

QTP & Volume Capped Update

Dundalk

14th March 2019



Agenda - Morning

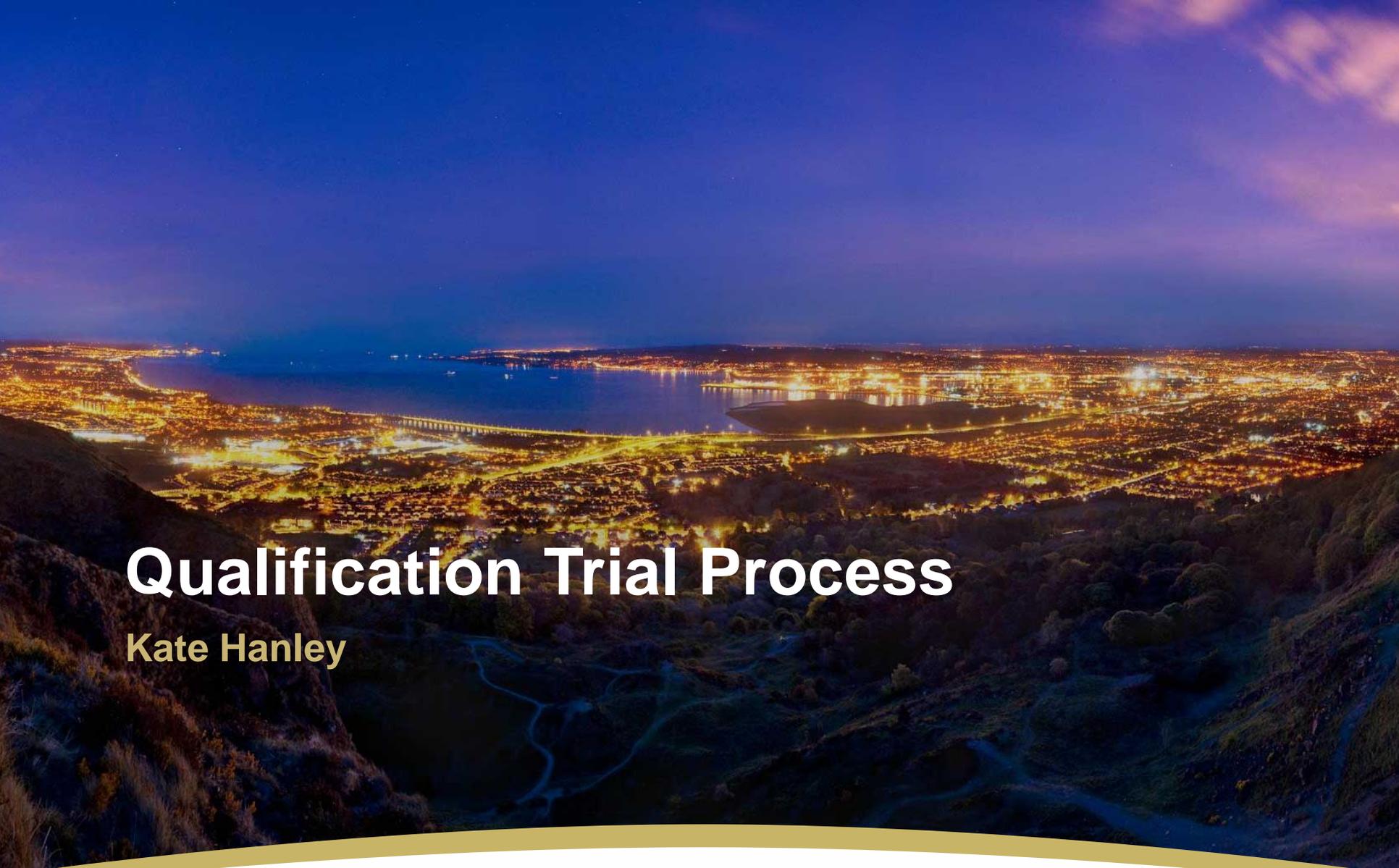
Topic	Time	Speaker (All EirGrid)
Introduction & Welcome	10:30	Jon O'Sullivan (10 mins)
QTP Update	10:40	Kate Hanley (25 mins inc. discussion)
Volume Capped: Consultations Summary	11:00	Eoin Clifford (20 mins)
Volume Capped: Pre-Qualification Questionnaire	11:20	Eoin (10 mins)
Batteries: Signalling & Compliance update	11:30	Colm McManus (10 mins)
Volume Capped: Submitted Tender Queries	11:40	Eoin (20 mins)
AOB (Regulated Arrangements)	12:00	Jono
Open Q&A	12:10	Various
Close 12:30		



