
- We set up two industry Task Forces (TFs) under the Charging Futures Forum (CFF) to help assess the options for the change. The TFs published three outputs. Their final report identified the initial options for further consideration.
- We have presented at the last two CFFs and also held workshops on some potential options for change in Glasgow.

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What are access rights & forward-looking charges?

Network access rights	• By this we mean **users' network access rights and how these rights are allocated.** • Network access rights define the nature of users' access to the networks – eg how much they can import or export, when and for how long, where to/from, and how likely their access is to be interrupted and what happens if it is.
Forward-looking charges	• The elements of network charges that **signal to users how their actions can either increase or decrease future network costs in different locations.** • Includes connection charges and elements of use of system charges
Residual charges ("scaling")	• Residual charges are 'top up' charges set to ensure that the network's efficient costs can be covered, after other charges have been levied. • Residual charges are intended for revenue recovery, and are not meant to incentivise specific actions by network users.

The case for change

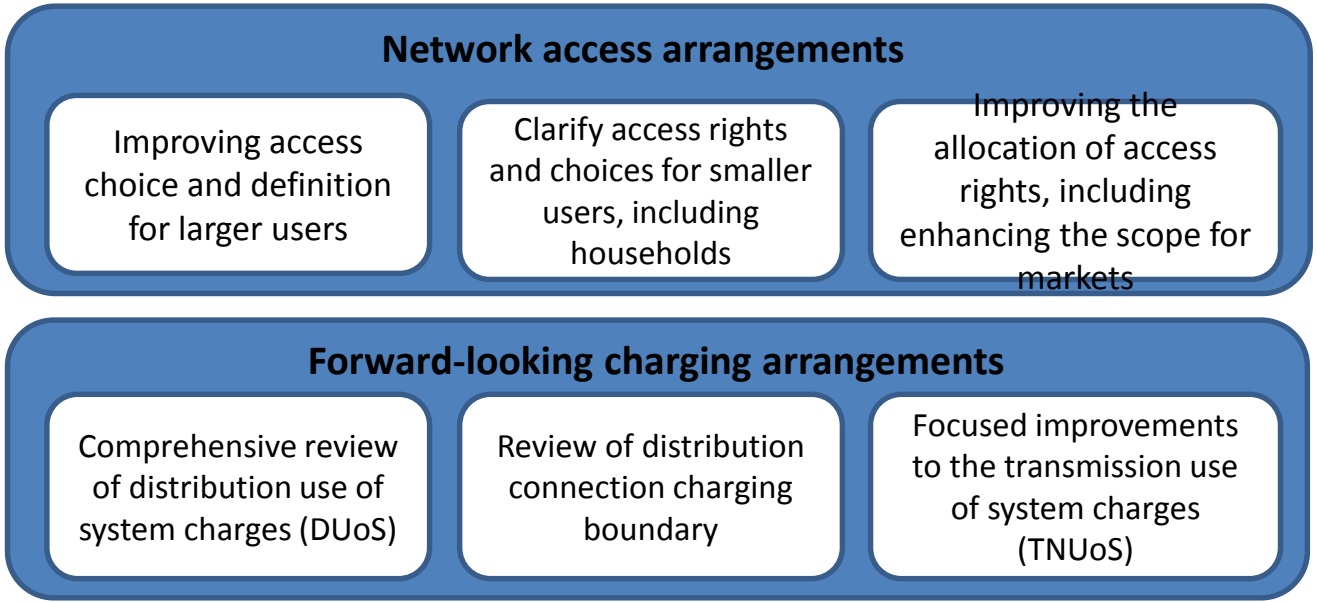
> We commissioned Baringa to help assess the materiality of issues with the current arrangements. Their analysis identified the three highest priority areas -

A Managing constraints on the distribution network as a result of growth in demand (eg EVs and heat pumps)

B Managing constraints on the distribution network as a result of growth in distribution-connected generation

C An effective interface between transmission and distribution arrangements

Our views on the priority areas to be reformed



Taking forward this review

> The proposed review could be Ofgem-led or system/network operator-led. We have the power to launch a Significant Code Review where we consider that Ofgem leadership is needed to drive forward reform of industry codes.

We consider that a Significant Code Review should cover the following areas	We are seeking views on who should lead	We consider that the SO and DNOs should lead
> Clarifying rights and choices for smaller users; > Improving forward-looking charging arrangements.	> Improving the definition and choice of access for larger users.	> Improving allocation of access, including enhancing scope for markets.

> We are considering introducing a licence condition on the SO and DNOs to provide assurance that they will lead their areas of the review in a timely way. We have published a draft licence condition alongside the consultation.

Next steps

- We are seeking views on our proposed scope of review and proposed way forward. We intend to present at the next CFF on 5 Sept 2018. Consultation closes 18 Sept.

