

Transmission Charging Methodologies Forum



11th January 2017

Welcome

Housekeeping

- There are no fire alarms today
- Red lanyards
- Toilets
- Refreshments



Today's Forum

Modifications and CUSC Panel Update

Overview of CMP272

Draft Tariffs: What are they?

Tariff Stability

CMP268 Information Update

Storage and how it is treated today

CMA Losses

Stakeholder Session Summary

Customer Survey

Modifications Update

Heena Chauhan

Ongoing modification proposals

- **CMP271 ‘Improving the cost reflectivity of demand transmission charges’**
 - CMP271 aims to improve the cost reflectivity of demand transmission charges. It is proposed that the transmission charging methodology should include a Peak Security demand tariff levied at Triad, a Year Round demand tariff and revenue recovery levied on year round supplier demand.
 - Raised by RWE. (Bill Reed).
 - Proposal being further developed by Workgroup.
 - Contact Christine Brown for further information.
- **CMP274 ‘Winter TNUoS Time of Use Tariff (TToUT) for Demand TNUoS’**
 - CMP274 aims to improve the cost reflectivity of demand transmission charges. It is proposed that the transmission charging methodology should include a Winter Weekday Time of use demand tariff which reflects the existing Demand Residual element of the existing methodology so that revenue recovery is levied over a longer period of assessment.
 - Raised by UK Power Reserve. (Marlon Dey)
 - Proposal being further developed by Workgroup.
 - Contact Christine Brown for further information.



Given the overlap in the issues to be discussed as part of these two modifications, the Workgroup meetings will be arranged on the same day and are being progressed following a normal timetable.

Ongoing modification proposals

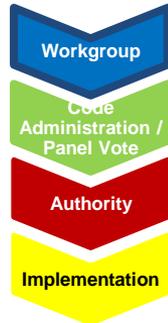
CMP250 'Stabilising BSUoS with at least a twelve month notice period'

- CMP250 aims to eliminate BSUoS volatility and unpredictability by proposing to fix the value of BSUoS over the course of a season, with a notice period for fixing this value being at least 12 months ahead of the charging season.
- Raised by Drax. (Cem Suleyman)
- Proposal being further developed by Workgroup.
- Contact Heena Chauhan for further information.



CMP268 'Recognition of sharing by Conventional Carbon plant of Not-Shared Year-Round circuits'

- CMP268 proposes to change the charging methodology to more appropriately recognise that the different types of "Conventional" generation do cause different transmission network investment costs, which should be reflected in the TNUoS charges that the different types of "Conventional" generation pays, ideally ahead of the December Capacity Auction.
- Raised by SSE. (John Tindal)
- This was an urgent modification that the Panel sent to Ofgem for a decision in November 2016. On 2 December 2016, The Authority directed that the modification be sent back to the Workgroup to develop further.
- Contact Christine Brown for further information.



CUSC Panel Update

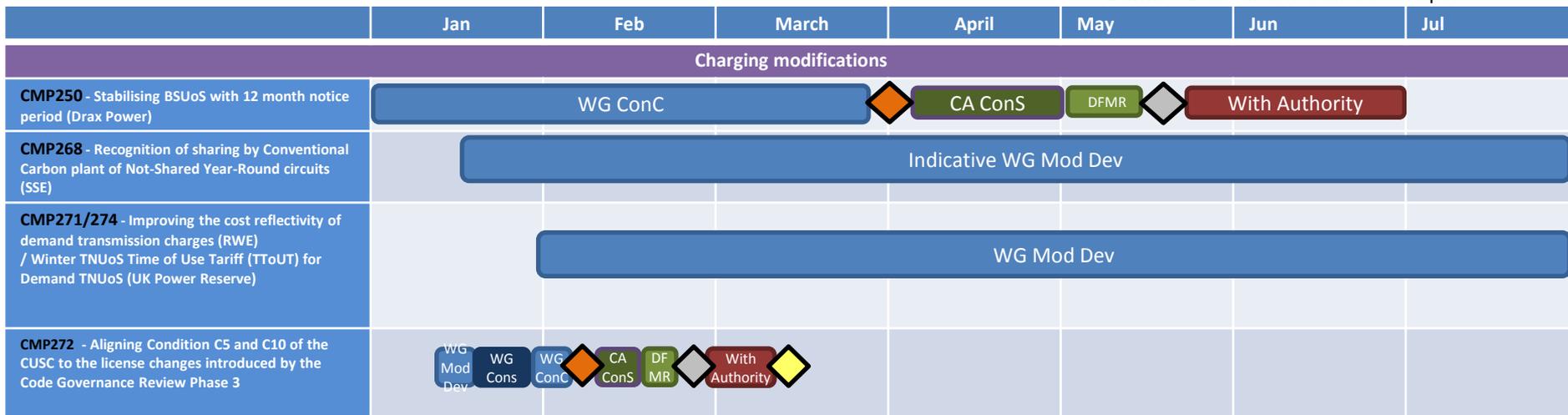
Heena Chauhan

Ofgem decisions since last TCMF

- **CMP266 'Removal of Demand TNUoS charging as a barrier to future elective Half Hourly settlement'**
 - CMP266 seeks to prevent double charging of TNUoS for a meter electing to be HH settled, all demand within Measurement Class F & G will be charged under the TNUoS NHH methodology from April 2017 up until HH settlement is mandatory for all consumers.
 - Decision provided 20 December 2016 to **approve and implement WACM1** on 22 December 2016
- **CMP267 'Defer the recovery of BSUoS costs, after they have exceeded £30m, arising from any Income Adjusting Events raised in a given year, over the subsequent two charging years.'**
 - CMP267 aims to defer unforeseen increase in BSUoS costs arising from an Income Adjusting Event (IAE) by two years. This proposal only applies to IAE's which, in their total in any given charging year, have a combined effect on "raw BSUoS" of over £30m.
 - Decision provided 7 December 2016 to **reject** the proposal.

Current CUSC Modifications

WG - Workgroup
ConS – Consultation
WG ConC – Workgroup Conclusion
CA – Code Administrator Consultation
DRMR – Draft Final Modification Report



With Authority, awaiting decision – please refer to the following link for further information;

https://www.ofgem.gov.uk/system/files/docs/2016/12/indicative_decision_dates_for_modification_with_ofgem.pdf

CMP251 - Remove error margin cap on TNUoS compliance with EU (British Gas)

CMP261 - Gen Rec to remain <€2.5 EU regulation compliant (SSE)

CMP264/265/269/270 - Embedded Generation Triad Avoidance Standstill (Scottish Power) /Gross charging of TNUoS for HH demand where embedded generation is in Capacity Market (EDF)

- Plan on a Page and other CUSC Panel related material can be accessed using the following link:

<http://www2.nationalgrid.com/uk/industry-information/electricity-codes/cusc/Panel-information/>

CUSC Panel timelines

TCMF	<ul style="list-style-type: none">• Date tbc (<i>anticipated to be second Wednesday of the month</i>)
CUSC Panel Papers Day	<ul style="list-style-type: none">• (d-5)• Deadline for papers/proposals/presentations to be considered by the Panel
CUSC Panel Presentation	<ul style="list-style-type: none">• (d-1)• Publication date for Panel Presentations
CUSC Panel	<ul style="list-style-type: none">• (d)• Monthly CUSC Panel meeting (<i>last Friday of the month</i>)
Publication of Headline Report and previous months minutes	<ul style="list-style-type: none">• (d)• Key decisions highlighted in Headline report