Introduction

Jon O'Sullivan





Qualification Trial Process

Kate Hanley



Overview

- To engage Service Providers to participate in trials to enable the expansion and diversification of DS3 System Services providers
- The 2019 Qualification Trial Process will facilitate the real-time trials of both new and existing technologies for relevant System Service provision on the Ireland and Northern Ireland power system.
- This procurement is being run by EirGrid on behalf of EirGrid and SONI.
- Classification as a proven technology arising from the QTP **does not guarantee that a service provider will receive a contract as part of regulated arrangements.**



Qualification Trial Process 2019

Lot	Overview	Duration	Number of Providers
Lot 1: Solar Technology	Provenability of Solar Technology for the provision of DS3 System Services	12 Months	Max of 2
Lot 2: Aggregated Residential Services	Mechanism for the provision of DS3 System Services from Aggregated Residential Demand	18 Months	Max of 2
Lot 3: Other Technology	Provenability of Other Technology for the provision of DS3 System Services	18 Months	Max of 2
Lot 4: Alternative Communication Method	Trial to enable the approval or otherwise of an alternative communication method.	12 Months	Max of 4



Lot 1 Solar Technology Trial

- Objective to prove solar technology capable of providing a range of the DS3 System Service products and identify any operational complexities
- Tenderers must be connected to the Ireland/ Northern Ireland Transmission System or Distribution System on or before **1st May 2019**
- Tenderers must have a **minimum MEC of 10 MW**



Lot 2: Aggregated Residential Services

- Objective is to focus on the provision of DS3 System Services from residential homes
- Investigate any barriers that exist in the current regulated arrangements
- **Trial duration of 18 months** – tenderers must submit a detailed project plan of what will be achieved during trial period
- Tenderers must be Connected and Operational on the Irish / Northern Irish Transmission / Distribution Network on or before **1st September 2019**



Lot 3: Other Technology

- Objective is to prove “Other Technology” capable of providing a range of DS3 System Service products and identifying any operational complexities
- The providing unit must be previously unproven or listed as a proven technology which is now/will be combined as a Hybrid unit
- Tenderers are required to be connected to the Ireland/ Northern Ireland Transmission System or Distribution System on or before **1st September 2019**
- Providing Unit must be capable of providing at least **100 kW of Operating Reserve** for under frequency events



Lot 4: Alternative Communication Method

- Objective is to trial a new telecommunications method which meets the shifting needs of the industry
- This new methodology will enable two-way communication between a small scale service provider or aggregator and the network operator
- The system trial will be completed on the TSO proposed telecommunication protocols and hardware
- The providing unit must be Connected and Operational on the Irish / Northern Irish Transmission / Distribution Network in advance **1st September 2019**



Budget and Payment

- A total budget of €400,000 is available for Lots 1- 3
- A total budget of €40,000 is available for Lot 4
- Participants will be paid a flat rate payment based on the overall timeline of the project



Contract Notice

- A contract notice was published on tenders on 8th March 2019
 - ENQEIR643 – Qualification Trial Process
- Documents available on eTenders
www.etenders.gov.ie



Procurement Process

- Tenderers are invited to submit a tender for one or more or all of the applicable Lots in accordance with the RFP:
 - Lot 1: Solar Technology Trial
 - Lot 2: Aggregated Residential Services Trial
 - Lot 3: Other Technology Trial
 - Lot 4: Alternative Communications Method Trial
- Interested Tenderers must submit a tender response **through the eTenders portal** in respect of the relevant Lot.
- Tender box close time **12 noon**, Irish Time, on **5th April 2019** – **eTenders will not allow upload after this time.**



Queries

Queries from this Bidders' Conference

- We will endeavour to respond to all queries today
- We request Candidates to formally submit queries via email
- Formal response will issue to all Tenderers which may supersede information provided today

