

ENERGY TRANSITION OUTLOOK 2018

Forecast to 2050

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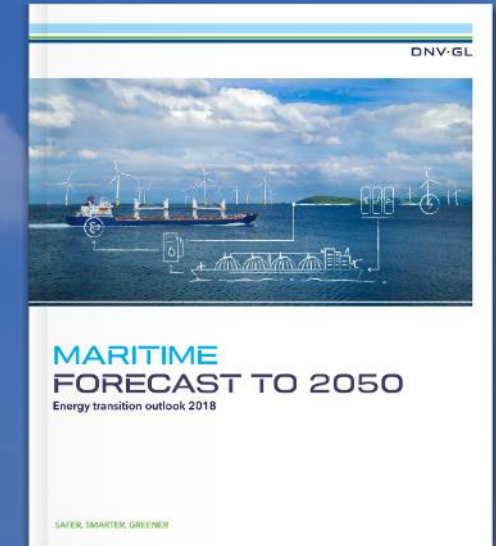
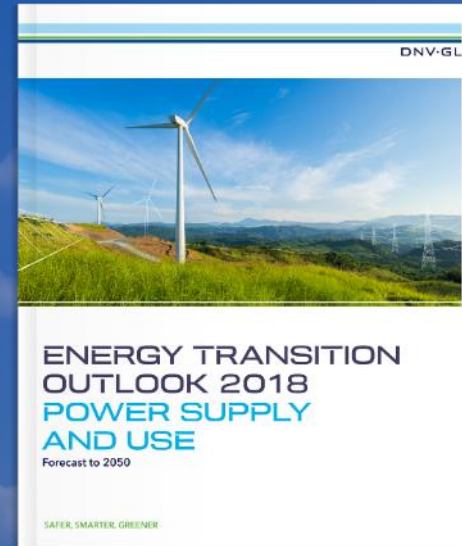
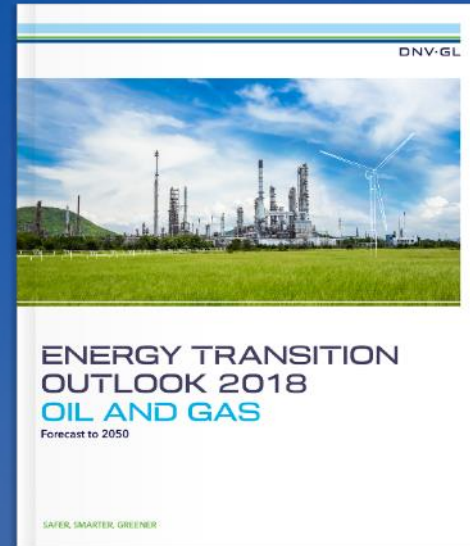
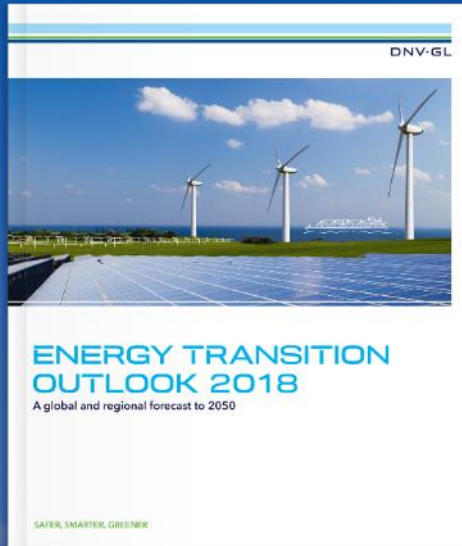


