



Meeting 107

3rd Sept 2020

**Transmission Charging
Methodologies Forum and
CUSC Issues Steering Group**

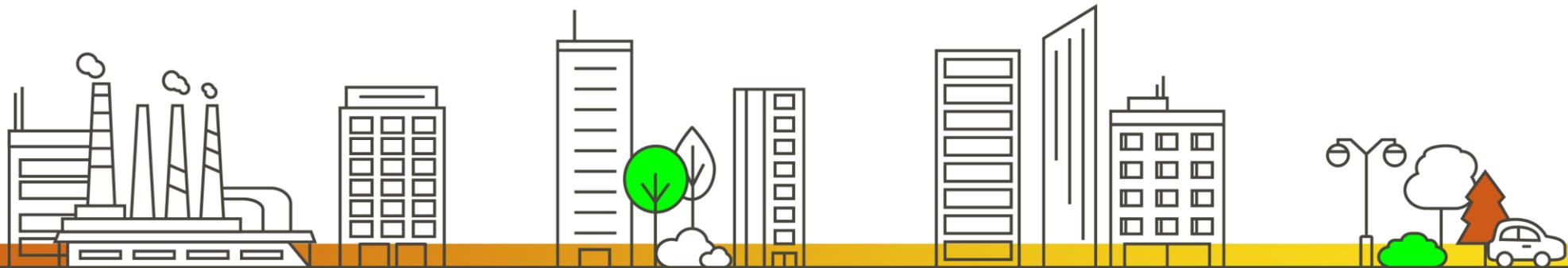
nationalgridESO

Agenda

1	Introduction, meeting objectives	Jon Wisdom - NGESO	10:30 – 10:35
2	Code administrator update	Paul Mullen - NGESO	10:35 – 10:50
3	CMP350 (BSUoS Covid Mod) Update	Grahame Neale – NGESO	10:50 – 10:55
4	Interген Payment Update	Rebecca Yang – NGESO	10:55 – 11:00
5	TNUoS Global Security Factor	Jo Zhou - NGESO	11:00 – 11:15
6	TO Data Provision for the Expansion Constant Calculation	Matt Wooton - NGESO	11:15 – 11:30
7	Early Competition Plan	Mike Oxenham - NGESO	11:30 – 11:55
8	VAT and Securities	Nick George - NGESO	11:55 – 12:05
9	Connection Securities – potential mod	Mark Pearce – NeuConnect	12:05 – 12:15
10	AOB	Jon Wisdom - NGESO	12:15 – 12:20

Code Administrator Update

Paul Mullen, NGENSO



Authority Decisions/Implementations Summary (as at 3 September 2020)

Authority decisions since last TCMF

- **CMP320** approved 9 July 2020 and will be implemented 1 April 2021
- Ofgem confirmed via letter that **CMP306** should have 1 April 2021 Implementation Date rather than 30 October 2020
- **CMP350 WACM6** approved 13 August 2020 and this was implemented on 14 August 2020.

Authority Decisions/Implementations Summary (as at 3 September 2020)

Awaiting Authority Decision

- **CMP324/325, CMP334, CMP317/327 and CMP339** – Ofgem prioritising decisions on TCR Modifications.
- Update on **CMP280** will be published in September 2020 – ESO clarified that 1 April 2021 implementation date is no longer achievable given the delay in decision
- **CMP292** decision was expected 20 September 2019; however this has been further de-prioritised as Ofgem are prioritising decisions on the TCR Modifications

Panel Update (as at 3 September 2020)

July – 16 and 17 July 2020

- By majority agreed that **CMP350** did not meet Urgency criteria; however, Ofgem granted Urgency 21 July 2020

July – 31 July 2020

- Unanimously agreed that **CMP350** Workgroup has met its Terms of Reference
- Carried out recommendation votes for **CMP317/327**, **CMP324/325**, **CMP334** and **CMP339**
- **CMP333** – sent to Workgroup to review legal text and thereafter issue a 5 working day Code Administrator Consultation
- **CMP342** – sought clarity from ESO on liability for VAT ahead of Panel vote
- Unanimously agreed that 2 housekeeping Modifications (**CMP348** and **CMP349**) could be implemented

August – 6 August 2020

- Carried out recommendation vote for **CMP350**
- ESO provided clarity on liability for VAT; Vote to be held at August Panel (prior to Vote, Panel will determine if Self Governance still appropriate)

Panel Update (as at 3 September 2020)

August – 28 August 2020

- Unanimously agreed that **CMP343/340** and **CMP335/336** Workgroups have met their Terms of Reference
- Panel agreed by majority to maintain their decision that **CMP342** should follow the self-governance route. Code Admin clarified the timeline and next steps and Panel then undertook the self-governance vote. Panel, by majority, determined that the Original proposal better facilitated the CUSC objectives and CMP342 will be implemented on 9 October 2020 unless there are any Appeals received in the 15 working day Appeals Window (anticipated to be 11 September 2020 to 2 October 2020).appropriate)

September – 16 September 2020?

- **CMP333** recommendation vote

Panel Update (as at 3 September 2020)

September – 25 September

- **1 possible New Modification** - Connection securities (Mark Pearce – Neuconnect)
- **1 possible Workgroup Report** (CMP300)
- **2 Draft Final Modification Reports** (CMP346 and CMP347) being presented to Panel for Panel determination vote. 15 working days Appeals window will then be opened prior to implementation.

