nationalgridESO

Single Markets Platform Show & Listen Session 35

Workshop date

20 06 24

Facilitators

David Preston - Product Manager

Harish Srigiri - Product Owner

Jayesh Patel - Business Analyst

Laila Zaghari - Functional Consultant

Agenda

1. Introduction 2 min
2. Update on Releases 4 min
3. Update on Roadmap 4 min
4. Update on Maps 2 min
5. Related Entity Demo 10 min
6. Feedback required on existing experience of Mandatory Frequency Response Service 5 min
7. Feedback required on existing experience of Restoration Services 5 min
8. Feedback 2 min

Rules

- This is your session to participate. Dig in!
- Use the chat function to ask questions.
- Use the mute button when not speaking.
- Avoid interrupting when others are speaking.

Your Participation Role

1. **Throughout the session**
   Speak up, think big, raise concerns, be patient, don't use acronyms or inside language.
2. **During activities**
   Ask clarifying questions before we begin, good energy in - good results out.
3. **Remember**
   This session is part of the (good) work. We've never done this together before. Seek to understand before being understood.

Mural Tips

NAVIGATION

Moving the board

Hold the space bar down then click and drag to move the position of the entire MURAL on your screen

Zooming in & out

Scroll the wheel on your mouse or pinch on your trackpad to zoom in/out. When changing devices you may need to check **Zoom Settings** in the bottom right.

The minimap

Track your view of the MURAL and zoom percentage on the minimap on the bottom right corner of your screen.

ORGANIZING

Select Objects

Click an object to select it; hold shift while clicking objects to select more than one at once

Move Objects

After selecting the objects you wish to move, simply drag them to the desired location on the MURAL

CONTRIBUTING

Sticky Notes

Add sticky notes by right-clicking, then selecting **Add Sticky Note** or by double clicking on an empty space or the background.

2

Update on Releases

Latest status

4 min

21st June - Release 3.2

1. Quick Reserve Onboarding (Balancing Mechanism only) - code into production for the readiness when the Positive Quick Reserve Service and Negative Quick Reserve Service have approval for onboarding later this year.
2. Related Entity Enhancements Phase 3 - will allow an Agent to create new assets on behalf of a Registered Service Provider and manage them with the related entity relationship. In addition, a Registered Service Provider will now be able to delegate newly registered assets (independent of any unit) and delegate it to an Agent for an existing related entity relationship.
3. General Enhancements - improvements to Asset Registration (expose Asset Status field), removal of deletion of Unit Statuses outside of Draft/Incomplete to prevent impact on downstream systems, more meaningful error message for versioned unit as part of Global Versioning and prevention of versioned units or Unit subject to Global Versioning from being able to prequalify.
4. Update API Phase 2 - code moved into Beta sandbox for testing for Market Participants ability to update Units.

19th July - Release 3.3

1. Open Balancing Platform (OBP) Integration Day 1 - Contract data from SMP is identified and made available for the Open Balancing Platform that is required for the Quick Reserve Service launching later this year.
2. Technical Debt Phase 3 - improvements to code errors and automation of how code implements validation rules.
3. Update API Phase 2 - code moved into Production for Market Participants ability to update Units.

23rd August - Release 3.4

1. Open Balancing Platform (OBP) Integration Day 2 - Unit registration and pre-qualification data from SMP is identified and made available for the Open Balancing Platform that is required for the Quick Reserve Service launching later this year.
2. CIAM Enduring solution Phase 1 - this will enable the external customers to access all their accounts through Single Sign-On and allow market participants to switch between companies if they access more than one company.
3. Pre-Qualification Dashboard Enhancements Phase 3 - Fuel Type Report by Service.
4. General Enhancements - improvements to Related Entity workflows.