SOME NEW FOCUS AREAS FOR 2018

LNG infrastructure
Hydrogen
Digitalization

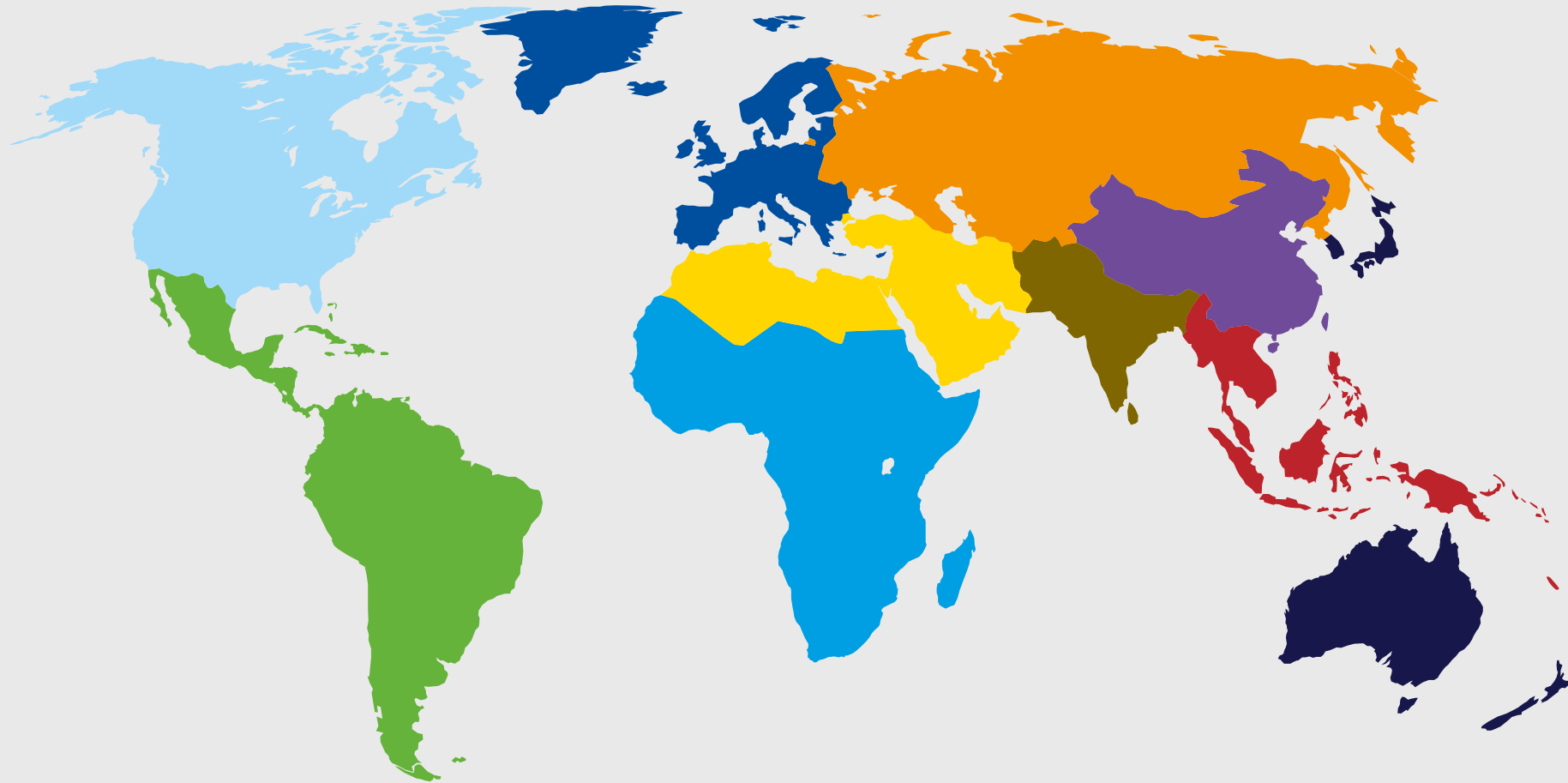


