

Net Zero Pathway and the (EU) Power Sector

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The better the question. The better the answer.
The better the world works.

EY's sustainability commitments

We became the first of the “Big Four” organisations to be carbon neutral in 2020 (globally, across our entire carbon footprint) and have now increased our ambition go further to ensure we play our part in helping protect and preserve the planet.



We are committing to a 40% reduction in our absolute emissions and then every year removing or offsetting more than the remainder.

From 2021 onwards, we will be removing more carbon from the atmosphere than we emit and be carbon negative. A big statement but one that we in EY are committed to.

EY's transformation to carbon negative is coupled with a focus on supporting our clients with their ambitions for our planet.

We believe that sustainability is both good for business and good for the planet, offering opportunity to create and protect value.

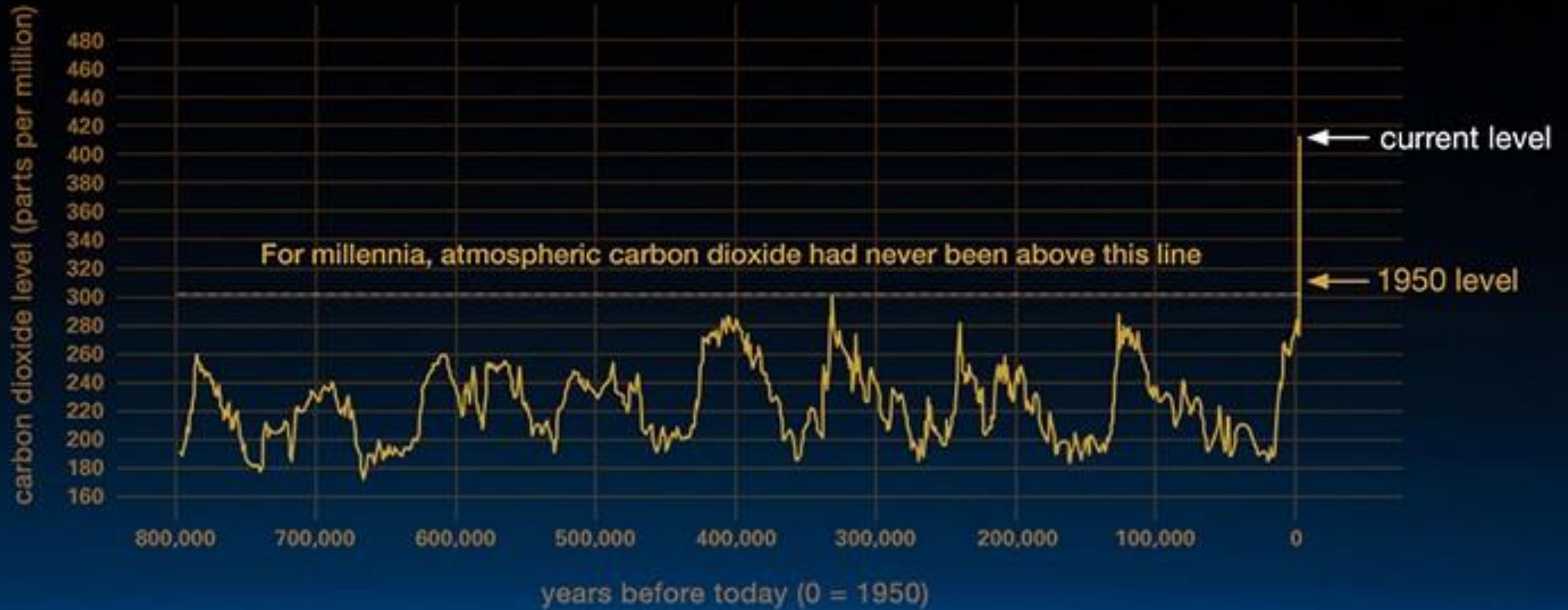
EY's ambition to be carbon negative in 2021 and net zero in 2025

Taking action to protect the planet is core to our purpose of building a better working world and one of the ways we create long term value for our people, clients and society.

