DS3 System Services Volume Uncapped Gate 4B Bidders' Information Session

Wednesday 3rd March 2021 10:00 – 11:30

Please keep mic muted
Please keep video off
*6 on conference line is to mute / unmute
Raise queries during webinar to DS3@EirGrid.com



Agenda

Topic	Time	Speaker
Introduction	10:00	Carole Devlin
Procurement Process Overview	10:10	Carole Devlin
Q&A	10:25	Attendees
Tender Pack and Technical Questionnaire	10:35	Carole Devlin
Q&A	10:50	Attendees
Testing and Signalling Requirements	11:00	Marie-Therese Campbell
Q&A	11:15	Attendees
Closing Comments	11:25	Carole Devlin
Webinar Ended	11:30	-



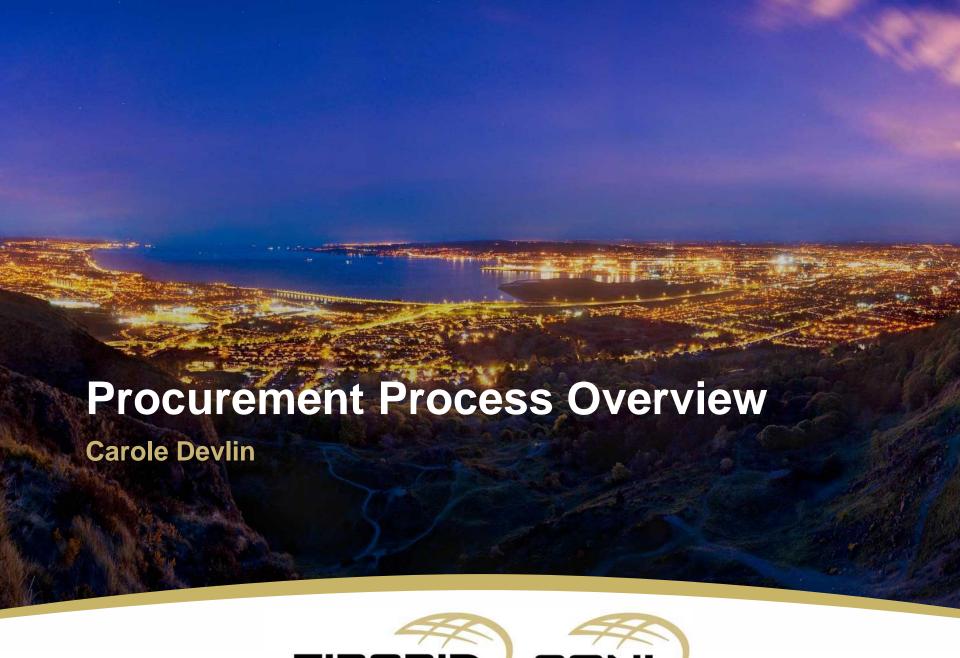
Introduction

- Presentation will provide an overview of DS3 Volume Uncapped Gate 4B procurement.
- Webinar Q&A following each agenda item:
 - Please email queries to <u>DS3@EirGrid.com</u> during the webinar.
 - All queries will be captured and responded to in writing via the Gate 4B clarifications process.
- Post webinar, queries can be emailed in the clarification template to sinead.connolly@eirgrid.com and tenders@eirgrid.com:
 - Closing date for receipt of queries is 12 noon on 9th March 2021.
- The presentation slides will be made available on eTenders and on the EirGrid and SONI websites.

Future Gates

Gate No	Indicative Contract Execution Date
4	April 2021
4-B	July 2021
5	October 2021
6	April 2022
7	October 2022







Qualification System

- Qualification System refers to the system that is in place to enable interested parties to submit a Response and subsequently qualify for award of Contract for provision of DS3 System Services (under Volume Uncapped Arrangements).
- Qualification System will last until April 2023, with the option to extend at the Contracting Entities' discretion and subject to Regulatory Authority approval (2 extensions, 18 months apiece).
- ➤ 14 System Services in total are being procured as part of the Qualification System, over 28 lots (14 for EirGrid and 14 for SONI).
- 12 services have been procured to date in accordance with Phase 1 and Phase 2 in 2018, Gate 1 in September 2019, Gate 2 in April 2020, Gate 3 in October 2020 and Gate 4 in April 2021.

Gate Process

- ➤ **Gate Process** refers to the period after the initial procurement Phases 1 and 2 whereby Tenderers may apply for a place on the Qualification System at any time.
- New applicants may submit a completed Response for a place on the Qualification System at any time.
- ➤ It is intended that specific contracts will be awarded every six months these periods are referred to as Gate Dates. EirGrid will issue periodic notices on the OJEU / EirGrid websites outlining the requirements and timeframes involved. Indicative dates are contained in the briefing document.
- Exception to the 6-month process is Gate 4-B.



DS3 System Services Agreement

- This procurement is being run by EirGrid on behalf of both EirGrid and SONI for their respective DS3 System Services Agreement.
- A separate DS3 System Services Agreement is in place for:
 - EirGrid (as contracting entity for the DS3 System Services Agreement applicable to Ireland) and
 - SONI (as contracting entity for the DS3 System Services Agreement applicable to Northern Ireland).
- Existing holders of an agreement will receive an amended Schedule 9; new parties to the Qualification System will receive an agreement dated 1st July 2021.