Code Governance Team – who to contact

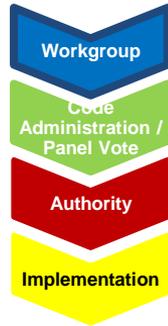
- For **CUSC** related matters contact Heena Chauhan:
 - Email: cusc.team@nationalgrid.com / Phone: 07811 356637
- For **Grid Code** related matters contact Ellen Bishop:
 - Email: Grid.Code@nationalgrid.com / Phone: 07976 947513
- For **STC** related matters contact Lurrentia Walker:
 - Email: STCTeam@nationalgrid.com / Phone: 07976 940855
- For **SQSS** related matters contact Taran Heir:
 - Email: box.SQSS@nationalgrid.com / Phone: 07977 433974
- For **JESG** related matters contact Christine Brown
 - Email: box.europeancodes.electricity@nationalgrid.com / Phone: 07866 794568

Overview of CMP272

Heena Chauhan

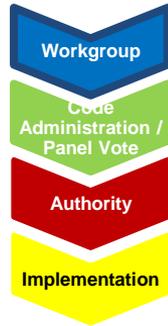
Purpose

- **CMP272 ‘Aligning Condition C5 and C10 of the CUSC to the license changes introduced by the Code Governance Review Phase 3’**
- CMP272 seeks to implement the license changes to the CUSC arising from Ofgem’s Code Governance Review (Phase 3) and has been raised to align the licence changes to the provisions set out in Section 8 and Section 11 of the CUSC
- The changes relate to:
 - Introducing the ability for the Authority to raise a CUSC Modification following the end of a SCR
 - Introducing the ability for the Authority to end a SCR:
 - Introducing the ability for the Authority to lead an end to end CUSC SCR Modification
 - Backstop Direction
- Changes need to be introduced no later than 31 March 2017



Panel View

- This proposal was raised by National Grid (Caroline Wright), originally as a Self-Governance proposal and reviewed by the Panel at their December 2016 meeting.
- The Panel reviewed the proposal and agreed by majority that the proposal did not meet the Self Governance criteria;
 - As the changes proposed were material
 - To enable broader views to be captured within the Final Modification Report.
- The Panel directed that the proposal be developed by a Workgroup following an Urgent timetable in order to meet the 31 March 2017 implementation deadline.
- Contact Taran Heir for further information.



Justification against Applicable CUSC Objectives

- Applicable CUSC Objective **(a)** ‘the efficient discharge by the licensee of the obligations imposed upon it under the Act and by this license’
 - by ensuring that the CUSC correctly reflects the conditions under which the Authority can raise or direct the licensee to raise Modifications relating to electricity regulation.
- Applicable CUSC Objective **(d)** ‘promoting efficiency in the implementation and administration of the CUSC arrangements’
 - by ensuring that the CUSC accurately reflects the provisions set out in Standard Licence Conditions to permit the Authority to raise Modification Proposals and SCR processes, ensuring such Modifications Proposals are progressed efficiently and effectively.
- The proposed changes will aid the acceleration in the change process and enable more efficient delivery of priority Modifications



