

# NGET's SO:TO optimisation proposal to benefit consumers

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nationalgrid



# An opportunity to unlock savings for consumers

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## Transmission constraint costs are increasing

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- Transmission constraint costs have increased significantly over the last 10 years and are now in the £100ms per year. This has been mostly driven by the growth in renewable generation, which tends to be located in different places to the thermal generation it has replaced.

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## The costs are due to planned outages, but also a lack of network capability

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- More than half of these constraint costs result from planned outages that transmission owners (TOs) have to take to carry out essential maintenance on the network.
- But more than a quarter result from constraints on the intact network, when there are no planned or unplanned outages.

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## Transmission owners can help reduce constraint costs

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- The TOs can help reduce constraint costs, and whole system costs for consumers, by:
  - Providing more flexibility around system access
  - Getting more out of the existing network at times of high constraint costs

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## There are currently barriers to reducing constraint costs

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- The additional services TOs can provide cost money, but the current regulatory framework to allow them to recover these costs has the following problems:
  - There is uncertainty over cost recovery
  - The process is slow and administratively burdensome
  - There is a tight cap on funding

# Providing more flexibility to save consumers money

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## Under a market-based system we could offer more flexible system access services

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- Under a market-based system, **we would be incentivised to offer more flexible system access services**, such as:
  - rescheduling delivery;
  - accelerating timescales for delivery;
  - providing quicker emergency return to services (ERTS) times;
  - offline builds; and
  - temporary bypasses.
- **We could keep more options open for a longer period** so that the electricity system operator (SO) has more choice closer to real time. This means the TOs incur additional costs, but the potential constraint cost savings more than offset them.

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## We could also offer more options for improved network capability

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- To help manage constraints on the network TOs can operate the network at an enhanced short-term rating for a limited duration.
- Under the current framework the electricity system operator (SO) can request rating enhancements where they identify a benefit. We consider this service is underused at the moment.
- Under a market-based system, **we would be incentivised to offer enhanced short-term ratings** to the SO above and beyond our existing services

# Potential benefits and next steps

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## Potential benefits

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- In their business plans all three TOs have identified benefits from optimising the interface between the SO and the TOs:
  - We've identified approximately **£188m per year** of potential savings in England and Wales from SO:TO optimisation;
  - SPT has identified **£210m per year** of potential savings in Scotland and across the Cheviots; and
  - SHE Transmission has identified savings based on two case studies.

## Next steps

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- We are continuing to work with the SO and the other TOs to find the best way to unlock the benefits to consumers of SO:TO optimisation. This includes the changes needed to the current regulatory framework.
- We are continuing to identify flexible options we could offer to the SO.
- We would like to start the market-based system from 1 April 2021 to unlock the consumer benefits from the beginning of the RIIO-2 period.