



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

Meeting 135 - 08 June 2023

Agenda

| | | | |
|----|---|---|---------------|
| 1 | Introduction, meeting objectives and review of previous actions | Claire Huxley - ESO | 10:30 - 10:35 |
| 2 | Code Administrator update | Milly Lewis - Code Administrator ESO | 10:35 - 10:45 |
| 3 | TCMF Sub-group – Enduring Fixed BSUoS verbal update | Alice Taylor - ESO | 10:45 - 10:55 |
| 4 | TNUoS Task Force verbal update | Nicola White - ESO | 10:55 - 11:00 |
| 5 | TNUoS 10yr Forecast | Jo Zhou - ESO | 11:00 - 11:10 |
| 6 | Operation of SVCs and TNUoS charges | Giulia Licocci - Ocean Winds | 11:10 - 11:25 |
| 7 | GB Connections Reforms verbal update | Mike Oxenham - ESO | 11:25 - 11:35 |
| 7 | VAT Treatment of Embedded Export Tariff | Nick George - ESO | 11:35 - 11:50 |
| 8 | Improvement to TDR Invoice Supporting Information | Nick George - ESO | 11:50 - 11:55 |
| 9 | Securities for Connections | Alison Price - ESO | 11:55 - 12:05 |
| 11 | AOB and Meeting Close | Claire Huxley - ESO | 12:05 - 12:15 |

TCMF Objective and Expectations

Objective

Develop ideas, understand impacts to industry and modification content discussion, related to the Charging and Connection matters.

Anyone can bring an agenda item (not just the ESO!)

Expectations

Be respectful of each other's opinions and polite when providing feedback and asking questions

Contribute to the discussion

Language and Conduct to be consistent with the values of equality and diversity

Keep to agreed scope

Review of previous actions

| ID | Month | Agenda Item | Description | Owner | Notes | Target Date | Status |
|-------|--------|-------------|---|--------------|-------|-------------|--------|
| 23-04 | May 23 | | Provide detailed update on the 10-year forecast | Nick Everitt | | June | Open |

Code Administrator update

Milly Lewis - Code Administrator ESO



Key Updates since last TCMF

New Modifications

- None

Implementations

- **CMP410** (Payment timescales for Monthly Payments) was implemented on 16 May 2023

Key Updates since last TCMF

Current Consultations

- **CMP330/CMP374** (Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length & CMP374: Extending contestability for Transmission Connections) and **CMP414** (CMP330/CMP374 Consequential Modification) - Code Administrator Consultations **closes 5pm 29 June 2023**
- **CMP398** (GC0156 Cost Recovery mechanism for CUSC Parties) and **CMP412** (CMP398 Consequential Charging Modification) - Code Administrator Consultations **closes 5pm 09 June 2023**
- **CMP402** (Introduction of Anticipatory Investment (AI) principles within the User Commitment Arrangements) – Workgroup Consultation **closes 5pm 15 June 2023**

Other

- **CMP315/CMP375** (Expansion Constant Review) – Further Workgroup meetings are being scheduled to discuss potential alternates
- **CMP331** (Option to replace generic Annual Load Factors (ALFs) with site specific ALFs) - Code Administrator Consultation received 3 non confidential responses
- **CMP376** (Queue Management) – Final Modification Report submitted to Ofgem on 07 June 2023
- **CMP392** (Transparency and legal certainty as to the calculation of TNUoS in conformance with the Limiting Regulation) - Workgroup Consultation received 5 responses
- **CMP396** (Re-introduction Of BSUoS on Interconnector Lead Parties) - Independent legal advice now published and next steps to be agreed at June 2023 Panel.
- **CMP408** (Allowing consideration of a different notice period for BSUoS tariff settings) – Workgroup Consultation received 1 confidential and 7 non confidential responses

Useful Links

For updates on all “live” Modifications please visit our “Modification Tracker” [here](#)

Ofgem’s expected decision date / date they intend to publish an impact assessment or consultation, for code modifications/proposals that are with them for decision is [here](#)

For summary of key decisions at latest Panel please click [here](#)

For current prioritisation stack please click [here](#)

CUSC 2023 - Panel dates

| CUSC | Panel Dates | Papers Day | Modification Submission Date | (TCMF) CUSC Development Forum |
|-----------|---------------------------|------------|------------------------------|-------------------------------|
| January | 27 (Face to Face Meeting) | 19 | 12 | 5 |
| February | 24 | 16 | 9 | 2 |
| March | 31 | 23 | 16 | 9 |
| April | 28 (Face to Face Meeting) | 20 | 13 | 6 |
| May | 26 | 18 | 11 | 4 |
| June | 30 | 22 | 15 | 8 |
| July | 28 (Face to Face Meeting) | 20 | 13 | 6 |
| August | 25 | 17 | 10 | 3 |
| September | 29 | 21 | 14 | 7 |
| October | 27 (Face to Face Meeting) | 19 | 12 | 5 |
| November | 24 | 16 | 9 | 2 |
| December | 15 | 7 | 30/11 | 23/11 |