General Queries

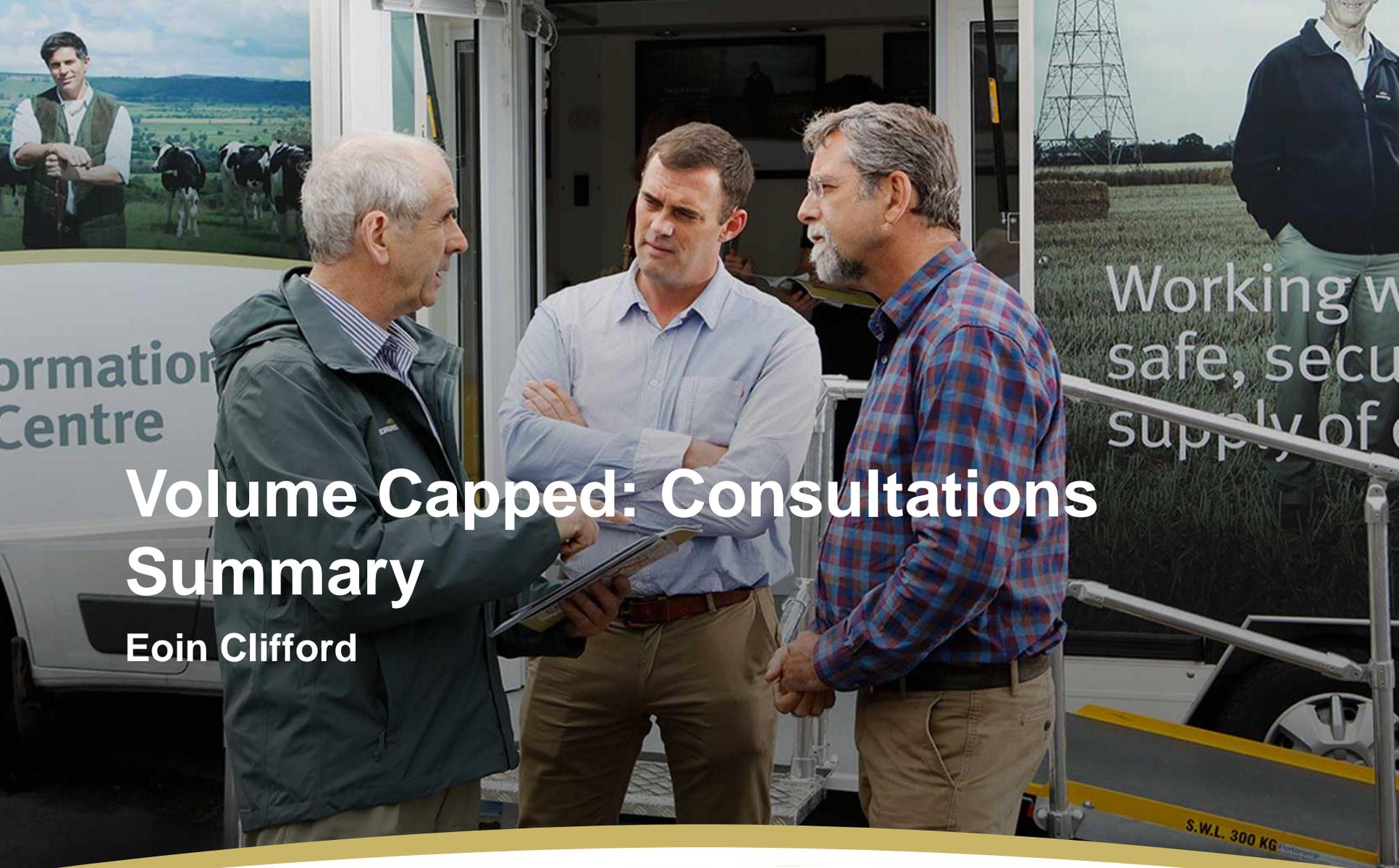
- Submitted by email
- In Clarification Template
- Not later than **12:00hrs Irish Time on Friday 22nd March 2019**
- Addressed to: Sinéad Connolly Email: sinead.connolly@eirgrid.com and tenders@eirgrid.com



Timetable

Event	Date
Deadline for Submission of Queries	No later than 12:00 hrs (Irish Time) on 22 nd March 2019
Deadline for Submission of Tender response	No later than 12:00 hrs (Irish Time) on 5 th April 2019
Notification of Preferred Bidder – anticipated	End of May 2019
Contract Awarded	June 2019