In Flight Modification Updates



In flight Modifications (as at 3 September 2020)

0 open Workgroup Consultations

5 open Code Administrator Consultations

- CMP333 closes 7 Sep 2020
- CMP346 and CMP347 close 11 Sep 2020
- CMP343/340 and CMP335/336 close 22 Sep 2020

6 CUSC Workgroups held in August

- 10 held across CUSC, Grid Code, STC and SQSS
- 11 to be held across CUSC (3 CUSC), Grid Code, SQSS and STC in September

For updates on all “live” Modifications please visit “Modification Tracker” at:
<https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc>

Prioritisation Stack

All Modifications previously in Tranche 2 and 3 were prioritised at June Panel



Panel took into account Proposer's views and placed in one of 5 categories – High, Medium to High, Medium, Low to Medium and Low



Prioritisation will be reviewed at Panel on a monthly basis with deep dive on a quarterly basis (next deep dive October 2020)

CUSC Workgroups for next 3 months (as at 3 September 2020)

September (total = 3)

- CMP328
- CMP344 – 3 Sep
- CMP330 – 21 Sep

November (total = 4)

- CMP328
- CMP330
- CMP311
- CMP326

October (total = 4)

- CMP311
- CMP326
- CMP328
- CMP344

See Notes explaining what each Modification is seeking to achieve

2020 Dates



CUSC 2020 Workgroups and Panel dates

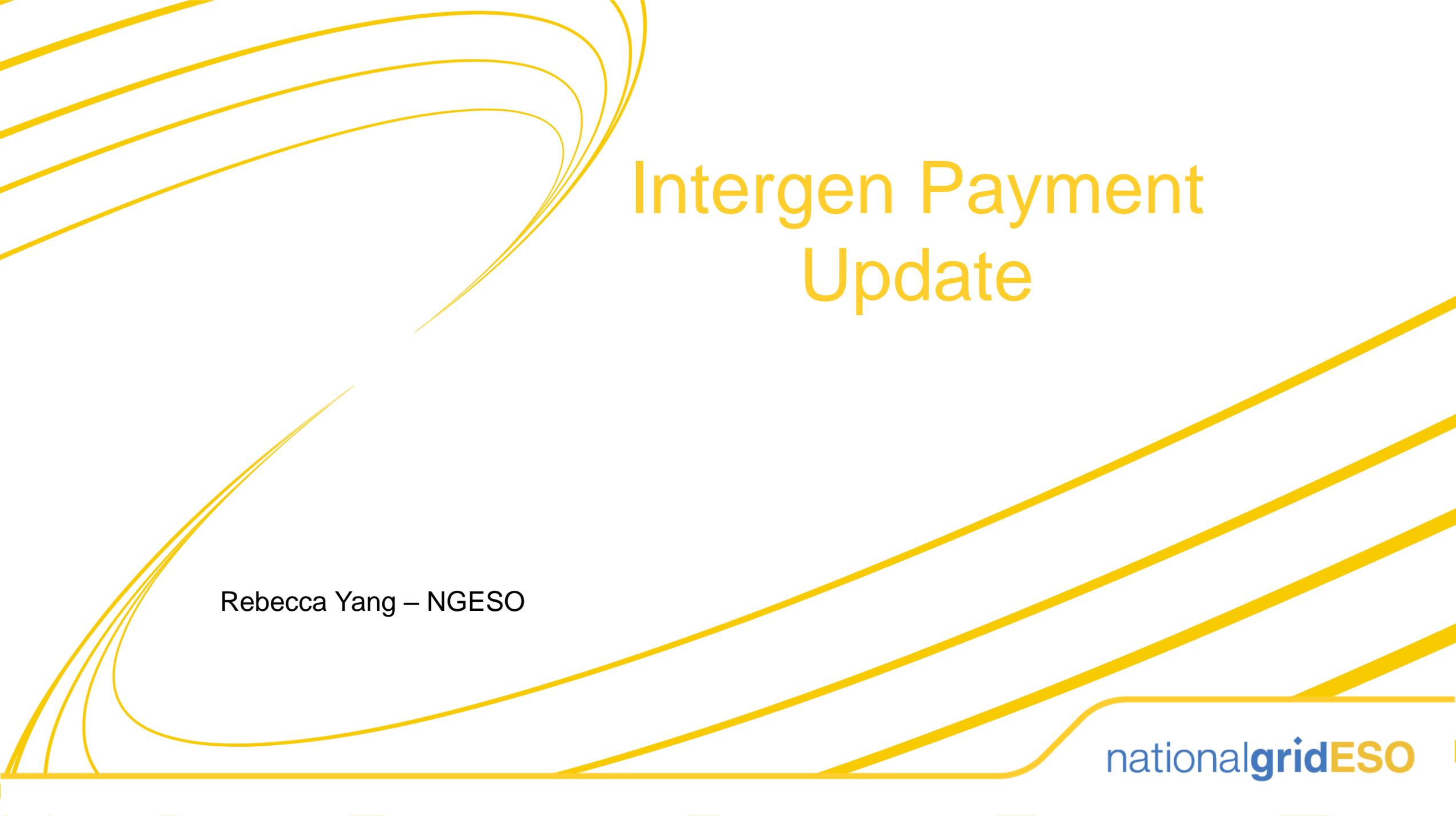
CUSC - Workgroups	1	2	3	4
March	6	12	20	26
April	3	9	15	23
May	8	14	22	28
June	5	10	15	25
July	10	16	24	30
August	7	13	21	27
September	4	10	18	24
October	9	14	23	29
November	6	11	16	23
December	30/11	7	17	21

CUSC	Panel Dates	Papers Day	Modification Submission Date	TCMF
January	31	23	16	9
February	28	20	13	6
March	27	19	12	5
April	24	16	7	2
May	29	20	13	7
June	26	18	11	4
July	31	23	16	9
August	28	20	13	6
September	25	17	10	3
October	30	22	15	8
November	27	19	12	5
December	18	10	3	26/11