TCMF Sub-group – Enduring Fixed BSUoS verbal update

Alice Taylor - ESO

TNUoS Task Force verbal update

Nicola White - ESO

TNUoS 10yr Forecast

Jo Zhou - ESO



Update: 10-year TNUoS tariff forecast

Objectives

- To give insight on the tariff impact from significant future network development, e.g.
 - Holistic Network Design (HND - single, integrated design that supports the large-scale delivery of electricity generated from offshore wind);
 - Accelerating Strategic Transmission Investments (ASTI - facilitating the transfer of renewable generation to mainland Scotland)
- To assess how the future scenarios may impact TNUoS tariffs
 - Generation technologies mix
 - Demand trend

10-year TNUoS tariff forecast

Constraints

- We recognise the uncertainties in the next 10 years, and the constraints we face
 - Energy policies
 - New technologies and challenges
 - Methodology changes
 - Regulatory uncertainties
 - Unavailability of some detailed network data
 - Generation and demand background: scenarios instead of forecast

10-year TNUoS tariff forecast

Proposed scope

| | In scope | Out of scope |
|-----------------|---|---|
| Circuits | ASTI and HND HVDC circuits impacts on wider tariffs (illustrative) | Methodology options for a meshed HVDC network (local or wider, MITS node etc) |
| Gen cap | Incremental impact on consumers by changes to gen wider locational revenue recovery | Forecasting gen cap figures, or forecasting local charges, or charges associated with pre-existing assets |
| FES | Changes to wider tariffs due to generation/demand trends under FES scenarios | Sensitivities around categorisation of new generation technologies and the associated ALFs |
| CUSC | Where possible, align with the existing CUSC methodology | CUSC mods options, SCR options (if not been implemented via CUSC mods), REMA etc |

ESO 10-year TNUoS tariff forecast

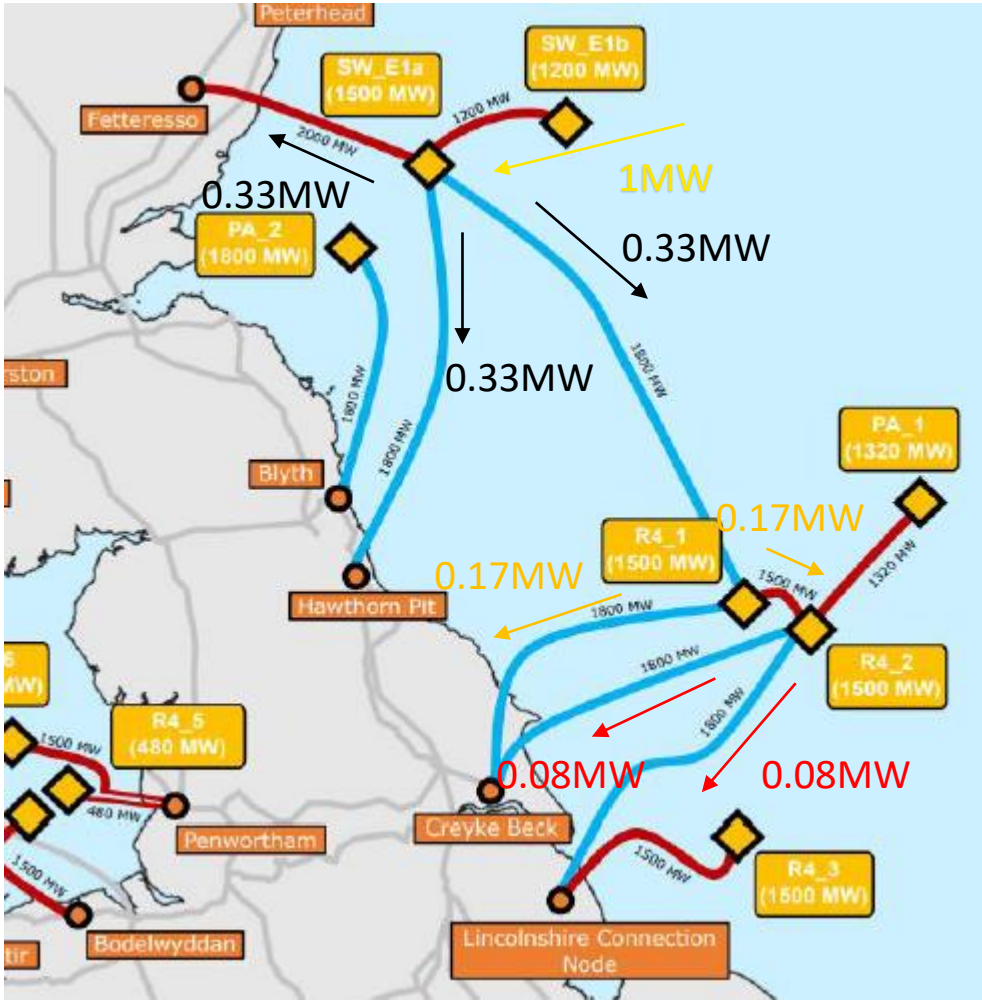
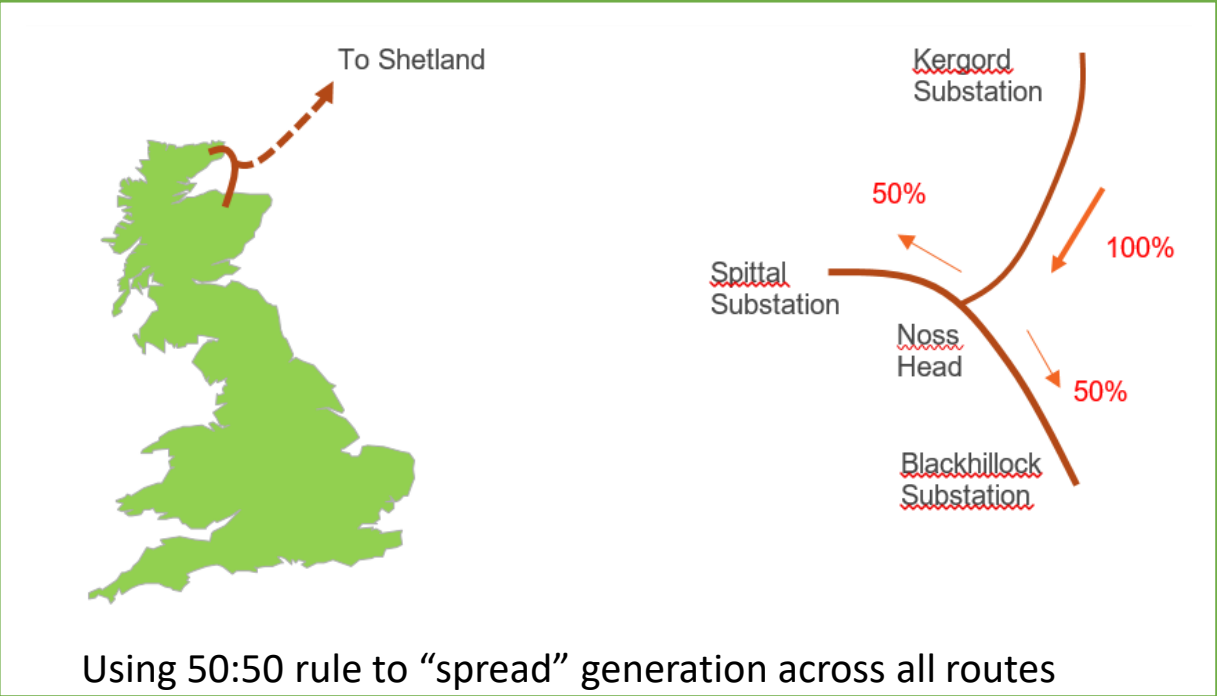
Options to combat the HND methodology challenge