SUITE OF PUBLICATIONS



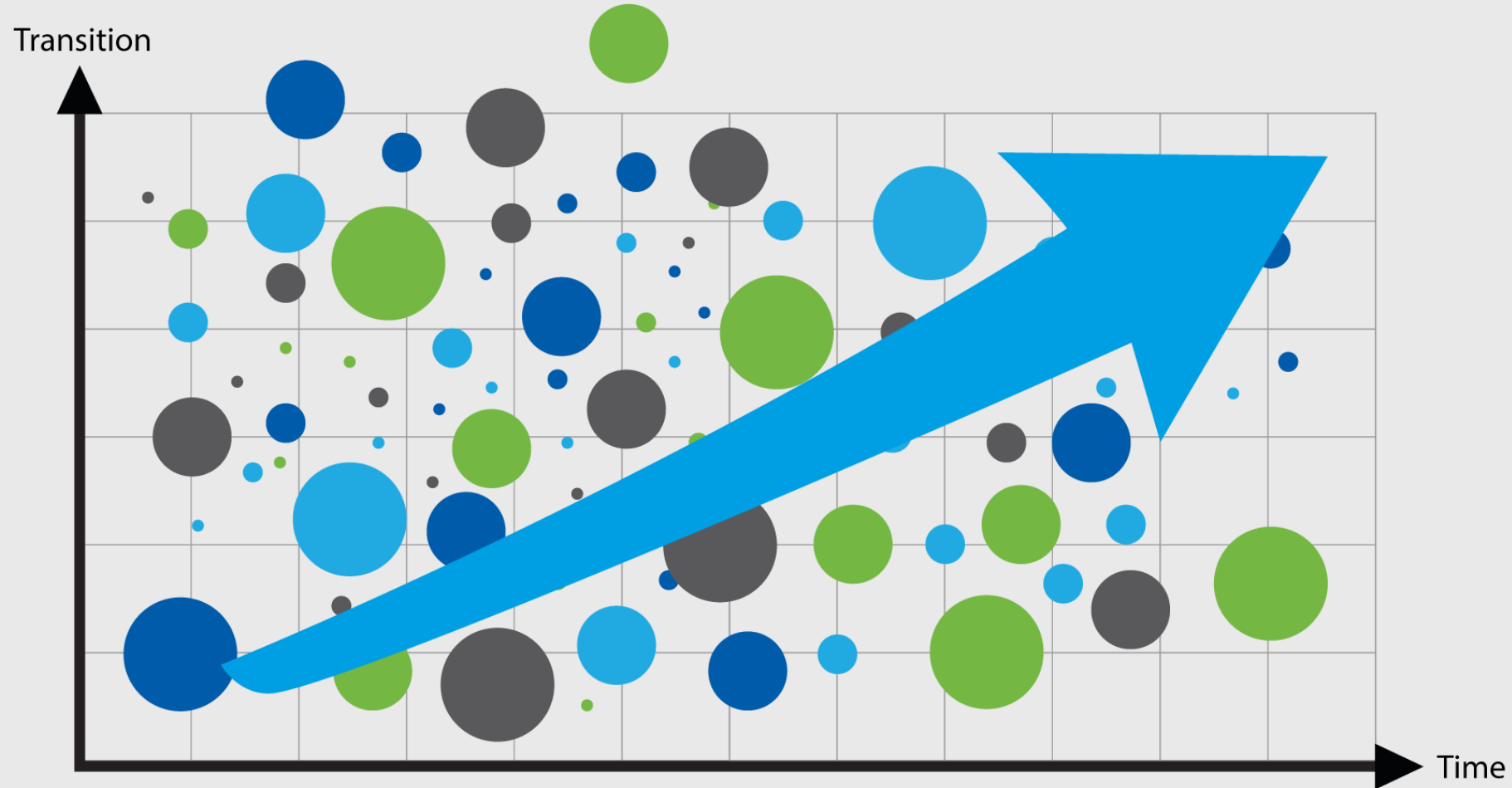
AVAILABLE AT: ETO.DNVGL.COM

FORECAST FOR TEN WORLD REGIONS



