Resilience: Planning for the Future

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How is Resilience additional to Reliability?

Reliability
Day-to-day challenges of running a network, within ‘normal’ operating conditions

Resilience
‘the ability to withstand and reduce the magnitude and/or duration of disruptive events, which includes the capability to anticipate, absorb, adapt to, and/or rapidly recover from such events’ (FERC, 2018)

Source: FERC (2018) Grid Reliability and Resilience Pricing (Document No. RM18-1-000), and Grid Resilience in Regional Transmission Organizations and Independent System Operations (Document No. AD18-7-000)
Change in Industry Trends

National Grid’s vision: We will exceed the expectations of our customers, shareholders and communities today and make possible the energy systems of tomorrow
There are many cross-sector interactions today, and more are anticipated in the future.
Emerging Threats: *With all of these interactions, how do we assure that our networks remain resilient?*
Planning for Future Resilience

Careful planning, co-ordination and collaboration is required to ensure UK infrastructure are resilient in the future...

...electricity is one piece of the resilience puzzle
national grid