System Services Charge Consultation Workshop

5 Sept 2024

House Rules

- ✓ Please keep your microphone muted during the presentation.
- ✓ Questions through chat and/or raising your hand will be accepted after each section of the presentation and during the Q&A slots.
- ✓ Post workshop, queries can be emailed to SONI Limited: FASSProgramme@soni.ltd.uk and EirGrid Plc: to FASS@EirGrid.com
- ✓ The presentation slides will be made available on the SONI and EirGrid websites.
- ✓ Written answers to queries asked during the session and/or submitted by email will be published after the workshop.

System Services Charge Consultation Workshop

Agenda for today's workshop

Time	Topic
9:00 – 9:15	Introduction and Consultation Overview
9:15 – 9:20	Existing Arrangements for SS Cost Recovery
9:20 – 9:30	Building Blocks of the Methodology
9:30 – 9:35	Implications of Methodology for Storage
9:35 – 9:45	Q&A
9:45 – 9:50	***Break***
9:50 – 9:55	Cash Flow Risk Management
9:55 – 10:05	Legal Basis for levying the FASS Charge
10:05 – 10:15	Providing for Increased Granularity and Contingency Arrangements
10:15 – 10:20	Sample Calculation
10:20 – 10:30	Q&A and Close

SS Charge Consultation Overview

Key details:

The consultation paper contains 13 questions spanning a number of topics related to the SS Charge.

A 7-week consultation period is now underway. Responses to be submitted by 18th September.

Questions can be submitted to FASSProgramme@soni.ltd.uk or FASS@Eirgrid.com

Introduction

Introduction

- SEMC has defined the objective of the System Services Future Arrangements (SSFA) programme as follows:

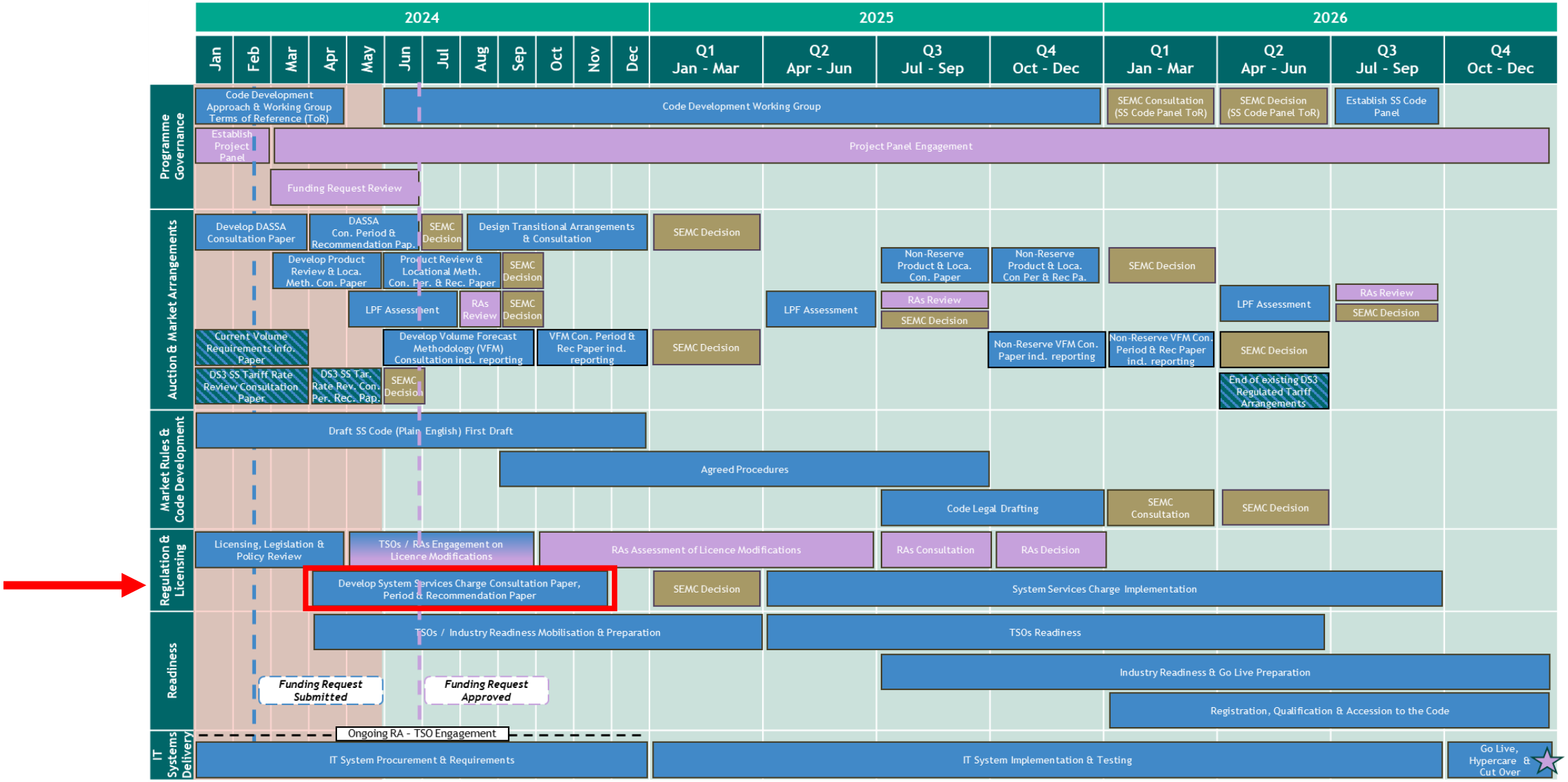
  "to deliver a competitive framework for the procurement of system services, that ensures secure operation of the electricity system with higher levels of non-synchronous generation."