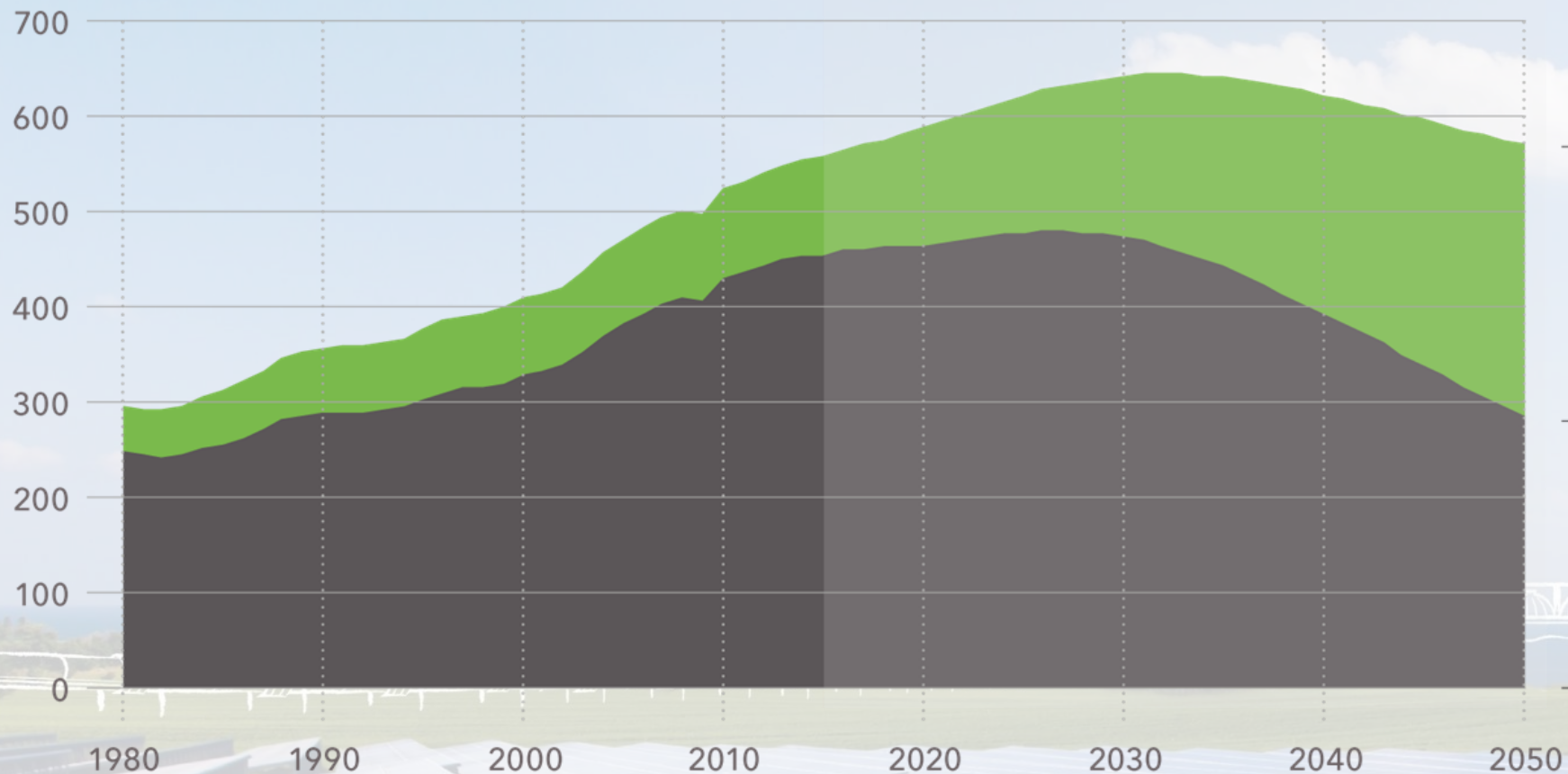


FORECAST – NOT A NEW SCENARIO



AN EQUAL SPLIT BY 2050

Units: EJ/ Yr