Volume Capped: Consultations Summary

Eoin Clifford

Two Recent Consultations

Procurement Consultation

- Contract details
- Connections to grid
- Other design specifics

Protocol Consultation

- Operational Requirements
- Performance Assessment
- Some Scalar details (Availability Performance Monthly Weighting, Event Performance)

Procurement Consultation

Contract Details

- Tweaked termination clauses
- Confirmed requirement for Grid Code, I-SEM compliance
- Maintenance allowance can be split over multiple days
- Availability Performance assumed 1 before start of contract
- We can accept other forms of Bonding Collateral
- Revision of Bonding Milestones
- GDPR Schedule removed
- Aim to finalise contract by end of April

Procurement Consultation

Technical Details

- Recharge restrictions (batteries)
- Ramping restrictions
- Compliance Testing
- Signal List
- Still under development
- Will be finalised in time for tender (or earlier if possible)

Procurement Consultation

Connection Details

- The service provider must be a party to the associated Connection Offer (or Agreement) with the relevant SO (or party to the GASOA/DSUSOIA in the case of AGUs/DSUs).
- No more than 50 MW of contracted service provision shall be connected to the Transmission or Distribution Systems in such a manner that they would be deemed Electrically Contiguous.
- Only units contracted under Volume Capped arrangements will be considered when assessing whether units are Electrically Contiguous.
- For non-firm connections, units will only receive payment for the availability of services that can be accommodated by the network. However the calculation of the Availability Performance Scalar will assume that all available services can be accommodated by the network.

Procurement Consultation

Temporal Scarcity Scalar

- The value of the Temporal Scarcity Scalar will be fixed for the duration of these arrangements, and will be determined using a 2025 Plexos study.

I-SEM Interactions

- Will be specified in advance of tender

Availability Discount Factor

- Will not apply to Volume Capped Arrangements

Protocol Consultation

Main Decisions

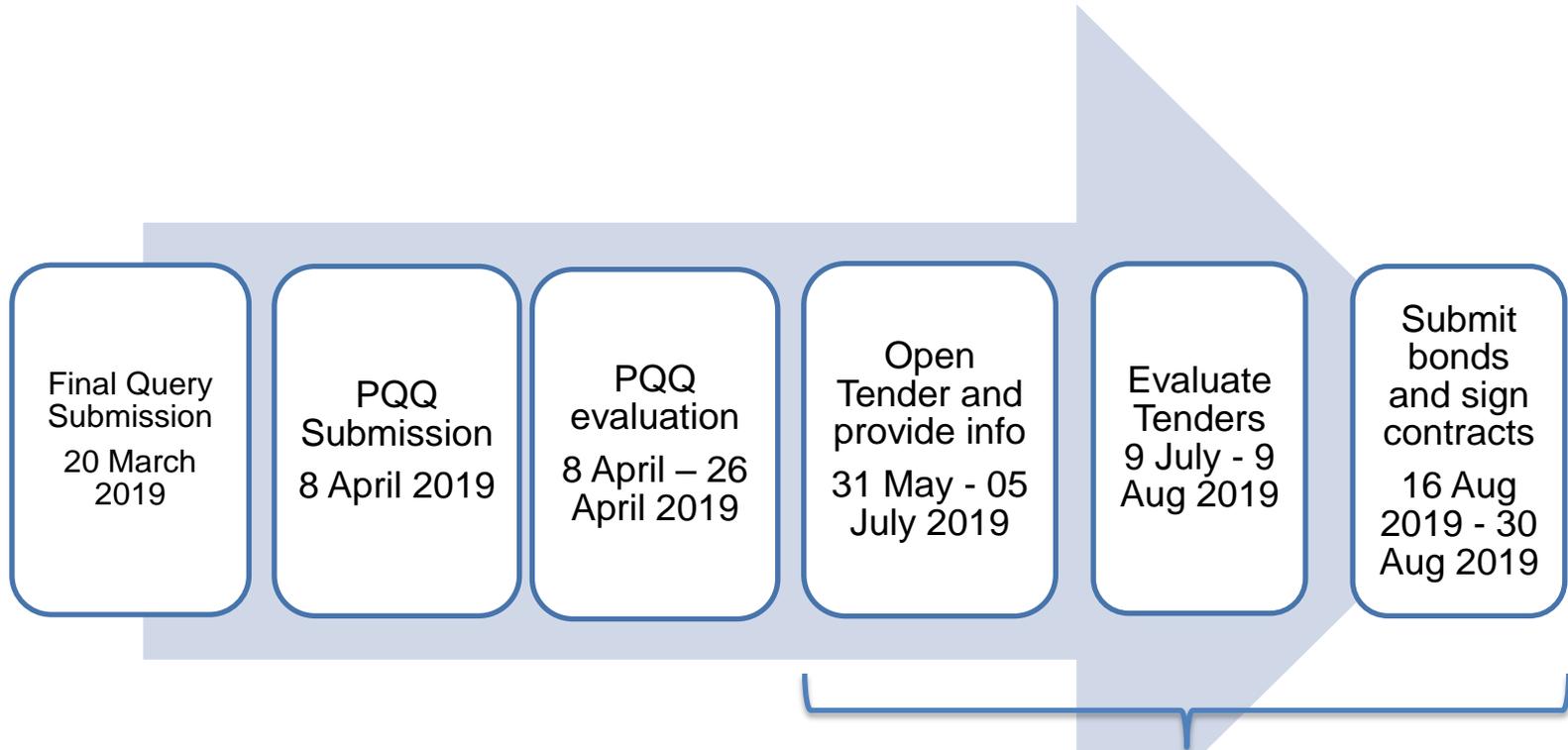
- Separate Document for Volume Capped
- Flat monthly weighting for Availability Performance Scalar
- Updates to Frequency Event Definition
- Updates to TOR2 Assessment approach
- Updates to consideration of Pre-event
- Text relating to Multiple Frequency Events removed

