



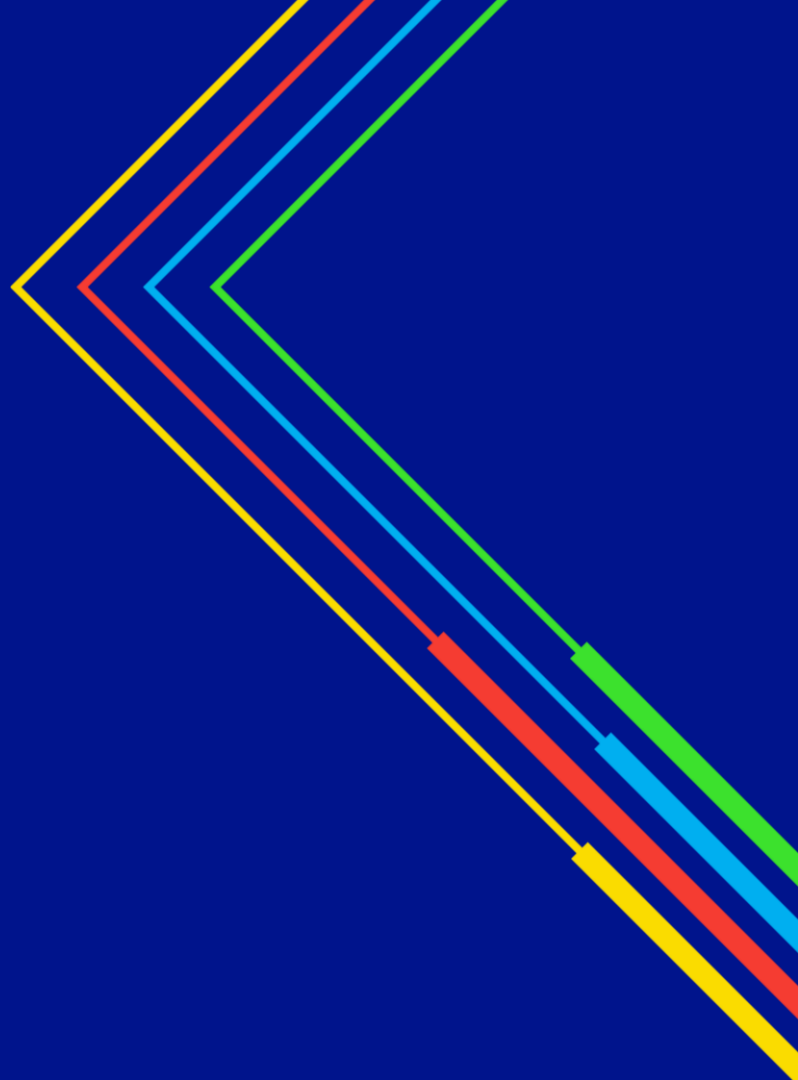
**Electricity  
Distribution**

# **Electricity Innovation**

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**nationalgrid**



# Our Innovation Journey ED1 to ED2

Our RIIO ED2 business plan was at least **£449M cheaper** than the alternative strategies presented that did not roll out innovation



The savings due to innovation within our ED2 business plan were



# 5X



**Bigger than the RIIO ED1 innovation funding**

RIIO ED1 LCNF, NIA, SIF & NIC = **£79.9M**

# Innovation Success's - LV Visibility

**Where we started**

**Dumb Network**

Network Templates  
LCNF

LV sensors  
LCNF

**Closed Data**

SMITN (Visibility from Smart Meters)  
NIA

Presumed Open Data  
NIA

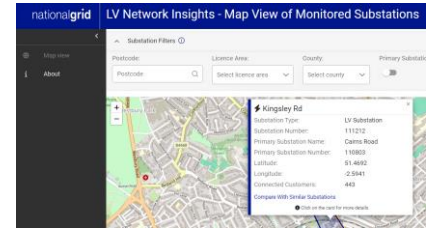
**Open LV** Your local electricity data  
NIC

RIIO ED2 funding for LTE comms network to carry the increased data

RIIO ED2 funding for installation of 15,500 LV monitors and smart meter visibility

NGED Connected data Portal  
88 Datasets  
6.3k resources

**Today**



**Customers can access Open data including capacity and loading for HV/LV substations**

**Customers savings from optimised investment timing thanks to visibility**

# Innovation Success - Flexibility

**Where we started**

**Infrastructure based network solutions only**



**Project Falcon**

First foray into demand side response

**Project Entire**

Demonstrated the principles and back office systems to set up a comprehensive Demand Side Flexibility

**Today**

**£80M of infrastructure investment deferred through DSR**

**17 GWh of flex procured**

**86,000 registered and approved flexibility assets**

# Future Priorities

## Enhance our the Interests of our customers

Through Innovation, we have made improvements over traditional reinforcement, through systems and frameworks that restrict access at times of highest congestion.

We now need help our customers access their preferred markets at the times that are most beneficial to them, at the least cost.

## Managing Risk for our Customers

There are growing risks such as climate change that will impact on operation of networks and markets

This is despite increased dependency on electricity.

We need to build a vision of what net zero resilience and robustness looks like and deliver it.

## Just Transition

We need to build effective transition pathways and services for our customers.

Our customers are culturally, ethnically geographically, physically, economically diverse.

We need to develop the frameworks and systems that respond to the diversity of needs.

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