



nationalgrid
the local **electric revolution**

London
6 July 2023





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Other factors that could cause actual results to differ materially from those described in this presentation include fluctuations in exchange rates, interest rates and commodity price indices; restrictions and conditions (including filing requirements) in National Grid's borrowing and debt arrangements, funding costs and access to financing; regulatory requirements for the Company to maintain financial resources in certain parts of its business and restrictions on some subsidiaries' transactions such as paying dividends, lending or levying charges; the delayed timing of recoveries and payments in National Grid's regulated businesses, and whether aspects of its activities are contestable; the funding requirements and performance of National Grid's pension schemes and other post-retirement benefit schemes; the failure to attract, develop and retain employees with the necessary competencies, including leadership and business capabilities, and any significant disputes arising with National Grid's employees or the breach of laws or regulations by its employees; the failure to respond to market developments, including competition for onshore transmission; the threats and opportunities presented by emerging technology; the failure by the Company to respond to, or meet its own commitments as a leader in relation to, climate change development activities relating to energy transition, including the integration of distributed energy resources; and the need to grow the Company's business to deliver its strategy, as well as incorrect or unforeseen assumptions or conclusions (including unanticipated costs and liabilities) relating to business development activity, including the integration of its UK Electricity Distribution business, and the sale of a 60% stake in its UK Gas Transmission and Metering business. 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John Pettigrew

Chief Executive,
National Grid





▶ Transforming our UK business

Since acquisition

- New leadership team
- RIIO-ED2 price control agreed
 - Targeting **100-125bps** operational outperformance
- Rolled out new branding
- Integrated corporate and back-office functions
- **£100m** of synergies identified across the Group

Continued **top quartile performance**
across all key metrics





» A compelling strategic rationale



Increased
electricity
exposure



Enhanced
long-term
growth



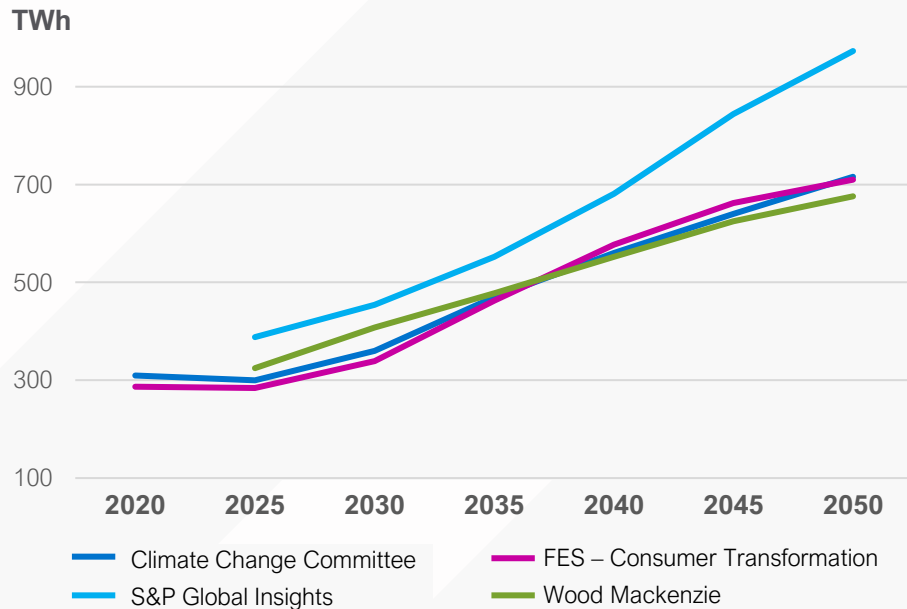
Delivery of
net zero



Geographic
and
regulatory
diversity

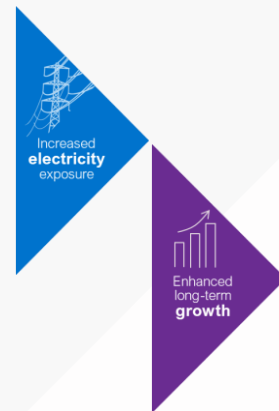
▶▶ Electrification: driving investment and growth