Review Questions and seek clarification

Questions

Feedback

3

Update on Roadmap

Upcoming features

4 min

Ref	Go-Live	Features
R3.2	21 Jun 24	• Quick Reserve Onboarding (Balancing Mechanism Units only) • Related Entity Enhancements Phase 3 • General Enhancements • Update API Phase 2 (Beta sandbox)
R3.3	19 Jul 24	• Open Balancing Platform (OBP) Integration Day 1 • Technical Debt Phase 3 • Update API Phase 2 (Production)
R3.4	23 Aug 24	• Open Balancing Platform Integration Phase 2 (Unit registration data & Pre-qualification data) • CIAM Enduring solution Phase 1 • Pre-Qualification Dashboard Enhancement Phase 3 (Fuel Type Report by Service) • General Enhancements
R3.5	20 Sep 24	• Onboarding checklist Phase 2 • Query Management Phase 2 Support • BM Registration (existing process) • Update API Phase 3 • RDP Enhancement Phase 5 • DFS Enhancements
FSO	**1 Oct 24 (latest estimate)**	**FSO rebranding to National Energy System Operator**
R3.6	18 Oct 24	• Related Entity Enhancements Phase 4 • General Enhancements • EAC outcome conflict report
R3.7	22 Nov 24	• Technical Debt Phase 4 • Additional Market Services Product • RDP Enhancement Phase 6 • STAR Integration (Interim)
R3.8	13 Dec 24	• Performance Monitoring Integration • ENAMs/PODE Integration • General Enhancements • Design System Phase 1
R3.9	17 Jan 25	• Connections integration • BM Registration Enhancements
R3.10	21 Feb 25	• Slow Reserve Onboarding • Quick Reserve Onboarding (Non-BM) • General Enhancements • ABSVD integration
R3.10	21 Mar 25	• PreQualification Dashboard Enhancement Phase 4 (TBC) • Platform for Energy Forecasting (PEF) Integration • Potential Pathfinder involvement (contract management) • Design System Phase 2

Review Questions and seek clarification

Questions

Feedback

4

Update on Maps

Challenges and way forward

2 min

Review Questions and seek clarification

Questions

Feedback

5

Related Entity Demo

Feedback on new functionlility

10 min

Review Questions and seek clarification

Questions

Feedback

6

Feedback required on existing experience of Mandatory Frequency Response Service

Discussion on our thinking to a problem

5 min

Context

National Grid ESO has a licence obligation to control frequency within the limits specified in the 'Electricity Supply Regulations', i.e. ±1% of nominal system frequency (50.00Hz) save in abnormal or exceptional circumstances. National Grid ESO must therefore ensure that enough generation and / or demand is held in automatic readiness to manage all credible circumstances that might result in frequency variations.

There are two types of Frequency Response - Dynamic and Non-Dynamic Response. Dynamic Frequency Response is a continuously provided service used to manage the normal second by second changes on the system. While Non-Dynamic Frequency Response is usually a discrete service triggered at a defined frequency deviation.

Mandatory Frequency Response is an automatic change in active power output in response to a frequency change. Generators that meet the necessary requirements of the Grid Code must have the capability to provide Mandatory Frequency Response. The capability to provide this Service is a condition of connection for generators connecting to the Electricity Transmission System. The service is needed to maintain the frequency within statutory (49.5Hz – 50.5Hz) and operational limits (49.8Hz – 50.2Hz).

Primary Response – provision of additional active power (or a decrease in demand) within 10 after an event and can be sustained for a further 20 seconds.

Secondary Response – provision of additional active power (or decrease in active power demand) within 30 seconds after an event and can be sustained for a further 30 minutes.

High Frequency Response – the reduction in active power within 10 seconds after an event and sustained indefinitely

There is no tender process for this service as it is mandatory for large generators.

When a generating unit is built or modified, we must test its capability to provide MFR, this is part of the onboarding process when registering to a response service.

The Mandatory Service Agreement (MSA) allows us to instruct the service as required.

When a generating unit is built or modified, we must test its capability to provide MFR. Once the generator has successfully met the minimum requirements, an MSA can be put in place, or amended if a unit has been modified

Once the generator has successfully met the minimum requirements, a Mandatory Service Agreement (MSA) can be put in place, or amended if a unit has been modified.

As-Is State

1. Signed Connections Agreement
2. Create Interim MSA
3. Grid Code Compliance Testing
4. Balancing Mechanism registration
5. Create Final MSA
6. Entering into a MSA with National Grid ESO which providers for ESO to instruct the unit. Through this, Generators will provide their response parameters (e.g. generation de-load at specific Hz deviations)
7. Price submissions through the Frequency Response Price Submission (FRPS) system
8. Positioning and dispatch by the Control Room

Current the Mandatory Frequency Response process follows a monthly cycle.

Pain Points

Please use one of the Post-it notes below to provide your experience (good/poor) on the existing process

Interested in Connections

Follow up with Irene on 1-2-1

Benefits of moving parts of the process onto SMP

- Once a MSA has been finalised then the Service Provider can use existing functionality on SMP to register
- Price Submissions functionality that exists for RDP MW Dispatch can be utilised
- Registered Service Providers won't have to use the "Frequency Price Submission Portal" for entering prices and that legacy application can be retired
- Improved customer experience

Any other feedback on improvements to the business process

Review Questions and seek clarification

Questions

Feedback

7

Feedback required on existing experience of Restoration Service

Discussion on our thinking to a problem

5 min

Context

National Grid ESO has introduced a market mechanism for the procurement of Electricity Restoration Services (ERS) contracts, in the form of a competitive tender process.