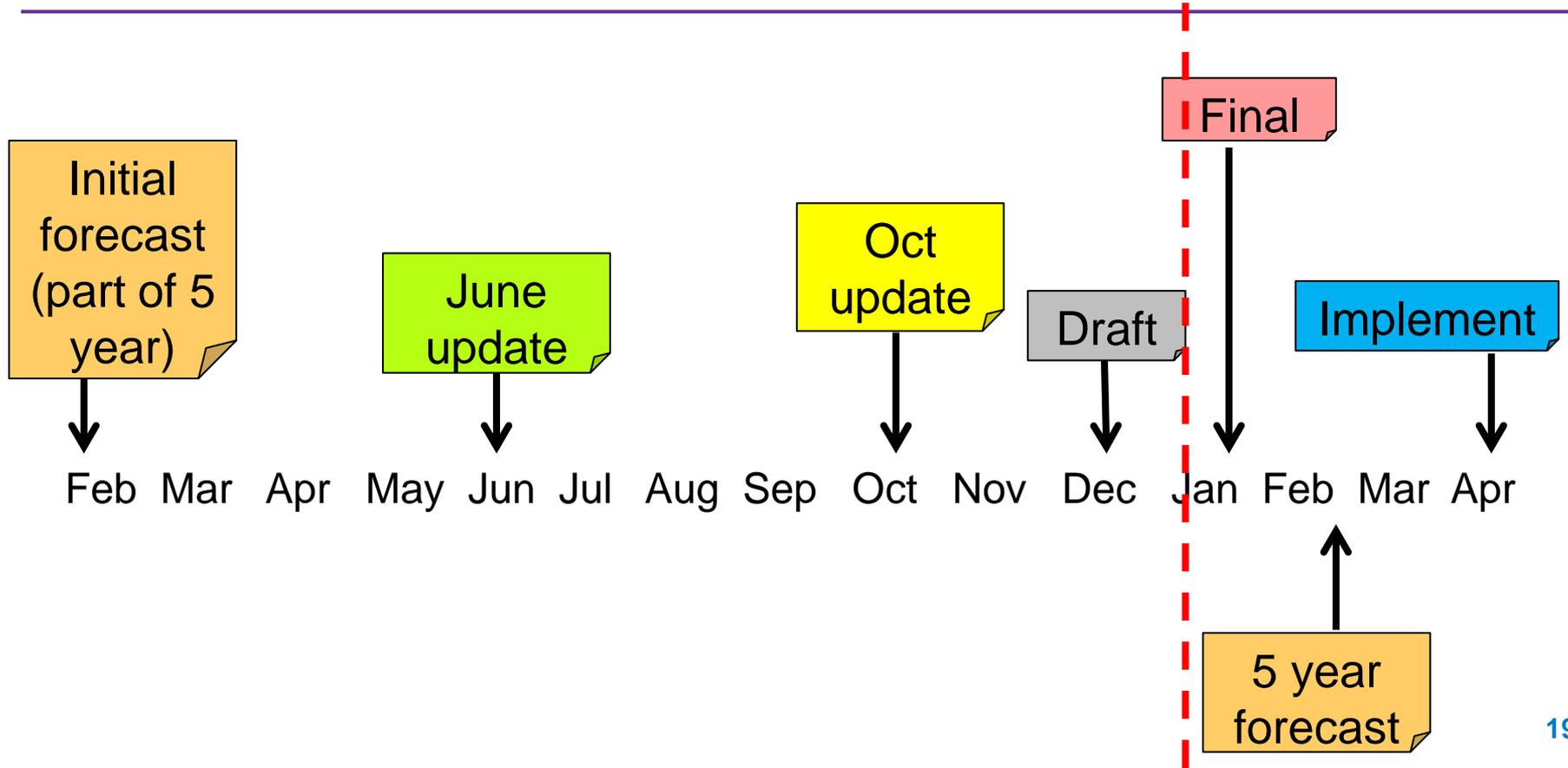
2017/18 Draft TNUoS Tariffs

Katharine Clench

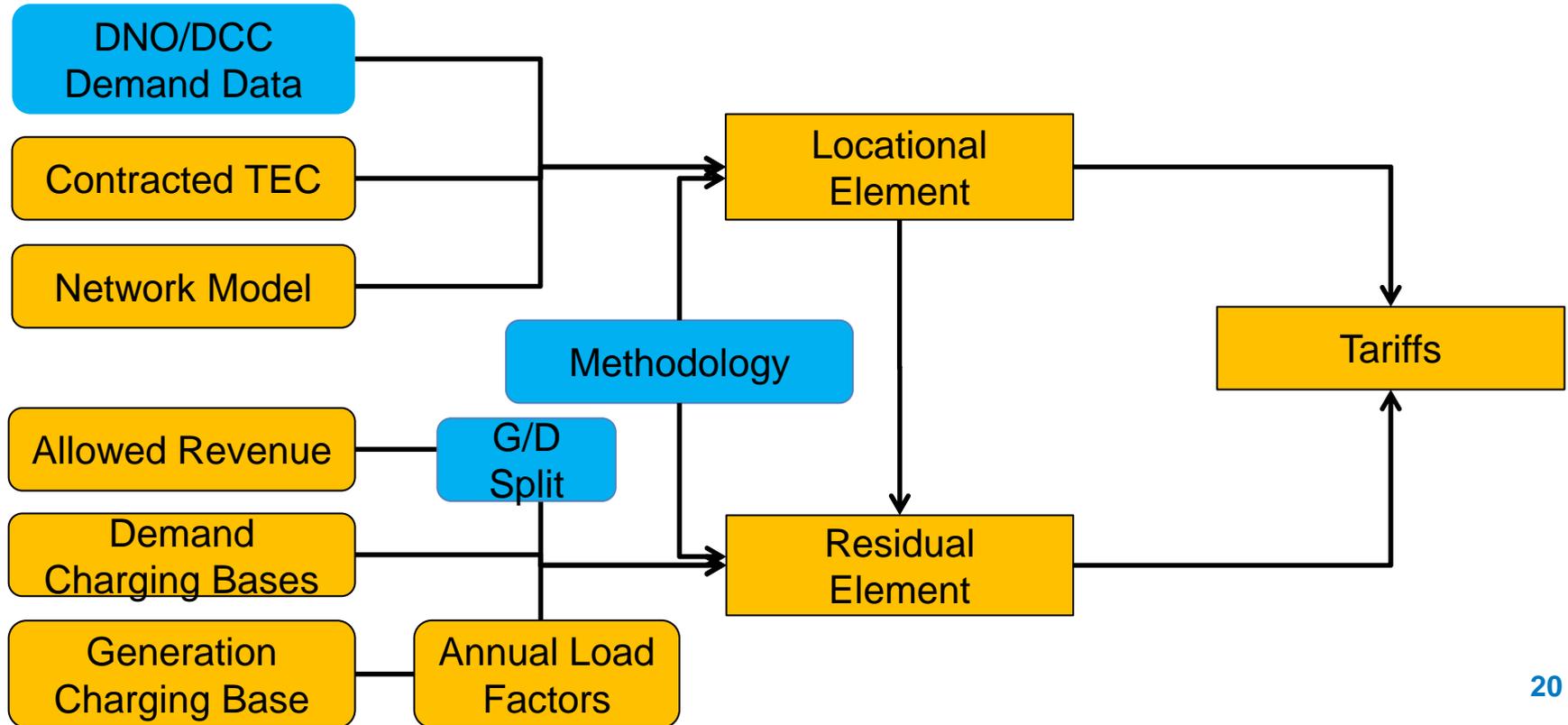
Agenda

- Tariff timetable
- Changes to inputs
 - Revenue
 - Generation & demand charging bases
 - Circuits
- Generation tariffs
- Demand tariffs

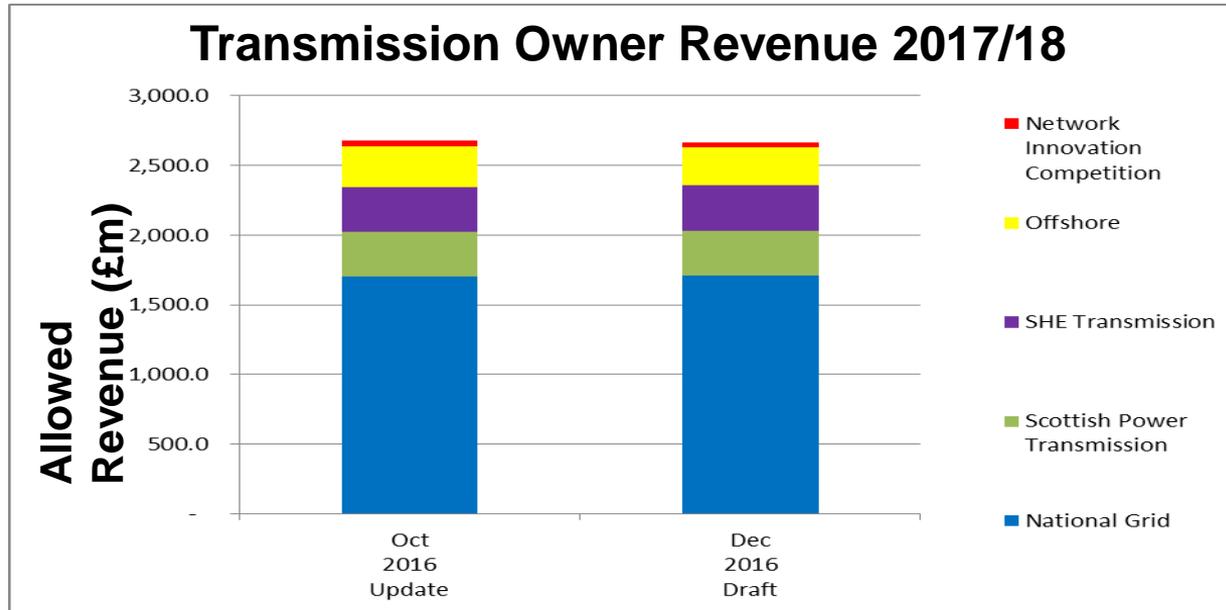
2017/18 TNUoS Tariff Timetable



Changes Since October – highlighted orange



Revenue



- Change from October forecast (£2,676m), now £2,666m
- Changes to revenue only affect demand tariffs as generation revenue is capped

Revenue Recovered by Generation remains unchanged

$$\begin{array}{l} \text{€2.50 per MWh} \\ \text{x 21\% Error Margin} \end{array} = \text{€1.98/MWh}$$

$$\begin{array}{l} \text{€1.98 } \div \\ \text{£:€ exchange rate of €1.27} \end{array} = \text{£1.56/MWh}$$

(FES Generation Forecast)
251TWh

X

£1.56/MWh

= £390m Revenue to be recovered from generation

Generation and Demand Forecast

(GW)	2016/17	2017/18 Initial forecast	2017/18 June Forecast	2017/18 Oct Forecast	2017/18 Draft Tariffs
Contracted TEC	69.9	73.4	73.1	72.2	72.2
Modelled Best ViewTEC	69.9	71.1	73.8	72.5	72.2