UK electricity demand to 2050¹



Distribution networks are changing

- Smarter, multidirectional and flexible
- Growing to accommodate electrification
- >30% increase² in annual investment from ED1 to ED2
- Long-term sustainable waves of growth





Delivery of
net zero

▶▶ Enhancing our role in the energy transition

- UK's largest energy networks company
- Whole system approach
 - Building resilient, flexible systems
 - Optimising transmission and distribution investment

£100m

synergies over 3 years

- ~75% in UK, helping to underpin UK outperformance targets
- ~25% in US, supporting achieved returns



Maintaining diversity

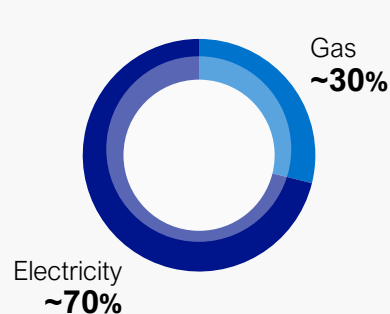
- A balanced and diversified portfolio
 - Attractive growth and yield
 - Mix of real and nominal regulation within stable jurisdictions
- 70% of Group's assets focused on electricity
- Asset base balanced across UK and US
- Progressive dividend delivered over past 20 years
- Total shareholder return higher than FTSE 100 over the past decade

Geographic and regulatory diversity

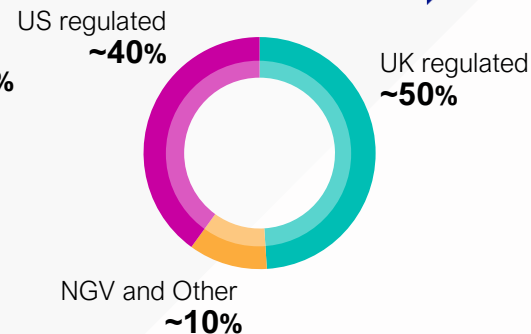
Asset base post strategic repositioning¹



Energy split



Geographical split



¹ Calculated as the proportion of actual FY23 asset base post completion of the acquisition of Western Power Distribution, and the sale of the Rhode Island business and majority stake in UK Gas Transmission and Metering



Summary



Electricity
Distribution



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Cordi O'Hara

President, National Grid
Electricity Distribution



National Grid Electricity Distribution

Key messages

- Strong track record of performance
- Targeting outperformance of 100-125bps in RIIO-ED2
- Long-term waves of investment for decades to come



Cordi O'Hara

President,
National Grid
Electricity Distribution



Darren Pettifer

CFO,
National Grid
Electricity Distribution

Plenary

- Business overview
- The RIIO-ED2 price control
- Our priorities and financial outlook

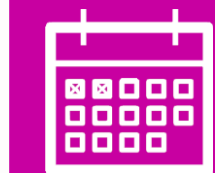
Q&A

Coffee break

Breakouts

- The Future Electricity System
- Innovating for Growth
- Transforming our Region

Networking



▶▶ A high-performing business

RIIO-ED1 highlights

Safety

- FY23 Lost Time Injury Frequency Rate of **0.076**

Industry leading customer satisfaction

- FY23 customer satisfaction score of **8.99** out of **10**

World class safety and strong reliability performance

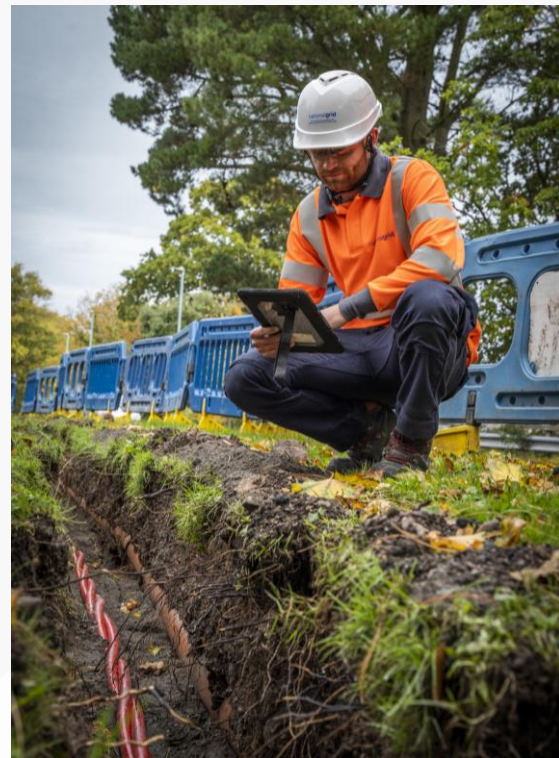
- Network reliability of **99.995%**
- Average outage once every **2.5 years** for **28 minutes**

