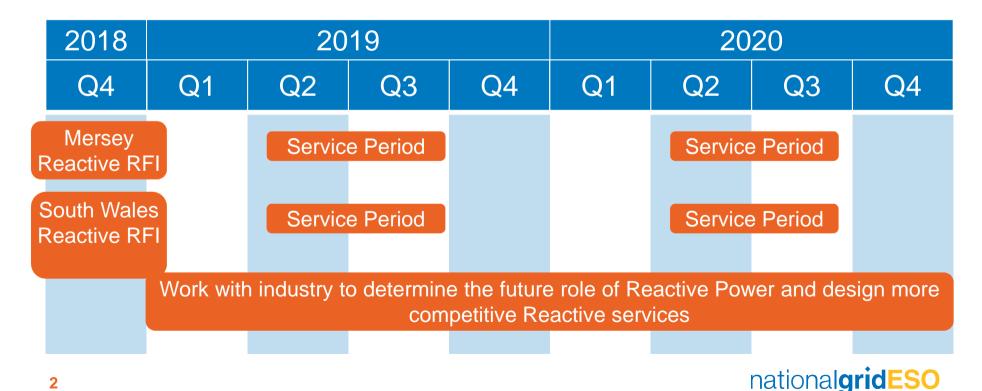


"Shorts"



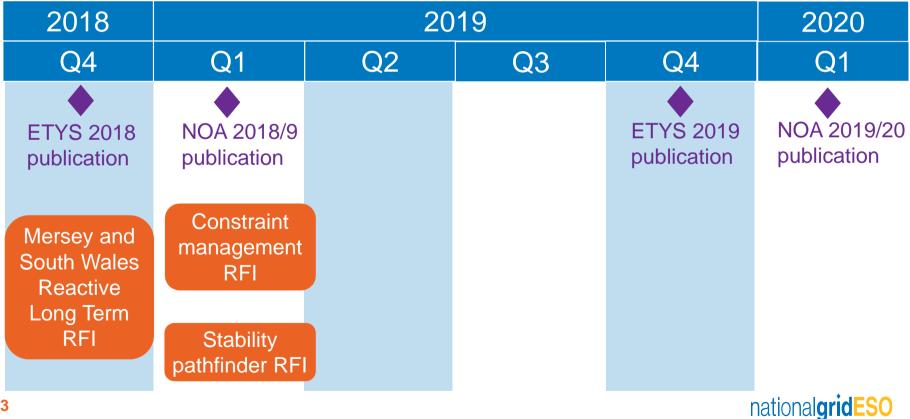
Reactive Power Regional Requirements (Short Term)-Request for Information (RFI)

- We have published a RFI for provision of reactive power in South Wales and Mersey regions Summer 2019 and Summer 2020
 - Interested providers to submit outline of their capability by 5th November 18
- Initial step in our plan to develop improved transparent, contestable approach to reactive power procurement



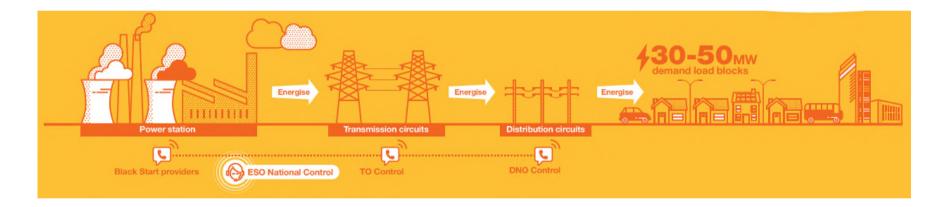
Pathfinder project (NOA) – Requests for Information

- We set out our planned enhancements to network planning in our Network Development Roadmap
- We are including commercial solutions as part of the next step through a number of pathfinding projects



Restoration – Black Start Procurement & Operation

- May 2018 ESO Restoration Roadmap highlighted the need for improvement in procurement approaches
 - Plan to develop a competitive tendered service for Black Start Services, initially in one area – rolled out across GB
 - Competitive tender process to be consulted on by the end of 2018



 EU Emergency & Restoration Code System Restoration and System Defence Plans outline the Black Start restoration process (under consultation until 26 October)



RIIO-2 – The first price control for a legally separate ESO

- Ofgem has confirmed that the ESO will have its own price control from 2021
- We will be expected to submit our well justified business plan in Q4 2019
- We will build our business plan with our stakeholders using a three phased approach – Listen, Co-create and Propose

| 2017 | | | | | | | 2018 | | | | 2019 | | | | | 2020 | | | | 2021 | | | |
|--------------|---|----|----|--|----|----|-----------------------|---|----|---|------|----|---|----|----|--|----|----|----|------|--|----|--|
| Q1 | | Q2 | Q3 | | Q4 | Q1 | Q2 | Q3 | Q4 | Q | I | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | |
| Esta prio | Listen Establishing stakeholder priorities to shape our future engagement plans | | | | | | | Co-create Building elements of our plans with stakeholders - getting into detail - workshops | | | | | Propose Sharing our plans with stakeholders to make sure we check we're meeting their needs | | | Ofgem scrutiny and licence development Detailed scrutiny of our business plans and stakeholder group reports by the regulator, with open hearings where appropriate | | | | | Start of RIIO-2 New price control 1 April 2021 | | |
| | | | | | | | S | | | | | | | | | | | | | | | | |
| | | | | | | | Ofgem challenge group | | | | | | | | | | | | | | | | |

Ofgem scrutiny stage (not definite)

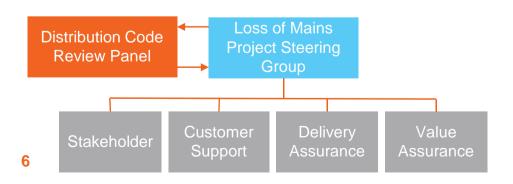
5

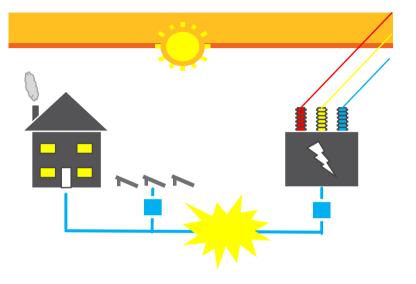
Email: <u>Box.ESO.RIIO2@nationalgrid.com</u> Visit our RIIO-2 website: <u>yourenergyfuture.nationalgrid.com</u>



Loss of Mains Protection changes

- National programme: ~50,000 distributed generators impacted
- Protection change: Remove vector shift and set RoCoF as 1Hz/s with 500ms delay
- 2017/18 operational spend: £59.2 million
- Programme cost estimate: ~£30million
- Forecast savings: ~£300million by 2024 .
- **Distribution code mod ref:** DC0079
- **Proposed cross industry governance:**





Timeline:

- AUG 2018: Distribution code consultation complete
- SEP-NOV 2018: Detailed implementation planning
- DEC 2018: Report to Ofgem
- JAN-MAR 2019: Mobilisation
- APR 2019-OCT 2021: Implementation

nationalgridESO