Protocol Consultation

Volume Capped Protocol: Current Thinking

- Will be finalised in advance of tender
- Draft version to be published shortly
- Aim to finalise by end of April
- EDIL requirements
- OFR details
- Additional battery-specific details
- Otherwise as per Regulated Arrangements Protocol

Timelines



Indicative



Volume Capped: Pre-Qualification Questionnaire

Eoin Clifford



OJEU Notice

- OJEU Notice Published on 7th March 2019
 - ENQEIR633 – DS3 System Services - Volume Capped
- Two stages in this procurement process:
 - Pre-Qualification; and
 - Tender
- Documents available on eTenders
www.etenders.gov.ie

Queries

Queries from this Bidders' Conference

- We will endeavour to respond to all queries today
- We request Candidates to formally submit queries via email
- Formal response will issue to all Tenderers which may supersede information provided today

General Queries

- Submitted by email
- In Clarification Template
- Not later than **12:00hrs Irish Time on Wednesday 20th March 2019**
- Addressed to: Sinéad Connolly Email: sinead.connolly@eirgrid.com and tenders@eirgrid.com



PQQ Submission

- Interested Candidates must submit a PQQ response **through the eTenders portal** in respect of the relevant Lot.
- Tender box close time **12 noon**, Irish Time, on **8th April 2019** – **eTenders will not allow upload after this time.**
- **It is EirGrid policy to open tenders promptly on the closing date**
- **The Tenderer is fully responsible for the timely delivery of the tender**
- **Late tenders may be returned unopened to the Tenderer**

Timetable

Event	Date
Deadline for Submission of Queries	No later than 12:00 hrs (Irish Time) on 20 th March 2019
Deadline for Submission of Completed Questionnaire	No later than 12:00 hrs (Irish Time) on 8 th April 2019
Issue of Tender Documents to Qualified Candidates	31 st May 2019 (Indicative)
Submission of Tenders	5 th July 2019 (Indicative)
Contract Awarded	August 2019 (Indicative)
Contract Commencement	September 2019 (Indicative)

