

WESTERN POWER 
DISTRIBUTION

Serving the Midlands, South West and Wales

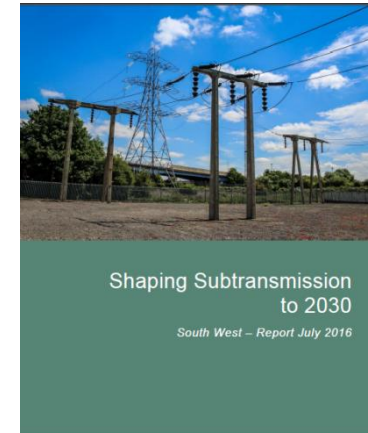
**Smart, Flexible Energy System –
DNO to DSO transition**

28th March 2017

Nigel Turvey – Network Strategy and
Innovation Manager

Value of flexibility to Distribution Networks

- There is significant uncertainty in the growth of demand and generation shown by our 'Shaping Sub transmission' work and the associated demand/generation scenarios
- Flexibility gives value in terms of:
 - Potential for faster response to changing needs
 - A lower cost solution where requirement is for short periods of time
 - Managing the network where there is uncertainty of whether a 'build' solution is required , and
 - Where new assets are required, managing the network during the construction time
- In addition, with appropriate coordination, available flexibility at the distribution level also has significant value to the transmission system operator



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**Distributed generation and demand study -
Technology growth scenarios to 2030**