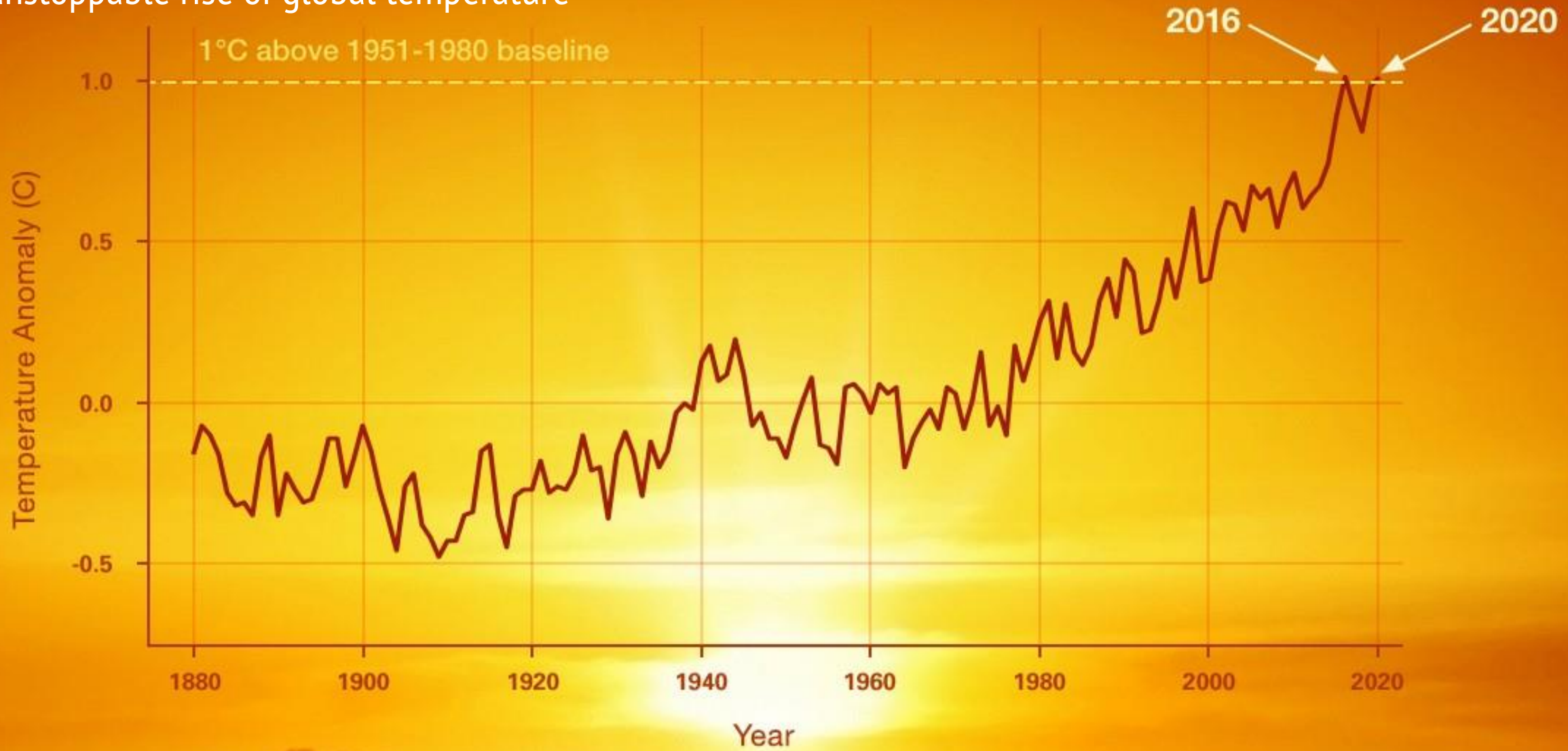
Our focus on becoming a more sustainable organisation includes:

1. Setting a Science Based Target and reducing our total emissions up to 40% by FY25 (across all three emission scopes)
2. Reducing business travel emissions by 35% by FY25 against an FY19 baseline
3. Including emissions created from EY people working at home in our carbon calculations
4. Using 100% renewable energy for office electricity by FY25
5. Working with our suppliers on a requirement for 75% of them to set Science Based Target for emissions reduction by 2025
6. Investing in services to help clients decarbonize and deliver on sustainability plans