Environment

- Reduced carbon footprint **>40%** since start of ED1

Financial performance

- Excellent ROE outperformance throughout ED1





National Grid Electricity Distribution

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The UK's largest electricity distribution network operator (DNO)

~25m customers

~8m meter connections

55,500 km² service area

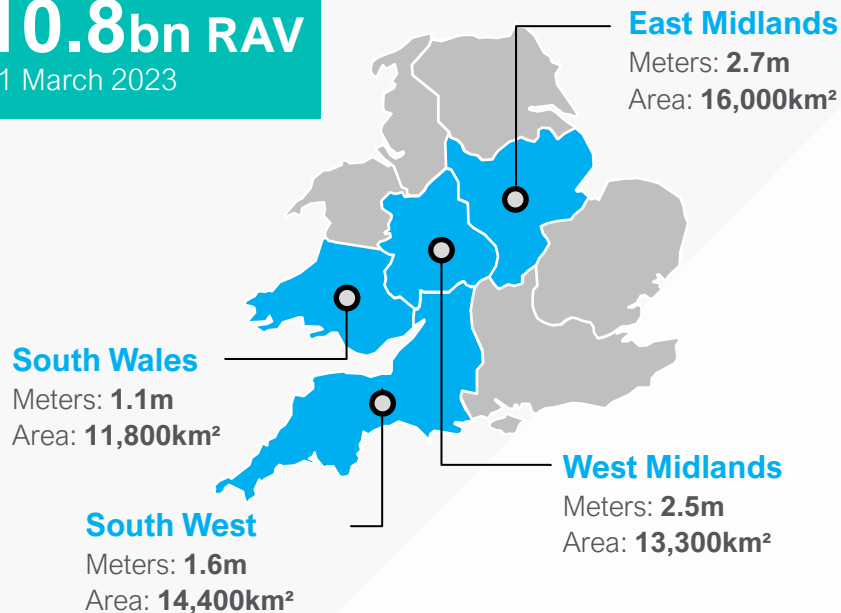
~225,000 km of overhead lines
and underground cables