- Option 1 – treat DC circuits as if they were AC circuits
- Option 2 – “even spread” of flows at junction points

- Objective: to keep the tariff calculation relatively simple, and easy to understand, while still retain the locational signals

Option 2 – “Even Spread”

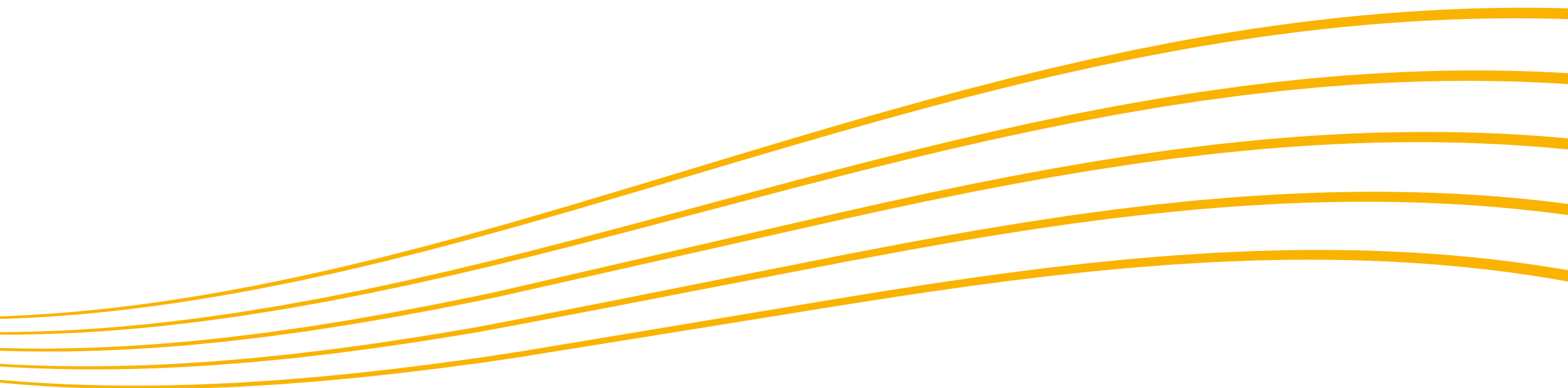
<https://www.nationalgrideso.com/electricity-transmission/document/189146/download>



At SW_E1a – 1MW from SW_E1b is split into 0.33MW X 3 ways
 At R4_1 – 0.33MW of SW_E1a to R4_1 flow is split into 0.17MW X 2 ways
 At R4_2 – 0.17MW of R4_1 to R4_2 flow is split into 0.08MW X 2 ways