- In SEMC's SSFA High Level Design, it was decided that System Services providers under SSFA will receive payments from the TSOs, with the TSOs recovering the associated costs through a **new standalone all-island charge imposed on Suppliers**.

- The SEMC decided that this new charge will:
  - Initially be set on **an annual basis**, with the annual cost to be forecast by the TSOs and subject to regulatory approval.
  - Be recovered from **Suppliers through a per MWh tariff**, set by reference to forecast **annual All-Island energy demand**, also to be forecast by the TSOs.
  - Incorporate a **k-factor mechanism** to account for any deviation between actual costs and revenues, with the k-factor to be calculated by the TSOs and subject to regulatory approval.
- This charge is referred to as the **"FASS Charge"** in the context of this Consultation.

Phased Implementation Roadmap (PIR)

The various workstreams under the SSFA programme are progressing in accordance with the published Phased Implementation Roadmap (PIR)



Consultation Overview

Consultation Overview

Section of Paper	No. of Questions	Topics / Subsections	
1. Introduction	–	• Background • System Services Future Arrangements • Future Arrangement System Services (FASS) Charge	• Phased Implementation Roadmap • Purpose of this Paper • Structure of Paper • Next Steps
2. Description of Status Quo	–	• DS3 Cost Recovery	
3. Approach in Other Markets	–	• Approach in Italian and GB markets	
4. Building Blocks of the Methodology	**8**	• Forecast System Services Cost • K-Factor Mechanism • Forecast All-Island Demand • FASS Charge Rate	• Calculation of the Charge • Settlement of the Charge • Summary of Proposed Methodology
5. Cash Flow Risk Management	–	• Arrangements for risk management, such as credit facilities, within year adjustment, etc	
6. Legal Basis of Levying the FASS Charge	**2**	• Existing provisions in the Supplier TUoS agreement in Ireland and Northern Ireland	• Proposed legal basis for FASS Charge
7. Providing for Increased Granularity	**2**	• Trading period-based charge approach • Required TSO system capabilities	• Comparison between calculation approach for annual and trading period based charge
8. Assumptions and Contingency Arrangements	**1**	• Other arrangements assumed to be in place to facilitate levying the System Services charge	• Contingency plan
9. Summary of Consultation Proposals and Questions	–	• List of questions to stakeholders	
10. Next Steps	–	N/A	
11. Annex setting out Example Calculation	–	N/A	
Total Number of Industry Questions	**13**		

Existing Arrangements for SS Cost Recovery

Description of Status Quo for DS3 Cost Recovery

- DS3 costs are recovered on a 75:25 basis between EirGrid TSO and SONI TSO
- The TSOs provide an expenditure forecast for DS3 on an annual basis as part of their respective Annual Revenue Requirement submissions.
- The respective K-factor processes are used to reconcile actual revenues collected with actual expenditure.