6,700 employees

~70% field

£10.8bn RAV

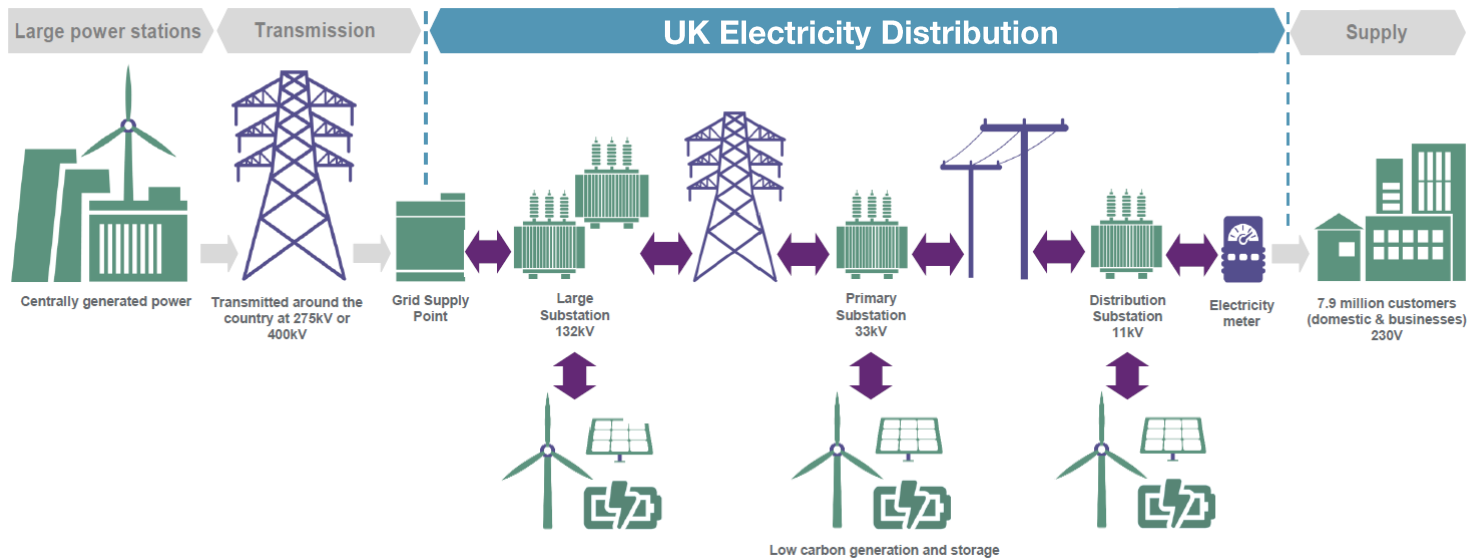
at 31 March 2023





National Grid Electricity Distribution

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- Providing essential power to homes and businesses
- Working with governments and communities to understand and deliver their energy priorities



▶ Delivering for our customers

Demand for greater electrification



Increased investment

Connect low carbon technologies

Network reinforcement

Asset health maintenance

Enabling the digital grid

Twice as many EV connections in the past 2 years than in all previous years combined



Customers could add more than a second home's worth of demand through electric heating and EVs



Our work on asset health will see us replace 3,000km of cable in ED2



Our online EV portal enables customers to get a connection offer in 2 seconds



April 2023 – March 2028

- **Baseline allowance** for ED2
 - **>30%** increase in annual totex compared to ED1
- **Targeting ROE outperformance of 100-125bps**
 - Partly underpinned by synergy benefits
- **Focus on totex efficiency**
 - Also supports affordability for customers
- **Scale and scope** of ED2 markedly different to ED1
 - Increase in size and volume of capital projects
 - Supply chain efficiency
 - Comprehensive asset management capabilities required



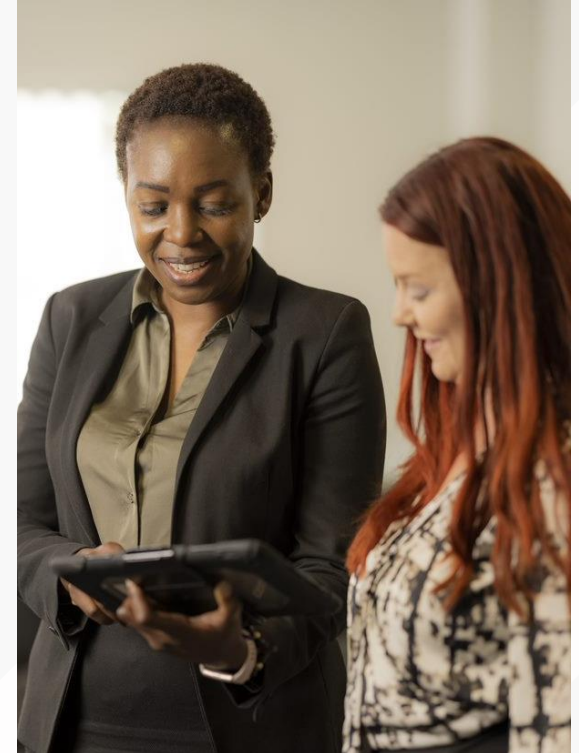
Incentives

Distribution System Operator (DSO)

- National Grid has a deep history of complex system operation
- Already underway developing
 - New DSO and governance
 - Connections reform
 - Expanded local flexibility markets

Vulnerable Customers – leaving no one behind

- Ensuring a fair transition
- **>£15m** of bill savings for **24,000** customers last year
- Smart energy action plans