CMP 350 (BSUoS Covid Mod) Update

Grahame Neale, NGESO



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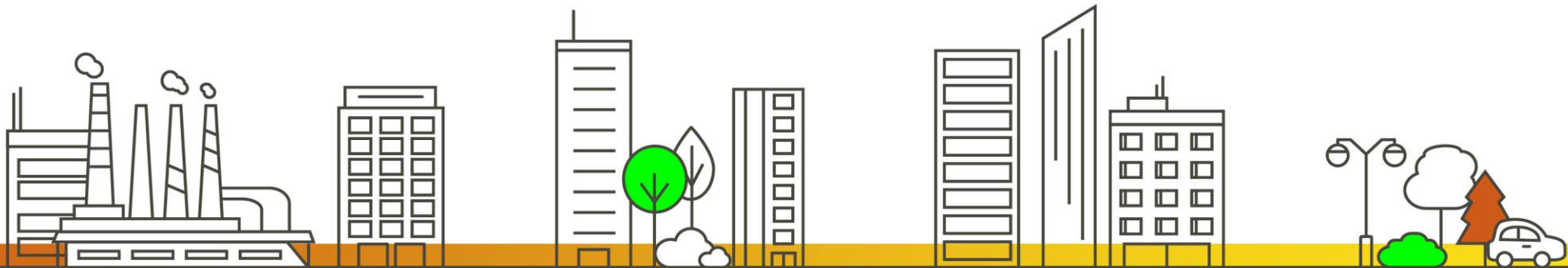
Intergen Payment Update

Rebecca Yang – NGENSO

TNUoS Global Security Factor Recalculation

Jo Zhou, National Grid ESO

September 2020



Background

What is the TNUoS global security factor for

- The TNUoS tariffs consist of two parts: (1) the locational tariffs, which are designed to send locational signals to transmission network users; (2) the non-locational (residual) tariffs, to ensure accurate recovery of revenue.
- The locational tariffs are calculated under the “intact network” condition – i.e. all transmission circuits are in service.
- The locational security factor (also known as the global security factor) is then applied to scale up (stretch) the locational tariffs, to reflecting the level of capacity redundancy that is built into the network.

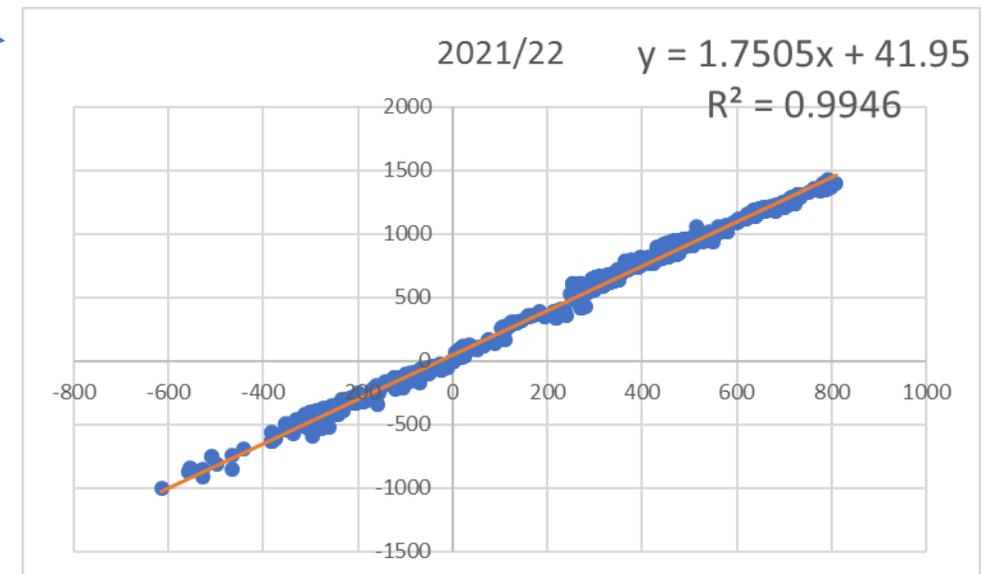
How do we calculate the global security factor

- We ran a series of secure load flow (SECULF) studies, based on the “year round” generation and peak net demand background, and applying a set of single and double circuits fault events on the network.
- The SECULF calculates the nodal marginal costs under the worst contingencies, to derive the secured nodal marginal costs. The worse contingencies are identified if they cause the maximum flow “swing” for a circuit.
- The SECULF also calculates the nodal marginal costs under the intact network condition (where all the transmission circuits are in service).
- The secured nodal cost is then compared to the intact nodal cost. We then use the Least Square Fit, to derive the average ratio of the two cost figures across all nodes in the network, to derive the locational security factor.
- Currently the value is 1.8, indicating there are around 80% of redundancy in the network, to accommodate power flows under planned or unplanned circuit outages (the network contingencies).

Re-calculation of the global security factor

- Under the CUSC(14.15.90), we need to reviewed it for each price control period, and fix it for the duration.
- We have therefore re-calculated the global security factor, using the network models for the next 5 years (2021/22 – 2025/26), and derived the security factor for each year. An example of the 2021/22 result is shown here.
- The results are shown in the table here.