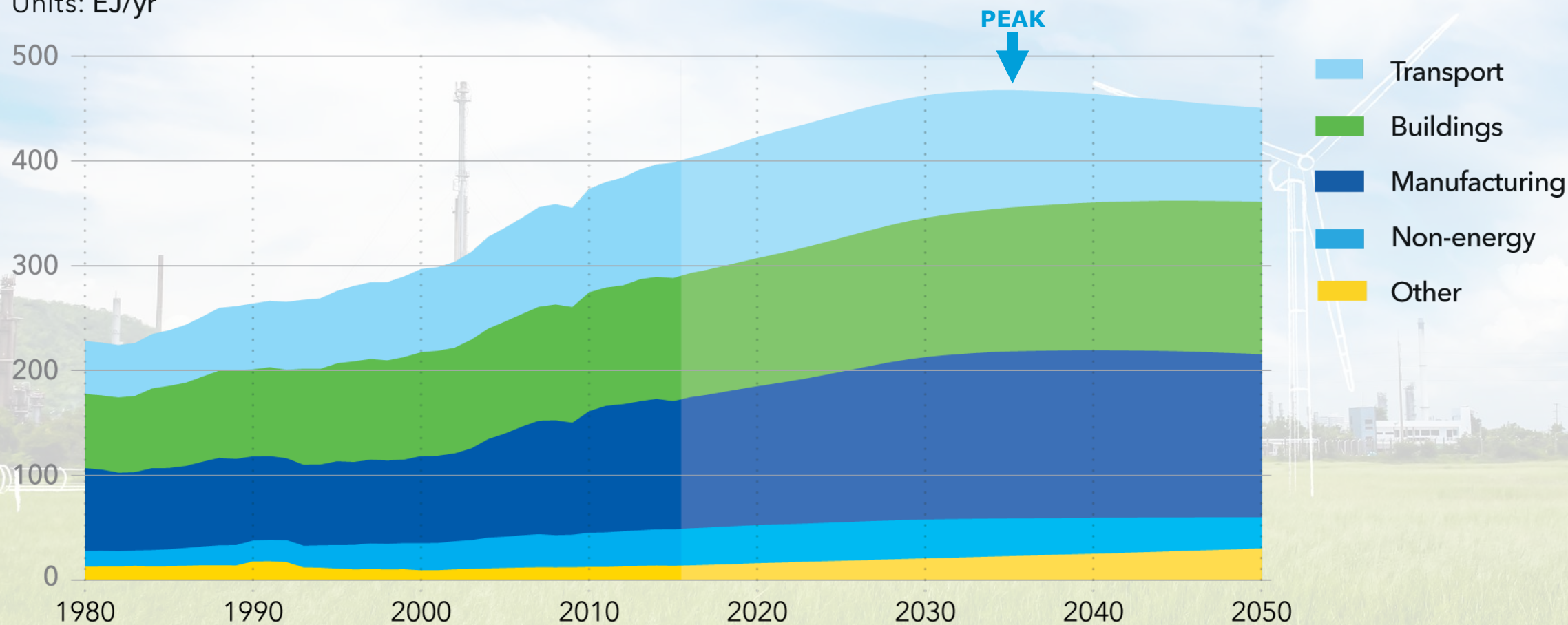


Non-fossil **50%**

Fossil **50%**

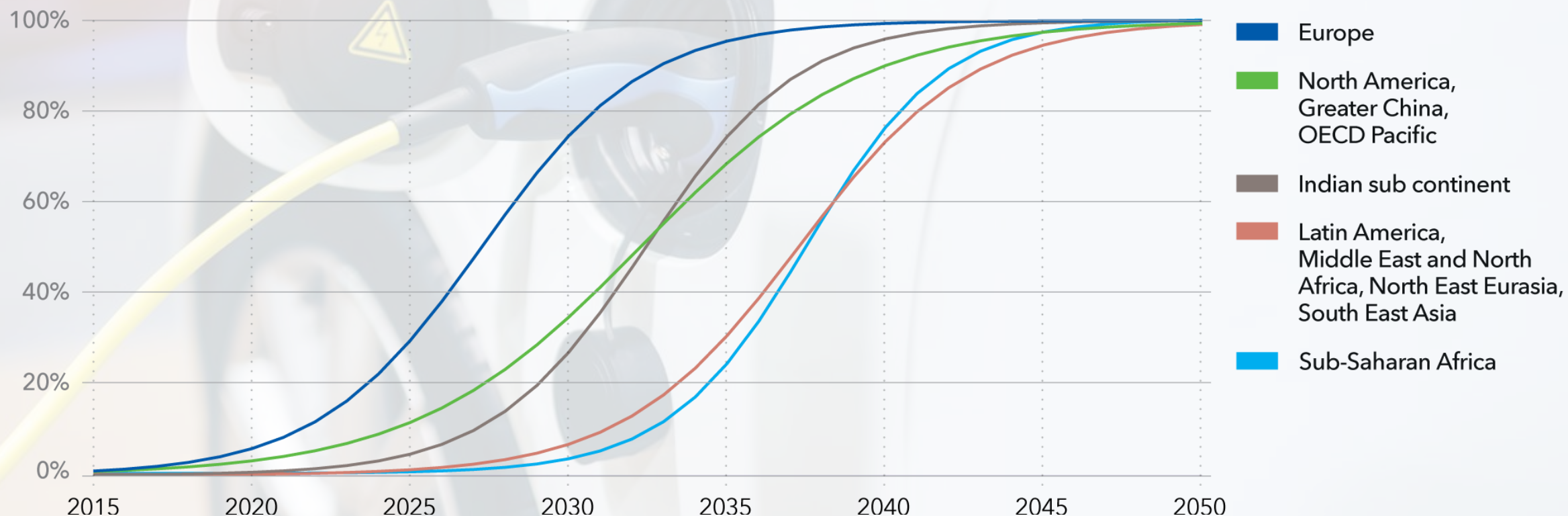
ENERGY DEMAND PEAKING IN 2035