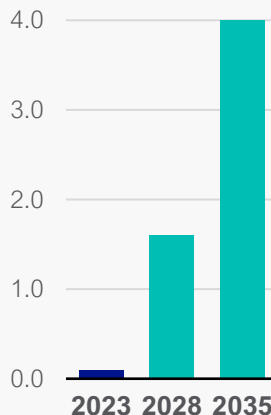


Waves of investment

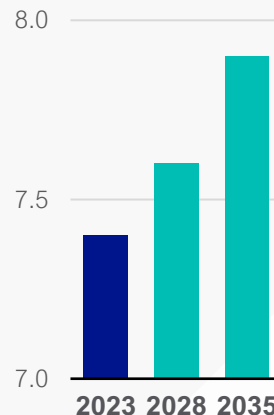
- Decarbonisation driving current and long-term investment
- Electricity demand forecast to double by 2050
- Increased flows on our networks driven by
 - Electrification of transport
 - Growth in domestic housing
 - Decarbonisation of heat



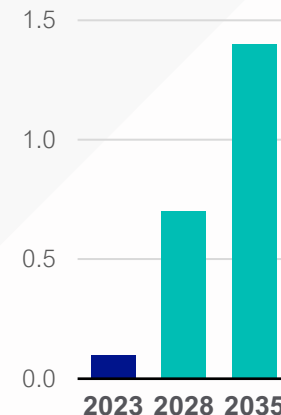
EV chargers
(millions)



Homes
(millions)



Heat pumps
(millions)



Sustained growth through the 2030s and beyond

Uniquely positioned as the
**largest electricity distribution
business in the UK**



Strong foundations
and set up well to
deliver ED2

- Strong ED1 performance to build on
- Opportunity in ED2 to outperform
 - New incentives
 - Totex outperformance
 - Long-term growth

Targeting
100-125bps ROE
outperformance across ED2





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Darren Pettifer

CFO, National Grid Electricity
Distribution



Totex allowances

- Baseline allowance for ED2: **£8bn** nominal¹
 - **>30%** nominal increase vs ED1 annual spend

Incentives

- Extends customer and reliability incentives from ED1
- New Distribution System Operator and Customer Vulnerability incentives

Financial framework

- Allowed equity return: **~5.3%** indexed to risk free rates
- Debt mechanism tracks prevailing interest rates

Uncertainty Mechanisms

- Flex revenue for external factors and outputs delivered





RIIO-ED1 vs ED2

Totex efficiency

- A sharper focus on efficient delivery

Updated real returns

- Move from RPI to CPIH inflation increases cash return
- ROE adjusted annually for risk free rate
 - 1% movement in gilt rate is **~20bps** on ROE

Uncertainty Mechanisms

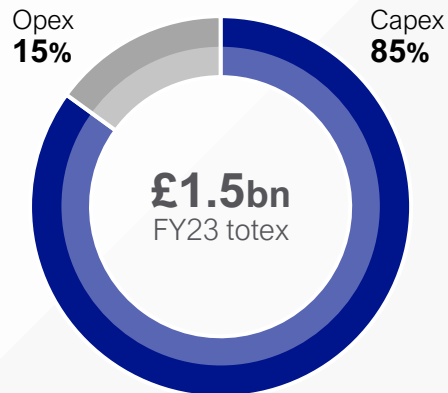
- **38** Uncertainty Mechanisms
 - **>50%** automatic
 - Includes revenue indexation for equipment and labour
 - 16 reopeners, including cyber, primary reinforcement and connections
- Forecast to represent **<5%** of totex