Operation of SVCs and TNUoS charges

Giulia Licocci - Ocean Winds



Operation of Static Var Compensators (SVCs) in the NETS and TNUoS Charges

Proposal to refine the allocation of SVC costs at OFTO transfer


DATE:

08 June 2023


Reactive Compensation Compliance

- ❖ Reactive power is crucial for ensuring voltage levels remain within acceptable limits and is required for the reliable and efficient operation of the National Electricity Transmission System (NETS)
- ❖ The Grid Code sets out the mandatory reactive compensation requirements for offshore generators and offshore transmission owners (OFTO) :

CC.6.3.2(e)(i) - Offshore generator requirement:

- Radially connected offshore windfarms are required to **maintain zero reactive transfer at the Offshore Grid Entry Point**
- 
- Generators typically use the reactive capability of the WTGs to compensate for the inductance of the inter-array cables and achieve zero reactive transfer at the offshore grid entry point. Shunt reactors/switched reactors are used to compensate for the offshore export cables.

CC.6.3.2 (c) - OFTO requirement:

- The OFTO is required to **maintain 0.95 power factor lagging and 0.95 power factor leading at the Onshore Interface Point**
- 
- This is achieved via the installation of Static Var Compensators (SVC). The absorption or delivery of reactive power from the SVC is continuously adjusted to meet the requirement for reactive power flow

- ❖ The requirement for reactive compensation is placed on the OFTO and not the wind farm because it is not efficient to comply with the normal generator dynamic reactive compensation requirements offshore due to the long Offshore Export Cable (OEC) lengths
- ❖ In a generator build OFTO exercise (all OFTO transfers to date), the generator bears the cost to comply with both reactive compensation requirements by installing shunt reactors offshore and the SVC onshore

OFTO Transfer and TNUoS charges

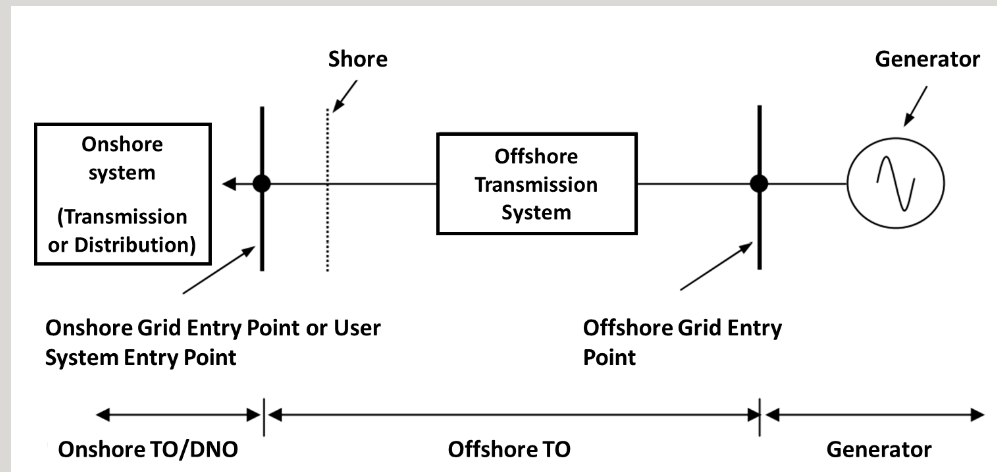
- ❖ After the OFTO transaction, the SVC is transferred to the OFTO and paid via the Final Transfer Value (FTV), which forms the basis for the Tender Revenue Stream (TRS)
- ❖ NGENSO uses the TRS, including the cost of SVCs, to calculate the TNUoS offshore local circuit tariff paid by the generator to the OFTO for the lifetime of the asset
- ❖ The cost of the SVC falls into the local circuit tariff, and is ultimately born by the generator after OFTO transfer
- ❖ The cost allocation of SVCs is neither codified nor specifically mentioned in the CUSC document, and implementation of costs is an interpretation applied by NGENSO

| Cost allocation | Tariff | Asset/Cost category |
|--------------------|-------------------|------------------------------|
| Offshore Generator | Circuit Tariff | Cable |
| | | Cable Assets |
| | | Reactive Equipment |
| | | Harmonic Filtering Equipment |
| | | HVDC Converter Station |
| | Substation Tariff | Transformer Assets |
| Switchgear Assets | | |
| Platform | | |
| | | Auxiliary Supply Equipment |
| Socialised | Onshore tariff | Onshore Substation |



Defect

- ❖ After the OFTO transaction, an offshore wind farm's point of connection (POC) is offshore, and the SVC is not used for compliance at this POC
- ❖ Consequently, the generator pays, via the TNUoS offshore local circuit tariff, for an asset located within the onshore transmission system that is used for OFTO reactive compensation compliance rather than wind farm compliance
- ❖ The SVCs are not used for offshore export cable compensation. Therefore, while it is intuitive that the shunt reactor costs fall into the local circuit tariff, it should not follow that SVCs are treated in the same way
- ❖ The SVCs provide valuable reactive compensation services to the grid and wider users. However, under current arrangement generators bears 100% of the costs whilst the value of this benefit does not flow back to the generator