Units: EJ/yr



NON-COMBUSTION LIGHT VEHICLES

Units: Percentages in new vehicle sales



NON-COMBUSTION HEAVY VEHICLES

Units: Percentages in new vehicle sales

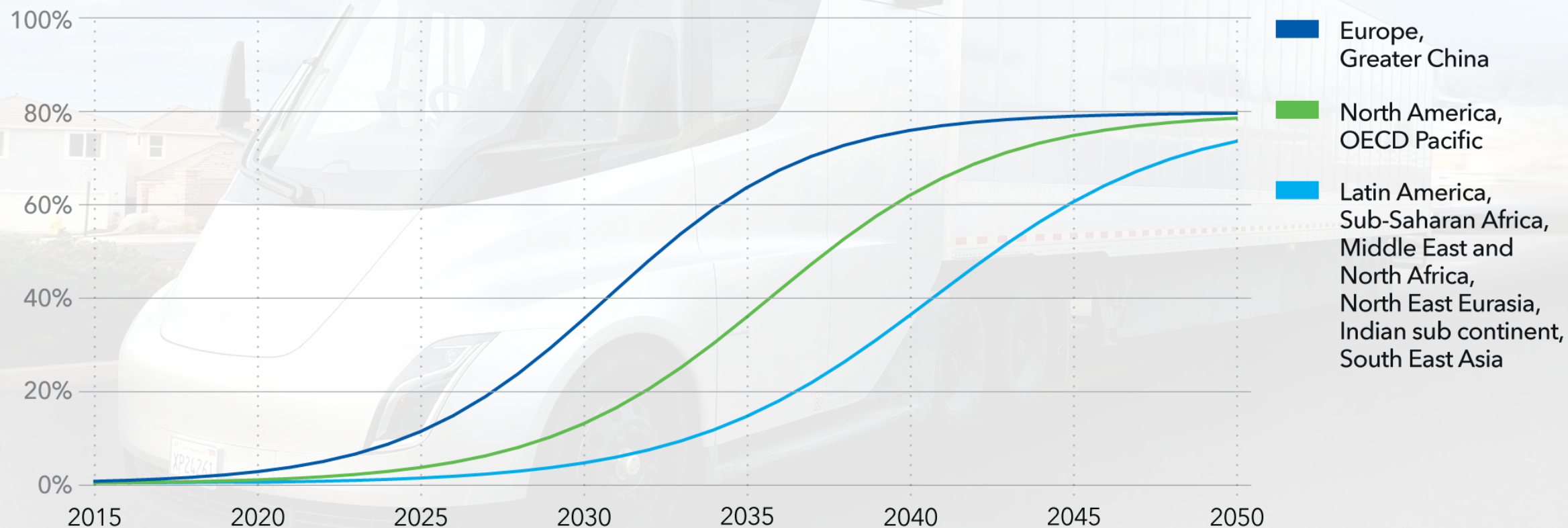
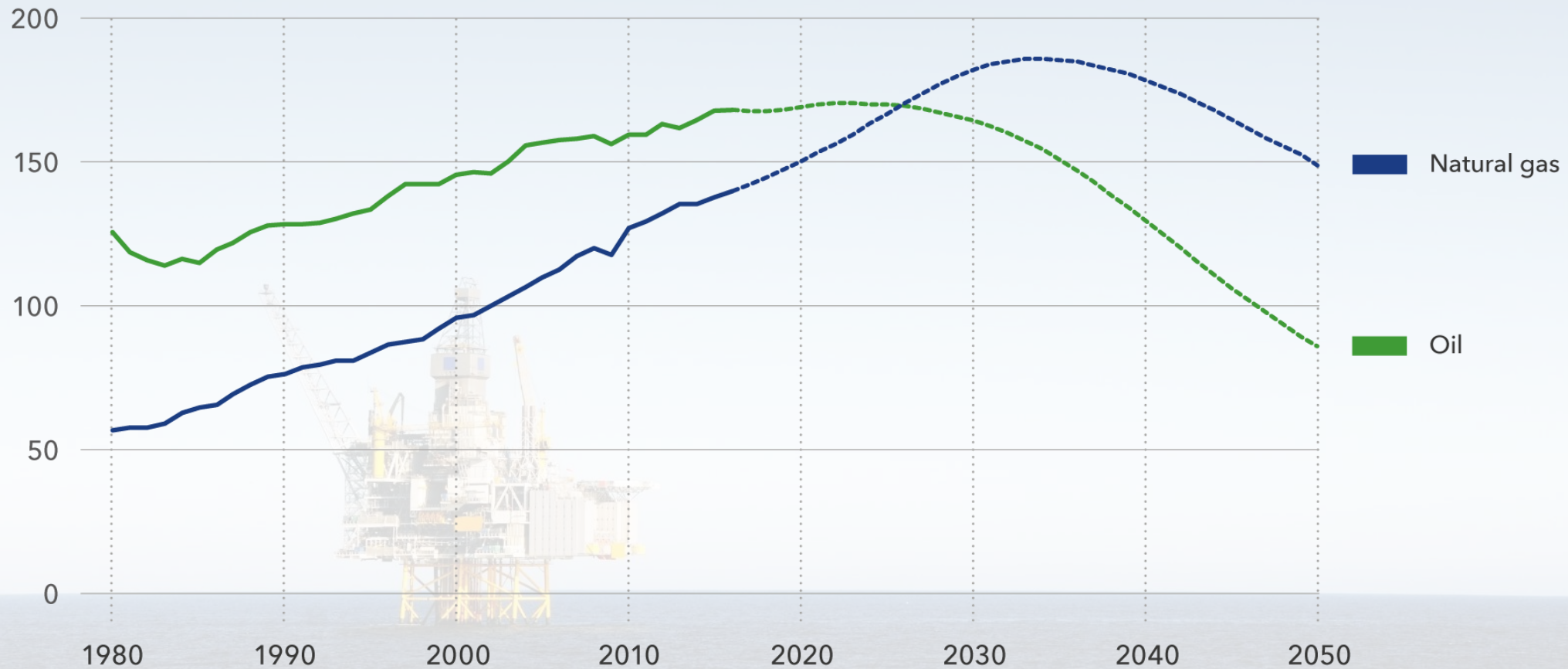