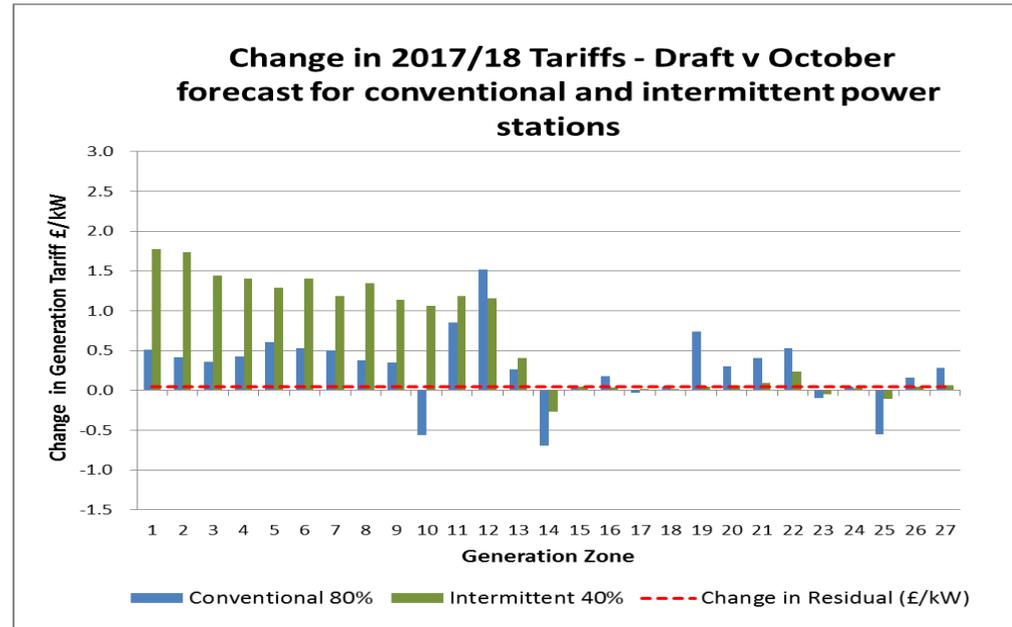
Charging Base	2016/17	2017/18 Initial	2017/18 June	2017/18 Oct	2017/18 Draft
Generation (GW)	62.9	67.3	67.0	66.6	67.6
Total Average Triad (GW)	49.8	49.3	49.1	49.1	47.7
HH Demand Average Triad (GW)	13.1	16.3	16.4	16.4	13.2
NHH Demand (4pm-7pm TWh)	26.1	23.1	23.6	23.6	25.3

Circuits

- Small changes to local circuit data since October forecast, following publication of the National Grid Electricity Ten Year Statement
- Many of the generators that are on spurs will see little change to their local tariffs (RPI indexation changes only)
- Due to circuits switching between Year-Round and Peak-Security, small circuit changes in south west Scotland affect all zonal tariffs that are north of this area

Changes to Generation Tariffs

- Reduction in conventional generation in England & correction of demand data results in more polarised locational tariffs
- Certain circuits switch from Peak to Year-Round in Scotland and North England, increasing year-round tariffs and peak tariffs (to a smaller degree)
- Circuit changes in generation zone 10 & 11 resulted in tariff increases in zones 1-11
- Zone 14 – volatile zone with few generators

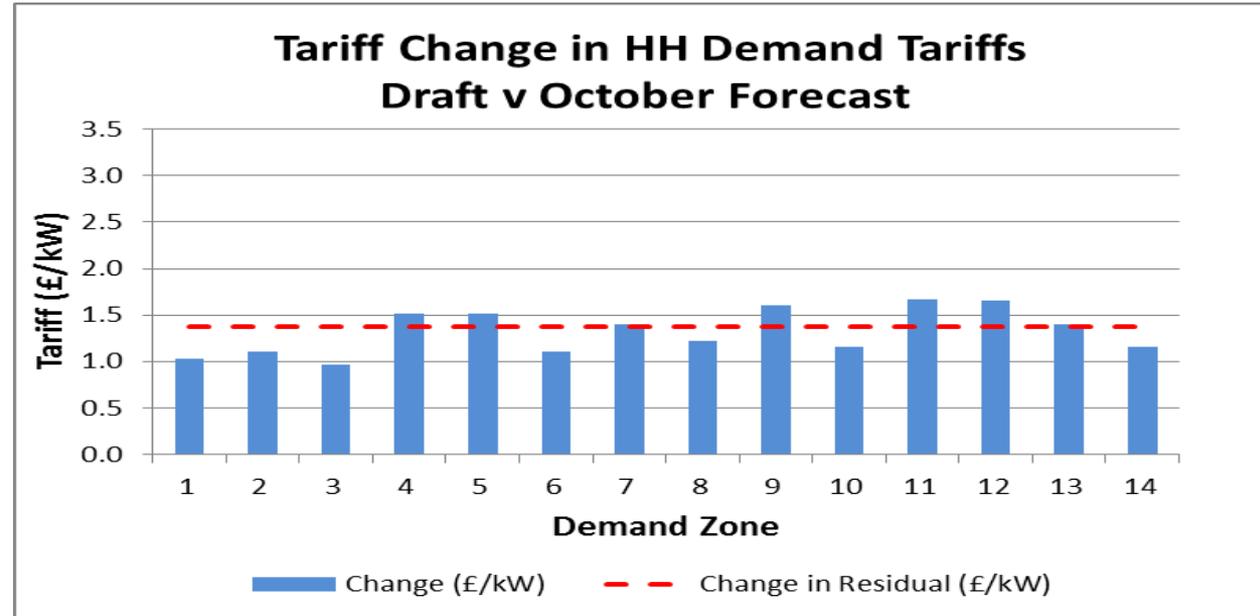


Changes to Demand Tariffs

- Demand is modelled using both historical data and the forecasted demand patterns from FES
- Monte Carlo simulations have informed the analysis to take into account volumes of embedded generation, weather patterns, outturn demand etc.
- Significant reported growth in non-BMU renewable generation, especially in Scotland

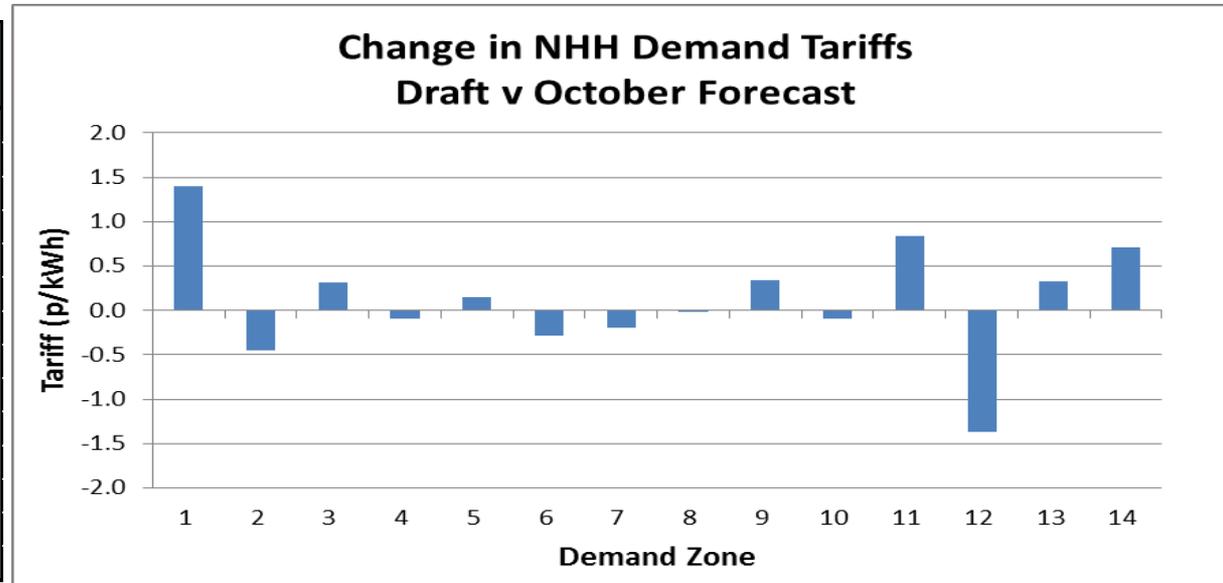
HH tariffs and change from October forecast