Proposed solution

| Cost allocation | Tariff | Asset/Cost category |
|--------------------|----------------------------|------------------------------|
| Offshore Generator | Circuit Tariff | Cable |
| | | Cable Assets |
| | | Reactive Equipment |
| | | Harmonic Filtering Equipment |
| | | HVDC Converter Station |
| | Substation Tariff | Transformer Assets |
| Switchgear Assets | | |
| Platform | | |
| | Auxillary Supply Equipment | |
| Socialised | Onshore tariff | Onshore Substation |

- ❖ The status quo fails to meet the CUSC charging objective (b) of charges accurately reflecting the costs incurred by transmission licensees
- ❖ This highlights the necessity for a fairer approach that is more consistent with CUSC objectives
- ❖ The proposal is to amend the calculation of TNUoS by allocating the cost of SVCs to the socialised onshore tariff
- ❖ OW will raise a CUSC modification and will seek approval from the CUSC Panel in June 2023

GB Connections Reforms verbal update

Michael Oxenham and Laura Henry - ESO



VAT Treatment of Embedded Export Tariff

Nick George - ESO

What is Embedded Export Tariff (EET)?

$$\text{EET (£/kW)} = \text{Demand Locational} + \text{AGIC* (£2.55/kW in FY23/24)}$$

*AGIC = Avoided GSP (Grid Supply Point) Infrastructure Credit, which is indexed by average May to October CPIH each year.

- Paid to HH demand customers and embedded generators (<100MW) based on the HH metered export volume during the triads
- Embedded Generation (<100MW) which contracts directly with National Grid ESO can gain Embedded Export payments
- Forecast at £19.4m in FY23/24 (compared to total TNUoS revenue of £4.4bn). This is added to the revenue to be recovered from the demand residual, to ensure overall revenue recovery is correct.

Current Invoicing Embedded Export Tariff – Backing Sheets

- For suppliers, EET is included within TNUoS monthly settlement.
- The EET credit is calculated, and then netted against the HH liability.
- The total of EET + HH is floored at zero during monthly billing (ie never negative), and is reconciled through future month's invoices and then the demand reconciliation where it is allowed to be negative.

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|----|-------|--|--------|-------------|-----------------|-------------|------------|----------------|-------------|------------|----------|-------------|----------|-----------|-------------|
| 1 | AAA | TNUDBS01 | D | 2.02302E+13 | SO | NG | BP | ABCE | | 1 | OPER | | | | |
| 2 | SCHDR | BackingDetails | | | | | | | | | | | | | |
| 3 | BSHD1 | Backing Information for Monthly TNUoS Demand Charges | | | | | | | | | | | | | |
| 4 | BSHD2 | May-23 | | | | | | | | | | | | | |
| 5 | CNAME | ABC ENERGY | | | | | | | | | | | | | |
| 6 | INVNO | 15384144 | | | | | | | | | | | | | |
| 7 | BLREF | MSM_TNUoS_461538414458 | | | | | | | | | | | | | |
| 8 | DUEDT | 15.05.2023 | | | | | | | | | | | | | |
| 9 | BSPDT | 01.05.2023 | | | | | | | | | | | | | |
| 10 | BLANK | | | | | | | | | | | | | | |
| | | | | | LatestForecastH | | ForecastAn | LatestForecast | EETariff(£/ | Forecast | Forecast | LatestForec | | Forecast | ForecastAn |
| | | | | | HTriadDemand(| HHDemandTar | nualHHLiab | EmbeddedExp | kw) | AnnualEE | AnnualHH | astNHHEner | NHHTarif | HHLiabili | nualHH+EE+ |
| | | | | | kW) | iff(£/kW) | ility£ | ort(kW) | kw) | Liability£ | lity£ | gy(kWh) | f(p/kWh) | ty£ | NHHLiabilit |
| 11 | SCDT1 | BMUnitID | ZoneID | ZoneName | | | | | | | | | | | |
| 12 | BSDT1 | 2_ABCEN000 | 9 | EASTERN | 800 | 100 | 80000 | 150 | 11 | -1650 | 78350 | 500 | 16 | 80 | 78430 |
| 13 | BLANK | | | | | | | | | | | | | | |

- For Embedded Generation (<100MW) which contracts directly with National Grid ESO, paid through initial demand reconciliation.

Current Invoicing Embedded Export Tariff – Invoices

- On the TNUoS demand invoice, the total of HH + EET is currently on a single line.
- Standard VAT is applied on the total (net) HH + EET amount