Year	Forecast
2021/22	1.7505
2022/23	1.7481
2023/24	1.7677
2024/25	1.7550
2025/26	1.7561

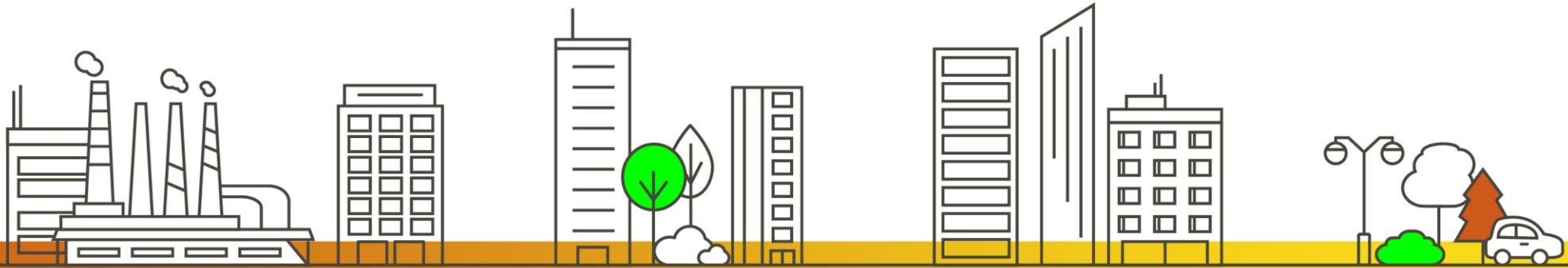


Summary and next steps

- The global security factor has been re-calculated at 1.8 (rounded to one decimal place).
- We intend to use this value for RIIO-2 period.
- We will also publish a guidance document on our website, to explain the calculation methodology in detail.
- If you have any comments please let us know.

TO Data Provision for the Expansion Constant Calculation

Matt Wooton, National Grid ESO



Expansion Constant & Factors Update

- The Expansion Constant (EC) & Factors are key elements of the TNUoS charging methodology (CUSC 14.15.59)
- Parameters are reset at each price control
- Data requests sent to TOs to provide cost of construction per route km installed over the **last 10 years** (STCP 14-1 3.5)
- Still to receive a full data set from TOs
- From the data that has been received to date, there has only been a small number of large transmission projects in the last 10 years
- Concerns there is not a large enough sample for an accurate calculation of the EC
- Working with the TOs to understand what additional data can be provided, that would aid in a more informed / forward looking and reflective EC to be introduced in 2021/22
- CUSC currently allows the ESO to use more forward looking data in the calculation of the EC, however the STCP does not.
- Return to next TCMF with an update on the data provision from the TOs, if any changes to the STCP are required and the impacts it will have on the expansion constant & factors for RIIO-2.



Early Competition Plan

Phase 2 Consultation Overview

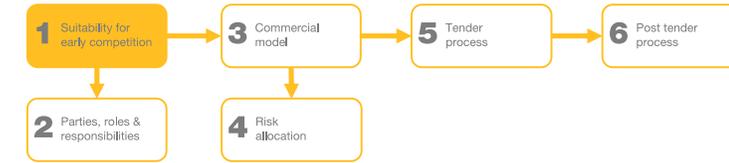
Early Competition Plan

- Ofgem asked the ESO to deliver an Early Competition Plan by end of February 2021
- The Early Competition Plan will:
 - describe an end-to-end process of how early competition may work
 - set out how models for early competition could be implemented
 - outline the roles and responsibilities of all parties in the proposed end-to-end process
- Our Phase 2 consultation (which focuses on the proposed end to end process) closed on 14 August 2020
- This presentation provides an overview of what we proposed in our Phase 2 consultation
- We are now reflecting on consultation feedback and planning further stakeholder engagement for Phase 3
- Phase 3 will include further thinking on how the industry codes could be impacted by the implementation of early competition as well as the associated timescales and processes for future code modifications

Early Competition Model



We are seeking views on our proposed process and criteria for determining whether to compete projects



Drivers of network needs

Boundary reinforcements covered in this consultation. Other drivers explored in next consultation

Process

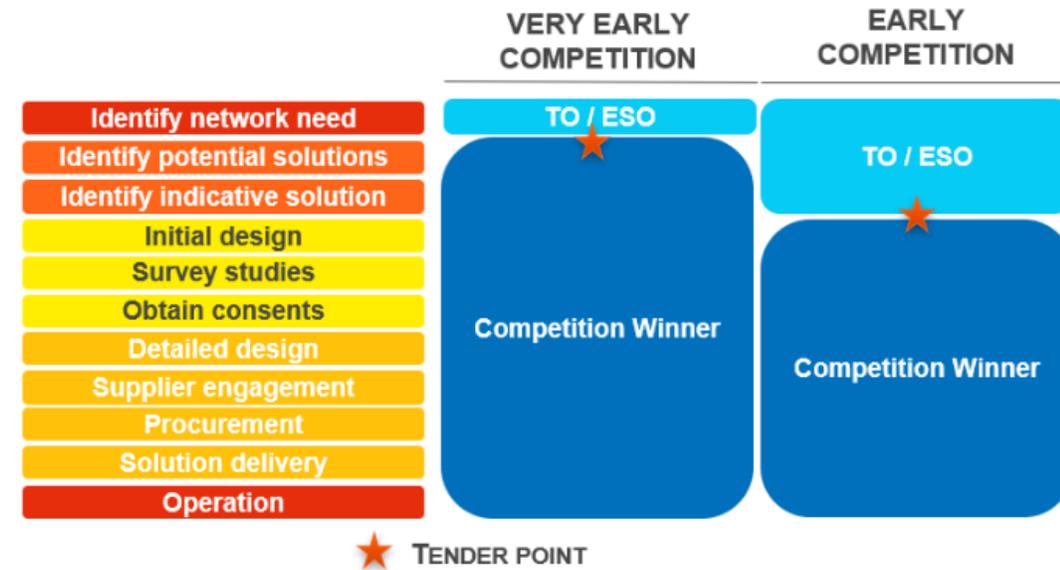
Launch tender at ‘early’ point (after indicative design developed through NOA process)

But.... begin market engagement ‘very early’ in order to ensure the indicative design considers as broad a range of options as possible.