Gate 4B

- OJEU Notice (2021/S 036-091121) published on 22nd February 2021
 - ENQEIR742 DS3 System Services Volume Uncapped Gate 4B
- > Two stages in this procurement process (submitted together):
 - Pre-Qualification; and
 - Tender
- Lots
 - Lots 1-12 IE
 - Lots 1-12 NI
- Documents available on eTenders <u>www.etenders.gov.ie</u>



Gate 4B

- Gate 4B applies to 3 scenarios:
 - Providing Unit that is not currently contracted for the provision of any System Service and wishes to tender for one, some or all services;

Tenderer will receive a new agreement

 Providing Unit intends to amend its contracted values for a service that it currently provides (this may be enhancing or reducing its capability);

Tenderer will receive an amended Schedule 9

- 3) Providing Unit that is contracted for the provision of one or more services and wishes to tender for additional services.
- Providing Units that do not wish to amend their existing provision of a particular service must <u>not</u> submit a tender for the respective Lot.



Gate 4B Lot Numbers - EirGrid

	Existing Services								
POR L1IE	Primary Operating Reserve	SSRP L7IE	Steady State Reactive Power						
SOR L2IE	Secondary Operating Reserve	SIR L8IE	Synchronous Inertial Response						
TOR1 L3IE	Tertiary 1 Operating Reserve	RM1 L9IE	Ramping Margin 1 Hour						
TOR2 L4IE	Tertiary 2 Operating Reserve	RM3 L10IE	Ramping Margin 3 Hour						
RRD L5IE	Replacement Reserve (De-Synchronised)	RM8 L11IE	Ramping Margin 8 Hour						
RRS L6IE	Replacement Reserve (Synchronised)	FFR L12IE	Fast Frequency Response						



Gate 4B Lot Numbers – SONI

	Existing Services								
POR L1NI	Primary Operating Reserve	SSRP L7NI	Steady State Reactive Power						
SOR L2NI	Secondary Operating Reserve	SIR L8NI	Synchronous Inertial Response						
TOR1 L3NI	Tertiary 1 Operating Reserve	RM1 L9NI	Ramping Margin 1 Hour						
TOR2 L4NI	Tertiary 2 Operating Reserve	RM3 L10NI	Ramping Margin 3 Hour						
RRD L5NI	Replacement Reserve (De-Synchronised)	RM8 L11NI	Ramping Margin 8 Hour						
RRS L6NI	Replacement Reserve (Synchronised)	FFR L12NI	Fast Frequency Response						



Providing Unit

- Tenderers must submit a separate standalone tender for each and every Providing Unit.
- Providing Unit:
 - If registered in the SEM, to the extent that is required, Providing Units should apply in accordance with how they are registered in the SEM.
 - If not registered in the SEM, the Providing Unit is the Unit or collection of Units behind a single connection point.
 - In the case of an Aggregator, the Providing Unit is the collection of sites which
 is controlled by the Aggregator, and the interface with the TSO shall be with
 the Aggregator.
- Note: A Tenderer may have more than one Providing Unit.



Tender Response

- > Tenders should be split into two constituent parts (submitted at the same time):
 - A pre-qualification section; and
 - A tender section.
- Tenderers' response for each Providing Unit should consist of:
 - Part 2 of the Qualification System Briefing Document, including Forms 1, 2 and 3; and
 - A Completed **Technical Questionnaire** sheet for each Lot they are submitting for (must be completed in Excel).



Tender Evaluation

- All Responses will be evaluated, on a lot by lot basis and Providing Unit by Providing Unit basis.
- As the payment rate (tariff) for each System Service will be fixed, Responses will be assessed under the award criteria based upon quality (technical compliance) only.
- Tender evaluation:
 - against the Pass / Fail pre-qualification minimum requirements for the lot concerned; and
 - against the award criteria for compliance in line with the technical requirements for the lot concerned.



Qualification Criteria

Selection Criterion	Minimum Requirement	Weighting	Minimum
Exclusionary Criteria Declaration	Exclusionary Criteria Declaration must be completed satisfactorily. See Form 2 of Qualification System Briefing Document.	Pass/Fail	Pass
Financial & Economic Standing	Tenderers must complete the Self- Declaration of Financial and Economic Capacity. See Form 2 of Qualification System Briefing Document.	Pass/Fail	Pass
Health & Safety, Environment and Employment	Tenderers must demonstrate that they comply with the relevant health and safety, environmental and employment legislation. See Form 2 of Qualification System Briefing Document.	Pass/Fail	Pass



Award Criteria

Award Criterion	Description	Weighting	Minimum
Technical Compliance	Tenderers are required to demonstrate compliance against the requirements set out in the Technical Questionnaire and Scope of Work, for each Lot they are applying for.	Pass/Fail	Pass
Legal	Acceptance of contractual conditions in accordance with Form 3. Tenderers shall complete the Contractual Acceptance Declaration as part of their tender submission. This verifies that Tenderers accept the Terms and Conditions as issued.	Pass/Fail	Pass



Tender Queries

Queries Arising from this Webinar

- We will verbally answer some queries received via Q&A today.
- Formal response will issue to all Tenderers which may supersede information provided today.
- We request Candidates to formally submit queries via email.

