



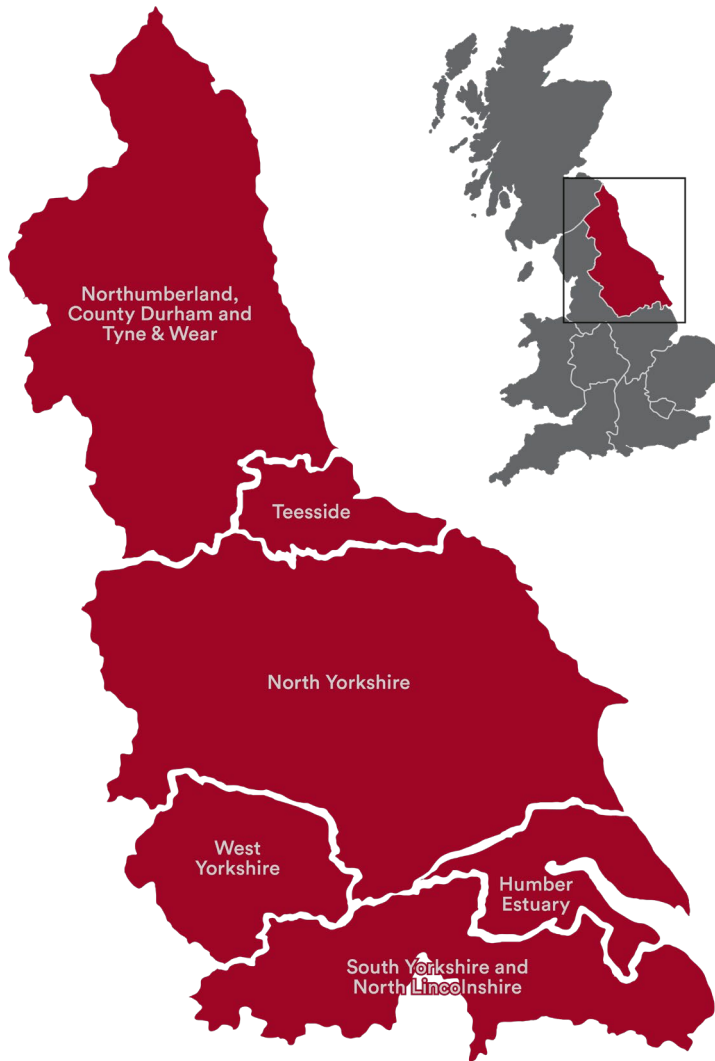
Northern Powergrid

Enabling regional decarbonisation

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Northern Powergrid



- Northern Powergrid is responsible for the **electricity distribution network** in the North East, Yorkshire and northern Lincolnshire.
- We **move** electricity from where it's generated to homes and businesses.
- We are the enabler of a **net zero** society.
- **We are a regulated utility business** and therefore, we plan ahead of time in business plan cycles.
- We are in the first year of our new business plan period where we are **delivering around £3bn of investment** (2023 to 2028 – Electricity Distribution 2, ED2)

What we do for our customers

- Facilitate growth and decarbonisation
- Plan for and invest in a safe and reliable network
- Provide connections to the network
- Support vulnerable customers and communities
- Minimise our impact on the cost of living and doing business in our region



Providing Connections: Growth and Decarbonisation across our region

- We treat all applicants equally
 - We will make a connection offer to anyone that applies for a connection to our network
 - The connection queue does not favour any type of applicant over another
 - Government policy influences technology uptakes, we are technology agnostic
- We are speeding up and reducing the cost of some customer connections
 - Time limited curtailable connections can allow connection before completion of necessary reinforcement works
 - Flexible connection agreements can avoid reinforcement requirements where appropriate, and when customers want one

Decarbonisation: Meeting the challenge

- Flexibility – customers paid to turn up or down
- Community Distribution System Operator project – innovation with customer groups at the local level
- Revising design assumptions – using observation to get more out of existing network
- Low Voltage monitoring and external data – providing visibility
- Network reinforcement and expansion – investing where needed
- Work closely with Local Authorities and other stakeholders coordinating low carbon technology roll outs - a collaborative approach



