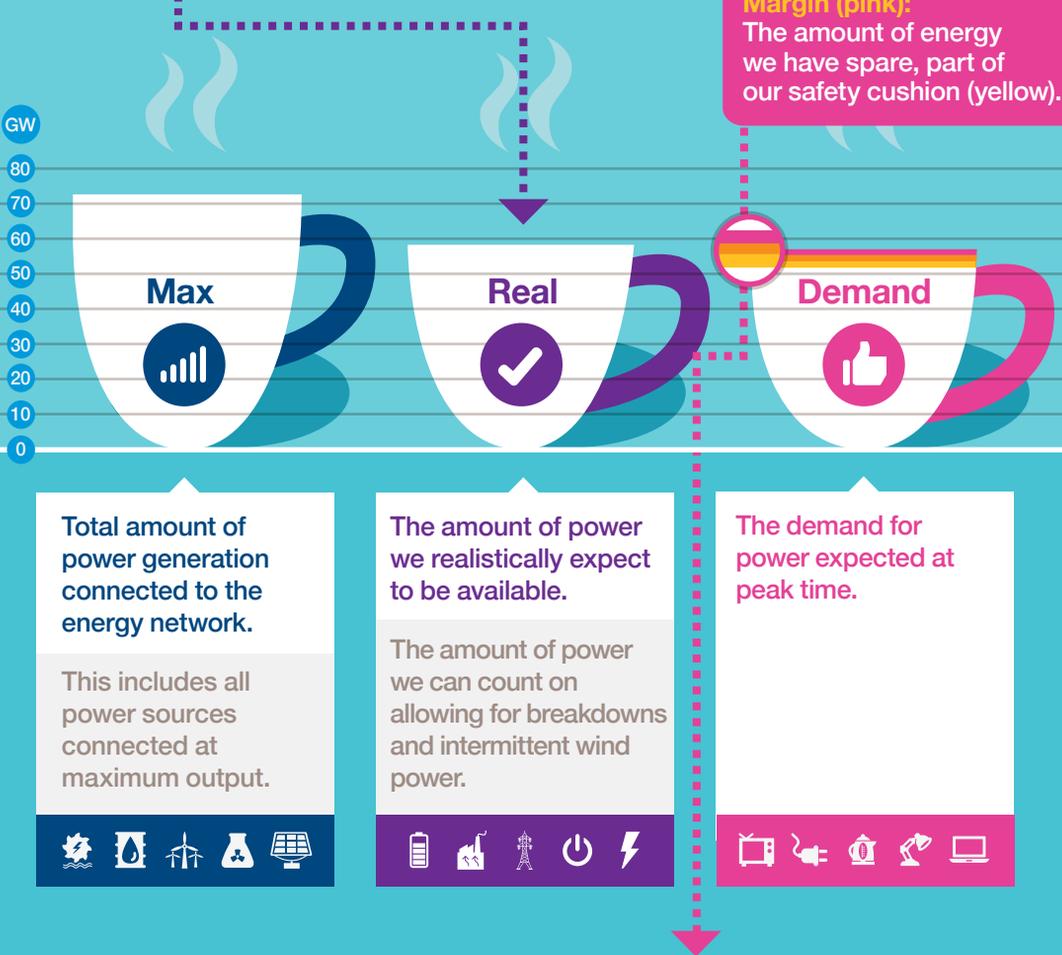




Meeting the energy challenge. The winter capacity margin explained.

5pm on the coldest day of winter illustrates peak demand. The margin is the difference between real generation and demand.



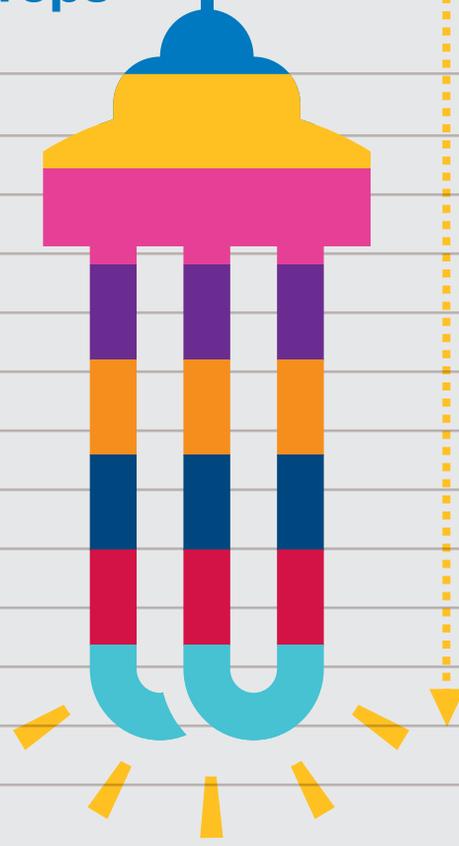
Explaining the safety cushion. Surplus, reserve and the safety cushion.

5pm on the coldest day of winter. The margin of surplus energy available over the level of demand.



What National Grid can do if the margin between supply and demand drops

- Signals to the energy market:** Electricity Margin Notice (EMN) informs generators that demand is high and asks them to respond with more power. Negative Reserve Active Power Management notification (NRAPM) is issued when demand is low to encourage inflexible generation like nuclear and gas to reduce their output. High Risk of Demand Reduction (HRDR) Reduces demand to make existing generation go further. Demand Control Imminent (DCI) Instruction to distribution networks to reduce demand across their areas within 30 minutes.
- Interconnectors:** If GB is exporting we can stop. We can also request more power from European System Operators.
- Additional Short Term Operating Reserve:** Specialist contracts that can provide extra energy if required.
- Max generation:** We request power stations to operate at their maximum potential.
- Demand Side Balancing Reserve:** Voluntary demand reduction from contracted large energy users.
- Supplemental Balancing Reserve:** Contracts with generators that may not otherwise be available, can be called upon if required.
- Voltage reduction:** Slight reduction which will go largely unnoticed by the vast majority of consumers.



NB: The system will determine in which order we use these tools