- We expect to make a decision on whether to launch an SCR by the end of year. If we launch an SCR, we expect changes to come into effect in 2022-23. Any industry-led changes (outside of the SCR) could be implemented in advance of this.

ANNEX

Overview of consultation proposals

Improving access choice and definition for larger users

- We consider that there are benefits in improving the definition and choice of:
  - Firmness of access rights
  - Time-profile access rights
  - Short-term access rights

- We are also inviting views on the value and feasibility of developing options for:
  - Long term access rights
  - Local or shallow access rights

Where there are access choices, it is important that charges reflect the relative difference in costs and benefits of these different choices work.

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Clarify access rights and choices for smaller users, including households

- Most small users currently have poorly defined access level to the wider system (eg no clear rights to a specified level of capacity).

- We are proposing to clarify access rights and choices for small users. This could involve small users specifying the level of capacity they require and enabling them to choose from wider options above a standard core level.

- We consider that there is a need to ensure access arrangements support efficient network development, to ensure the impact of EVs/heat pumps driven reinforcements are provided at efficient cost.

Improving the allocation of access rights

Initial allocation

- We consider that incremental improvements to queue management activities should be explored as part of a review of access arrangements.
- We are not considering for immediate review:
  - A potential role for targeted auctions of the initial allocation of access rights;
  - Extending the 'Connect and Manage' policy to allow for connection of DG ahead of wider reinforcement of the distribution network;
  - Universal auctions for the initial allocation of access rights.

Reallocation

- We think a review of access arrangements should include developing and assessing options to:
  - Establish new access conditions (eg 'use it or lose it' or 'use it or sell it');
  - Develop mechanisms to enable distribution-connected users with non-firm access can trade their exposure to curtailment;
  - Better enable the exchange of access rights between users.

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Comprehensive review of distribution use of system charges (DUoS)

- We are proposing a comprehensive review of both DUoS forward looking charging methodologies (CDCM and EDCM). Areas of focus will include:
  - Introducing greater locational granularity at lower voltages, so that changes are more reflective of actual network conditions;
  - Improving the predictability of locational signals at Extra High Voltage;
  - Considering the balance between time-of-use based usage charges and capacity based charges.

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Review of distribution connection charging boundary

> We are proposing to review whether it would be in consumers' interests to move to a shallow connection charge at distribution level.

> This would mean that new connectees would only pay for their sole-use assets through the connection charge, but not any wider reinforcement costs that are triggered.

> This option is likely to be contingent on sending better locational signals through ongoing DUoS charges, rather than upfront as part of the connection charge. Alongside this, we would consider introducing new arrangements at distribution level to ensure appropriate allocation risk for network investment (eg user commitment).

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Focused improvements to the transmission use of system charges (TNUoS)

> We are proposing that the basis of TNUoS charging for smaller DG should be reviewed.

> We are seeking views about whether the review should also include the basis of TNUoS charging of demand.

> We not proposing to review:

- > the Transport Model methodology for setting locational tariffs;
- > the current socialisation of Connect and Manage costs through BSUoS. However, we do consider there would be value in further work on BSUoS more generally to help establish its long-term direction.

5. Charging Futures Forum

Lead Secretariat/Ofgem

September Forum Agenda

Session	Type	Purpose
1. Wider picture update a) RIIO2 b) TCR c) Ofgem Panel	 Learn Learn Ask	• Update on progression of wider topics in the industry • Understanding of how access & FLC fits in to wider reform
2. Consultation Overview	Learn	• Reminder of consultation scope and content
3. Consultation a) Breakout 1 b) Breakout 2…	Contribute	• Users share their views on the consultation • Able to clarify questions they have • Prepare for consultation response
4. ESO independence	Learn	• Understanding of how the ESO will act and how that will work alongside existing charging reform
5. Other high priority projects	Contribute	• Give views on what topics are still an issue that need to be taken forwards strategically • Give views on how strategic change should be taken forwards
6. Q&A panel (Users & Ofgem rep)	Ask	• Able to question a range of industry members and an Ofgem representative on their views of the day and the consultation