30 GW IN OUR CONNECTIONS PIPELINE

Network is ready
to connect
381 Projects
(45%)

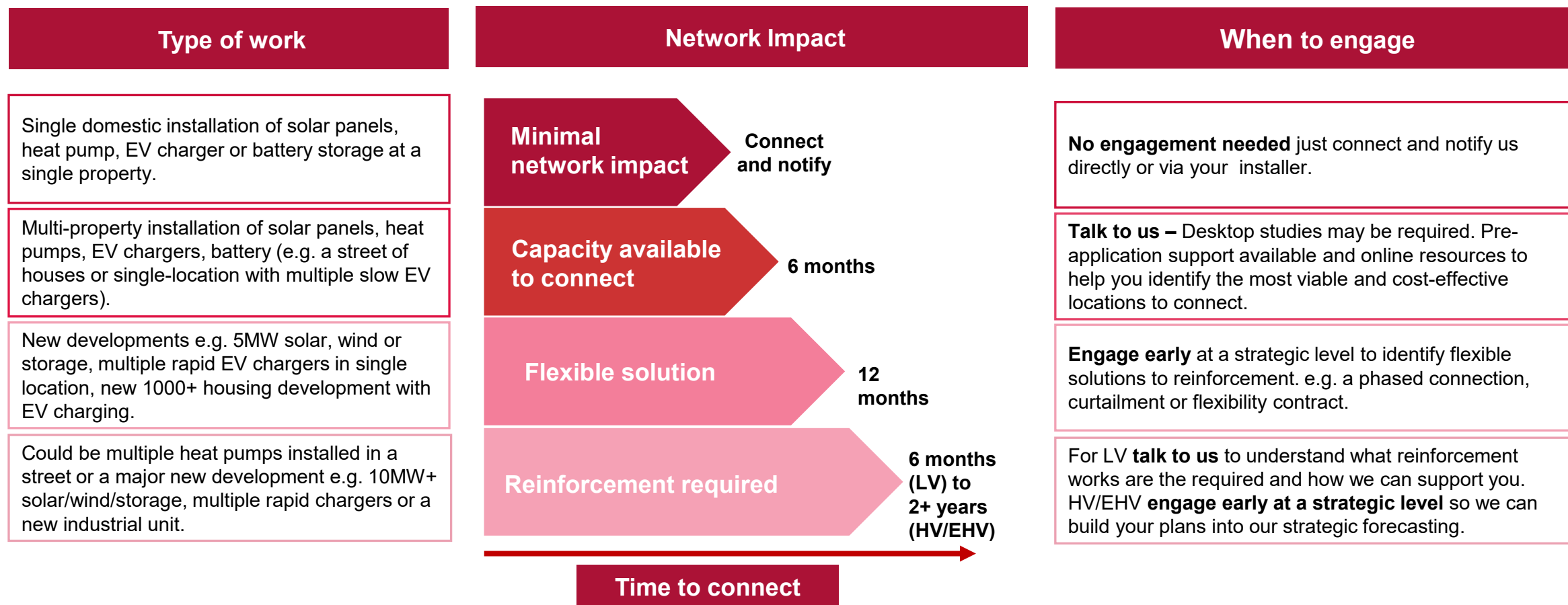
DNO
reinforcement
required
55 Projects
(6%)

Transmission
reinforcement
– under review
227 Projects
(27%)

Transmission
reinforcement
required
186 Projects
(22%)

>1 MVA customer projects across North East and Yorkshire

Providing Connections: Timescales



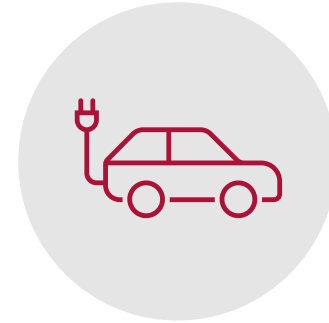
Providing Connection: Costs to connect

- Our prices are regulated by Ofgem and are required to be reflective of real cost
- Competition in connections: independent connection providers and independent distribution network operators
- Connections charges
 - Single use assets: connectee pays
 - Reinforcement costs: reduced under April 2023 connection charging reforms