RoI	NI
• DS3 costs recovered through the System Services Charge component of the Demand TUoS Charges. • The System Services Charge is applied on a per MWh basis on all demand customer types. • The charge rate varies between Tx and Dx connected customers. For larger customers, the charge rate varies between peak and off-peak times.	• DS3 costs are recovered through the System Support Services (SSS) tariff. • This is a flat per kWh rate that is constant across time and customer type.

Both the System Services Charge and the SSS tariff include additional costs beyond DS3 and will therefore remain in place after the new FASS charge is implemented.

Building Blocks of the Methodology

Forecast System Services Cost

System Services Costs to include:

1. DASSA Costs

2. LPF & Fixed Contracts

3. Other All-Island System Services, not captured in DASSA or LPF/fixed contracts

Cost Forecast to be based on:

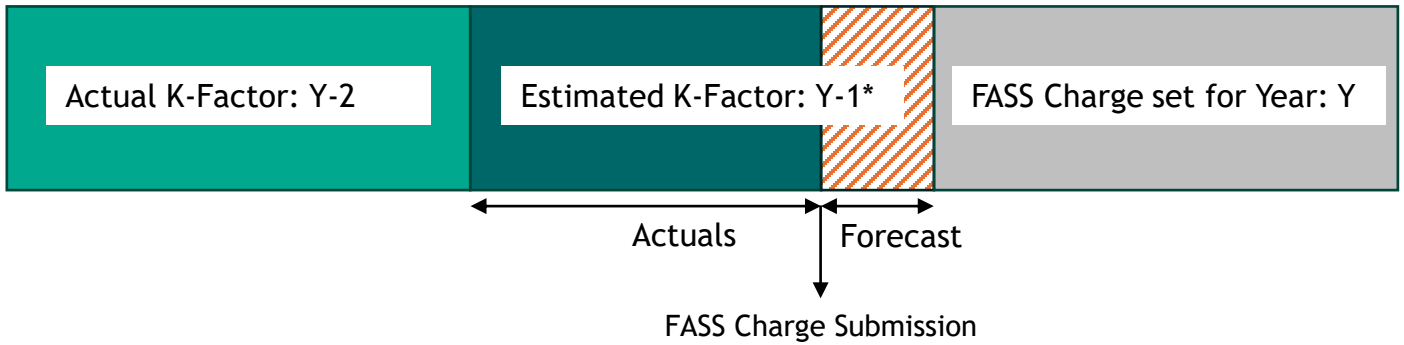
1. Projection of DASSA payments for forecast procured volumes
2. Costs of LPF or long-term contracts (forecasted if actual costs not known)
3. Projection of cost of any all-island system services procured through a tariff-based process

- TSOs to prepare and submit a report to the RAs 3 months before the start of each Tariff Year
- The Volume Forecast Methodology is currently in development under the Auction and Market Arrangements workstream, with expected consultation paper issuance later this year.
- The TSOs may use different approaches for defining the forecast unit price/cost of different System Services.

K-Factor Mechanism

Reconciliation of differences between actual costs and revenues

- Mechanism to reconcile any under/over-recovery that may occur
- Included in the FASS charge rate calculation.



* Estimated k-Factor: Y-1 will only be applicable if provided for within the regulatory arrangements and approved by the RAs.

Actual K-Factor: Y-2

- As the settled accounts for the Y-2 year will be available, an actual K-factor will be used in the FASS Charge rate calculation.

Estimated K-Factor: Y-1

- An estimated K-factor for the Y-1 year may be included if provided for within the regulatory arrangements.
- This will help in managing and mitigating the risk of under/over-recovery accumulating over the years.
- TSO license modifications in NI are required for implementation.

Forecast All-Island Demand & FASS Charge Rate

Forecast All-Island Demand

- The All-Island SEM demand forecast, prepared by the TSOs will be used in the setting of the FASS Charge.
- The same forecast is currently used in setting the Imperfections and a range of other market charges.

