WHEN TRUST MATTERS

Westminster Energy Forum

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Drivers of change in the UK energy system

Decarbonisation & Electrification need Whole Systems Thinking

Policy
National & International strategies

Regulation
Coordination across the government departments

Delivery
All about businesses

DNV

Innovation and change in UK power system

1. Digitalization

Increasing digitalization of system operation and asset management including increased cyber risk

2. Interconnection

More connectivity between countries and power systems

3. Increased capacities

Transmission systems will become larger with increased use of HVDC

4. Offshore grids

Co-ordinated, meshed offshore grids to facilitate RES and electrification

5. Use of flexibility

Increased and better use of flexibility at all voltages to manage systems

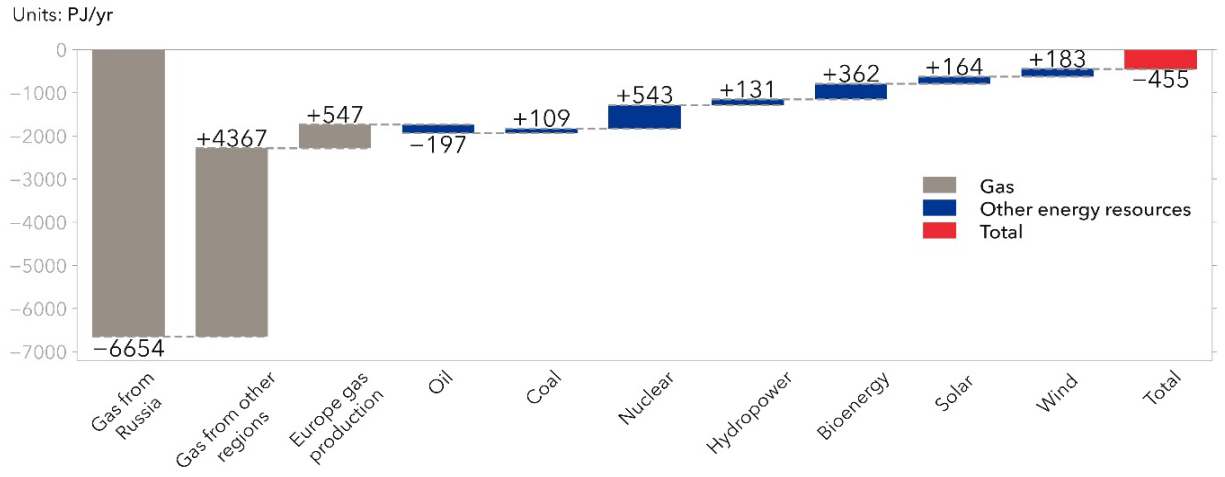
6. Power to X

Electricity demand will increase to include new uses and energy vectors

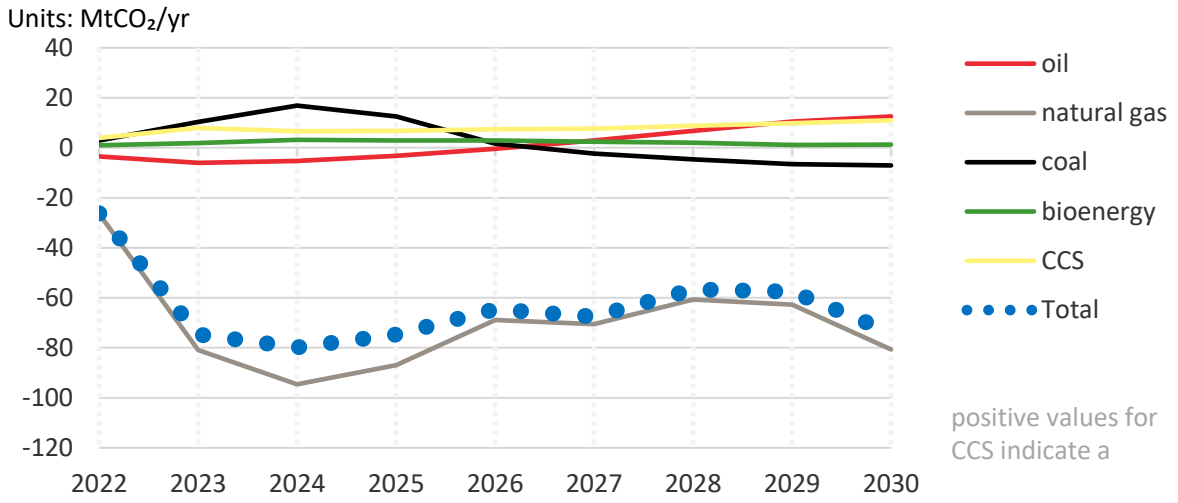
Impact from Ukraine

- Although painful and costly, Europe shows its resilience by pivoting from Russian gas with a small acceleration in energy transition by 2030
- Energy Security – substitution from: LNG import; European gas; nuclear; bioenergy; solar; wind; coal; energy efficiency
- Energy independence – planning in the short-term benefits renewables build out in the medium and long term. By 2030 half of the gas shortfall is met by Solar PV and Wind
- Commodity squeeze will prolong high electricity prices and raise price of batteries
- Energy companies will have to strike a careful balance between meeting the short-term supply gap for oil and gas whilst avoiding stranded assets in the longer term

Change in European primary energy consumption from 2022 to 2024



Impact of the Ukraine conflict on European energy related CO_2 emissions



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