| | A | B | C | D | E | F | G | H | I | J |
|----|-------|-----------------------------|-----------|-------------|-----------|------------|-----------|------------------------|---|--------|
| 1 | AAA | TNUODIN01 | D | 2.02E+13 | SO | NG | BP | TNUOSREC | | 1 OPER |
| 2 | SCHDR | InvoiceDetails | | | | | | | | |
| 3 | INHD1 | THIS IS NOT A VAT INVOICE | | | | | | | | |
| 4 | INHD2 | TNUoS Charges | | | | | | | | |
| 5 | BLANK | | | | | | | | | |
| 6 | SCTTL | Type | Company | Account | InvoiceNu | InvoiceDa | YourOrder | OurBillingReference | | |
| 7 | INTTL | SALESINVOICE | ABC ENER | 1926789 | 7.69E+08 | 01.05.2022 | TNUoS Mc | MSM_TNUoS_935762049320 | | |
| 8 | BLANK | | | | | | | | | |
| 9 | SCDET | Description | ValueExcl | VATAmount | | | | | | |
| 10 | DINV1 | Infrastructure Demand - HH | 100 | 20 | | | | | | |
| 11 | DINV1 | Infrastructure Demand - NHH | 50.52 | 10.1 | | | | | | |
| 12 | DINV1 | Infrastructure Demand - TDR | 1000000 | 200000 | | | | | | |
| 13 | BLANK | | | | | | | | | |
| 14 | SCTOT | TotalExclVAT | TotalVAT | TotalIncVAT | | | | | | |
| 15 | INTOT | 1000150.52 | 200030.1 | 1200181 | | | | | | |
| 16 | BLANK | | | | | | | | | |
| 17 | SCFTR | PaymentDueDate | | | | | | | | |
| 18 | INFTR | 15.05.2023 | | | | | | | | |
| 19 | ZZZ | | 19 | | | | | | | |

nationalgrid**ESO**



SALES INVOICE

Your account number [REDACTED]
 Document number 1135/[REDACTED]
 (Please quote in all enquiries)
 Date 30.06.2022
 Your Order Ref. TNUoS Charges

THIS IS A VAT INVOICE

Please see final page for enquiry information

| Description | Value | VAT Amount |
|--|------------|------------|
| Infrastructure Demand - HH Rec Standard rated VAT: 20% Our Job Ref: TNUoS Init Rec 2021-22 | [REDACTED] | [REDACTED] |

Change to VAT on EET

- HMRC have been in discussion with ESO around VAT treatment of EET
- HMRC have determined that EET should be outside the scope of VAT, being a “pass-through” payment
- Changes are now being made to our new STAR billing system to enable the change:
 - Invoice PDF and Invoice CSV will need changing to break out EET onto separate line, to which zero VAT will be applied
 - No change to CSV backing sheet required
- Change planned for October 2023 TNUoS billing
- Updated CSV file specification and samples be provided in advance (around August)
- This change will also be raised in the Electricity Industry Tax Group.

Improvement to TDR Invoice Supporting Information

Nick George - ESO



Overview of Proposed Change

- TDR changes went live 1 April 2023, introducing a new TNUoS site daily charge for final demand sites
- TNUoS Demand is being billed from our new STAR system
- CSV Backing sheet provides a breakdown of site count by TDR band
- Some customers have asked for more detail, to allow them to verify the site counts and query any discrepancies with the DNOs
- ESO only receive site count numbers by band for each DNO, we do not receive individual site details. For any queries, suppliers need to contact the DNOs.
- To help customers, we are looking to add more detail on backing sheets, to also give the breakdown of site count by DNO and meter registrant (as well as band).
- A draft mock-up of the change to the report is shown on next slides. We are working up the detail and in late June will publish a formal update to the data definition document and CSV template on our website.
- Change could potentially go live for August billing (invoices issued 1 August), but we aimed to give 2 months notice to changes in report templates, which would mean September billing. Views welcome.
- Other minor change is that intermediate values / subtotals (£) will be quoted to 6dp.