Zone	Zone Name	2017/18 Draft (£/kW)
1	Northern Scotland	30.40
2	Southern Scotland	31.30
3	Northern	40.04
4	North West	46.07
5	Yorkshire	45.79
6	N Wales & Mersey	47.61
7	East Midlands	48.71
8	Midlands	50.28
9	Eastern	50.44
10	South Wales	46.37
11	South East	53.36
12	London	55.79
13	Southern	54.23
14	South Western	52.78

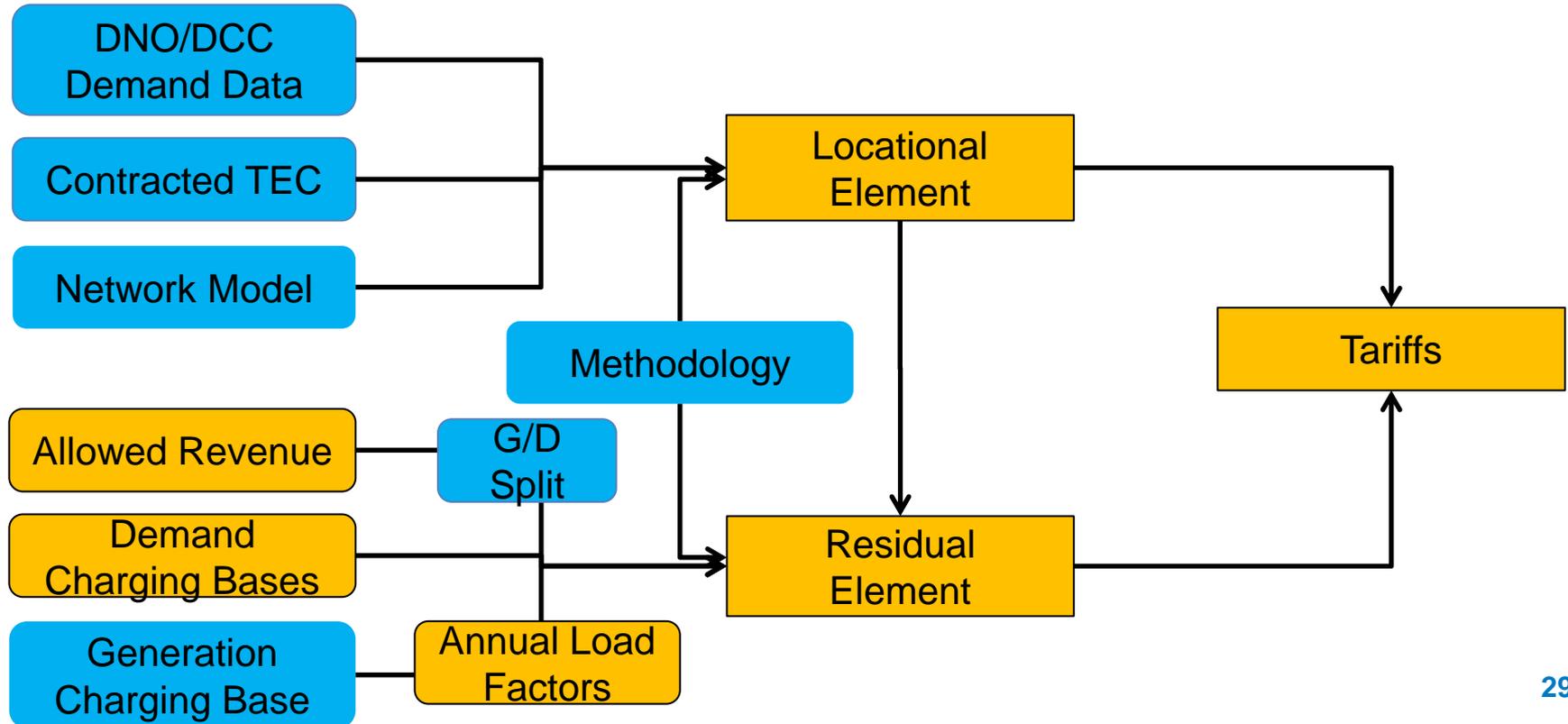


NHH tariffs and change from October forecast

Zone	Zone Name	2017/18 Draft (p/kWh)
1	Northern Scotland	6.38
2	Southern Scotland	4.38
3	Northern	6.07
4	North West	5.99
5	Yorkshire	6.09
6	N Wales & Mersey	6.72
7	East Midlands	6.36
8	Midlands	6.53
9	Eastern	7.21
10	South Wales	5.88
11	South East	7.59
12	London	5.57
13	Southern	7.16
14	South Western	7.58



Elements subject to possible change (orange)



Revenue Team Contacts

Team	charging.enquiries@nationalgrid.com	01926 654633
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Tom Selby	thomas.selby@nationalgrid.com	01926 656450