Batteries: Signalling & Compliance update

Colm McManus



System Services Documentation

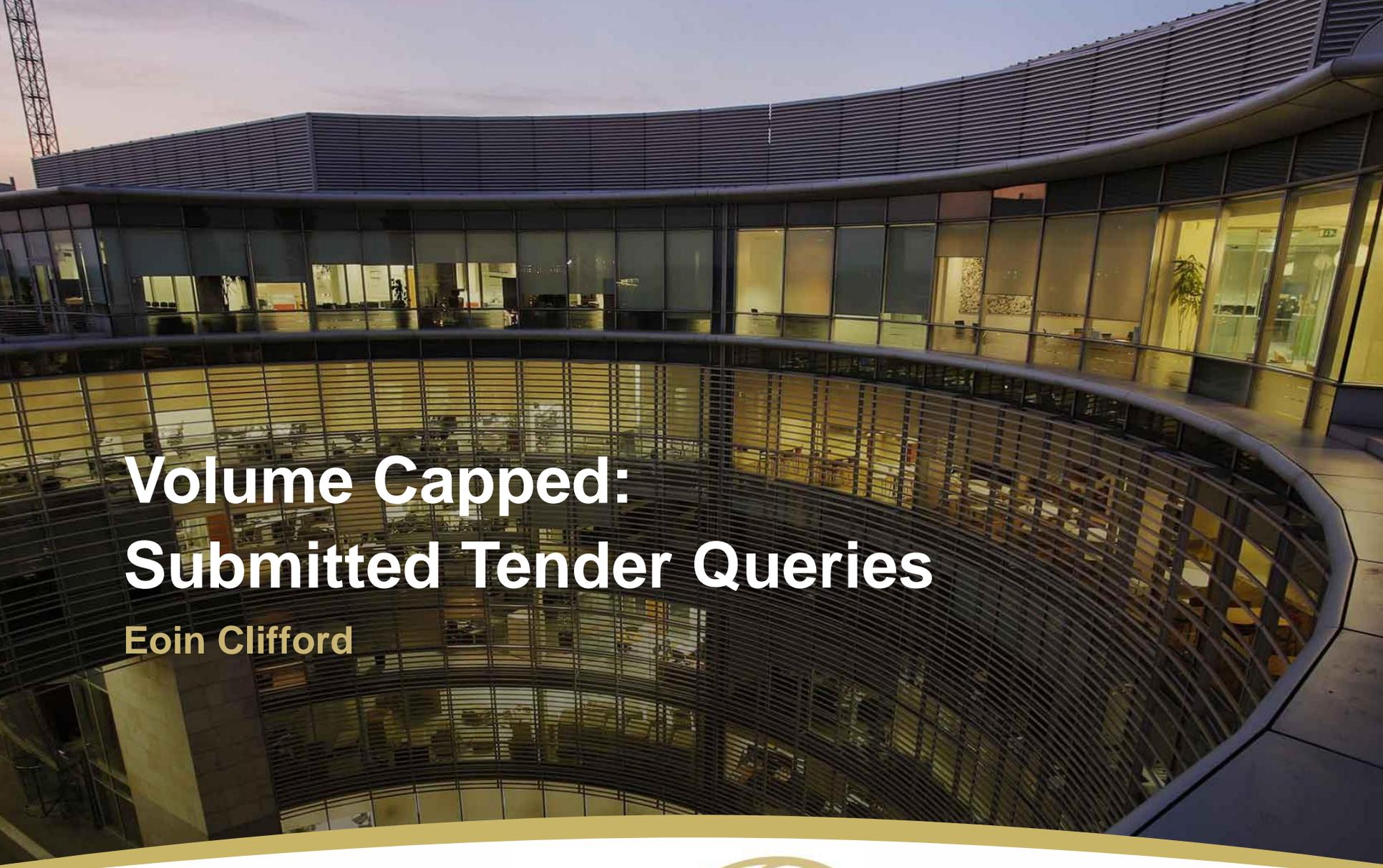
- Signal List for FFR
 - Template published (minor update required)
- Test Procedures and Reports
 - In development
 - Will be consistent with tests for other technologies
 - Doesn't exactly match any one technology



Grid Code Testing Documentation

- PPM requirements apply
 - Application of requirements under review
 - Testing documentation to follow
- Ireland
 - Signal List
 - Schedule of Tests
 - Test Procedure Templates
- Northern Ireland
 - Settings Schedule





Volume Capped: Submitted Tender Queries

Eoin Clifford

Submitted Tender Queries

High Volume

- Over 50 received so far
- Cannot answer all at this forum

Responses

- Will respond to each one individually
- Responses will also be published as part of spreadsheet on eTenders website

Deadline

- No later than 12:00 hrs (Irish Time) on 20th March 2019

Financial Turnover

What are 'relevant services'?

- Goods or services related to the electricity industry
- Must provided via TSO or DSO
- Includes (**but not limited to**) DS3 System Services
- Can be energy provision, demand reduction, capacity, or combination of all.
- €50,000 per MW size of contract size that bidder is seeking *in this process*
- Clarified in 'Declaration of Turnover' Table 3.2.1

Previous Experience

- Same principles apply
- Goods or services related to the electricity industry, provided via TSO or DSO, **not limited to** DS3 System Services

Financial Turnover

Declaration of turnover

- First two answers need to be **Yes** to qualify
- 3rd Q: Yes or No depending on whether the Candidate is relying on another group or affiliate company to meet the turnover requirements.