General Queries

- Submit by email.
- In Clarification Template.
- Not later than 12:00 noon Irish Time on 9th March 2021.
- Addressed to: Sinéad Connolly at <u>sinead.connolly@eirgrid.com</u> and <u>tenders@eirgrid.com</u>
- EirGrid will respond to all queries by 16th March 2021.



Submission of Tenders

- 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 Friday 25th March 2021 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.



Tender Timetable

Event	Date
Deadline for Submission of Queries	No later than 12:00 hrs (Irish Time) on 9 th March 2021
EirGrid and SONI to Respond to Queries	By close of business on (Irish Time) on 16 th March 2021
Deadline for Submission of Tenders	No later than 12:00 hrs (Irish Time) on 25 th March 2021
Notification of Successful Tenderers	31st May 2021 (Indicative)
Standstill Period	14 days from Notification Date
Contract Commencement	1 st July 2021



Procurement Process Overview

Q & A

TSOs will provide a verbal response to queries received during the webinar.

All queries will receive a written response following the webinar.







Points of Note

- Commencement Date of the Agreement (applicable to Scenario 1) is 1st July 2021
- Clause 15.1 of the Agreement is amended to Electronic Signature clause
- Electronic Signature also applies to the Side Letter to the Agreement
- Protocol Document v3 effective 1st October 2020



Contractual Arrangements

Scenario 1 – agreement is dated 1 July 2021

Scenario 2 & 3 – amended Schedule 9 via Side Letter DS3 System
Services
Agreement

- Standard contractual provisions
- Term
- Schedules for 14 DS3 System Services
- Scaling Factor details
- Product Scalars
- Locational Scalar

Clause 15.1 –
Changed from
Counterparts to
Electronic Signature
clause

Protocol Document

- Operational Requirements
- Performance Scalar Details
- Performance Monitoring Methods and infrastructure requirements
- Temporal Scarcity Scalar values
- Governance

Version 3 – Effective 1 October 2020

Statement of Payments

• DS3 System Service Payment rates



Service Maximum Capability Volumes

Briefing Document Section 1.6.4 – maximum capability volumes to apply per service.

Service	Max Volume - Normal Operation	Max Volume - Requested by TSO
FFR	75 MW	100 MW
POR	75 MW	100 MW
SOR	75 MW	100 MW
TOR1	75 MW	100 MW
TOR2	75 MW	100 MW
RRD	300 MW	N/A
RRS	300 MW	N/A
RM1	450 MW	N/A
RM3	500 MW	N/A
RM8	500 MW	N/A
SSRP	400 Mvar	N/A
SIR	120,000 MWs ²	N/A



Technical Questionnaire

- Excel document that is used to determine a unit's technical capability to provide a service
- Technical Questionnaire contains:
 - General Guidance sheet
 - Reserve Characteristic and PQ Capability sheets
 - System Services Site Info sheet for aggregated Providing Units
 - Individual sheets for each Lot (24 in total)

