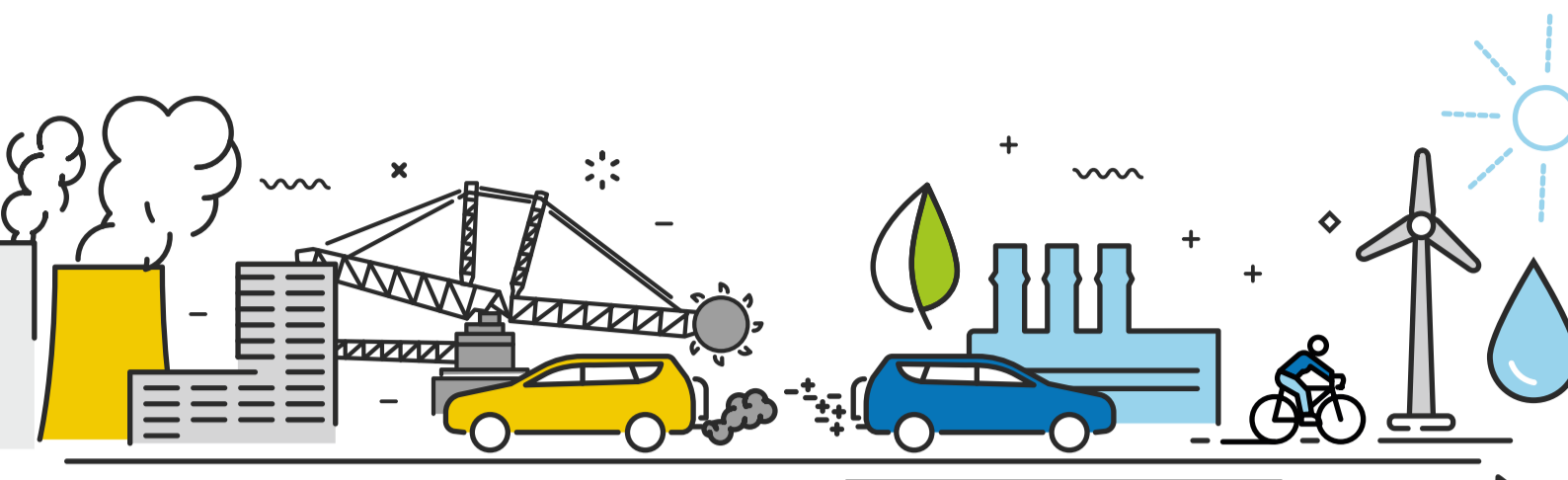


How Can Natural Gas Contribute to Meeting EU Climate Targets?

The EU has committed to an ambitious goal: reducing emissions by 40 percent by 2030. Natural gas is a flexible, efficient, storable and reliable option for supporting renewable energy sources.

Nord Stream 2 will support a climate-friendly energy transition in an affordable way.



Phasing out coal ...
... is the key factor to meeting climate goals.

Coal has a disproportionately large share in power sector emissions.

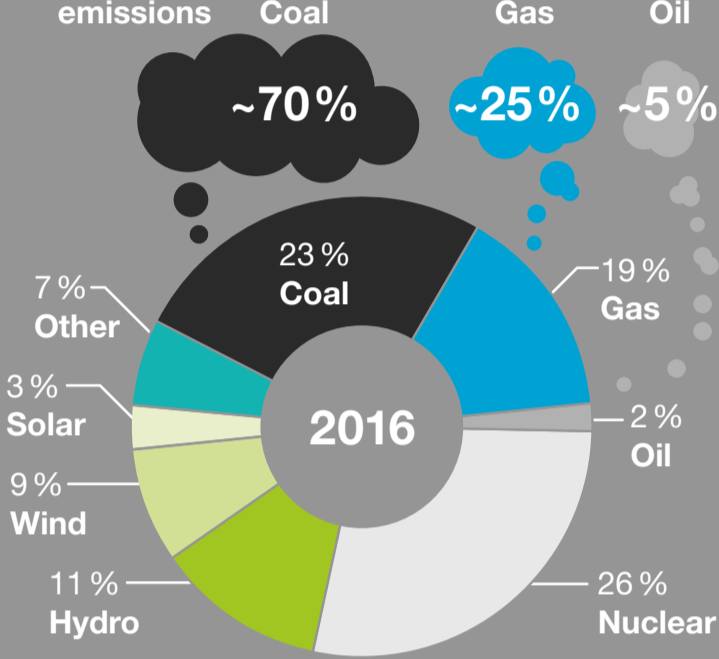
Power Sector Emissions in the EU Electricity Mix

Share of emissions

Coal

Gas

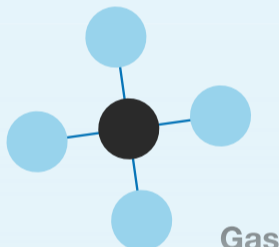
Oil



IEA, World Energy Outlook 2018

Using natural gas instead of coal for power generation saves emissions.