Further information – Generation Tariffs

Generation Wider Tariffs

Wider Generation Tariffs (£/kW)								
Zone	Zone Name	Conventional 80%			Intermittent 40%			Change in Residual (£/kW)
		2017/18 Oct Forecast (£/kW)	2017/18 Draft tariffs (£/kW)	Change (£/kW)	2017/18 Oct Forecast (£/kW)	2017/18 Draft tariffs (£/kW)	Change (£/kW)	
1	North Scotland	24.10	24.61	0.51	18.07	19.84	1.77	0.04
2	East Aberdeenshire	19.90	20.32	0.42	15.56	17.30	1.73	0.04
3	Western Highlands	22.14	22.49	0.36	17.42	18.87	1.44	0.04
4	Skye and Lochalsh	16.00	16.42	0.42	17.21	18.61	1.40	0.04
5	Eastern Grampian and Tayside	21.09	21.70	0.61	16.56	17.84	1.29	0.04
6	Central Grampian	25.26	25.79	0.53	17.91	19.32	1.41	0.04
7	Argyll	31.17	31.68	0.51	25.73	26.91	1.18	0.04
8	The Trossachs	21.17	21.55	0.38	15.21	16.55	1.34	0.04
9	Stirlingshire and Fife	13.95	14.30	0.35	11.74	12.87	1.14	0.04
10	South West Scotlands	19.64	19.08	-0.56	13.78	14.84	1.06	0.04
11	Lothian and Borders	14.24	15.08	0.85	8.55	9.73	1.18	0.04
12	Solway and Cheviot	7.67	9.19	1.52	6.07	7.22	1.16	0.04
13	North East England	6.87	7.13	0.26	2.76	3.17	0.41	0.04
14	North Lancashire and The Lakes	4.69	4.00	-0.69	2.25	1.98	-0.27	0.04
15	South Lancashire, Yorkshire and Humber	2.75	2.77	0.03	-1.50	-1.46	0.05	0.04
16	North Midlands and North Wales	0.96	1.14	0.18	-2.26	-2.23	0.04	0.04
17	South Lincolnshire and North Norfolk	0.10	0.08	-0.03	-2.00	-1.98	0.02	0.04
18	Mid Wales and The Midlands	-0.83	-0.78	0.05	-1.94	-1.93	0.02	0.04
19	Anglesey and Snowdon	0.47	1.21	0.74	-2.58	-2.53	0.05	0.04
20	Pembrokeshire	3.79	4.09	0.30	-3.47	-3.40	0.07	0.04
21	South Wales & Gloucester	0.74	1.15	0.41	-3.52	-3.42	0.09	0.04
22	Cotswold	-3.64	-3.10	0.53	-7.31	-7.08	0.24	0.04
23	Central London	-9.86	-9.95	-0.09	-6.46	-6.51	-0.05	0.04
24	Essex and Kent	-3.91	-3.86	0.04	-1.05	-1.02	0.02	0.04
25	Oxfordshire, Surrey and Sussex	-4.58	-5.14	-0.56	-2.81	-2.91	-0.11	0.04
26	Somerset and Wessex	-6.39	-6.23	0.16	-3.46	-3.42	0.04	0.04
27	West Devon and Cornwall	-6.18	-5.89	0.28	-4.03	-3.97	0.07	0.04

CMP244 and TNUoS tariff volatility

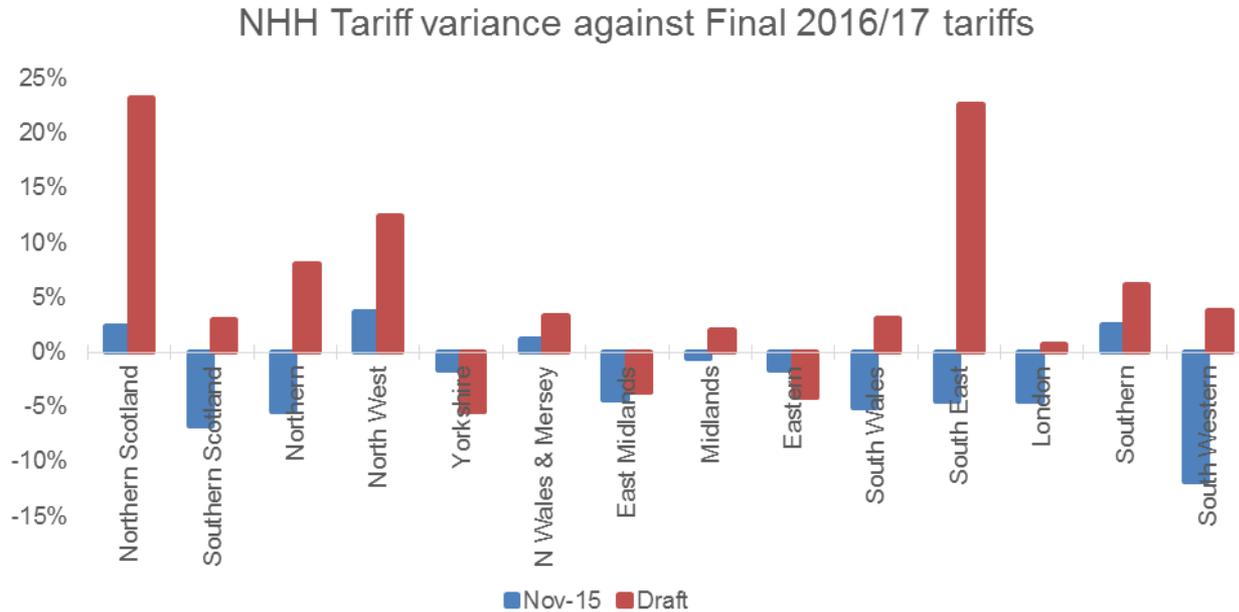
Simon Vicary (EDF Energy) and Juliette Richards (National Grid)



- CMP244 sought to improve tariff predictability by proposing an increased notice period for TNUoS tariffs (originally 15 months, then 200 days).
- The perceived defect was that the current TNUoS notice period of 2 months creates uncertainty that is difficult for Suppliers (or business customers on pass-through contracts) to manage effectively – meaning that Suppliers include a risk premium when setting prices for fixed contracts. This leads to an increase in prices for end consumers.
- The Authority rejected the proposal in July 2016, noting that it was difficult to quantify the consumer benefits of such a proposal, and hence whether these benefits would outweigh the increase in cashflow risk and costs borne by other parties such as National Grid, other TOS, OFTOs and interconnectors.

Tariff volatility: A recent example

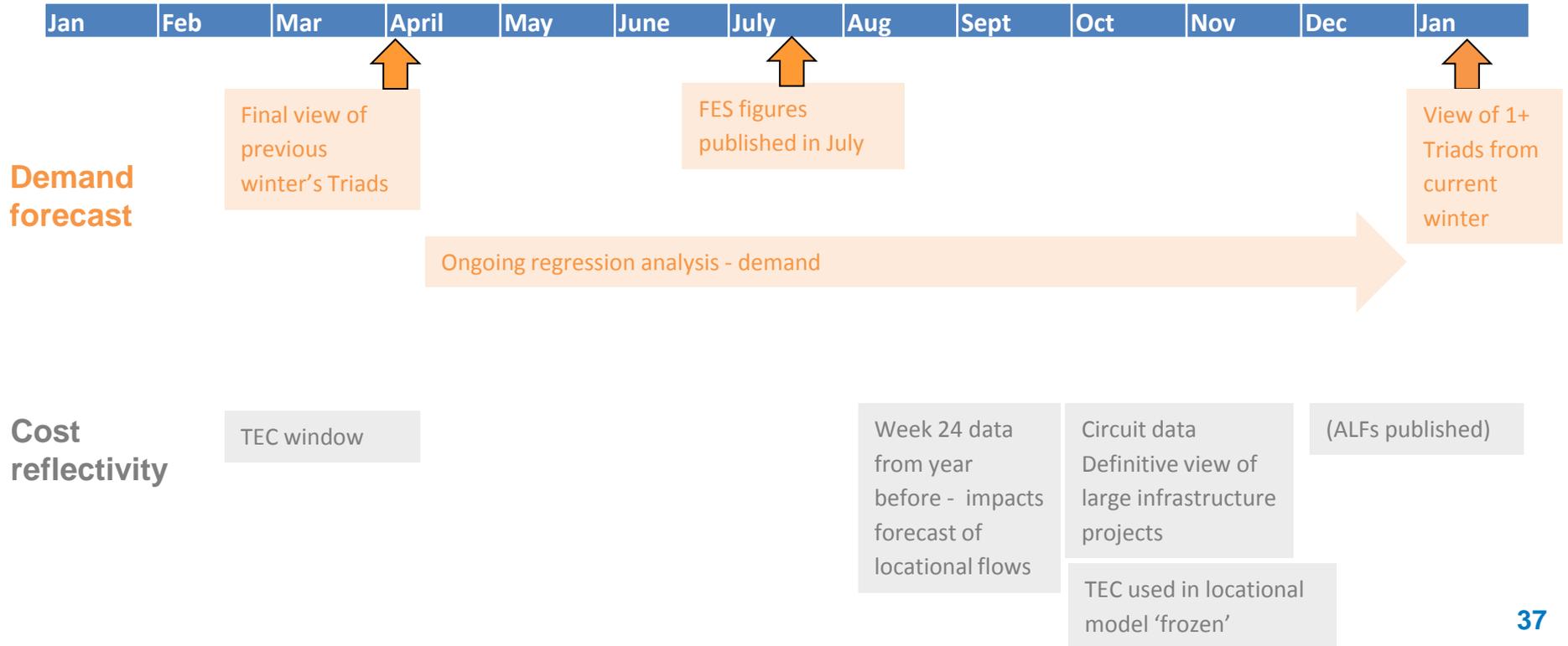
- Customers continue to note that a lack of tariff predictability is an ongoing concern.