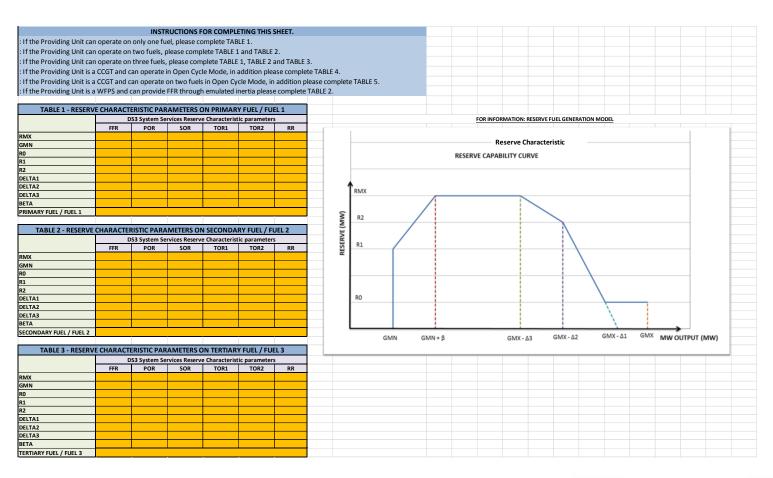


Technical Q - Guidance Sheet

							Section A is Pass	c/Eail for all
			GENERAL IN	FORMATION			Section A is Pas	S/Faii iOi aii
: The following information is to assist Tenderers in completing the questionnaire appropriately.						Providing Units.		
: Tenderers must complete	Tenderers must complete the relevant questionnaires for each lot being tendered for as outlined below.					1 Toviding Offics.		
		s reference number from the tender submissi						
		it wishes to contract for that lot. This is a P/ ient to achieve a Pass for that requirement.				's sole discretion to request clarification on any technica rill be disqualified.	l information provided and	
						at lot. This is a PASS/FAIL questionnaire. It will be at EirG equirement. A Tenderer who fails on any one question wi		·/Fail for
: SECTION C in each lot is	for information purposes. However,	unless otherwise stated in Section A, it mus	t be completed in	n its totality.	he Secuen		Section B is Pass	s/ Fall 101
: Where relevant, a Tender	rer should provide details of the Pro	oviding Unit as it is registered in the SEM e.	g. in the case on	three-shaft	CCGT that is	registered in the SEM as two units, cuch is separatel	Distribution Cor	nactad
: Tenderers should comple	te all orange cells. If not applicable	e please indicate WA. In some instances this	is part of a drop	down me			Distribution Cor	mecteu
							Providing Units.	
	FOR COMPLETION BY TO	ENDERER					1 TOVIGING OTHES.	
Service Pravider								
Praviding Unit		7						
ID in SEM (if applicable)							Section C is for i	nformation but
If the Providing Unit is			If the Tenderer	replier HO (i.e.	laas aat qiva pa	rmission for the TSO to share this information with the DSO/DMO t		mormation bat
connected to the Ireland? Morthern Ireland Distribution						ucuroment Questiunnaire fur the lut(s) fur which it is applying and This information may be submitted either in written or electronic fo	must be comple	eted as specified.
System, or will be before fit			address (as appl		& Marck 2021. I	his information may be submitted elther in dritten or electronic for	mast be comple	rea as specifica.
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mplete this she	eet, including	_	Dublin D1# ZM#0	1				
•				irrina: Submirr		and the Azigned cupy should be sent to Tony. Hearne@esb.	Providing Units,	TSO will share
e Lots being te	ndered for.		March 2021.					
			SONI Cuntractr	(DMO	4.74	L=1-1 k	relevant informa	ation with the
the DMO/DSO, Tenderer must			David Hill		4 148447477174	PROTIES (S)	DCO (DNO :C+++	al aa aa : L -
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			2548 HAPER 2021					
PLEASE COMPLETE	THE FOLLOWING GUIDANCE TABL	E AS APPROPRIATE: THIS IS TO ASSIST TH	IE TENDERER TO	COMPLETE	A SUCCESSF	TUL TENDER AND TO ALLOW THE TSO TO ASSESS THE II	NFORMATION FOR COMPLIANCE	
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LOT1(IE) POR	ARE YOU APPLYING FOR THIS LOT?		CONFIRMATION		POR	AREYOU APPLYING FOR THIS LOT?	CONFIRMATI	IOH .
,,	HAVE YOU COMPLETED THE TECHNICAL QUESTION				-	HAVE YOU COMPLETED THE TECHNICAL QUESTIONNAIRE SHEET?		
LOTZ(IE) SOR	HAVE YOU FILLED IN THE APPROPRIATE RESERVE (CHARACTERISTIC INFORMATION (WHERE APPLICABLE)?		LOT2(HI)	SOR	HAVE YOU FILLED IN THE APPROPRIATE RESERVE CHARACTERISTIC INFORMAT ARE YOU APPLYING FOR THIS LOT?	(ION (WHERE APPLICABLE)?	_
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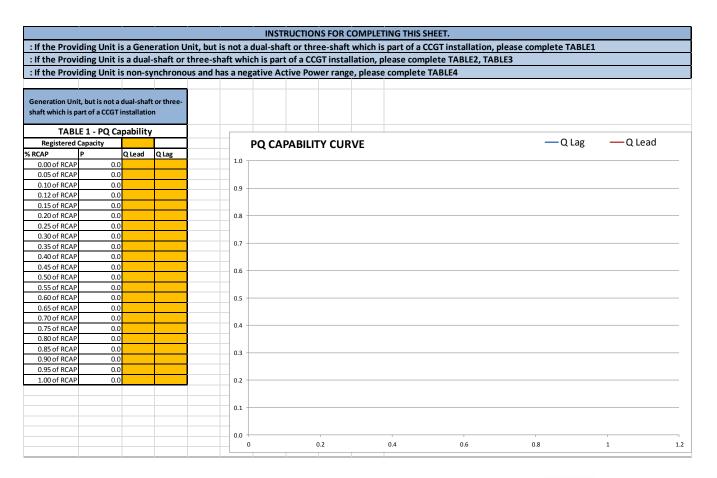