Criteria

Propose further exploration of potential for **no minimum value threshold** – instead a **CBA** undertaken on individual projects

Also propose to consider market appetite, certainty, new and separable



We are consulting on which roles, responsibilities and parties would be best to facilitate early competition

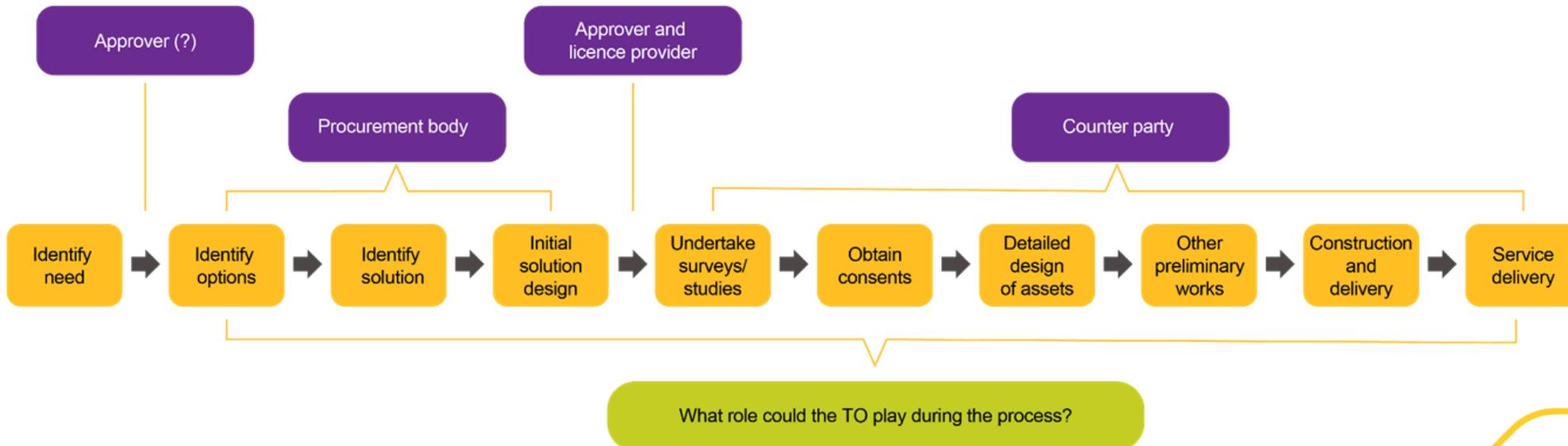


Parties

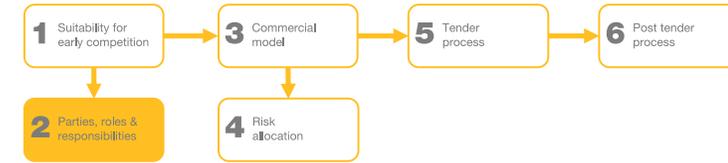
- ESO, Ofgem and the potential of a third party
- Incumbent TOs
 - TOs will bid into the same procurement process
 - Subject to the same post tender arrangements as other bidders, including receiving a revenue stream and adhering to any cost change mechanisms developed for the process

We are seeking views on whether TO's should participate in competitions through the same process as other bidders and what needs to be in place for this to happen.

We have identified 4 key new roles in early competition



We are seeking views on these roles and which entities would be best placed to fulfil each new role



Procurement Body

The role could be carried out by:

nationalgridESO

Or

ofgem

Or



Approver

These entities could carry out these roles:

nationalgridESO

Or

ofgem

Or



This role could be shared across two separate entities

Licence provider

The power to issue a Licence sits with:

ofgem

We do not envisage any other party would be more appropriate to undertake this role

Counterparty

This role is split by transaction:

- Licence

ofgem

- Contract



Or nationalgridESO

- Payment



Or nationalgridESO

We are seeking views on the revenue model, the revenue duration and the end of revenue period arrangements



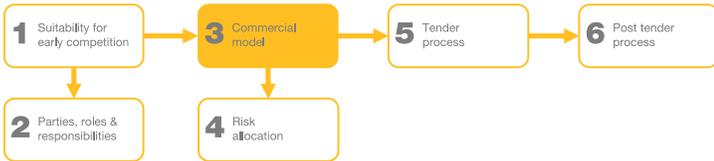
We propose that:

- Successful bidders are awarded an indexed tender revenue stream for up to a maximum period of 45 years
- This tender revenue stream will be set based upon the expected duration of the tendered network needs
- A revenue period extension mechanism will be required where a need and technical asset life remains

We are seeking views on the commercial model, cost assessment process and debt competition

We propose that:

- Underlying costs remain indicative at tender award and become fixed via a post preliminary works cost assessment process
- Overheads and margins are fixed at tender award
- The cost of equity is fixed at tender award
- The cost of debt remains assumed at tender award and becomes fixed via a post preliminary works debt competition

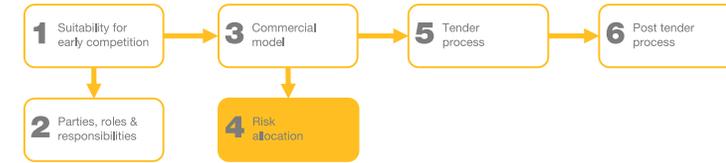


Post-prelims cost assessment with debt competition			
1. Underlying costs	I	X	
2. Overheads/margins	X		
3. Equity cost	X		
4. Debt cost	A	X (FC)	