The relentless rise of carbon dioxide



The unstoppable rise of global temperature



The exception becomes the norm



The exception becomes the norm

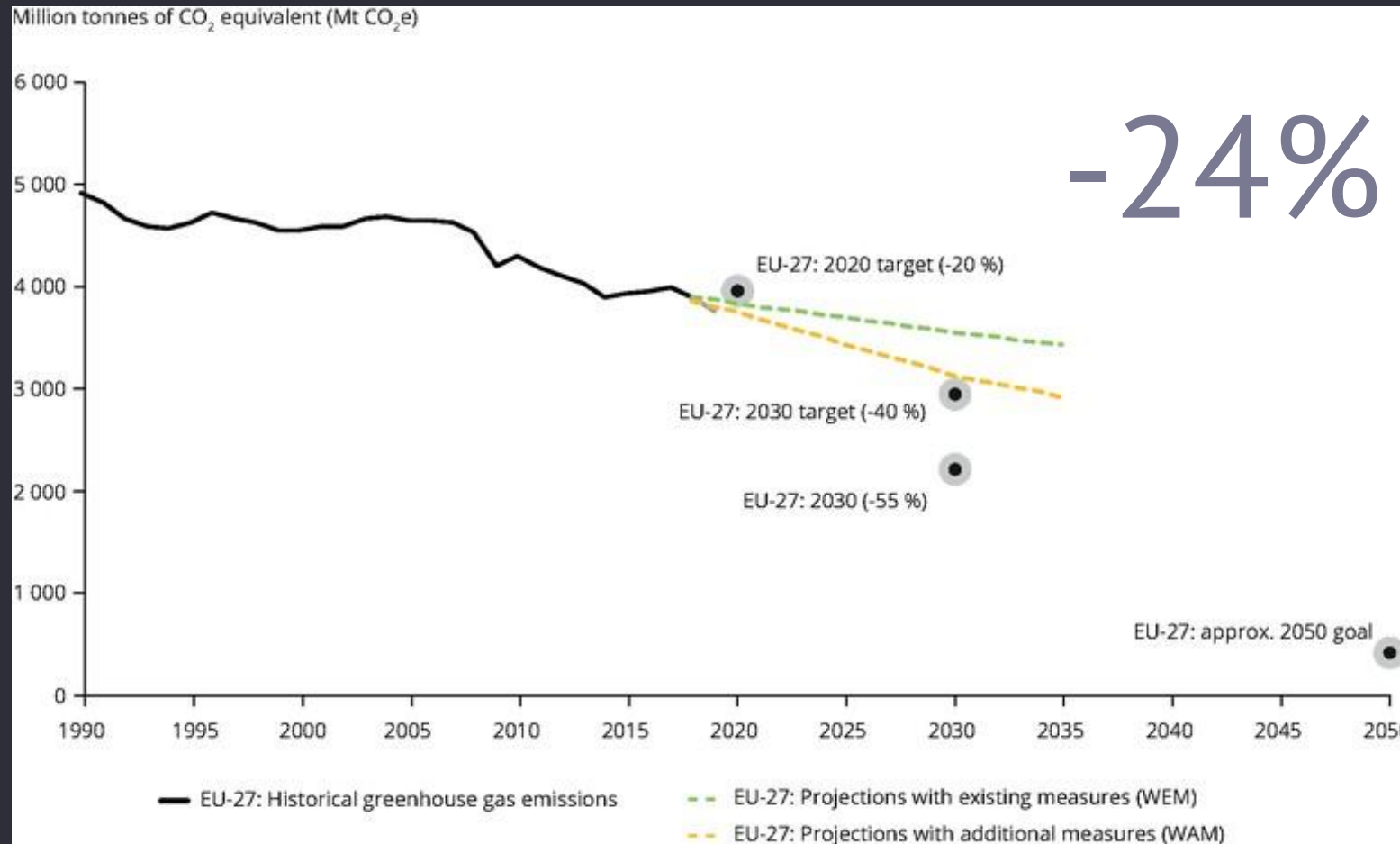


Climate action has long been on EU agenda



- ▶ Party to the **Kyoto Protocol** (1997) and **Paris Agreement** (2015)
- ▶ **2008**: EU leaders agreed to cut GHG emissions by 20% by 2020
- ▶ **2014**: EU leaders committed to cut GHG emissions by 40% by 2030
- ▶ **2019**: EU leaders endorsed the 2050 objective of a climate neutral EU (Net-Zero emissions) and European Commission announced the “Green Deal”
- ▶ **2020**: EU Parliament and the Council of Ministers introduced the Taxonomy Regulation
- ▶ **2020**: European Council agreed to reduce GHG emission by 55% by 2030
- ▶ **2021**: Climate Law
 - ▶ -55% by 2030
 - ▶ Net Zero by 2050
 - ▶ Negative emissions after 2050
 - ▶ Measures to keep track of progress and adjust