Technical Q – Reserve Characteristic





Technical Q – PQ Capability





Sample Lot – Section A

_	<u>'</u>				
	SECTION A.1 - EXIST	ING CO	INTRACTED		
1	1. Has the Providing Unit an existing DSS System Services Agreement for Regulated Arrangements for POTIGF a non-zero value and is applying to change the Reserve Characteristic for POR relative to the values specified in its DS3 System Services Agreement or to change from Static to Dynamic service provision or vice versa??			Tenderer must respond YES and must answer questions 1.2A-1.4, Section B and all of Section C. If the Providing Unit is an Aggregator please provide all associated MPRN meter numbers, and Individual Demand Sites or Generator Sites details, as outlined in the Grid Codes (SONI) section PC.A.3.4.2 for AGU, SONI section PC.A.3.4.3 for DSU, ElirGid section PC.A.3.1 for AGU, ElirGid section PC.A.3.0 for AGU, ElirGid section PC.A.3.0 for AGU, SONI section PC.A.3 for DSU, Brilling out the System Services Site Info to N.Aggregators sust be able to provide all contracted on the Providing Unit of Porting Unit of Porting Unit Soni Section	
1.2	A Has the Providing Unit a TSO-approved System Services Test Report demonstrating the Providing Unit's capability to provide the POR service according to the applied for changes (i.e. changed Reserve Characteristic and/or Static/Dynamic classification)? (This question is only pass / fail in combination with 12B & 12C) Note: Test Reports must be in the correct System Services Test Report templates. System Services Test Report templates are available here: http://www.eigridgroup.com/customer-and-industry/general-customer-			contracted to another Aggregator, in order to complete the transfer of an Individual Remand Site or Generator. Site into Tenderer must respond either YES or NO. If Tenderer teeponds YES, Tenderer must provide the TSO- peroriding University of the Provided Providing University of the Providing University of the Provided Providing University of the W Tenderer teeponds NO. Tenderer must respond to questions 1.2B - 1.2C and provide the associated evidence.	
1.2	If the answer to question 12A above is NO, please confirm. Has the Providing Unit conducted testing with the TSD to demonstrate capability to provide the POR service and has not yet had a test report approved by the TSO? OR Has the Providing Unit submitted a Testing Request to the TSO and the TSO has agreed to a date, which must not be after 7 May 2021, for testing to take place? OR Has the Providing Unit submitted test date for the place? OR Has the Providing Unit submitted test date (witnessed as required by the TSO), or performance data, to the TSO and the TSO has agreed to evaluate the Providing Unit's capability to provide the POR service based on the data? Note 1: Tenderer must have engaged with the TSO regarding the Providing Unit's testing requirements in advance of tender submission. Note 2: Tenderer is a DSU. Tenderer must submit a completed DSU application form when requesting a test date, which must include all Individual Demand Sites of the tare to be tested. Note 3: Tenderer is a DSU or AQU and it including to test in Individual Demand Site or Generator Site that is currently contracted to another Aggregator, Tenderer must provide signed correspondence (or e-mail approval) from the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or Generator Site confirming that the Individual Demand Site or G			Tenderer must respond YES. Tenderer must provide written confirmation from the relevant system operator confirming that: Testing has taken place. Tenderer must state the test date. OR IF A Testing Request has been submitted, that the TSO has agreed a date, which aust not be after 7 May 2021, for testing to take place. Tenderer must state the test date. OR IF test I performance data has been submitted, that the TSO has agreed to evaluate the Providing Unit's capability to provide the service based on the data.	
1.2	Note 6: The TSU's testing procedures and requirements apply to this procurement process. DS3 System Services Testing Scope Document, Test Report and Checklist templates are available here: 2 If the answer to question 12A above is INC, do you understand that a System Services Test Report demonstrating the Providing Unit's capability to provide the POR service must be approved by the TSO by 21 May 2021, unless otherwise agreed with the TSO?			Tenderer must respond YES.	
$\overline{}$					

Section A.1 is for Candidates that are applying to amend their existing contracted service values.

Aggregators take note of Q1.1 – specifically relating to individual sites that are not currently contracted with the Providing Unit.



Aggregator Site Switching

- A service provider managing an aggregated DSU / AGU may submit a tender in respect of a Providing Unit comprising a list of constituent sites where for such sites there is either:
 - an active contract in place between the service provider and the site; or
 - where a site is not currently contracted with the Aggregator, satisfactory evidence, for example a letter of intent, that such contracts will be in place by 1st July 2021.
- Where another aggregator has advised the TSO that an Individual Demand Site or Generator Site will remain contracted with it beyond 1st July 2021, the TSO will not proceed with any transfer to an Ops Cert.
- All necessary testing as specified under the procurement rules must be completed by the deadlines specified within the procurement.