South west licence area

January 2016

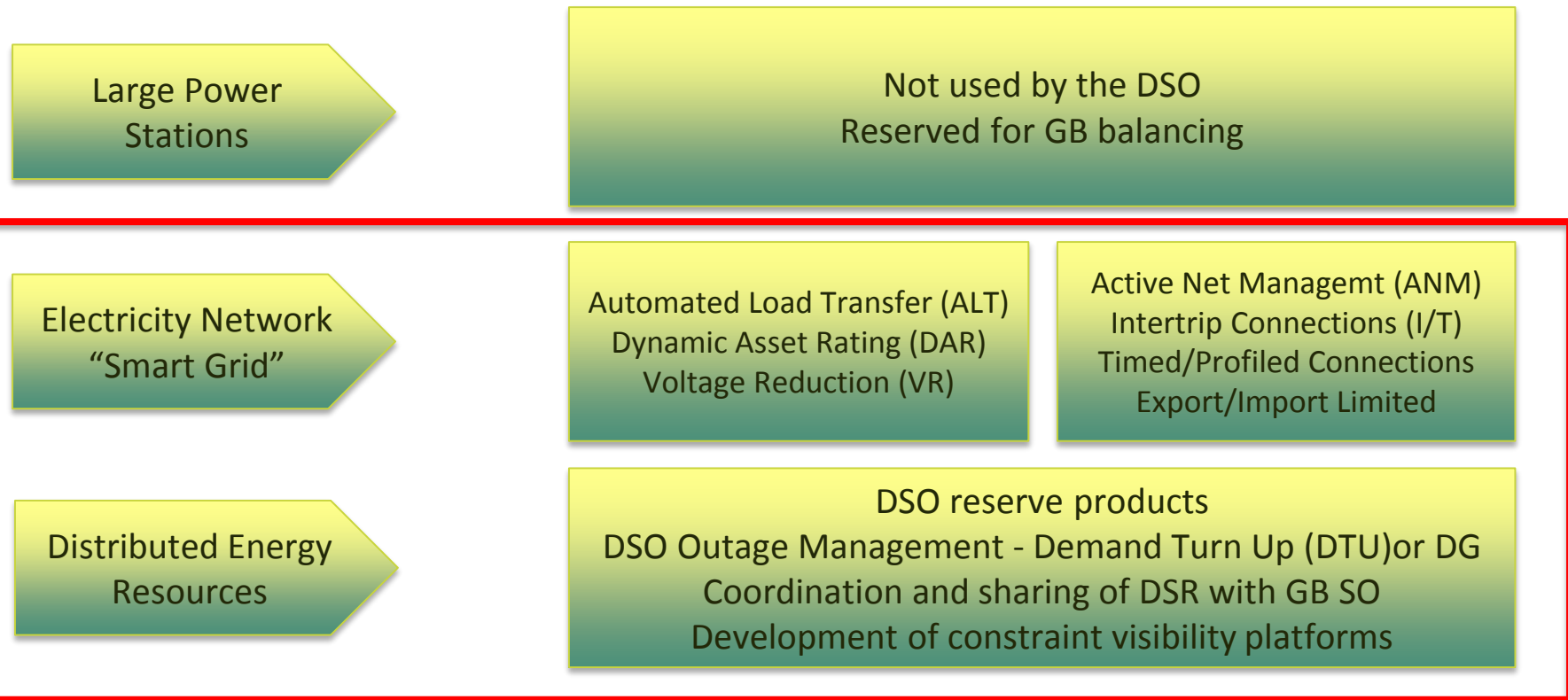


Final version

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Report ID: 10000000000000000000

DSO Flexibility Services

- Electricity System Flexibility can come from three sources:

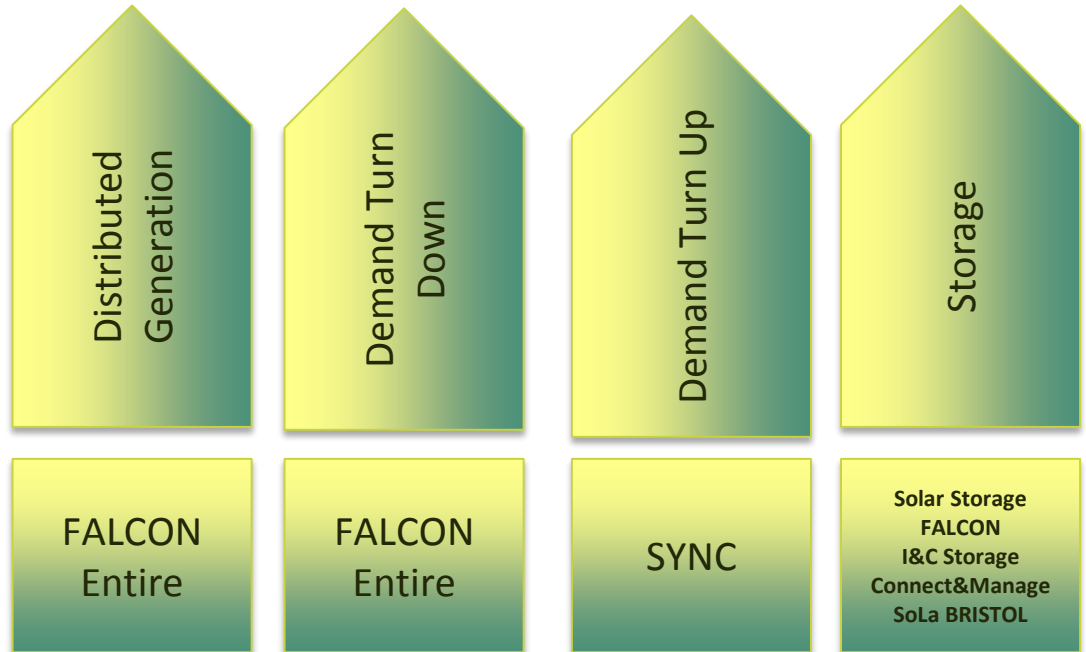


DSO Flexibility Services (DSR)

Distributed Energy
Resources

Reserve product – “Flexible Power”
DG Outage Management - Demand Turn Up (DTU)
Coordination and sharing of DSR with GB SO
Local Energy Markets - constraint visibility platforms

- We are technology agnostic
- DSO flexibility products have different technical requirements to the GB SO
- DSR is a market provided service
- Products designed to secure supplies at the lowest possible *whole system* cost
- Our Future Networks Programme is delivering insight and will allow for a rapid rollout to BAU



Thank you for listening

Nigel Turvey
Network Strategy and
Innovation Manager