FASS Charge Rate

- Determined by the equation:

$$\textit{FASS Charge Rate}_Y\ (€/MWh) = (\textit{Forecast Cost}_Y + \textit{K-Factor}) / \textit{Forecast Demand}_Y$$

- To be set on an annual basis. SEMC may consider the move to a more granular charge in the future.
- Charge rate will be set in Euro. SONI will convert the rate into GBP using the average rate over the last five business days in July.
- The charge rate will be included in the FASS Charge Submission made to the RAs.

Calculation and Settlement of the Charge

Calculation of the Charge

- The FASS Charge will be levied on suppliers based on actual demand in each Imbalance Settlement Period.
- The DASSA trading period is also proposed to be aligned with the existing Imbalance Settlement Period.

Equation:

$$FASS\ Charge_{v\gamma} = QMLF_{v\gamma}\ X\ FASS\ Charge\ Rate$$

where, $QMLF_{v\gamma}$ is the Loss-Adjusted Metered Quantity for Supplier Unit, v, in Imbalance Settlement Period, γ, in the SEM.

Settlement of the Charge

- The total FASS Charge will be calculated as a summation of the FASS Charge for each Imbalance Settlement Period within the settlement window/charging period.
- The payment due date for the FASS Charge and for the DASSA payments are expected to be offset from each other, such that monies from the charge are received in advance of the DASSA payments.

Equation:

$$FASS\ Charge_{vS} = \Sigma FASS\ Charge_{v\Upsilon}$$

for each supplier, v, Imbalance Settlement Period, γ, and settlement window S

Implications of the Methodology for Storage

Implications of the Proposed FASS Methodology for Storage

SEMC's Decision:
"a MWh charge would be levied on Suppliers based on the **all-island energy demand** forecast"

TSOs' Proposed Methodology:
"all-island energy demand" = SEM demand = QMLF

QMLF does not include storage load
=> FASS Charge will not apply to demand from storage

Q&A

Any questions?

Break

Cash Flow Risk Management

Cash Flow Risk Management

Identifying Cashflow Risk

- FASS Charge will be based on annual forecasts initially => risk of a mismatch between actual monies collected and paid out.
- The K-factor mechanism will reconcile this, but there is cash flow risk over the intervening years, as well as from month to month.
- This risk is expected to be highest in the period after go live of the DASSA for which forecasting will be most challenging.

Management of Cashflow Risk

- Working capital facilities will be required, as in the case of other market arrangements.
- Provision will also need to be made for the case where the working capital facilities are exhausted e.g. similar to the suspend and accrue provision contained in the Trading and Settlement Code.
- To minimise the likelihood of needing to invoke these provisions:
  - The K-factor mechanism can be strengthened by incorporating a Y-1 estimated K-factor
  - A mechanism to make a within year (Y) adjustment to the FASS Charge rate can be established to allow adjustment of the charge rate within the tariff year where necessary, and subject to RA approval
  - The annual charge rate may need to be set with a seasonal profile if seasonal divergence in payment and revenue profiles is driving cash flow challenges – this would require consultation, and RA approval.

Legal Basis of levying the FASS Charge

Legal Basis of levying the FASS Charge

Existing Arrangements

- Currently, System Services costs are recovered based on charges levied under the respective Supplier Transmission Use of System Agreements in accordance with the TSOs' Statements of Charges.

SEM Committee's Decision

- SEM-22-012 states that:

> "all arrangements relating to the governance, settlement and procurement of System Services will be set out in a System Services Code" and that "this option has been chosen to improve the transparency of the System Services arrangements".

Options considered by the TSOs for levying the FASS Charge

Through the FASS Code

- Under this Option the legal basis for levying the charge would be established through the FASS Code.
- Akin to how the detailed methodology for Imperfections is set out in the TSC.

