

**Open Networks Work Stream 1 Product 2: DER
Services Procurement
DSO Services: Draft Product Definitions
Advisory Group - 4th June 2018**

General congestion management product requirement:

	Long-term	Medium-term	Short-term		
Parameter	Pre-fault Scheduled Constraint Management	Pre-fault Forecast Constraint Management	Pre-fault Real-time Constraint Management	Post-Fault Constraint Management	Restoration Support
Minimum / maximum bid size (e.g. 1 MWh or 10kW)	100kW min (can aggregate within area); no max?	100kW min (can aggregate within area); no max?	100kW min (can aggregate within area); no max?	100kW min (can aggregate within area); no max?	100kW min (can aggregate within area); no max?
Minimum / maximum duration (e.g. 15 min / 60 min)	0.5hr min; longer is more valuable	0.5hr min; longer is more valuable	0.5hr min; longer is more valuable	0.5hr min; longer is more valuable	3hr min; longer is more valuable (get standby gen to site, etc?)
Definition of congestion point (identification of the congested area)	infrastructure-dependent (will tend to be 'below' the congested asset(s) - to be better articulated as part of procurement exercise)	infrastructure-dependent (will tend to be 'below' the congested asset(s) - to be better articulated as part of procurement exercise)	infrastructure-dependent (will tend to be 'below' the congested asset(s) - to be better articulated as part of procurement exercise)	infrastructure-dependent (will tend to be 'below' the congested asset(s) - to be better articulated as part of procurement exercise)	infrastructure-dependent (will tend to be 'below' the congested asset(s) - to be better articulated as part of procurement exercise)
Bidding period: time granted to the market parties to offer bids.	Months ahead	Months ahead (Entire is testing closer-to-real-time)	Months ahead	Months ahead	Months ahead (Entire is testing closer-to-real-time)
Selection period: time required by the system operator to select the bids which will be activated.	Months ahead	Months ahead (Entire is testing closer-to-real-time)	Months ahead	Months ahead	Months ahead (Entire is testing closer-to-real-time)
Activation period: time before activation signal and ramp up period (1h, 15 min, 0 sec)	Months ahead	Closer to real time (dependent on driver) - day-ahead? Week-ahead?	Real time	Real time (post-fault)	Real-time
Maximum ramping period (15 min, 5 min, ...)	Scheduled, so not an issue...	Scheduled, so not an issue...	Minutes (i.e. 'fast', with link to short-term ratings)	Minutes (i.e. 'fast', with link to short-term ratings)	N/A
Minimum full activation period (15 min, 30 min, ...)	2hr? Need to balance procurement/utilisation efficiency here...	0.5hr (link with granularity of metering)	0.5hr (link with granularity of metering)	0.5hr (link with granularity of metering)	3hr?
Mode of activation (automatic, manual)	Scheduled	Manual	Automatic (potential for manual, depending on post-fault asset capability)	Automatic (e.g. triggered by ANM, protection operation, etc)	Manual
Availability window (per day, per week, per year)	Defined at procurement according to requirement	Defined at procurement according to requirement	Defined at procurement according to requirement	Defined at procurement according to requirement	N/A - 'as required'...
Maximum number of activations (per day, per week, per year)	Scheduled, so not an issue...	Defined at procurement according to requirement	Defined at procurement according to requirement	Defined at procurement according to requirement	hopefully none!' (TBD)
Recovery time: Minimum time between activations	Scheduled, so not an issue...	Defined at procurement according to requirement	Defined at procurement according to requirement	Defined at procurement according to requirement	N/A
Baseline methodology (basis upon which availability is assessed/delivery is compensated)	TBC (likely to vary by both product and technology of provider)	TBC	TBC	TBC	TBC
Measurement requirements	Minute-by-minute metering?	Minute-by-minute metering?	Minute-by-minute metering?	Minute-by-minute metering?	Minute-by-minute metering?
Pooling allowed (Yes / No)	Yes (within appropriate geographical area)	Yes (within appropriate geographical area)	Yes (within appropriate geographical area)	Yes (within appropriate geographical area)	Yes
Penalty for non-delivery (fixed or dependant on the bid size and/or duration, €10.000, €1.000, ...)	Loss of revenue; impact on future procurement/utilisation, and potential for termination of contract	Loss of revenue; impact on future procurement/utilisation, and potential for termination of contract	Loss of revenue; impact on future procurement/utilisation, and potential for termination of contract	Loss of revenue; impact on future procurement/utilisation, and potential for termination of contract [Consideration needs to be given to how to ensure the protection of the network. Do we need to establish a back-stop tripping capability?]	N/A