Inputs to TNUoS tariffs



Inputs to TNUoS tariffs



- Do you think further work to seek to improve tariff predictability is a good idea?
- Do you have other thoughts on options for improving TNUoS predictability / reducing volatility?

Lunch



CMP268 Information Update

Damian Clough

CMP268

- 'Recognition of sharing by Conventional Carbon plant of Not Shared Year-Round circuits'
- Modification was sent back by the Authority as they determined that there are areas that can be further addressed through additional industry assessment
- Meeting with Ofgem and SSE (proposer) held yesterday to discuss what further work and information would be required, as per action from the CUSC panel
- Highlights of meeting
 - Evidence and work submitted needs to belong to the workgroup and be transparent
 - Further work to be done using National Grid's model which determines the need for network investment i.e. ELSI
 - Current status of ELSI?
 - Does the defect and proposed solution work for all affected Generators i.e. including those in negative charging zones
 - Distributional impact should take into account future effect on tariffs

Storage and how it is treated today

Urmi Mistry

Purpose

- Feedback from industry
 - Lack of clarity on how storage is charged at the moment under current arrangements.
- Raised as part of Ofgem's 'Smart, Flexible Energy System – a call for evidence'.
- Interest in storage has increased considerably.



Storage

- Electricity storage refers to the process or technologies that capture energy and release it at a later time.
- Each type/form of storage has differing features and applications.
- Most mature form of storage is Pumped Storage.
 - Can provide multiple operational and ancillary services.



Storage: How it is treated today

- For **transmission connected storage only**.
- Treated the same as all other generation therefore they are:
 - Liable for generation TNUoS charges.
 - Liable for demand TNUoS charges if they take energy over peak periods.
 - Liable for BSUoS charges.
- Project TransmiT
 - Classed as a conventional generator.
- We are shortly going to publish a policy note to clarify for all interested parties.

CMA Losses

Robert Barnard

CMA Losses

- As a result of their market investigation the CMA have directed that transmission losses should be calculated on a zonal basis.
- These changes will occur through a BSC modification. ([P350](#))
 - The Transmission Loss Multiplier (TLM) for each demand zone Grid Supply Point Group will be calculated to determine a locational loss factor.
 - This means the Transmission Loss Factor (TLF) is redefined in the BSC.
 - $\text{Pre-Adjusted BMU value} * \text{TLM} = \text{Post-Adjusted BMU value}$ (Further detail in CUSC 14.30).
- The metered values National Grid receives for each Balancing Mechanism Unit will therefore reflect the locational effect.
 - Therefore transmission charges (BSUoS & TNUoS) will reflect these locationally adjusted volumes. We anticipate no changes to the CUSC or billing processes.

Stakeholder Session Summary

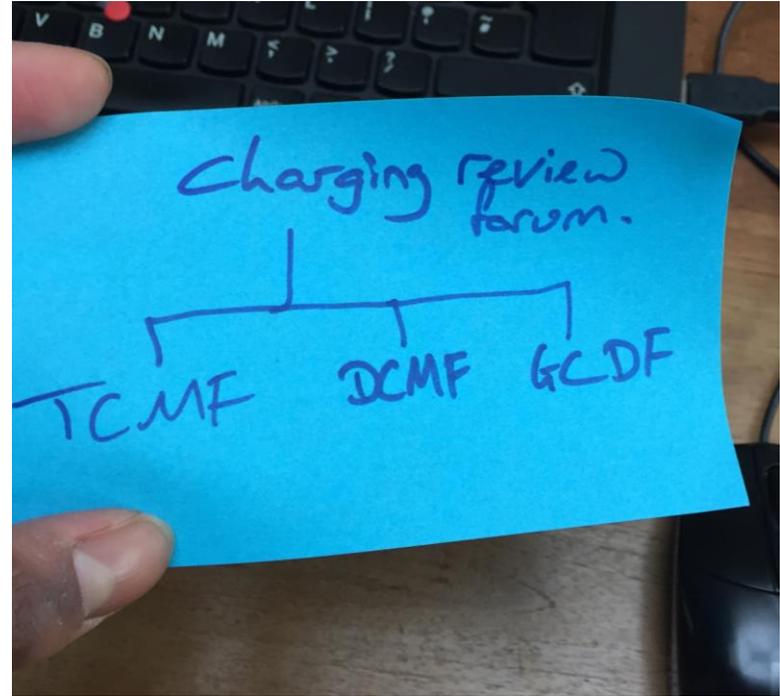
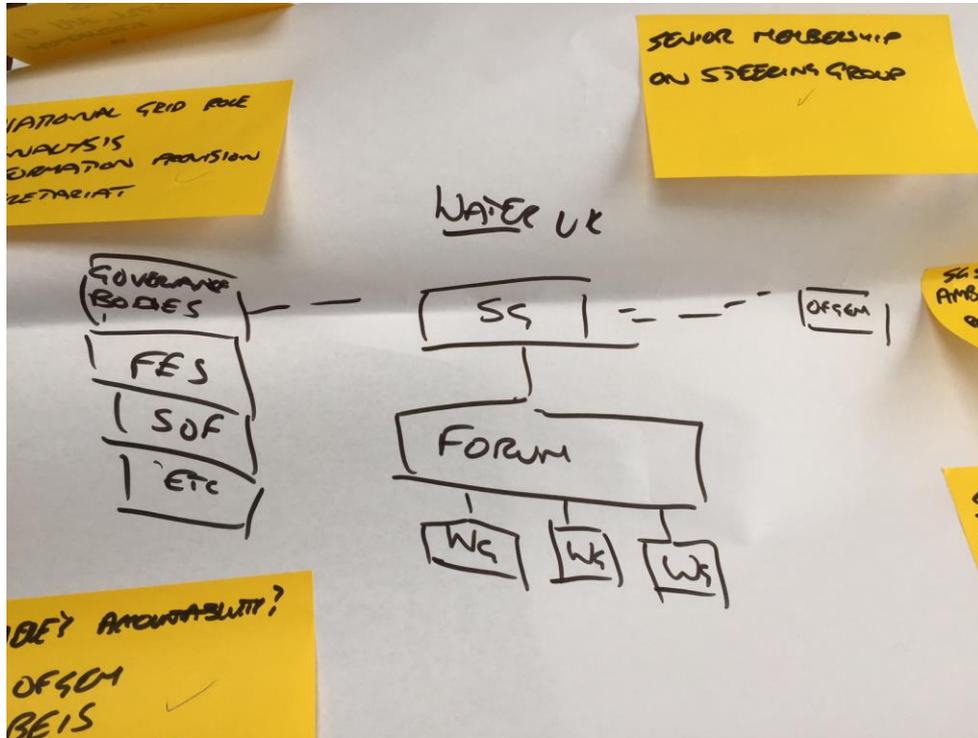
Rob Marshall