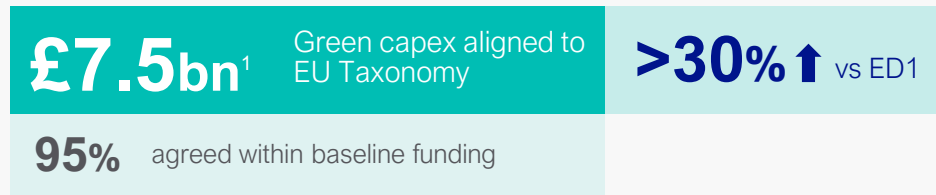


RIIO-ED2 investment

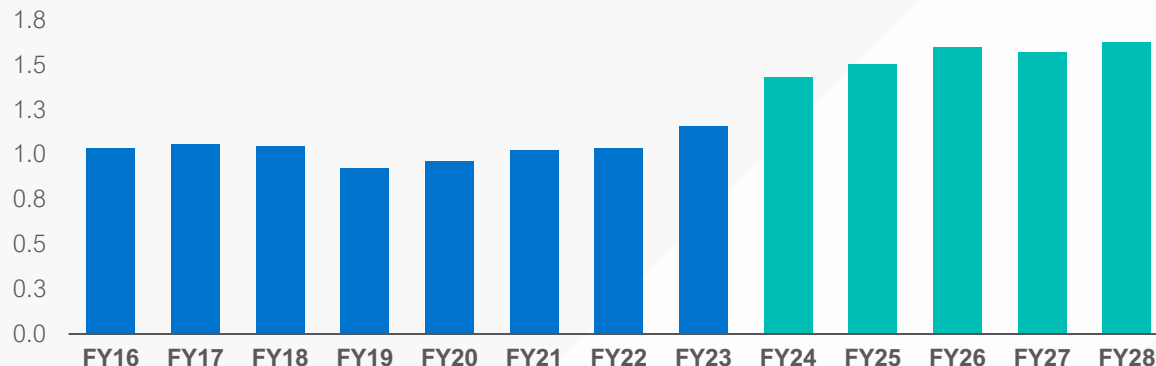
Historic totex



Capital expenditure in ED2



Capital Investment ED1 vs ED2 (£bn)

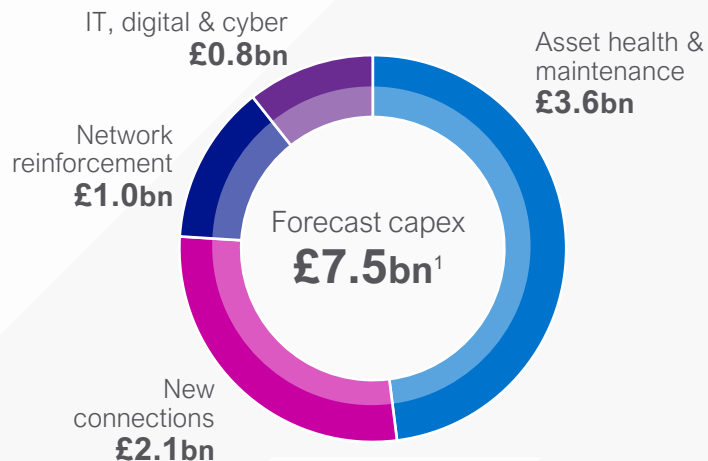


1. Nominal capital expenditure, including capex funded by contributions and uncertainty mechanisms



RIIO-ED2 investment

Capital expenditure FY2023-28



New load and connections

- Representing **10%** annual growth from FY23 levels
 - **75%** demand connections: electric vehicle charging, heat pumps
 - **25%** generation: solar and battery storage

Network reinforcement

- **>100%** increase compared to ED1
 - Projected total electricity demand increasing by **10%** across our network

Asset health and maintenance

- **15%** increase vs ED1
 - To maintain world class reliability and enable climate resilience