EU target achieved ahead of schedule



- ▶ Energy efficiency, renewables and fuel switching essential drivers of the GHG reductions in the power sector
- ▶ 32% EU share of renewables
- ▶ Wind power is the largest renewable source
- ▶ Coal-to-gas switching but coal still 20% of fuel mix and nuclear 25%
- ▶ Carbon intensity: 270grCO₂/kWh in 2018 → 400 US - 500 Japan - 600 PRC - 700 India and Australia

Source: International Energy Agency

Source: European Environmental Agency

IEA: a viable net zero pathway exists



- ▶ US\$5 Trillion in clean energy development and deployment by 2030
- ▶ Annual addition of solar PV and wind to achieve 630GW and 390 GW respectively by 2030
- ▶ End in investment in new fossil fuel supply projects
- ▶ No further investment decisions in unabated coal power plants
- ▶ No sales of new internal combustion engine passenger cars by 2035

Source: International Energy Agency

The utilities ambition



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Company	grCO2/ kWh (2020)	grCO2/ kWh (2030)	Generation Capacity (GW)	Renewable Capacity (GW)	Coal Capacity (GW)	Green Hydrogen Capacity	Storage System (TWh)	Grid & Network	Investments
ENEL	211 (-49%) ²⁰¹⁷	82 (-80%) ²⁰¹⁷	84 ²⁰²⁰ 170 ²⁰³⁰	56% ²⁰²⁰ 80% ²⁰³⁰	Phase out by 2027	2GW ²⁰³⁰	20 ²⁰³⁰	<ul style="list-style-type: none"> Connections Digitalisation 	<ul style="list-style-type: none"> 45% on renewables 24% on networks 25% on end use efficiency
IBERDOLA	98	50	55 ²⁰²⁰ 82 ²⁰²⁵	63% ²⁰²⁰ 75% ²⁰²⁵	0	800MW ²⁰²⁵	N.D.	<ul style="list-style-type: none"> Smart grid implementation & meters Loss reduction 	<ul style="list-style-type: none"> 51% on renewables 40% on networks
ENGIE	249 (-44%) ²⁰¹²	175 (-69%) ²⁰¹²	97 ²⁰¹⁹	28% ²⁰¹⁹ 59% ²⁰³⁰	Phasing out on-going	4GW ²⁰³⁰ + 700km network	N.D.	N.D.	<ul style="list-style-type: none"> 40-45% renewables 30-35% network 15-20% energy sol.
RWE	497 (-62%) ²⁰¹²	296 (>75%) ²⁰¹²	41 ²⁰²⁰	24% ²⁰²⁰ +30% ²⁰²²	Coal phase out completed	30 projects on-going including CO ₂ CCUS	Pilot projects on-going	N.A.	<ul style="list-style-type: none"> €5billion on Renewables by 2022
EDP	157 (-57%) ²⁰¹⁵	0 (-90%) ²⁰¹⁵	24 ²⁰²⁰ 44 ²⁰²⁵	79% ²⁰²⁰ 100% ²⁰³⁰	Coal free by 2025	N.D.	N.D.	N.A.	<ul style="list-style-type: none"> Renewable End use energy efficiency Smart grid

The utilities transformational commitment

- ▶ Climate change as an opportunity and a key driver for strategic planning
 - ▶ All committed to achieve Net Zero by 2050 or earlier
 - ▶ All want to drive the transformation of energy sector
- ▶ Significant investment on:
 - ▶ Renewables (incl. storage system)
 - ▶ Networks
 - ▶ Digitalisation
 - ▶ Energy efficiency
- ▶ Rapid coal phasing-out



■ Thank you