Through the Supplier TUoS Agreements, cross-referred to from the FASS Code

- An RA approved, FASS Charge methodology would be set out, similar to the one for the existing standalone Generator TUoS Charging mechanism.
- The charge would be levied under the respective Supplier Transmission Use of System Agreements and cross-referred to from the FASS Code.
- The TSOs consider that the TUoS framework would be preferable and more pragmatic

Legal Basis of levying the FASS Charge – Pros and Cons

Assessment Criterion	TUoS Framework	FASS Code
Transparency	+ Both can provide full transparency	
Ease of Establishment	+ Relatively easier to establish through the existing framework + Largely decoupled from wider FASS code development, requiring only a refer out in the code	– Comparatively more complex to establish – Cross-dependent on FASS Code development
Supplier Impacts	+ Suppliers are already required to sign up to the TUoS Agreements + Suppliers already post security cover under those agreements and any increase in the required cover due to the FASS Charge would be given effect in accordance with arrangements in-place	– Would require suppliers to accede to the FASS Code, which would in turn require Supplier License amendments – Separate additional supplier security cover requirements
Flexibility	– Could accommodate differing designs of the FASS Charge methodology, but might require modification	+ Could be more flexible in accommodating differing designs of the FASS Charge methodology
Accommodating Trading Period Granularity	• Moving to high granularity, e.g. hourly, would be complex under either route • The system requirements/changes required will be the same under either route • The TSOs consider that the granularity could be accommodated through either route	

Providing for Increased Granularity

Providing for increased Granularity

The FASS Charge is initially to be set annually by reference to an annual TSO cost estimate and energy demand forecast.

However, SEMC have stated that they may move to a trading period based charge in the future and requested that this be provided for in the TSOs' systemisation.

1. The proposed FASS Charge methodology applies the charge rate on a trading period basis so as to future proof.
2. The calculation of the charge rate dynamically for each trading period however would require significant additional development of the TSOs' systems and involve as inputs:

- The actual DASSA cost for each trading period,

- The actual MWh demand for each trading period, and

- The cost of LPF and Fixed Term contracts, based on a cost allocation method that would need to be determined.

Given this complexity, the TSOs will undertake an assessment of building in the required functionality and discuss the costs and benefits of this with the RAs.

Contingency Arrangements

Contingency Arrangements

Successful application of FASS Charge to suppliers

In the event the FASS Charge is not implemented in advance of go-live of the DASSA arrangements:

The TSOs existing mechanisms for recovery of DS3 costs would be used on a temporary basis for the recovery of all FASS related costs until such time as the charge is put in place.

Enabling assumptions include:

- Any required license or billing system modifications are in place.
- Where the decision is to levy the charge directly under the FASS Code, that the FASS Code is complete and in effect.
- Where the decision is to levy the charge via the TUoS Arrangements, any required modifications are in place and the respective Statements of Charges are approved by the respective RAs.

Sample Calculation

Sample calculation

The example below determines the annual FASS Charge Rate for the following assumed inputs:

Forecast Cost $_{y}$ = 400 €m

K-Factor= 10 €m (under recovery)

Forecast Demand $_{Y}$ = 48 TWh

Applying the proposed formula:

$$FASS\ Charge\ Rate_{Y}\ (€/MWh) = (Forecast\ Cost_{Y} + K\text{-}Factor) / Forecast\ Demand_{Y}$$

Gives:

$$FASS\ Charge\ Rate_{Y}\ (€/MWh) = [(400 + 10)\ X\ 10^{6}] / [48\ X\ 10^{6}]\ ;$$

$$FASS\ Charge\ Rate_{Y}\ (€/MWh) = 410/48$$

$$FASS\ Charge\ Rate_{Y}\ (€/MWh) = 8.54$$

Sample calculation (continued)

The **annual FASS Charge Rate to be applied in pound sterling per kWh** is determined as follows:

FASS Charge Exchange $Rate_y$ = 0.8745 £/€

$$\textit{FASS Charge Rate}_Y \textit{ (p/kWh)} = \textit{FASS Charge Rate}_Y \textit{ (€/MWh) X FASS Charge Exchange Rate}_Y \textit{ (£/€) X 100 (p/£) / 1000 (kWh/MWh)}$$

$$\textit{FASS Charge Rate}_Y \textit{ (p/kWh)} = \textit{8.54 X 0.8745 / 10}$$

$$\textit{FASS Charge Rate}_Y \textit{ (p/kWh)} = \textit{0.7468}$$

Please note that input figures used in the example above were arbitrarily selected and do not present any view or expectation of the TSOs.