Charging Futures

Coffee Break

6. Updates on new & Existing Charging Modifications

Code Administrators & Ofgem

Holistic view of Charging Modifications – In flight 30th July 2018

Implementation

	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CUSC Charging Modifications												
CMP250 – Stabilising BSUoS with at least a twelve month notice period **Raised: 28/02/2015**					Awaiting Authority Decision							
CMP251 - Removing the error margin in the cap on total TNUoS recovered by generation and introducing a new charging element to TNUoS to ensure compliance with European Commission regulation 838/2010 **Raised: 28/02/2015** **Submitted to Authority 14/10/16**	Awaiting Authority Decision											
CMP271 - Improving the cost reflectivity of demand transmission charges **Raised: 01/11/2016**				On Hold								
CMP274 - Winter TNUoS Time of Use Tariff (TToUT) for Demand TNUoS **Raised: 01/11/206**				On Hold								
CMP275 - Transmission generator benefits in the provision of ancillary and balancing services – levelling the playing field. **Raised: 27/01/2017** **Submitted to the Authority: 12th July 2018**							Awaiting Authority Decision					
CMP276 - Socialising TO costs associated with "green policies" **Raised: 17/03/2017**				On Hold								
CMP280 - Creation of a New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Generation and Storage Users **Raised: 31/07/207**					Work Group							
CMP281 - Removal of BSUoS Charges From Energy Taken From the National Grid System by Storage Facilities **Raised: 31/07/2017**					Work Group							

Holistic view of Charging Modifications – In flight

Implementation

	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CUSC Charging Modifications												
CMP286 - Improving TNUoS Predictability Through Increased Notice of the Target Revenue used in the TNUoS Tariff Setting Process **Raised : 10/10/2017**					Work Group							
CMP287 - Improving TNUoS Predictability Through Increased Notice of the Target Revenue used in the TNUoS Tariff Setting Process **Raised: 10/10/2017**					Work Group							
CMP288 - Explicit charging arrangements for customer delays and back feeds **Raised: 15/02/2018**						Work Group						
CMP292 - Introducing a Section 8 cut-off date for changes to the Charging Methodologies **Raised: 15/02.2018**							Work Group					
CMP294 - National Grid Legal Separation changes to CUSC Section 14 **Raised- 19/04/2018**							Code Admin Consultation					
CMP296- Aligning the CUSC to the BSC post-P344 (Project TERRE) to exempt Virtual Lead Parties from BSUoS. **Raised 19/04/2018** **Submitted to the Authority: 12th July 2018**						Awaiting Authority Decision						
CMP299- Consequential changes to the CUSC to facilitate the 2018-2021 ESO Incentive Scheme. **Raised 19/04/2018** **Submitted to the Authority: 12th July 2018**						Awaiting Authority Decision						

Holistic view of Charging Modifications – In flight

Implementation

	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Distribution Change Proposals												
DCP243- Treatment of Customer Contributions in the CDCM Category CDCM Target Implementation: 01/04/20							**Awaiting Ofgem Decision**					
DCP266- The Calculation and Application of IDNO Discounts Category CDCM Target Implementation: 01/04/21							**Definition**					
DCP268-DUoS Charging using HH Settlement Data Category CDCM Target Implementation: 01/04/20							**Awaiting Ofgem Decision**					
DCP287 - Generation Credits in the EDCM Category EDCM Target Implementation: 01/04/20							**Definition**					
DCP294-Capacity Management Following Acceptance of Connection Offer Category CCCM Target Implementation: Next release following approval						**Implemented 28/06/18**						
DCP305 -LDNO Boundary Level Definitions in the EDCM Category EDCM Target Implementation: Next release following approval						**Implemented 28/06/18**						

Holistic view of Charging Modifications – In flight

Implementation

	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Distribution Charging Modifications												
DCP306 – Treatment of Ofgem License Fees within the PCDM Category PCDM Target Implementation: 01/04/20							Awaiting Ofgem Decision					
DCP313 -Eligibility Criteria for EDCM Generation Credits Category EDCM Target Implementation: 01/04/2021							Definition					
DCP311 -Clarification of NUF Cap & Collar Calculations Category EDCM Target Implementation: 01/04/20												To be Implemented 01/04/20
DCP314 –Appropriate Treatment of Bad Debt Following Appointment of Supplier of Last Resort Category Billing Target Implementation: Next release following approval							Definition					
DCP319 – Removal of Residual Charging for Embedded Generators in the CDCM Category CDCM Target Implementation: 01/04/21							Definition					
DCP321 - Removal of Residual Charging for Embedded Generators in the EDCM Category EDCM Target Implementation: 01/04/21							Definition					

