









Energy Market Security and the Low Carbon Transition

Representing the UK Energy Network Operators

Electricity distribution

① 	⑤ 
② 	⑥ 
③ 	⑦ 
④ 	⑧ 

gtn Independent distribution network operator



Electricity transmission

① 	③ 
② 	④ 

nationalgrid ESO
National Grid ESO is the transmission system operator for England, Scotland and Wales.



Gas distribution

① 	③ 
② 	④ 

gtn Independent distribution network operator



Gas transmission

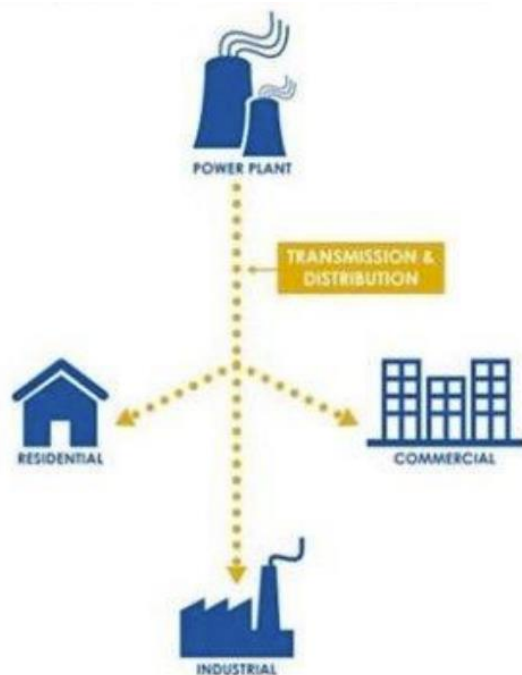
① 



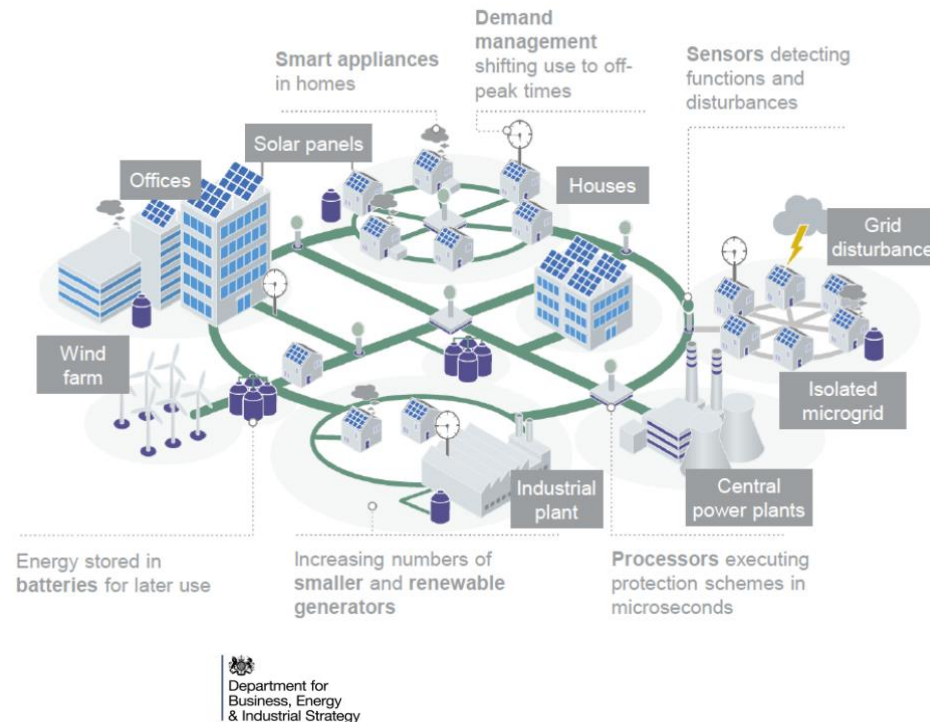
The Changing Context

Need for Enhanced Operational Control that is Robust and Resilient

Passive Fossil Fuel Based



Low Carbon Distributed Solution



Communications Market Developments

- PSTN Withdrawal
- Reduction in Fixed Link Bands;
 - 1.4 GHz, 26 GHz, 6GHz, etc.

Energy Emergencies
Executive Committee Storm
Arwen Review

Final Report

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