Key:
 I stage at which bidder provides indicative cost
 A stage at which procuring authority provides an assumption
 X stage at which bidder is committed to a cost item
 (FC) financial close for any third party debt

We are seeking views on risk and risk allocation

Key risks which we start to consider in the consultation are as follows:

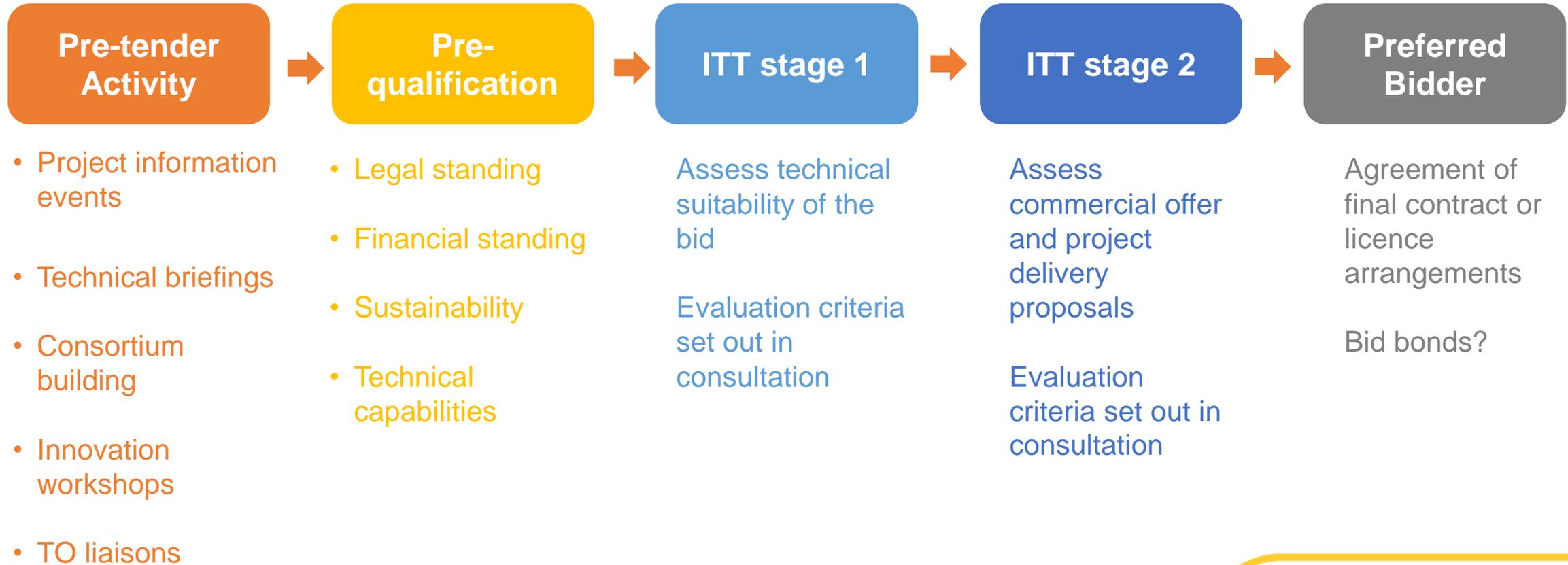
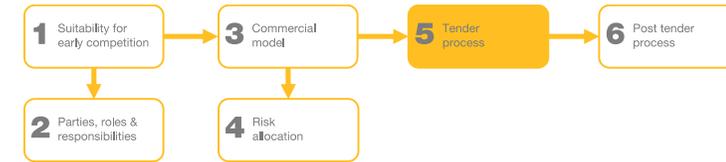


Risk	Bidders	Shared	Consumers
Change in need			X
Preliminary Works e.g. consents		X	
Debt		X	
Refinancing		X	
Commissioning	X		
Decommissioning	X		

We expect any shared risks in the preliminary works stage will be linked to the cost assessment process

Any risk transfer from bidders to consumers will need to be proportionate and be expected to provide a benefit to consumers

We are seeking views on our proposed tender process



We are seeking views on whether the proposed list of network related information is adequate to develop a tender proposal?

List of data

System Requirement Form (pt A)

Required and expected boundary capability

ETYS models

Circuit information over 10 years

Network modelling

Software to model solutions

Study guidelines

Assumptions to be used for modelling

Land

Info held by ESO and TO's

CBA tool

Bidder can run own indicative cost benefit

Key messages

Technology agnostic

Support development of network and non-network solution

Access

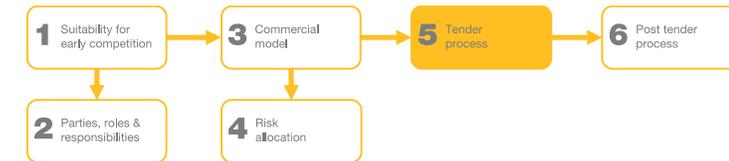
For bidders not signed up to STC, non-disclosure agreements required before access supplied and supplied models will have encrypted core data

Feedback to date

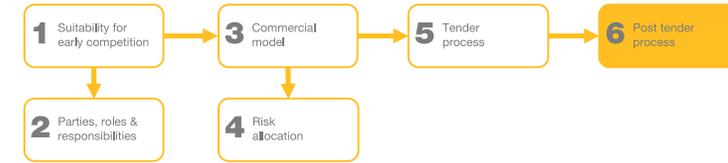
Proposed list of information and access measures is appropriate