7. Updates on charging reform related initiatives

The Voice of the Networks

Energy Networks Association

Open Networks Project
Future Worlds Consultation

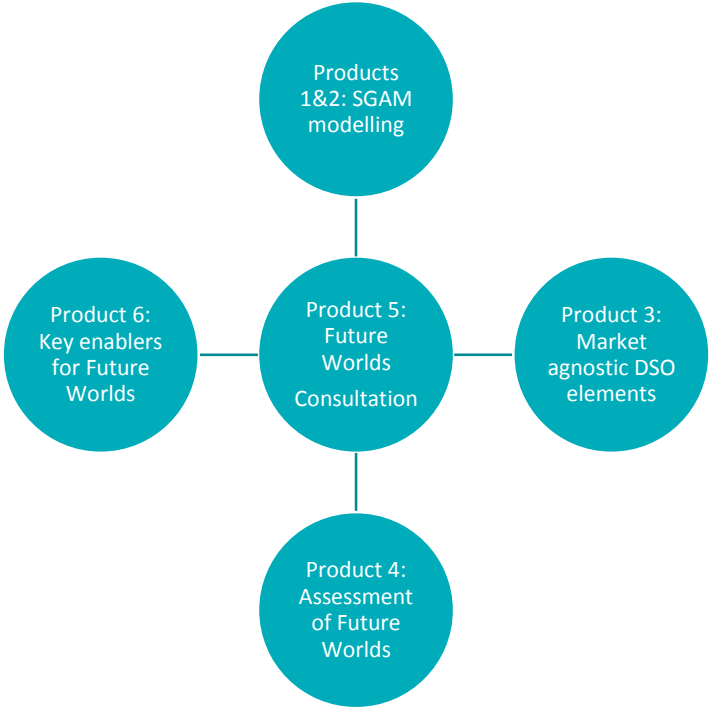
Introduction

‘Future Worlds’ is the output of a substantial stakeholder engagement process to map and describe a number of potential future electricity networks (“Future Worlds”) capable of supporting the smart decentralised energy industry that the UK is transitioning towards.

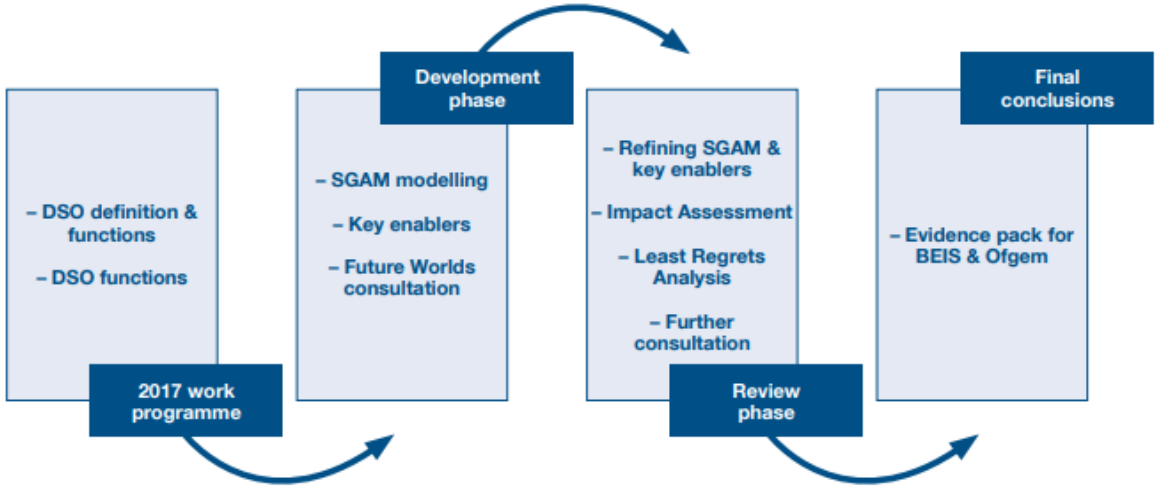
At this stage we do not seek to recommend any particular Future World but instead to understand them, creating a common view of how each works allowing informed debate and decisions to follow.