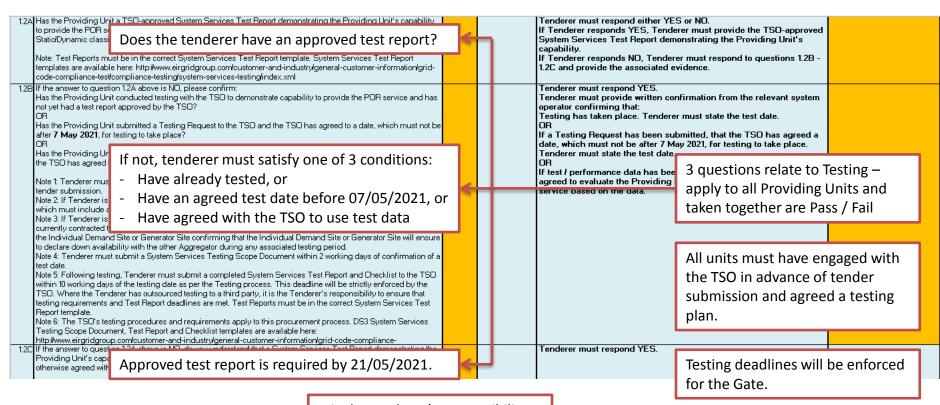


System Services Site Info

	Site No.	Tenderer should align the Site no. with site numbers isted in the DSU Application form / AGU Application form / DSU Ops Cert / GASOA Schedule	1	2	3	4	5	6	7
1	ls this site providing DS3 System Services?	Yes / No	Please Select from Drop Down List	Please Select from Drop Down List	Please Select from Drop Down List				
2	Name of Individual Demand Site		<insert here=""></insert>						
3	MPRN		<insert here=""></insert>						
4	Irish Grid Co-ordinates of the Connection Point		<insert here=""></insert>						
5	Maximum Export Capacity	(MW)	<insert here=""></insert>						
6	Maximum Import Capacity	(MW)	<insert here=""></insert>						
7	Performance Measurement Device Standards for Fast Acting Services installed in agreement with TSO.	Yes / No	Please Select from Drop Down List	Please Select from Drop Down List	Please Select from Drop Down List				
8	The Trigger Point that the IDS is expected to start responding at (F Trigger On).	(Hz)	<insert here=""></insert>						
9	The frequency range over which the IDS will go from minimum to maximum declared response (F Trigger Range).	(Min Hz - Max Hz)	<insert here=""></insert>						
10	The frequency at which the IDS will begin to cease responding at (F Trigger Off).	(Hz)	<insert here=""></insert>						
11	Time delay to the F Trigger Off characteristic that the IDS will continue to respond for thereafter (T loiter).	(sec)	< nsert Here>	<insert here=""></insert>	< nsert Here>	<insert here=""></insert>	<insert here=""></insert>	< nsert Here>	< nsert Here>
12	Minimum time duration following a response before the IDS will become available to respond again (T Min Interval).	(sec)	<insert here=""></insert>						



Sample Lot – Section A – Testing



We encourage units to test early!

It is the tenderer's responsibility to ensure that testing activities are conducted within the required timeframes.

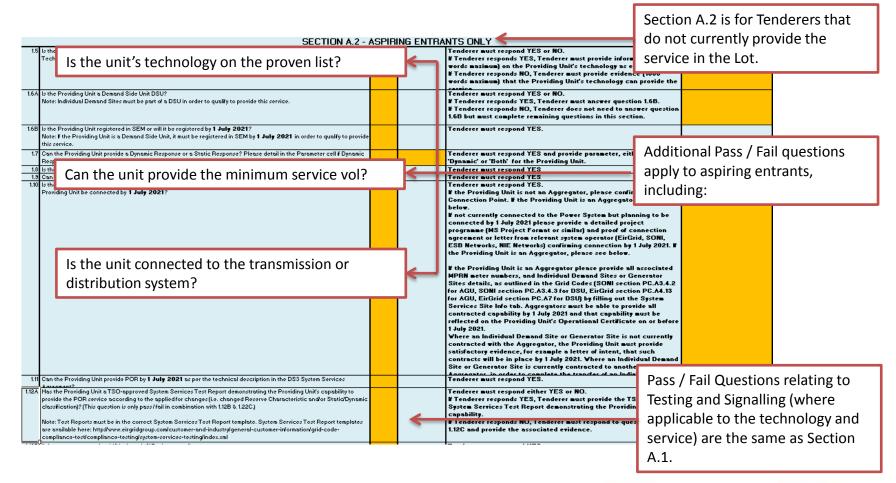


Sample Lot – Section A – Signals

1.2B If the answer to question 1.2A above is MO, please confirm: Has the Providing Unit conducted testing with the TSO to demonstrate capability to provide the POR service and has not yet had a test report approved by the TSO? OR Has the Providing Unit submitted a Testing Request to the TSO and the TSO has agreed to a date, which must not be after 7 May 2021, for testing to take place? OR Has the Providing Unit submitted test data (witnessed as required by the TSO), or performance data, to the TSO and the TSO has agreed to evaluate the Providing Unit's capability to provide the POR service based on the data? Note 1. Tenderer must have engaged with the TSO regarding the Providing Unit's testing requirements in advance of tender submission. Note 2. If Tenderer is a DSU, Tenderer must submit a completed DSU application form when requesting a test date, which must include all Individual Demand Sites that are to be tested. Note 3. If Tenderer is a DSU, Tenderer must submit to test an Individual Demand Site or Generator Site that is currently contracted to another Aggregator, Tenderer must provide signed correspondence for e-mail approvoil from the Individual Demand Site or Generator Site or Generator Site will ensure to declare down availability with the other Aggregator during any associated testing period. Note 4. Tenderer must submit a System Services Testing Scope Document within 2 working days of confirmation of a test date. Note 5. Following testing. Tenderer must submit a completed System Services Test Report and Checklist to the TSO within 10 working days of the testing date as per the Testing process. This deadline will be strictly enforced by the TSO. Where the Tenderer has outsourced testing to a third party, its is the Tenderer's responsibility to ensure that testing requirements and Test Report deadlines are met. Test Report and Checklist templates are available here: http://www.eirgridgroup.com/customer-and-industry/general-customer-information/grid-code-compliance-test/compliance-test/compliance-test	Tenderer must respond YES. Tenderer must provide written confirmation from the relevant system operator confirming that: Testing has taken place. Tenderer must state the test date. OR If a Testing Request has been submitted, that the TSO has agreed a date, which must not be after 7 May 2021, for testing to take place. Tenderer must state the test date. OR If test if performance data has been submitted, that the TSO has agreed to evaluate the Providing Unit's capability to provide the service based on the data.
1.2C If the answer to question 1.2A above is NO, do you understand that a System Services Test Report demonstrating the Providing Unit's capability to provide the POR service must be approved by the TSO by 21 May 2021, unless otherwise agreed with the TSO?	Tenderer must respond YES.
Does the unit comply with the Signalling requirements for the service? Specific Signalling requirements are noted per Lot. Requirements for the Regulated Arrangements Version 2.0 document that is included in the tender pack (or available here: 1.38 To Site specific wiring cert is required by 21/05/2021.	Tenderer must respond either YES or NO. # Tenderer responds YES, Tenderer must respond to site-specific Viring Certificate confirming compliance with the signalling requirements for the POR service. # Tenderer responds NO, Tenderer must respond to Providing Units depending on the technology and the service being tendered for.