TNUoS Demand Backing Sheet - Current

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|----|-------|--|---|---|---------------------------------|----------------------|----------------------------|----------------------------------|----------------|----------------------------|-------------------------------|------------------------------|------------------|----------------------------|-----------------------------------|
| 1 | AAA | TNUDBSO:D | | 2.02E+13 | SO | NG | BP | ABC | 1 | OPER | | | | | |
| 2 | SCHDR | BackingDetails | | | | | | | | | | | | | |
| 3 | BSHD1 | Backing Information for Monthly TNUoS Demand Charges | | | | | | | | | | | | | |
| 4 | BSHD2 | JUNE 2023 | | | | | | | | | | | | | |
| 5 | CNAME | ABC ENERGY | | | | | | | | | | | | | |
| 6 | INVNO | 4.96E+09 | | | | | | | | | | | | | |
| 7 | BLREF | MSM_TNUoS_694960888382 | | | | | | | | | | | | | |
| 8 | DUEDT | 15.06.2023 | | | | | | | | | | | | | |
| 9 | BSPDT | 01.06.2023 | | | | | | | | | | | | | |
| 10 | BLANK | | | | | | | | | | | | | | |
| 11 | SCTND | BMUnitID | ZoneID | ZoneName | LatestForecastHHTriadDemand(kW) | HHDemandTariff(£/kW) | ForecastAnnualHHLiability£ | LatestForecastEmbeddedExport(kW) | EETariff(£/kW) | ForecastAnnualEELiability£ | ForecastAnnualHH+EELiability£ | LatestForecastNHHEnergy(kWh) | NHHTariff(p/kWh) | ForecastAnnualHHLiability£ | ForecastAnnualHH+EE+NHHLiability£ |
| 12 | BSTND | 2__ABCN91 | | NORTHERN SCOTI | 2 | 40.44666 | 80.893324 | 1 | 1.2 | -1.2 | 79.693324 | 3.01 | 2 | 0.0602 | 79.753524 |
| 13 | BLANK | | | | | | | | | | | | | | |
| 14 | SCTDR | ChargingBand | AnnualSiteCountDays(SCD)orAnnualUMSConsumption(MWh) | TDRTariff(£/Site/Day)orUMSTariff(p/kWh) | AnnualTDRLiability£ | | | | | | | | | | |
| 15 | BSTDR | DOM | 890 | 0.20577 | 183.135300 | | | | | | | | | | |
| 16 | BSTDR | EHV1 | 14 | 45.6789 | 639.504600 | | | | | | | | | | |
| 17 | BSTDR | EHV2 | 0 | 620.891585 | 0.000000 | | | | | | | | | | |
| 18 | BSTDR | EHV3 | 0 | 1313.056936 | 0.000000 | | | | | | | | | | |
| 19 | BSTDR | EHV4 | 1 | 3395.928127 | 3395.928127 | | | | | | | | | | |
| 20 | BSTDR | HV1 | 108 | 10 | 1080.000000 | | | | | | | | | | |
| 21 | BSTDR | HV2 | 0 | 56.583289 | 0.000000 | | | | | | | | | | |
| 22 | BSTDR | HV3 | 0 | 99.778507 | 0.000000 | | | | | | | | | | |
| 23 | BSTDR | HV4 | 0 | 257.063453 | 0.000000 | | | | | | | | | | |
| 24 | BSTDR | LV1 | 31 | 4.43 | 137.330000 | | | | | | | | | | |
| 25 | BSTDR | LV2 | 5 | 5.727161 | 28.635805 | | | | | | | | | | |
| 26 | BSTDR | LV3 | 1 | 9.304445 | 9.304445 | | | | | | | | | | |
| 27 | BSTDR | LV4 | 0 | 21.137144 | 0.000000 | | | | | | | | | | |
| 28 | BSTDR | LVN1 | 4271 | 0.043343 | 185.117953 | | | | | | | | | | |
| 29 | BSTDR | LVN2 | 7343 | 10.245167 | 75230.261281 | | | | | | | | | | |
| 30 | BSTDR | LVN3 | 824 | 0.604727 | 498.295048 | | | | | | | | | | |
| 31 | BSTDR | LVN4 | 9481 | 1.910747 | 18115.792307 | | | | | | | | | | |
| 32 | BSTDR | TRN1 | 0 | 389.027378 | 0.000000 | | | | | | | | | | |
| 33 | BSTDR | TRN2 | 0 | 11392.24206 | 0.000000 | | | | | | | | | | |
| 34 | BSTDR | TRN3 | 0 | 38.360041 | 0.000000 | | | | | | | | | | |
| 35 | BSTDR | TRN4 | 0 | 8897.950662 | 0.000000 | | | | | | | | | | |
| 36 | BSTDR | UMS | 1.364 | 1.003187 | 13.683471 | | | | | | | | | | |
| 37 | BLANK | | | | | | | | | | | | | | |

TNUoS Demand Backing Sheet – DRAFT Mock-Up of New Table

| 41 | SCDSO | DNO | Registrant ID | DOM | EHV1 | EHV2 | EHV3 | EHV4 | HV1 | HV2 | HV3 | HV4 | LV1 | LV2 | LV3 | LV4 | LVN1 | LVN2 | LVN3 | LVN4 | UMS |
|----|-------|------|---------------|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| 42 | RICBS | EELC | REGA | 1 | 0 | 0 | 0 | 0 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 256 | 209 | 55 | 11 | 0 |
| 43 | RICBS | EELC | REGB | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 | 55 | 2346 | 0 |
| 44 | RICBS | EELC | REGC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45 | RICBS | EELC | REGD | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 46 | RICBS | EMEB | REGA | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 196 | 41 | 15 | 0 |
| 47 | RICBS | EMEB | REGB | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 123 | 44 | 1743 | 0 |
| 48 | RICBS | EMEB | REGC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 49 | RICBS | EMEB | REGD | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | RICBS | ETCL | REGA | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 8 | 12 | 19 | 1 | 0 |
| 51 | RICBS | ETCL | REGB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 52 | RICBS | ETCL | REGC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 53 | RICBS | ETCL | REGD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 54 | RICBS | FEAL | REGA | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 0 | 0 | 0 | 0.88 |
| 55 | RICBS | FEAL | REGB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 56 | RICBS | FEAL | REGC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 57 | RICBS | FEAL | REGD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 58 | RICBS | FORB | REGA | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 59 | RICBS | FORB | REGB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60 | RICBS | FORB | REGC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61 | RICBS | FORB | REGD | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Securities for Connections

Extending principles of CUSC section 15 User Commitment
Methodology to all Users

Alison Price - ESO



Background

- User commitment arrangements are rules by which Users of the transmission system must underwrite works they trigger on the transmission system
- Users must financially secure the network reinforcement and investment needed to connect them
- They represent a financial commitment which falls away and is replaced with Use of System charges once a User is connected
- In the event a User terminates its connection agreement prior to connection, the User must pay a cancellation charge to the ESO which then flows through to the relevant TO(s).
- There are two security methodologies currently in use in relation to the use of new, additional or reduced capacity:

1. CUSC Section 15 User Commitment Methodology

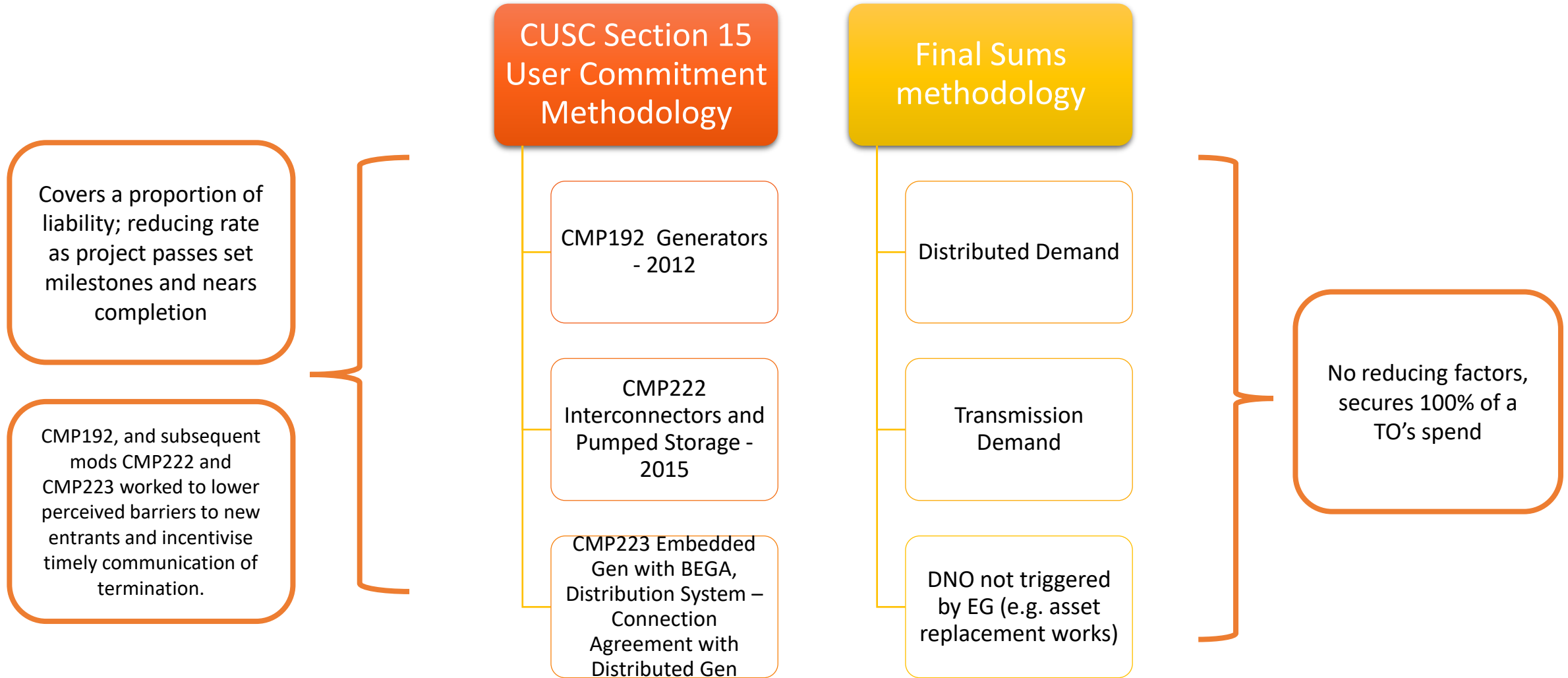
Under Section 15 methodology, the User is required to place security with ESO to cover their proportion of the liability which reduces as the project passes milestones.

2. Final Sums methodology

this means that they're financially liable for the total of the Transmission Owners (TO) spend until the works have been completed.

Under Final Sums methodology, the ESO maybe over-securing a User's liability where there is shared works or assets which could be reused if a project is cancelled.

Background



Why change?

- An increase in Demand connections over recent months and years has driven transmission works beyond the connection site
- Final Sums methodology is acting as a barrier to entry for some Users; will help remove uncertainty for developers in terms of the levels of a TO's spend they need to secure against
- Extending CUSC Section 15 to all remaining Users, ensures a level playing field across all Users groups
- Ensures fairer competition across Users if their security levels more accurately reflects the transmission liabilities a User imposes should they cancel or reduce capacity
- Helps ensure that the ESO is not over-securing a User's liability where there is shared works or assets can be reused

Solution

- Extend Section 15 of CUSC to all User groups – introducing equitable treatment between Users to accurately reflect the transmission liabilities they impose
- Possible creation of a “capacity figure” for the new Users in CUSC section 15 only – as Cancellation Charge within this section is payable by Users on terminations of agreements or reductions in a capacity product
 - Consideration by WG as to whether a change is needed to ESO’s Electricity Transmission licence, Special Conditions
- Any solution will likely require a transitional period to facilitate change in contractual positions, in particular the construction agreement; changes to internal Connections processes and the Connections internal Securities Database to include remaining Users in “User Commitment Methodology”
- Implementation will need to be aligned to the Cancellation Charge statements process, which runs every January and July

AOB & Close