Overall aims

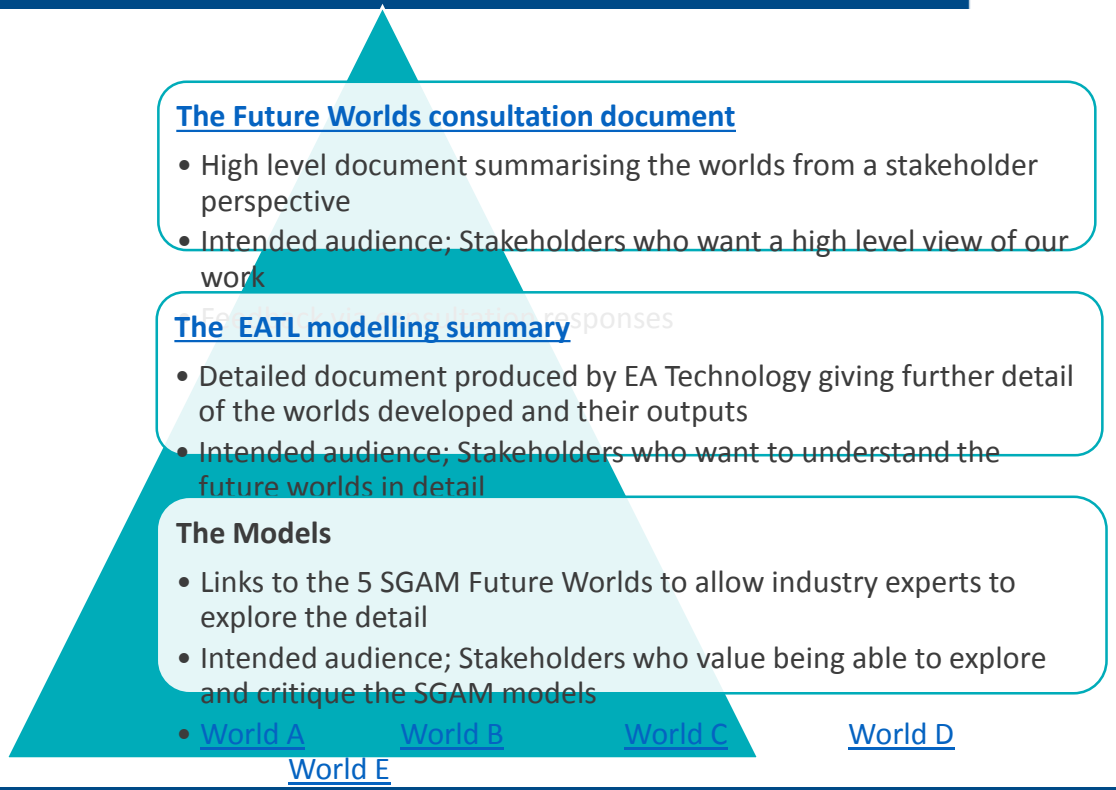
- The Future Worlds consultation builds on the 2017 Commercial Principles paper, but considers all the functions of DSO rather than simply market models.
- In brings together many of the key products for workstream 3 in 2018 such that the overall aims of the consultation are;
  - Obtain feedback on the ‘future worlds’ developed and their associated SGAM models including whether we have reflected stakeholder interactions appropriately
  - Review draft criteria and proposed structure for the Impact Assessment
  - Obtain feedback on both key enablers and market agnostic DSO elements to inform these products.



Timeline


2017 work programme
– DSO definition & functions
– DSO functions
Development phase
– SGAM modelling
– Key enablers
– Future Worlds consultation
Review phase
– Refining SGAM & key enablers
– Impact Assessment
– Least Regrets Analysis
– Further consultation
Final conclusions
– Evidence pack for BEIS & Ofgem

Consultation approach



The Future Worlds consultation document

- High level document summarising the worlds from a stakeholder perspective
- Intended audience; Stakeholders who want a high level view of our work

The EATL modelling summary

- Detailed document produced by EA Technology giving further detail of the worlds developed and their outputs
- Intended audience; Stakeholders who want to understand the future worlds in detail

The Models

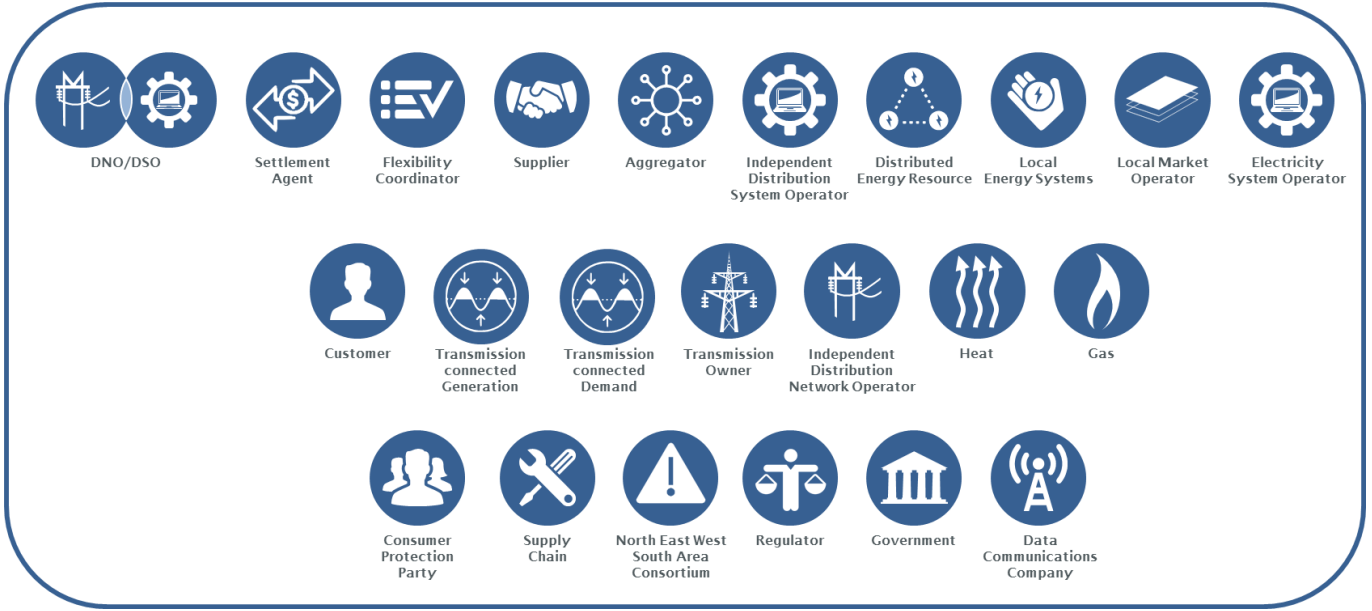
- Links to the 5 SGAM Future Worlds to allow industry experts to explore the detail
- Intended audience; Stakeholders who value being able to explore and critique the SGAM models
- World A World B World C World D World E