Areas for further exploration

Pre-submission review; Post Award access to detailed technical information



We are seeking views on payments, incentives and decommissioning arrangements

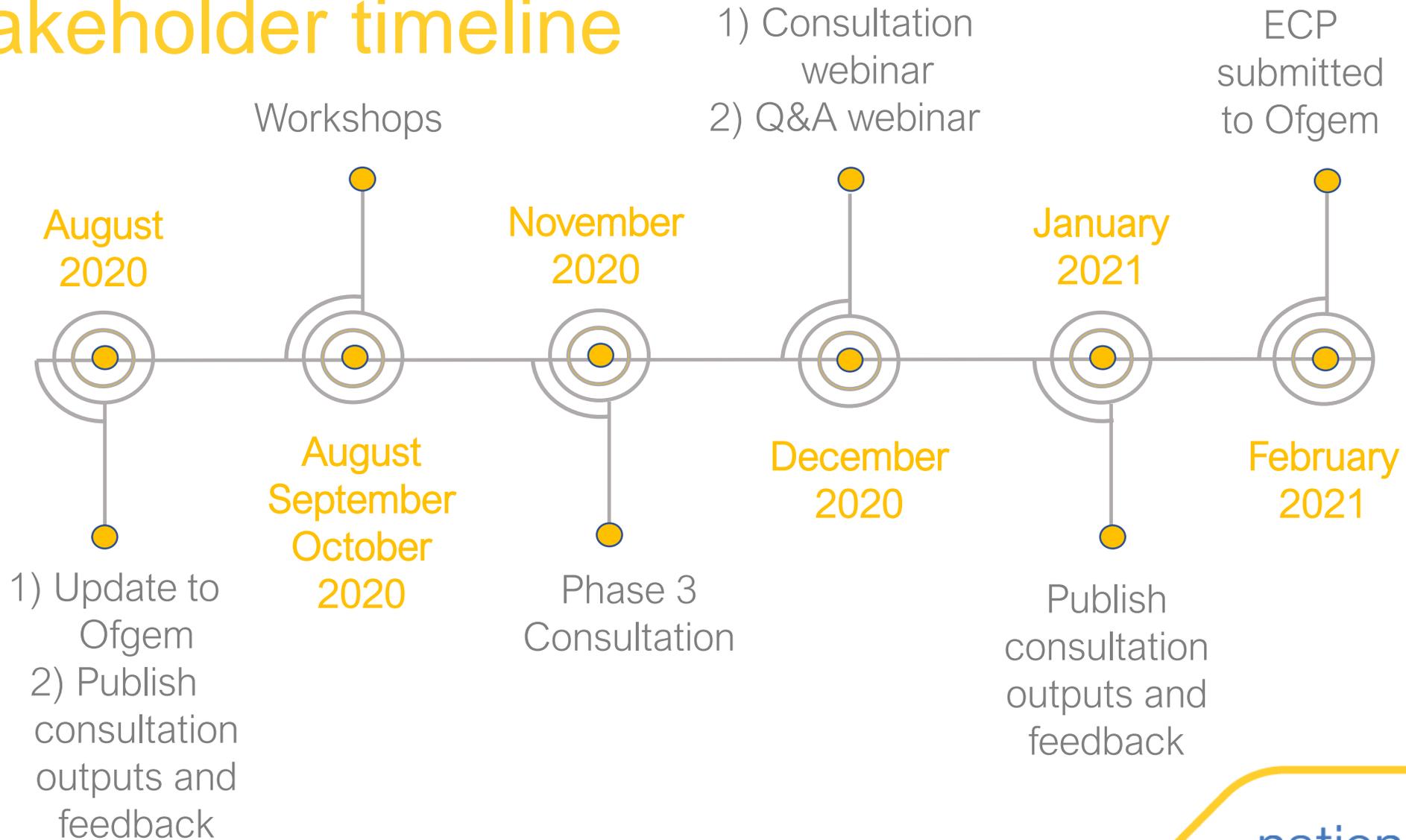


We propose that:

- The tender revenue stream will commence upon solution commissioning but that there is also the potential for earlier milestone-based payments for preliminary works
- There will be an availability based operational incentive, as well as potential operational incentives related to environmental and timely connections performance
- The tender revenue stream includes decommissioning costs and there will need to be associated securities

The preferred bidder will be provided with a licence or contract (as appropriate) so they can deliver and operate the successful solution for the tendered revenue period

Stakeholder timeline



Next steps

- We are holding further engagement workshops in September 2020 to feed into our ongoing model development.
- Our Phase 3 consultation is expected to be launched in November 2020.
- If you have any comments or questions you can contact us in the meantime.

