

**SP Energy Networks**  
**Future Networks**  
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**FUSION Flexibility  
Services Requisition  
for St. Andrews 11kV  
Feeder 18616  
V0.1**

## FSR – St. Andrews

### 1. Flexibility Services Requisition for St. Andrews

#### Overview

The Flexibility Services Requisition (FSR) articulates the service requirements for St. Andrews trials in April 2022 – March 2023 (see Appendix 1) and has been developed to ensure trials occur closely aligned with actual demand on the network. The learnings developed from these trials will inform a greater understanding of the application of the Universal Smart Energy Framework (USEF) to the use of flexible assets in delivering network services.

#### USEF Compliance

All participants<sup>1</sup> must be USEF compliant<sup>2</sup> as FUSION will use USEF protocols for the delivery of flexibility in the initial trials.

The following documents indicate what is required for USEF compliance:

- [Specification of communication protocols between market participants](#)
- [Compliance to the USEF Flexibility Trading Protocol \(UFTP\) version 1.01](#)
- [Quantification of market participant costs for Implementing USEF Interface compatibility](#)

Any costs that you would incur in responding to the needs of this FSR (e.g. UFTP development costs) may be reflected in your 'availability charge' when you come to respond to the Invitation to Tender (ITT)<sup>3</sup>.

#### Location of Flexibility

All flexible units, including distributed energy resources (DERs) and flexible assets, must be located within the areas normally supplied by St. Andrews 11kV Feeder 18616 as indicated in Table 1.

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<sup>1</sup>Participants can be an individual entity or a consortium.

<sup>2</sup>Participants are not required to be currently USEF compliant provided full compliance can be ensured prior to the commencement of the earliest contracted period.

<sup>3</sup> Once the ITT is announced (December 2020) SPEN will publish an 'ITT response proforma' for bidders to complete. At that time these costs can be simply included in that response proforma.



## FSR – St. Andrews



Figure 1: Connection points at St. Andrews 11kV Feeder 18616

Post codes normally served by St Andrews 11kV Feeder 18616					
KY16 8BH	KY16 8EG	KY16 8YF	KY16 9BE	KY16 9PA	KY16 9QU
KY16 8BJ	KY16 8EW	KY16 8YG	KY16 9BG	KY16 9PB	KY16 9TH
KY16 8BL	KY16 8EX	KY16 9AA	KY16 9BJ	KY16 9PD	KY16 9TJ
KY16 8BN	KY16 8EY	KY16 9AD	KY16 9BQ	KY16 9PE	KY16 9TL
KY16 8BQ	KY16 8HA	KY16 9AE	KY16 9HN	KY16 9PJ	KY16 9TW
KY16 8BZ	KY16 8HE	KY16 9AH	KY16 9JT	KY16 9PL	KY16 9UG
KY16 8DA	KY16 8HF	KY16 9AJ	KY16 9LA	KY16 9PN	
KY16 8DB	KY16 8HG	KY16 9AL	KY16 9LB	KY16 9PP	
KY16 8DD	KY16 8HU	KY16 9AQ	KY16 9LE	KY16 9PQ	
KY16 8DE	KY16 8HY	KY16 9AR	KY16 9LJ	KY16 9PS	
KY16 8DF	KY16 8HZ	KY16 9AS	KY16 9LQ	KY16 9PT	
KY16 8DQ	KY16 8JP	KY16 9AT	KY16 9NL	KY16 9PU	
KY16 8DR	KY16 8JR	KY16 9AW	KY16 9NS	KY16 9PW	
KY16 8DT	KY16 8JT	KY16 9AX	KY16 9NT	KY16 9PX	
KY16 8EB	KY16 8NJ	KY16 9AY	KY16 9NU	KY16 9QR	
KY16 8EE	KY16 8YB	KY16 9AZ	KY16 9NW	KY16 9QS	
KY16 8EF	KY16 8YD	KY16 9BA	KY16 9NX	KY16 9QT	

Table 1: Post Codes applicable for providing flexibility for the St. Andrews 11kV Feeder trials



**Appendix 1 St. Andrews 11kV Feeder 18616 Flexibility Services Requisition (FSR)**

Table 2: Flexibility Service Requisition – Flexibility availability required during April 2022 – March 2023

Ref	Year	Response Type (+ is increase demand or export; - is opposite)				Period	Service Window	Days	Service Type	Maximum Response Time	Minimum Run Time (mins)	Maximum Run Time (mins)	Recovery Time * (mins)	Ramp Down Time * (mins)	Ramp Up Time * (mins)	Estimated Runs (No.)
		Demand (kW)	Gen. (kW)	Demand (kVAr)	Gen. (kVAr)											
1	2022/23	-100	100	N/A	N/A	Apr22 - Sep22	11:00 – 14:00	Mon - Fri	Sustain Peak Management	17 hrs	15	60	30	30	30	8
2	2022/23	-150	150	N/A	N/A	Oct22 – Mar23	10:30 – 15:30	Mon – Fri	Sustain Peak Management	17 hrs	15	60	30	30	30	20
3	2022/23	-100	100	N/A	N/A	Apr22 - Sep22	11:30 – 13:30	Mon – Fri	Secure DSO Constraint Management (Pre-Fault)	30 mins	15	60	30	30	30	8
4	2022/23	-150	150	N/A	N/A	Oct22 – Mar23	11:30 – 14:30	Mon – Fri	Secure DSO Constraint Management (Pre-Fault)	30 mins	15	60	30	30	30	20
5	2022/23	-100	100	N/A	N/A	Apr22 – Mar23	12:30 – 14:30	Mon – Fri	Dynamic DSO Constraint Management (Post-Fault)	15 mins *	15	60	30	30	15	16

\* Can be reviewed subject to asset / DER capabilities

Table 2 Identifies the total flexibility requirements for the St. Andrews initial trials;

- Participants shall use the ITT response proforma to indicate the extent to which they can provide all the above services.
- The Duration column in Table 2 represents the maximum service run time for the delivery for that service within a specified service window.
- The service should be delivered from flexible units located within one or more of the postcodes described in section 1.
- The capacities reflected in this FSR have been deliberately kept low to minimise the impact of these trials on the network.
- The minimum total aggregate capacity of a group of assets that can qualify for bidding is 1KW.
- The capacity that is called upon to be 'utilized' in any given event may be lower than the total amount procured under this 'availability' contract.
- A summary overview of the services descriptions is provided in Appendix 2 of this document.
- Exact characteristics of these services will be defined in schedule 1 of the Flexibility Services Agreement (FSA) in due course. A template FSA is available on the Project FUSION website.

**Appendix 2 – FUSION Service Descriptions**

*Table 3: Service descriptions*

Service to be Trialled	Summary of Service
Sustain Peak Management	A service to provide the DSO with a planned reduction in demand or increase in generation in advance of a forecast capacity constraint at peak time, e.g. to reduce the loading on a transformer during tea-time peak.
Secure DSO Constraint Management (pre-fault)	A service to provide the DSO with an immediate reduction in demand or increase in generation during a planned outage of one or more critical assets or in the event of network disturbances to maintain security standards and avoid any customer minutes lost.
Dynamic DSO Constraint Management (post-fault)	A service to provide the DSO with an immediate reduction in demand or increase in generation following an unplanned outage of one or more critical assets to maintain security standards and avoid any customer minutes lost.





**Appendix 3 – FUSION Trial Location**