Areas for feedback

The Future Worlds	•A description of the five Future Worlds
The Smart Grid Architecture Model	•A high level summary of the methodology employed to build the Smart Grid Architecture Models
The principle of neutral market facilitation	•An overview of why the principle of neutral market facilitation is important
Stakeholder insights	•Key stakeholder insights for each of the 23 actors described in the models
Assessing the Worlds	•Our intended approach to impact assessment modelling of the worlds inviting your views
Key enablers for the Future	•A description of the key enablers needed to deliver the future worlds
Proposed next steps	•A summary of our proposed next steps including our work on least regrets analysis

Future Worlds' Actors

The consultation presents outcomes through the lens of the 23 actors developed in these Worlds.



Find out more

We using a variety of means to reach out to stakeholders during the consultation period, which will run between **31st July 2018 and 25th September 2018** inclusive.

Stakeholder Events

Webinar 1 - 21st August 2018

Edinburgh - 29th August 2018

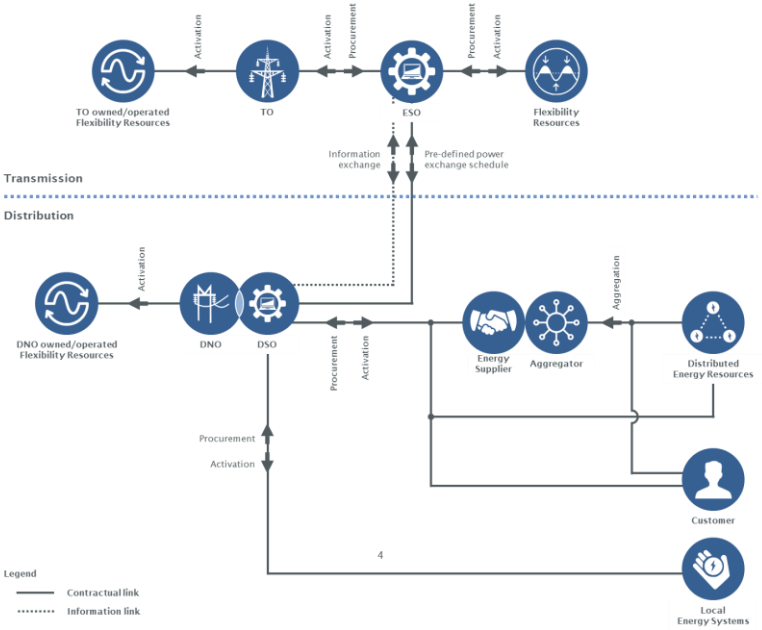
Webinar 2 - 13th September 2018

London - 3rd September 2018

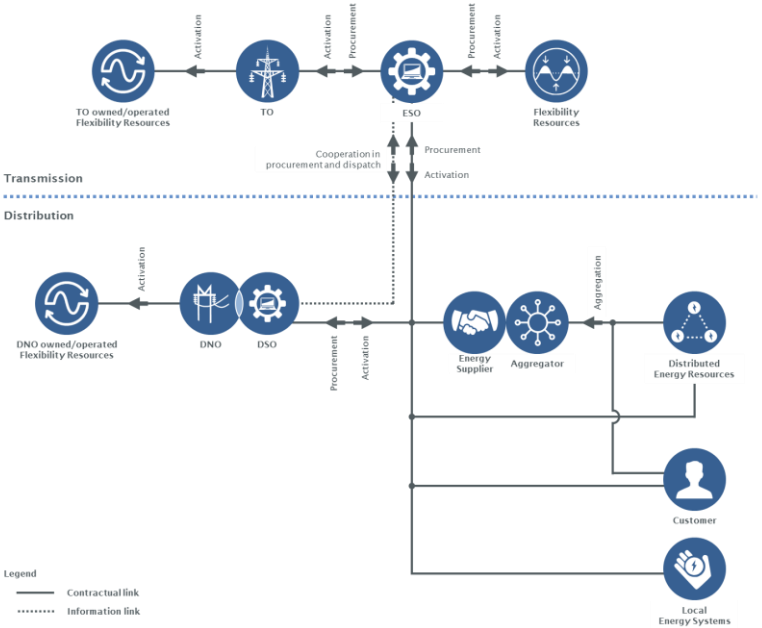
Please visit the ENA Open Networks Future Worlds page for further information.