The ESO has an obligation to maintain the capability to restore the National Electricity Transmission System (NETS) of Great Britain (GB) from a full or partial black out event. To do this, the ESO must demonstrate that the ESR Capability procured maintains an acceptable level of provision, but at a cost which is economic and efficient.

The ESO will hold a competitive procurement event to procure against our restoration requirement for the Northern region for services commencing on 1st November 2025, or earlier at the discretion of the ESO, for a five-year contract. We invite and encourage those interested in participating in the procurement event to submit an EOI for consideration.

This tender will include the output from the Distributed ReStart Project to enable potential Distribution Restoration to complement the transmission-led restoration services.

The growth in Distributed Energy Resources (DER) presents an opportunity to develop a different approach to system restoration. Greater diversity in restoration provision will improve resilience and increase competition leading to reductions in both cost and carbon emissions.

This tender permits providers with the options of four different categories by which they can provide restoration services.

The ESO will be procuring against four separate requirements defined below.
1. Primary Restoration Service Providers (Full Service) - with the ability to self-start, can meet the full technical requirements to energize and block load at transmission level. The ESO welcomes both transmission and distribution connected assets to participate in this category providing you can meet the minimum technical requirements.
2. Top-up Services - not expected to have the ability to self-start but can meet some of the technical requirements outlined for a full service and further assist Restoration2.
3. Anchor Generator (Distributed ReStart) - with the ability to self-start, establish an independent voltage source at distribution network level.
4. Top-up Services (Distributed ReStart) - can provide supplementary services required to fulfil the technical capability of a DRZ3 such as energy (MWs), fast MW control, frequency control, voltage control and short circuit level (MVArs).

As such, the ESO requests all interested parties to formally submit an Expression Of Interest (EOI) which is a mandatory prerequisite to participate in this tender.

As-Is State

1. Pre-Tender - Market engagement, DNO engagement, Operational Transparency Forum
2. Expression of Interest - prerequisite is connection agreement in place before go-live date, DNO evaluation [Web forms]
3. Invitation to Tender - The formal invitation to tender will be released to all
4. providers who have met the EOI submission deadline and accepted and met the minimum/mandatory criteria. At this stage, all other tender documentation will be available, and the feasibility process will commence.
5. Invitation to Tender Part 1 - Registered Service Provider submits Non-Disclosure Agreement (NDA), Scope & cost of study/works, feasibility study agreement, DNO Evaluation [Emails & SharePoint).
6. Invitation to Tender Part 2 - Registered Service Provider submits Detailed Feasibility Study Document, Modelling, Commercial Offer (Capex Vs Opex), [Emails & SharePoint).
7. Tender Evaluation - Following tender submission, all tenders will be reviewed
8. (in collaboration with the DNO for Distributed ReStart type applications), and technical clarifications specific to tendered information will be issued to individual providers [Emails & SharePoint).
9. Contract Award - Contract/s will be awarded, and decision will be communicated to tenderers. Post-award, we expect to publish elements of the outcome of the tender, potentially including MW volume, technology type and price, in line with security requirements, the owners of the awarded contracts will not be revealed. * [DNO/Registered Service Provider/ ESO tripartite contract]*

- Build & Install - At the discretion of the ESO, additional time for construction of assets can be agreed prior to service commencement.
- Service commencement - once the construction has completed, the ESR contract will commence following successful completion of a commissioning test.
- Assurance activities - based on contract terms, providers will be subject to routine ESR tests which are scheduled normally after every three years.
- Service expiry - Providers will be contacted before the final date.

Pain Points

Please use one of the Post-it notes below to provide your experience (good/poor) on the existing process

Benefits of moving parts of the process onto SMP

- Aligned with Regulator Ofgem expectations that other services are procured.
- Economies of scales as approximately four different procurement areas (Northern, South West and Midlands, South East, Wind - Great Britain)
- Improved customer satisfaction

Any other feedback on improvements to the business process

Review Questions and seek clarification

Questions

Feedback

8

Feedback

Opportunity to provide instant feedback

2 min

Please post what we did well:

Please post what we could do better:

Actions