Stakeholder Forum Activity

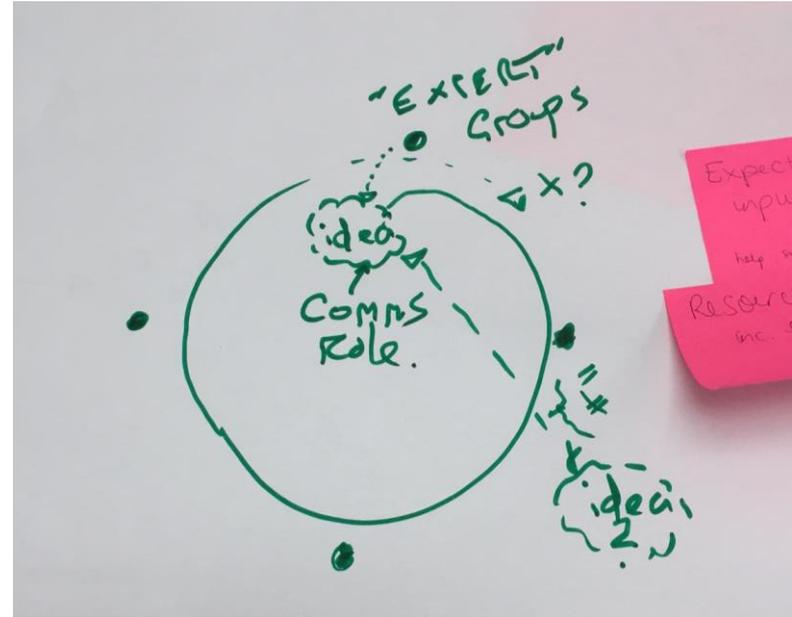
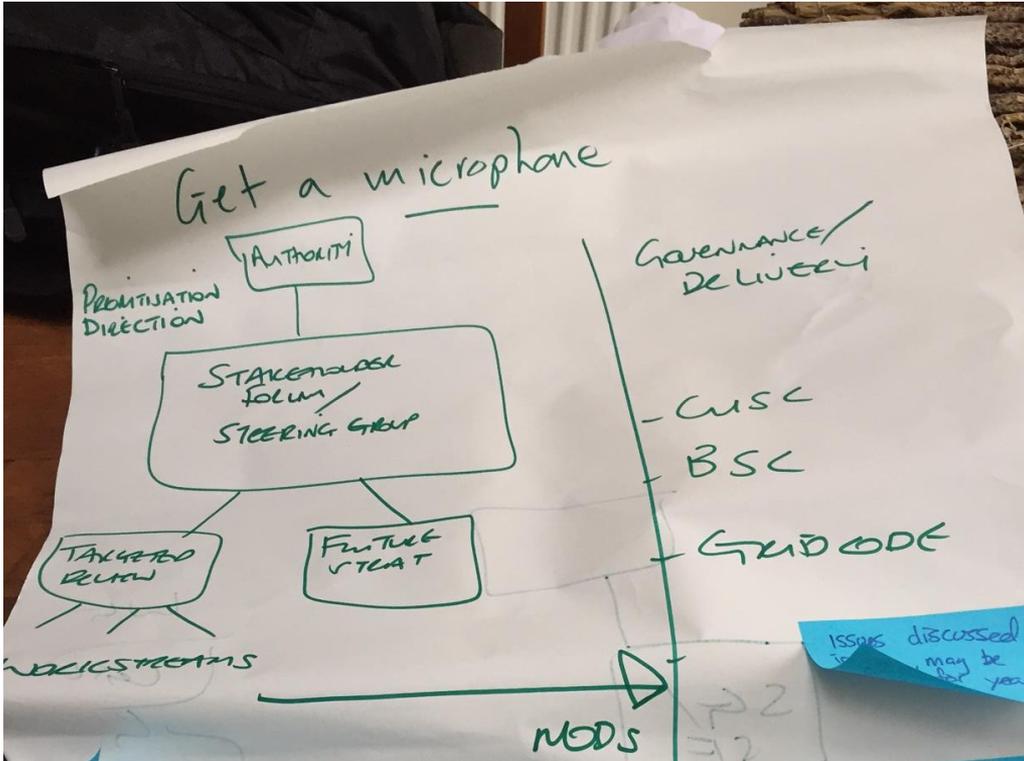
- What does a stakeholder forum look like to you?
 - Questions:
 - How should a stakeholder forum be structured?
 - What membership should a steering committee have?
 - What timelines should be worked to?



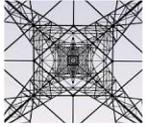
Structure



Structure



Longer Term vision for Charging – Stakeholder Forum Feedback



Structure

- Broad to represent all industry parties.
- Options for Chair = Ofgem, National Grid, Non-industry.
- Risk of it being difficult to join.
- Transparent.
- Programme management.
- Have clear purpose and role.
- Ofgem set guidance, prioritisation and parameters.
- Investor representation.
- Help smaller players.
- Consider other Forums.
- Expert groups.



Steering Committee

- Mix of skills/experience.
- Senior membership.
- Accountability with Ofgem/BEIS/NG/Other.
- Chairs of Panels.
- Associations and consumer groups.
- Should have defined roles.
- Include end decision makers.
- Empowered to manage change.
- One person per area.
- Monthly meetings.
- Principles agreed and signed up to.

Longer Term vision for Charging – Stakeholder Forum Feedback



Timelines

- Reasonable notice and phasing:
 - Minimum 2-3 years.
 - Look out to 5 years.
- Align with the FES process.
- Aim to be quick and efficient.
- Alignment with CUSC principles.
- Formulate a roadmap to steer industry change.
- Consider long term strategic issues.
- Issues in Fora may be discussed for years.



General Points

- Where do we want to get to?
- Could it be achieved through a SOF type process?
- Does it cover DNO charging?
- Where will it be funded?
- Learn from other experiences.
- Expectation of input.
- Resourcing, including for smaller players.
- Long term interest not skewed to now.
- Set up a work programme to ensure endorsement and commitment.
- Scoping process before or after forming forum?
- Should Academics be included?

Customer Survey

Juliette Richards

Feedback

- We will soon be launching the next round of our customer and stakeholder satisfaction surveys for the **industry frameworks** area
- Explain Market Research undertake these surveys for us via phone or email.
- If you would prefer not to be contacted please let us know - we will donate £10 to charity for every completed survey.

AOB

Next Meeting

February

8

Wednesday

Will be an 1030am start unless otherwise notified.

We value feedback and comments

If you have any **questions** or would like to give us **feedback** or share **ideas**, please email us at:

cusc.team@nationalgrid.com

Also, from time to time, we may ask you to participate in surveys to help us to improve our forum – *please look out for these requests*



Thank you and Any Questions?

Close