Additional Slides

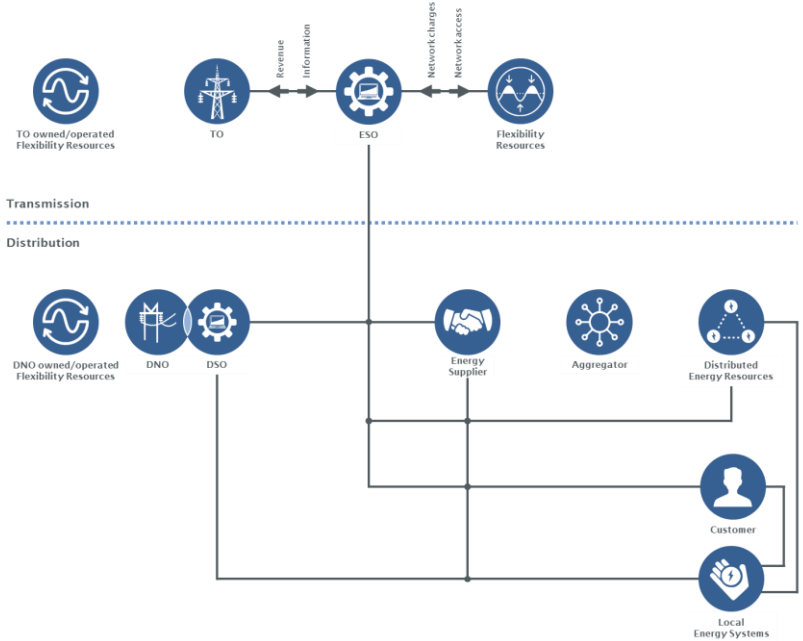
'World A – DSO Coordinates'



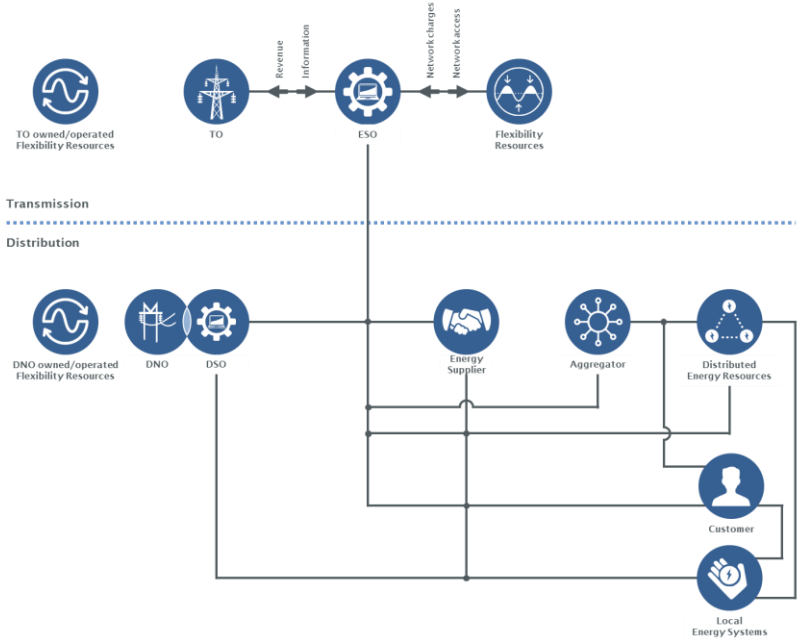
'World B – Coordinated Procurement and Dispatch'