Next Steps

- ✓ Responses to the consultation should be submitted via the SONI (link) or EirGrid (link) consultation portals by 18th September 2024
- ✓ Should stakeholders have any questions or comments during the consultation period these can be submitted to FASSProgramme@soni.ltd.uk or FASS@Eirgrid.com
- ✓ The presentation slides will be made available on the SONI and EirGrid websites.
- ✓ Written answers to queries asked during the session and/or submitted by email will be published after the workshop.

Q&A

Any questions?

Appendix

Appendix 1 - Summary of Proposals and Consultation Questions

Section	TSOs' Proposals and Questions
4.1 Forecast System Services Cost	**Proposal:** • TSOs shall submit a report to the RAs 3 months before the start of each Tariff Year, proposing values to be used in the calculation of the FASS Charge for that Tariff Year. **Question 1**: Do you have any comments on the proposed approach to establishing the forecast System Services cost?
4.2 K-Factor Mechanism	**Proposal:** • The k-factor will be included in the FASS Charge Submission. The k-factor will comprise the Actual Y-2 k-Factor, and, if provided for within the regulatory arrangements, and with approval of the RAs, an Estimated Y-1 k-Factor. **Question 2:** Do you have any comments on the proposed approach to establishing the k-factor?
4.3 Forecast All-Island Demand	**Proposal:** • The All-Island Demand forecast, as prepared by the TSOs, will be used in setting the FASS Charge. **Question 3:** Do you have any comments on the proposed approach?

Appendix 1 - Summary of Proposals and Consultation Questions

Section	TSOs' Proposals and Questions
4.4 FASS Charge Rate	**Proposal:** • In line with SEM-22-012 the FASS Charge Rate will be calculated as: FASS Charge Rate$_Y$ (€/MWh) = (Forecast Cost Y + K-Factor) / Forecast Demand$_Y$ • The FASS Charge Rate will be included in the FASS Charge Submission. • SONI will convert the FASS Charge Rate to GBP using the average exchange rate over the last five business days in July (in keeping with existing processes). **Question 4:** Do you agree that the proposed methodology reflects the SEMC decision?
4.5 Calculation of the Charge	**Proposal:** • Charge will be calculated on an Imbalance Settlement Period basis • Each TSO will calculate the FASS Charge for each Supplier in each Imbalance Settlement Period as follows: FASS Charge$v\gamma$ = Q$MLFv\gamma$ X FASS Charge Rate • SONI will invoice suppliers in GBP and EirGrid will invoice in Euro **Question 5:** Do you have any comments on the proposed approach to calculating the FASS Charge?

Appendix 1 - Summary of Proposals and Consultation Questions

Section	TSOs' Proposals and Questions
4.6 Settlement of the Charge	**Proposal:** • The settlement window for the FASS Charge is assumed to be offset from the DASSA settlement window. This should be taken into account in setting the timelines for payments to providers under the DASSA. • The total FASS Charge for the settlement window will be: $FASS\ Charg\ FASS\ Charge_{vS} = \sum_{1}^{S} FASS\ Charge_{v\gamma}$ **Question 6:** Do you have any comments on the proposed approach to levying the FASS Charge?
4.7 Summary of Proposed Methodology	**Question 7. Have we correctly identified the building blocks of the methodology?** **Question 8. Do you agree with the TSOs' proposed methodology for implementing the FASS Charge?**
6 Legal basis of levying the FASS Charge	**Proposal:** • The TUoS framework shall be used as the legal basis for levying the FASS Charge. **Question 9:** Do you have any comments on the TSOs' assessment of the two routes for providing a legal basis for the FASS Charge? **Question 10:** Are there other considerations not identified here that are relevant to the use of either the FASS Code or the TUoS framework as the legal basis for the FASS Charge?

Appendix 1 - Summary of Proposals and Consultation Questions

Section	TSOs' Proposals and Questions
7 Providing for increased Granularity	**Question 11:** Do you require any information on the system design from the TSOs at this stage? **Question 12:** Do you have any concerns around the impact of the TSOs' assessment of the required IT system design on your system readiness?
8 Assumptions and Contingency Arrangements	**Proposal:** • If the FASS Charge is not implemented in advance of go-live of the DASSA arrangements, the TSOs' existing mechanisms for recovery of DS3 costs be used on a temporary basis. **Question 13:** Do you have any comments on the TSOs' proposed contingency arrangements?