IT, digital and cyber

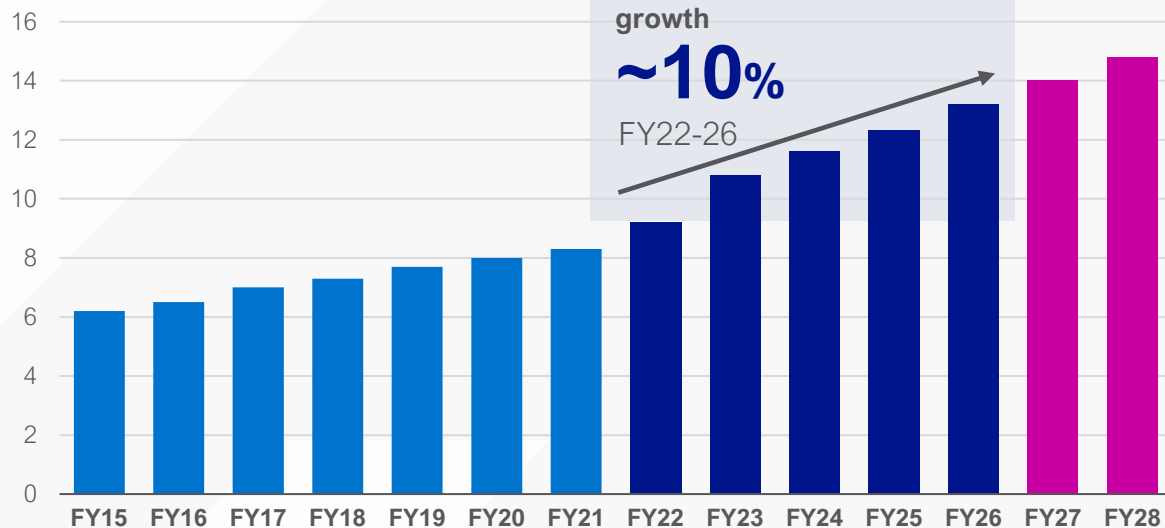
- **>100%** increase vs ED1

1. Nominal capital expenditure, including capex funded by contributions and uncertainty mechanisms

Strong RAV Growth

UK Electricity Distribution RAV

(£bn)



UK Electricity Distribution RAV growth

- At top end of 8-10% group asset growth CAGR over FY22-26^{1,2}



Delivering ROE outperformance

- Growth plans vital to network reliability and energy transition
- **~£100** of annual household bills
 - Holding bills flat through cost efficiencies²
- Strong efficiency track record through ED1
 - Focused on delivering for our customers

Targeted ROE outperformance

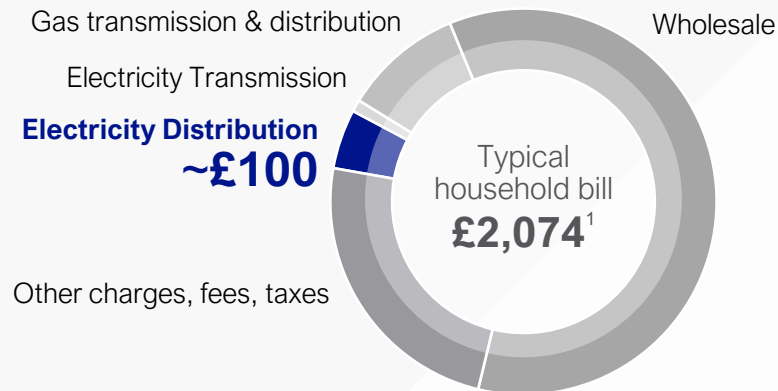
100 - 125bps in RIIO-ED2

**Totex
efficiency**

**Synergy
benefits**

**Incentive
performance**

Split of energy bill



Driving totex efficiency

Our plan to deliver

- Targeted programme of efficiency work – rolled out and scaled up during ED2
- Capitalising on common operations structure and systems across our regions
- Data driven approach provides visibility to unit costs

Minimising Spend

Removing unnecessary spend on labour, materials and unwieldy processes



Performance Strategy

A new drumbeat on performance execution



Work scheduling

Changes to our contracts model – how we triage, organise and schedule work, and embed new technology

Expect totex efficiency to deliver

70%

of operational outperformance

Driving synergies

Targeting
£100m synergies
over 3 years

- 1/3 from UK Electricity Distribution
- 2/3 from across the Group

Procurement savings

- Using broader scale of National Grid
- Saved £4m p.a. in recent High Voltage cable tender



Asset management and maintenance

- More condition rather than time-based maintenance
- Reduce opex whilst maintaining reliability



Reviewing property strategy

- Leverage shared sites and personnel
- Consolidating offices and depots through 'Future of Work' programme



▶▶ Driving incentive performance

- Top performing network for reliability incentives
 - Targeted investment to reduce minutes lost further
- Aiming to achieve highest levels of customer satisfaction
 - At least **9.3 out of 10**
 - Digital developments to better inform customers
 - Reforming connections approach
 - New customer excellence team
- New DSO and Customer Vulnerability incentives
- Further outperformance opportunity on financing
 - In addition to **100-125bps** operational outperformance



Expect incentive performance to deliver

30%

of 100-125bp operational performance target



Investing for the future

- ED2 framework – better revenue adjustments for external uncertainties
- Decarbonisation driving **>30%** increase in annual investment in ED2
- ROE of at least **8.3%** across ED2
 - **~5.3%** base return
 - **2.0%** assumed long-run CPIH inflation
 - **100-125bps** operational outperformance target
- Attractive mix of yield and growth
 - Good visibility of waves of investment over the next decade and beyond





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Q&A