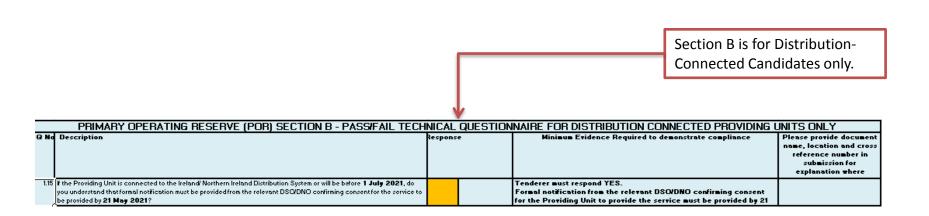


Sample Lot – Section A





Sample Lot – Section B





Sample Lot – Section C

					Section C is for information		
					nurnosos hut must ho		
•					purposes but must be		
	FAST FREQUENCY RESPONSE (FFR) SECTION C - TECHNICAL (FOR INFORMATION PURPOSES ONLY) QUESTIONNAIRE					ted as specified	4
			Response Parameter (All Notes		completed as specified.		u.
Q NO.	Description	Response	orange fields	Notes		location and cross reference	
			must be			number in submission for	
			completed, if not			explanation where required (e.g.	
			applicable please			pg.4 FFR Testing Report)	
			indicate N/A.				
	Operating Reserve Questions Relating to FFR (DYNAMIC RESPONSE)						
	If the Providing Unit can provide a Dynamic Response please confirm and complete questions 2.1 - 2.8.						
2.	Is the Providing Unit automatically able to track changes in frequency dynamically and respond in a continuously controlled						
	manner proportional to the system frequency?						
2.2	Does the Providing Unit provide a response in discrete steps?			Tenderer must respond YES or NO	Tondor	ers must specif	v tha
	Note: To be considered as dynamic provision of FFR, for each step as the frequency recovers the withdrawal of the provision of			If Tenderer responds YES, Tenderer must complete Questions 2.2b - 2.	Tenuer	ers must specif	y tile
	the service must be identical in both MW volume and response time to that provided at the corresponding Reserve Step Trigger when providing the service. Otherwise, the provision of the FFR service is deemed as Static.				total co	ntracted volun	an that ic
2 21	In how many discrete steps can the Providing Unit provide a response?				lotarce	miliacieu voium	ie tilat is
	Note: For dynamic capability when providing FFR, a Providing Unit must be able to respond with a minimum of 10 discrete steps				hoinga	pplied for.	
					Dellig a	pplied for.	
2.20	What is the maximum individual discrete step size with which the Providing Unit provides an FFR response?						
	Note: The maximum individual discrete step size cannot exceed 5 MW for a dynamic response.						
2.20	Does the Providing Unit provide an FFR response in a monotonically increasing manner?						
	(Definition of 'monotonically increasing manner' given below.)						
2.2	Can the Providing Unit provide each discrete step of response within the maximum allowable tolerance?						
	Note: All discrete steps should be of equal magnitude, but a maximum allowable tolerance of 1MW of the average step size will						
	apply, where the average step size is the FFR available volume divided by the number of discrete steps in the response. For example, for a Providing Unit that can provide 20 MW of FFR with 10 discrete steps, the average step size will be 2 MW;						
	therefore, the smallest discrete step that the Providing Unit may provide is 1 MW, and the largest discrete step that the unit						
	may provide is 3 MW.						
2.	What is FFR Response Time of the Providing Unit, measured in seconds?						
	(Definition of FFR Response Time given below.)						
2	What is the Reserve Trigger Capability of the Providing Unit?						
	(Definition of Reserve Trigger Capability given below.)						
2.	s Is the Reserve Trigger adjustable?						
	(Definition of Reserve Trigger given below.)						
2.	If the Reserve Trigger is adjustable what is the adjustable range?						
	Note: The lower limit of the range cannot be lower than 49.8 Hz and the upper limit of the range cannot be above 49.985 Hz. What is the FFR Trajectory Capability of the Providing Unit, measured in Hz?						
2.	(Definition of FFR Trajectory Capability given below).						
	Note 1: For a Providing Unit to be eligible to be contracted as a dynamic provider of FFR, the unit must be able to operate with a						
	minimum trajectory capability of 2 Hz in response to a Reserve Trigger. For Providing Units that provide a response in discrete						
	steps, the unit's final discrete step must occur at or above 49.3 Hz.						
	Note 2: For this gate, the Providing Unit's FFR Trajectory Capability is determined as part of the testing process.						
2.	What is the adjustable range of the FFR Trajectory Capability of the Providing Unit, measured in Hz?						
2.	Is the Providing Unit capable of operating following a frequency event without recovering its resource until the system						
	frequency has recovered and been sustained at an acceptable level? The exact timeframes for resource recovery and acceptable	:					
	level of frequency restoration shall be agreed by the TSOs.						
	For example, a battery that wishes to re-charge following a frequency event may be instructed to wait for a period of time after						
	the frequency has recovered above an acceptable level e.g. 49.8 Hz before re-charging.						
	Note: This is a question to determine the capability of a Providing Unit. System and market operations may determine the						
	timeframe for a Providing Unit to recover its resource following a frequency event.						