Working with Local Authorities

- Supporting publicly funded decarbonisation schemes including:
 - Local Electric Vehicle Infrastructure
 - Social Housing Decarbonisation Fund
 - Public Sector Decarbonisation Scheme
- Regional Insight Team
 - Local Authority Portal
 - Collecting local intelligence on future network needs
 - Informing forecasts and network intervention decisions
 - Supporting Local Area Energy Planning
 - Providing education and support in using our network data

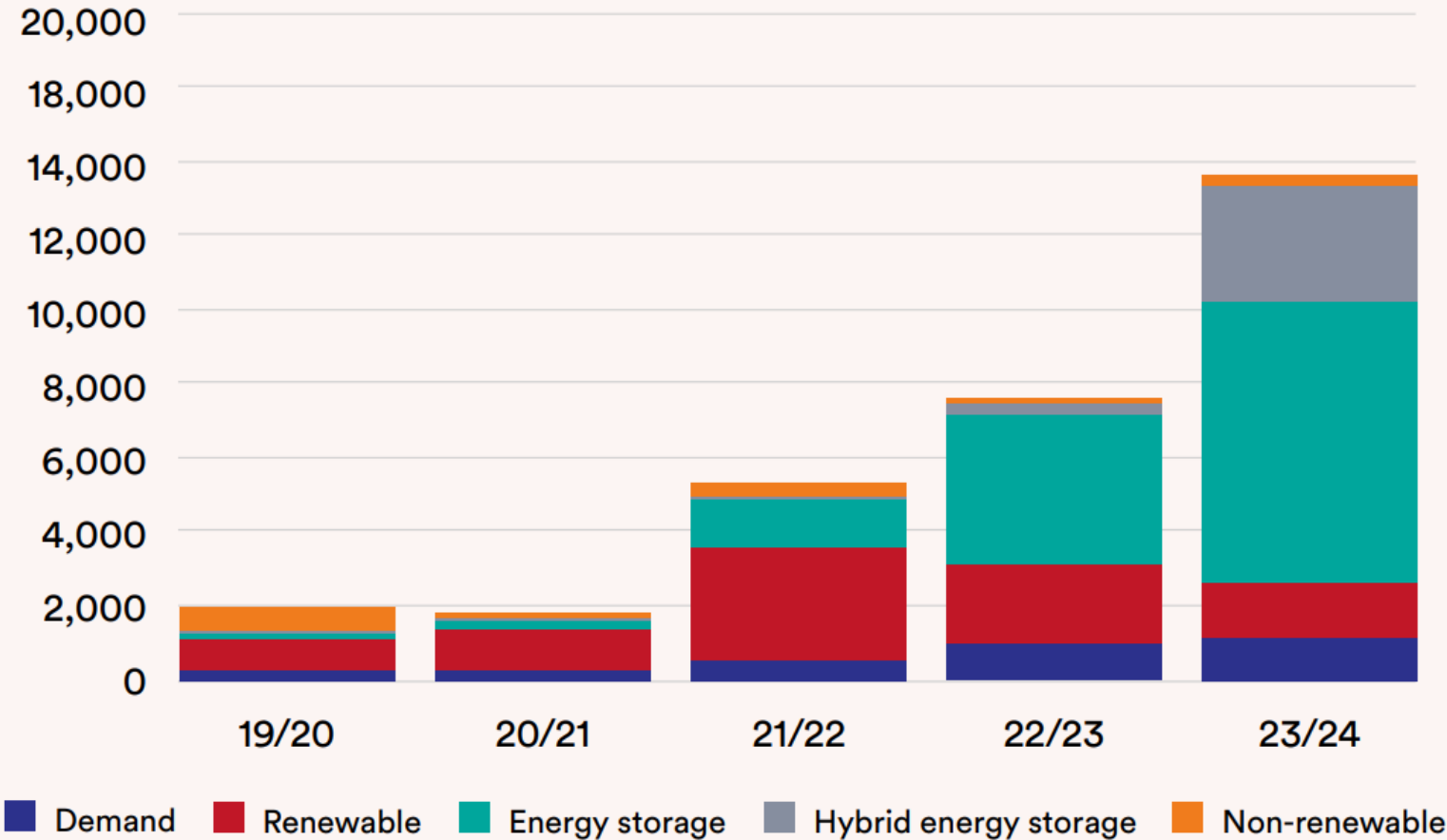


Thank you

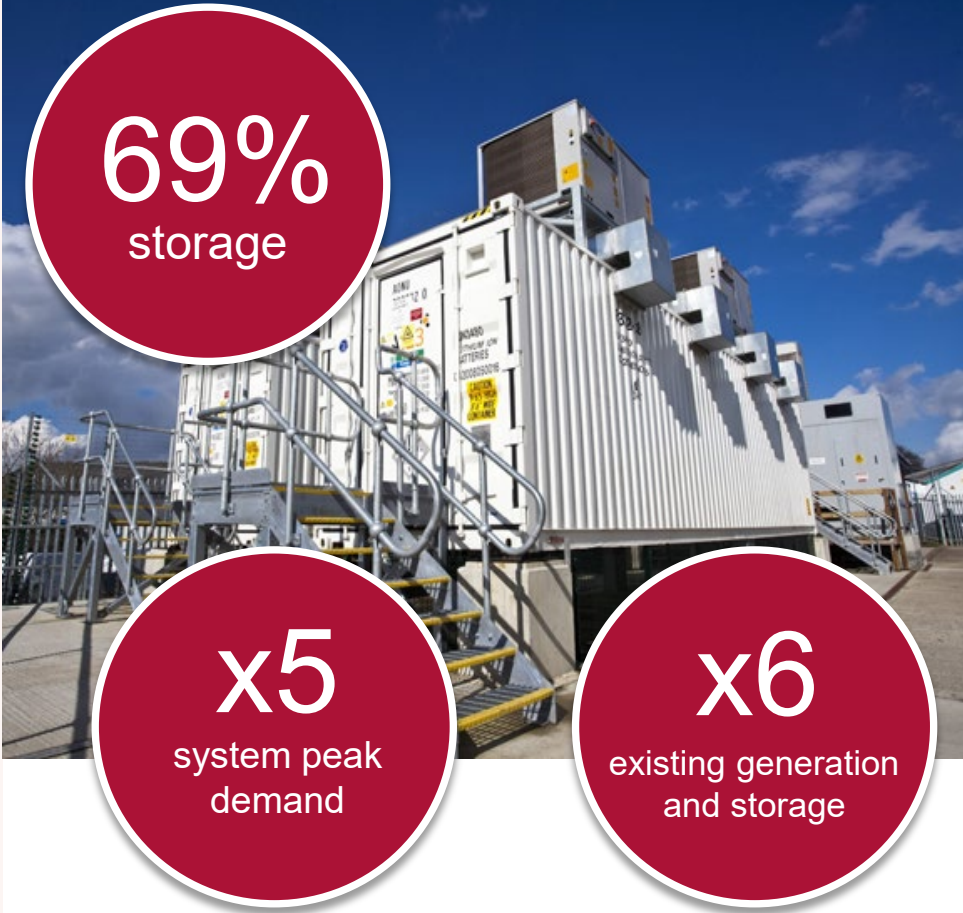
Appendix

APPETITE FOR MAJOR CONNECTIONS IS BOOMING

Major connections offers accepted - >1MVA



Connections pipeline



PROGRESSING MAJOR CONNECTIONS FOR THOSE READY TO PROCEED

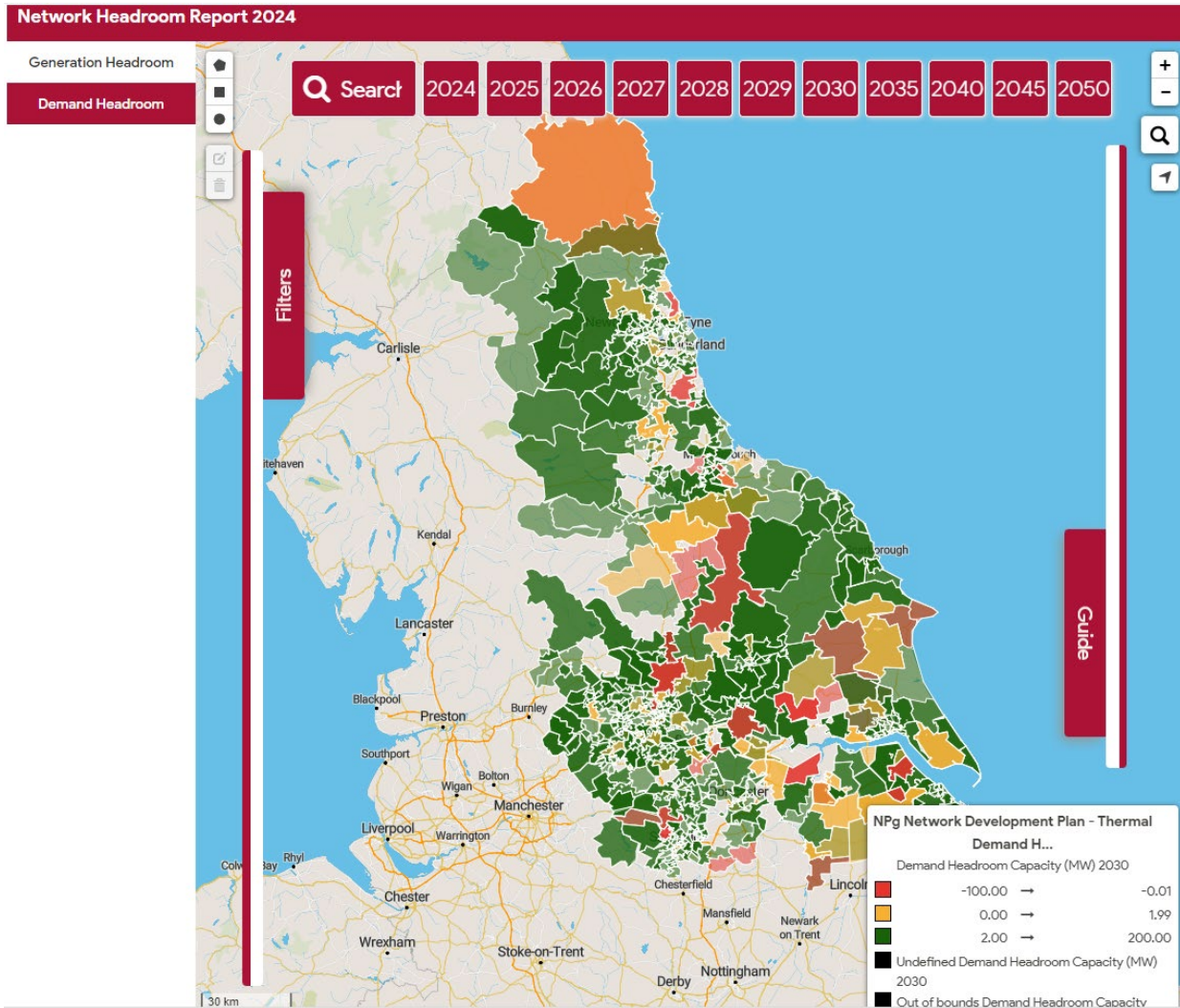
Providing accelerated connections

- Contacted 90 of the 230 impacted
- Already made 33 offers with typical 6.5 year improvement
- Significant movement in the queue
- Expect ca. 110 to connect

New policies, right incentives

- Capacity being freed up for those ready to connect
- >200MW from managing milestones
- User commitment and queue access all under scrutiny

NEW LOAD GROWTH VISUALISATIONS HIGHLIGHTING FUTURE FLEXIBILITY NEEDS



- Network Development Plan sets out network impacts of load growth
- New visualisations use heat map technology
- Users produce different views and access the underlying data

Enhanced
Forecasting