Box.earlycompetition@nationalgrideso.com

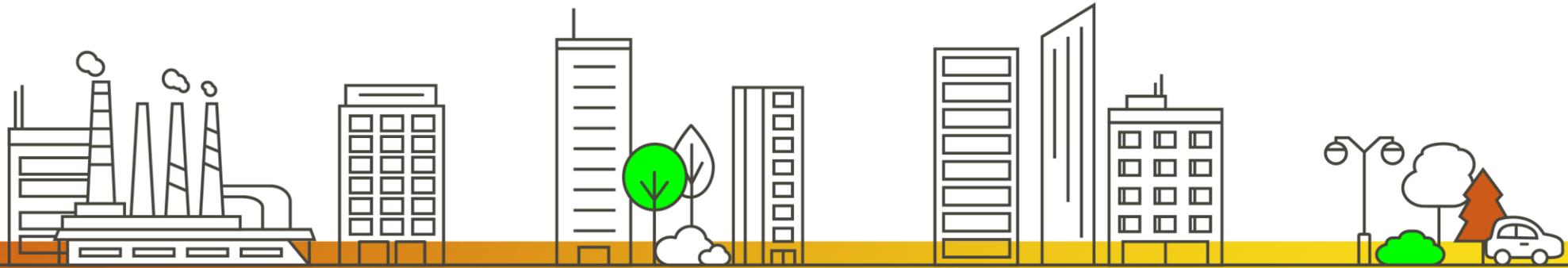




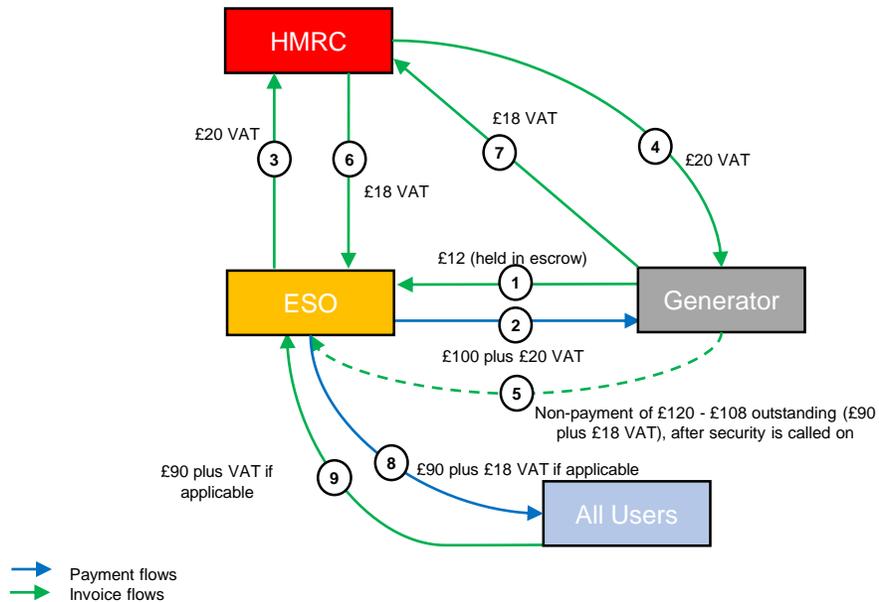
Your questions

VAT and Securities

Nick George, National Grid ESO



CMP 342 Illustrative Example



Step	Description
1	Generator places security of £12 (outside the scope of VAT) (10% of total Cancellation Charge of £120 - £100 plus VAT of £20) – the £12 is held in escrow until called upon by ESO or returned to the Generator
2	ESO invoices the Generator for Cancellation Charge of £100 plus VAT of £20 (£120)
3	ESO pays HMRC VAT of £20 for the Cancellation Charge via its VAT return* (*based on the date of the invoice at 2 above)
4	Generator can claim the VAT of £20 on the Cancellation Charge via its VAT return* (*subject to Generator's normal recovery rates). Note: the position with HMRC is neutral. If Generator settles the full Cancellation Charge in reasonable time, the process ends at step 4.
5	If Generator fails to make payment of the £120, so security of £12 is called on or released from escrow account (£12 is offset against the £120 outstanding). Revised payment outstanding is now £108 (£90 plus £18 VAT)
6	ESO reclaims VAT of £18 off HMRC under the VAT bad debt relief provisions (this is £18 of £20 paid over to HMRC at step 3 above)
7	Generator is required to repay VAT of £18 to HMRC if previously reclaimed at step 4 above under the same provisions for VAT bad debts. Note: the position with HMRC is neutral
8	TNUoS charges in future year increased by £90 plus VAT if applicable due to the additional cost borne by ESO as a result of non-payment by the Generator. Invoices raised to all Users to recover this amount Please note the VAT payment are not noted illustrative above but for reference these are the same as steps 3 and 4.
9	All Users are make payment to ESO in respect of the increased TNUoS charges of £90 plus VAT if applicable

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Financial Securities: Proposed CUSC Modification

Mark Pearce – NeuConnect

Financial Securities

- Developers connecting to the transmission system are required by CUSC to provide Financial Securities to National Grid throughout the course of the works being undertaken to facilitate the connection.
- Securities are notified biannually for the periods 1st April to 30th September and 1st October to 31st March.
- Forms of acceptable Security include
 - Letter of Credit (LoC)
 - Parent Company Guarantee (PCG)
 - Performance Bonds (PB) and
 - Cash Deposits
- The first three forms of security are documentary forms that have a commencement date and typically an expiry date often associated with the expiry of the Security Period in question e.g. 30th September or 31st March.
- It is necessary for National Grid to run the Securities process well in advance of the expiry dates to allow procedures to be followed allowing sufficient time to draw against these financial instruments before they time expire.
- It is for this reason that CUSC stipulates that replacement Securities must be in place 45 days prior to the Security Period in question.



Financial Securities - continued

- Cash Deposits however are made into a National Grid controlled Escrow Account
- There is no expiry date to a cash deposit – only when a withdrawal is made does the Security expire
- Withdrawals by the Developer cannot be made without National Grid's involvement
- National Grid therefore have surety of Security from Cash Deposits at any given point in time
- Providing a Cash Deposit 45 days before the period in question means that the Developer is over securing against the current Security Period for the 45 day period representing approx. 25%
- Developers securing by Cash Deposit are disadvantaged cf Developers securing by PCG, LoC, PB
- Proposal seeks to amend the timescales specifically for Cash Deposits allowing Developers to provide Security by the final business day before the next Security Period



AOB & Close