Due to its chemical composition, gas emits less CO₂ than all other fossil fuels.



As a replacement for coal in power generation, the **55 bcm delivered annually by Nord Stream 2** could save **160 million tonnes of CO₂**.

Natural gas is...
... the most environmentally friendly fossil fuel.

Gas demand levels are projected to **remain stable until 2050**.

50% Gas emits 50 percent less CO₂ compared to coal.

1,175 gCO₂/kWh
Lignite

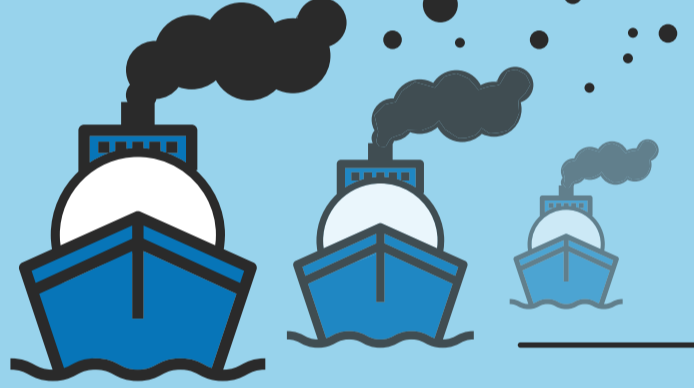
931 gCO₂/kWh
Hard coal

518 gCO₂/kWh
Natural gas

859 gCO₂/kWh
Oil

Nord Stream 2 compares favourably to LNG.

The liquefaction and shipping of the pipeline's annual capacity of 55 bcm of gas would require **600-700 LNG tanker loads**.



The **modern Nord Stream 2 pipeline system** saves up to **45 million tonnes of CO₂** compared to shipping LNG.

160 million tonnes of CO₂
are the equivalent of

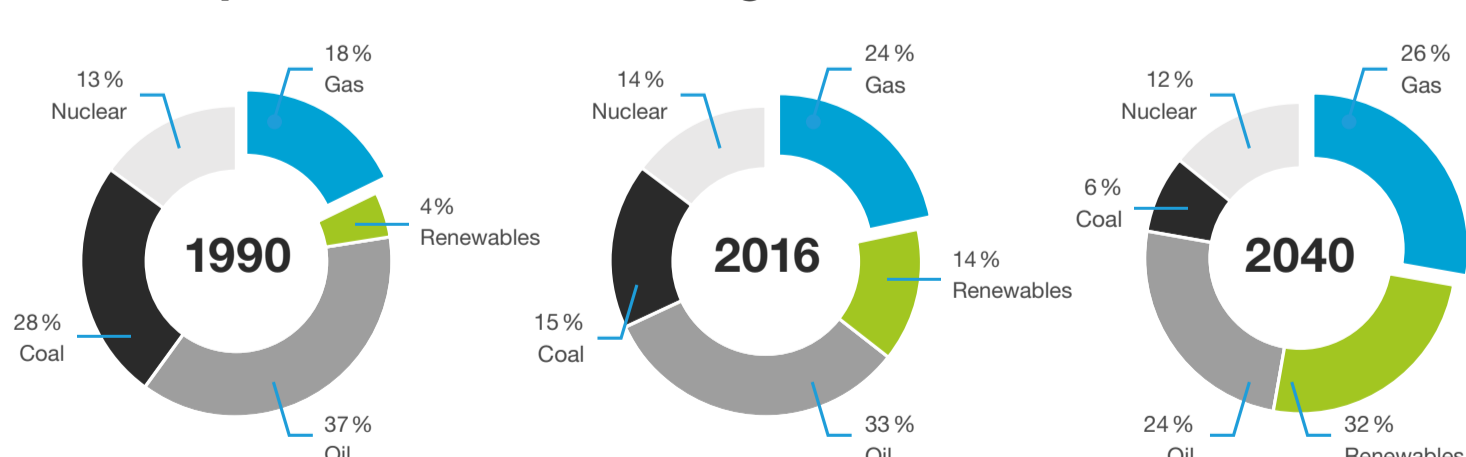
about 34 million passenger vehicles driven for one year,

or 15 million round-the-world car trips,

or **14 percent of total EU emissions*** from power generation.

* Emissions comparisons for coal vs. gas refer to power generation. Emissions comparisons based on own calculations, Eurostat figures and IEA WEO 2018. All calculations based on averages for e.g. efficiency factors of power stations and calorific values of fuels. Vehicle calculations based on US EPA's Greenhouse Gas Equivalences Calculator (online) and own calculations.

A growing share of natural gas in the energy mix will help to reach EU climate goals.



The coal-to-gas switch is a quick win.

The pipeline infrastructure, gas-fired power stations and transmission lines already exist. The sooner we reduce emission by switching from coal to gas - the more time we have to transition to new technologies for a low-carbon economy.