Declaration of Turnover	Please mark 'X' in the relevant box to confirm.
I confirm that our turnover for goods or services relating the electricity industry, and obtained through a TSO or DSO connected unit, met or exceeded €50,000 per MW of proposed POR service provision in any of the last three financial years, or pro-rata if more recently established.	Yes <input type="checkbox"/> No <input type="checkbox"/>
I confirm that I will provide evidence of turnover and other financial information promptly on request at any time prior to the award decision being made.	Yes <input type="checkbox"/> No <input type="checkbox"/>
I confirm that I am seeking to show compliance with the turnover requirements on the basis of a Group or affiliated company and as such have provided confirmation of the Group or affiliated company's commitment.	Yes <input type="checkbox"/> No <input type="checkbox"/>

Recent Relevant Contracts

What counts?

- Provision of DS3 System Services
- Capacity Market
- Development of project for energy delivery (electricity)
- Development of project for Demand Reduction
- Can use two contracts from the same project

DSUs

- *Need to list portfolio of sites?*
- We do not believe this is necessary. If you can refer to an existing SEM registered unit with DS3/capacity contracts then this should be enough.
- However would note that submissions are not made public – effectively confidential.

Technical Details

Frequency Events

- Request for clarifications where frequency recovers and dips again before end of TOR1 timeframe
- This is counted as a single event
- Expectation is that unit should provide services for up to 20 mins from the **second** time the trigger point is crossed
- However, we will not be seeking this capability in compliance testing.
- Up to developer whether they want to take risk of event failure for this (unlikely) scenario

Other Qs

Capacity Market

- 10 dispatch limit means unit may not be available to dispatch during Capacity event
- We have proposed 10 dispatch limit could be lifted on agreement.
- *In such a case, how do we manage our Availability risk if dispatched by Capacity Market?*
- This is up to Providing Units to figure out. We note DSUs and Storage units can use DecTol to effectively remove themselves from CM.

Test procedures and templates

- *Are they up to date on EirGrid website?*
- The test procedures and report templates are currently being updated.
- There will likely be minor amendments made to most.

Other Qs

Are MW values Installed or Derated?

- Installed. We do not generally refer to derated MW in System Services

Proof of Connection Offer

- We will accept an email from the relevant TSO or DSO indicating you will be in receipt of offer for your project, or a copy of the connection offer/agreement itself.

Electrically Contiguous

- *We have two units behind a busbar. Both are less than 50 MW individually but sum to more than 50 MW. Can we submit one unit in Volume Capped and another in Regulated arrangements?*
- Yes (at present)
- Future Regulated Arrangement gates may be subject to change but we are not considering limiting this currently

Other Qs

'Grace period' post-event

- Period after event which is not considered for Availability Performance Scalar
- Can confirm it is for 8 hours
- Units can still declare themselves available for service provision and will get paid accordingly if they do

PQQ Criteria

- All Criteria are Pass/Fail
- None will be assessed as part of Tender submission
- PQQ does not oblige you to submit a tender response

Definitions

- *Request for clarifications on definition of Candidate, Member, Group, Affiliate, Group of Companies, Subcontractor, Lead Consultant etc.*
- Please refer to Part 3 Section 3



Regulated Arrangements



DS3 System Services Volumes

Maximum Operational Limits

Service	Max Volume - Normal Operation	Max Volume - Requested by TSO
Fast Frequency Response	75 MW	100 MW
Primary Operating Reserve	75 MW	100 MW
Secondary Operating Reserve	75 MW	100 MW
Tertiary 1 Operating Reserve	75 MW	100 MW
Tertiary 2 Operating Reserve	75 MW	100 MW
Replacement Reserve Desynchronised	300 MW	N/A
Replacement Reserve Synchronised	300 MW	N/A
Ramping Margin 1	450 MW	N/A
Ramping Margin 3	500 MW	N/A
Ramping Margin 8	500 MW	N/A
Steady State Reactive Power	400 Mvar	N/A
Synchronous Inertial Response	120,000 MWs ²	N/A

Qualification System Refresh Gate 1

High-Level Timetable