Tender Pack and Technical Questionnaire

Q & A

TSOs will provide a verbal response to select queries received during the webinar.

All queries will receive a written response following the webinar.







DS3 System Services Compliance Webpage

- EirGrid website has a DS3 System Services compliance webpage at http://www.eirgridgroup.com/customer-and-industry/general-customer-information/grid-code-compliance-test/compliance-testing/system-services-testing/index.xml
- System Services test reports and procedures per technology type
- System Services signalling requirements / lists per technology type
- Any questions on testing / signals can be directed to the relevant testing team:
 - Generator Testing@EirGrid.com
 - Generator Testing@SONI.ltd.uk
 - DSU@eirgrid.com (for DSU related queries)



Tender Testing Requirements

- > Tenderers **must** engage with our testing teams prior to tender submission
- Tender submissions must be accompanied by:
 - Approved recent DS3 System Services Test Report
 Or
 - Evidence of recent testing, where a Test Report has not yet been approved
 Or
 - Confirmed Testing DateOr
 - Confirmation from TSOs that alternate test data can be used for the purpose of demonstrating capability



Testing Dates

- **Early engagement** please.
- Please contact us now to book testing slots if you intend to tender for services.
- Testing Dates (subject to availability)
 - First date: Now
 - Last date: Friday 7th May 2021
 - > Test dates must be agreed by: 25th March 2021
- ➤ Testing deadlines will be enforced e.g. 10 working days to submit a report post test (note TSOs may return reports that are incomplete)
- Friday 21 May 2021 is the deadline for an approved test report.



Testing Documentation

- Scope Document to be submitted 2 BD following confirmation of test date outlining the services the unit wishes to contract for including a detailed plan and timeline of how they will achieve these goals.
- Checklist A checklist is to be completed with each report to ensure all required aspects of a complete report are met. This is to help mitigate delays at the report reviewing stage.
- Templates for the documents are available on the EirGrid website.



Updated Testing Documentation

- WFPS Operating Reserve
 - May not witness unless Emulated Inertia
 - Tests will still be scheduled via existing calendar process
- Conventional TOR2
 - EDIL instruction or suitable alternative
- Battery Ramping Services
 - Alternative options if EDIL instruction and TOD are not feasible



Testing of DSUs

- Early engagement please
- When requesting a Testing Date:
 - > DSUs must submit a DSU application at the same time
 - This is required in order for the TSOs to understand the scope of the unit's testing requirements and to resource accordingly
 - Ramping or Capacity tests only witnessed as needed new DSU or testing > 10 MW
 - Tests will still be scheduled via existing calendar process
- Individual Demand Site switching:
 - Please ensure that applications are supported by satisfactory evidence, for example a letter of intent, that contracts with the site will be in place by 1st July 2021, as well as consent from the sites to be tested
 - The Providing Unit must provide signed correspondence (or e-mail approval) from the site confirming that it will ensure to declare down availability with another Aggregator during any associated testing period



Reserve Testing Standards

- No change to the testing standards from Gate 4
- For reserve services, the following standards apply:
 - Conventional units a frequency injection of 200 mHz to 500 mHz
 - Wind farms a frequency injection of 200 mHz
 - Aggregators based on the unit's reserve trigger(s)
 - Interconnectors based on the unit's reserve trigger(s)
 - Batteries based on the unit's reserve trigger(s)
- TOR2 assessment:
 - > TOR2 may be assessed from a frequency injection
 - TOR2 may be assessed based on approved TOD



Signalling Requirements

- Certain DS3 System Services have specific signalling requirements:
 - Dependent on the Providing Unit's technology
 - Noted in the relevant Lot of the Technical Questionnaire
 - Published on the DS3 System Services Compliance webpage
 - Refer to 'DS3 System Services New Signaling Requirements for the Regulated Arrangements' document dated November 2019 (in tender pack)
- Signalling requirements obligations must be met by Friday 21st May 2021:
 - Providing Unit must request a site-specific Signal List
 - > TSO issues site-specific signal list (based on TSO templates & site-specific info)
 - Providing Unit must make the signals available to the TSO (at interface)
 - Providing Unit must complete, sign and submit the site-specific Wiring Certificate



Testing and Signalling

Q & A

TSOs will provide a verbal response to select queries received during the webinar.

All queries will receive a written response following the webinar.



Webinar - Concluded

Queries on Volume Uncapped Gate 4B:

- Send no later than 12:00 hrs Irish Time on 9th March 2021.
- > To: sinead.connolly@eirgrid.com and tenders@eirgrid.com

EirGrid will respond to all queries by 16th March 2021.

Webinar slide deck will be published shortly.