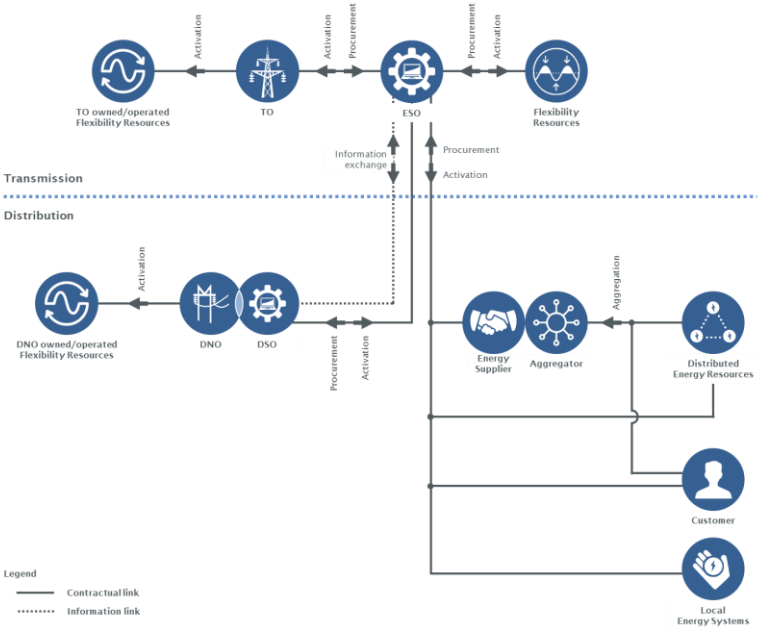
'World C – Network access and charging: Status Quo



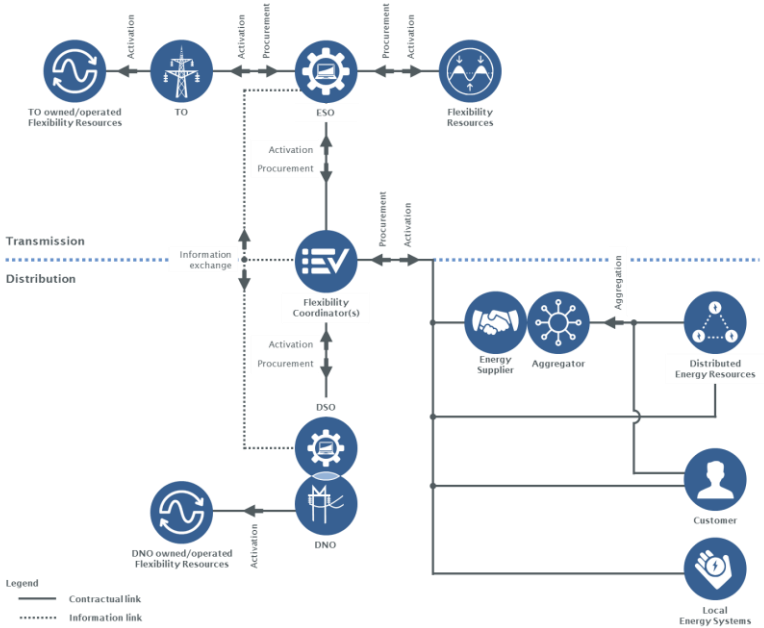
'World C – Network access and charging: Future



'World D – ESO Coordinates'



'World E – Flexibility Coordinators'



User Commitment Open Letter

John Twomey, ESO

Main Themes

- **Long lead time high value schemes**
  - Some respondent indicate that a different commercial approach for connections with these characteristics may be more practicable.
  - Comment that there is not an obvious link between User Commitment and Ofgem needs case for Strategic Wider Works

- **Distributed/Embedded Generation**
  - User commitment arrangements for distribution connected projects should continue to be enhanced for a universal T / D approach, removing complexity and any unattended distortions.

- **Wider Works Security Methodology**
  - Volatility for determining the wider works security value each year is an issue for some users.
  - Lack of transparency around how zonal charges are calculated

Other Themes with Multiple Respondents

- **Fixed Attributable** (3)
  - Given that fixing can de-risk the exposure for some projects, there should be a risk premium added.

- **Main Interconnected Transmission System (MITS) Definition** (2)
  - In Highlands & Islands context MITS definition results in disproportionately high risk.
  - In Scotland, the Large number of GSPs with only one circuit results in embedded schemes having to securitize a significant amount.

- **Assets with Need Case Justified** (2)
  - A second comer utilizing assets already largely complete will face higher security charges due to miss matched investment curves.

Next Steps

- Communicate core feedback with the Charging Delivery Body
- Communicate to all Respondents and at TCMF indicating we are coordinating the feedback and any future development through Charging Futures
- Publish individual consultation views

8. Key messages to be shared at Code Panel meetings

9. Meeting dates

Meeting dates

- **Charging Delivery Body Meeting**
  - Monday 24th September 1pm to 4pm - venue to be confirmed
  - Thursday 27th September, 1pm to 4pm, National Grid offices, Strand London
  - Friday 28th September, 1pm to 4pm – venue to be confirmed
- **Charging Futures Forum**
- Date to be agreed

Charging Futures

10. Any Other Business