Photo: Tesla Motors



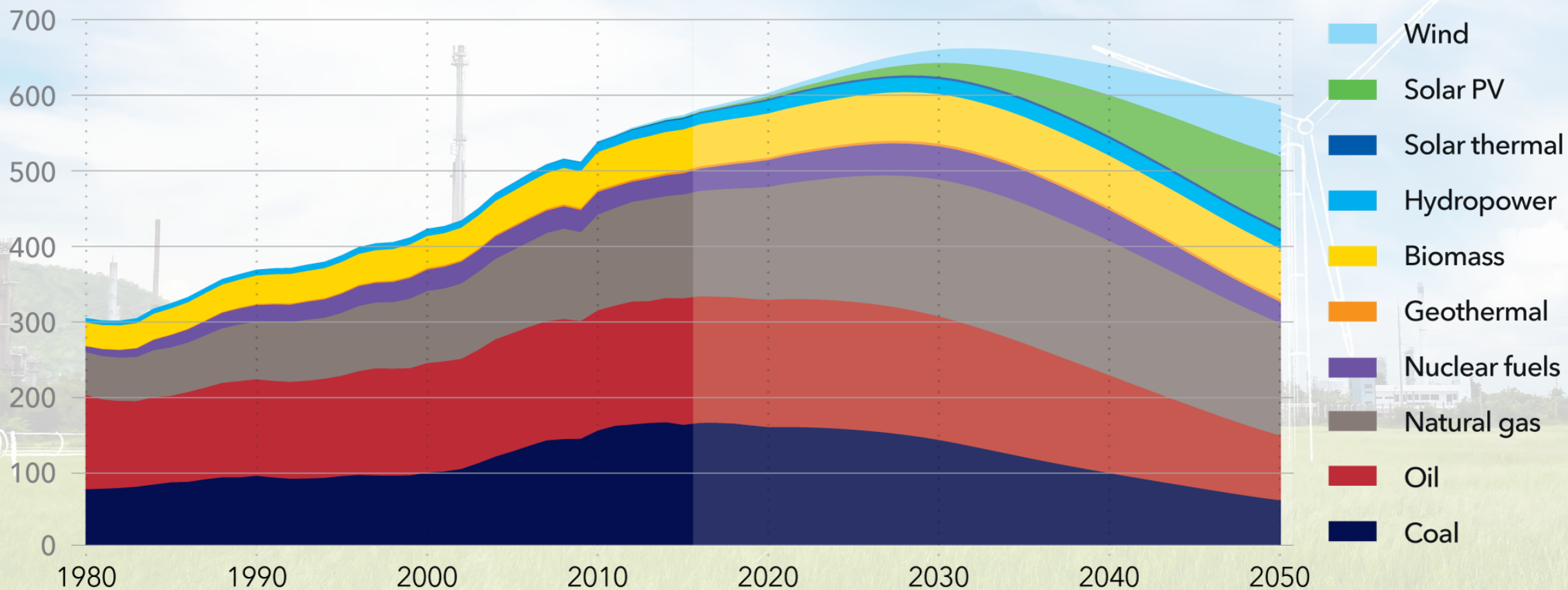
FORECAST FOSSIL ENERGY USE

Units: EJ/yr



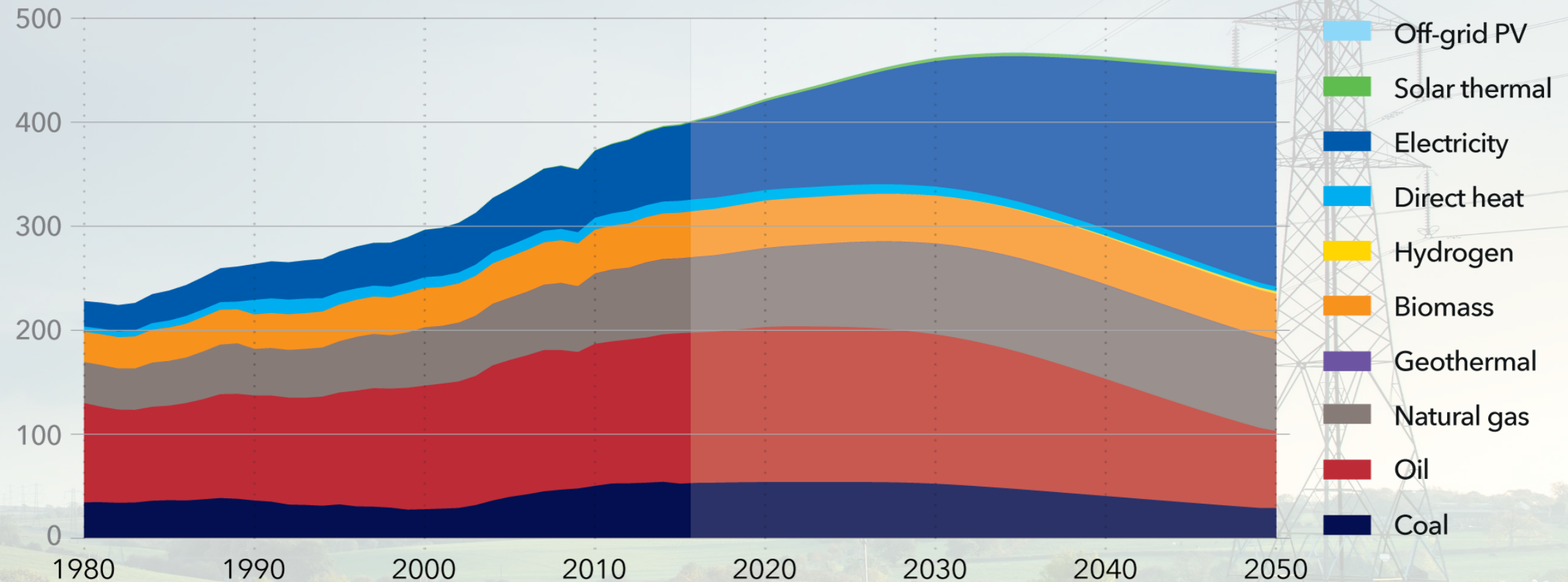
WORLD PRIMARY ENERGY SUPPLY BY SOURCE

Units: EJ/yr



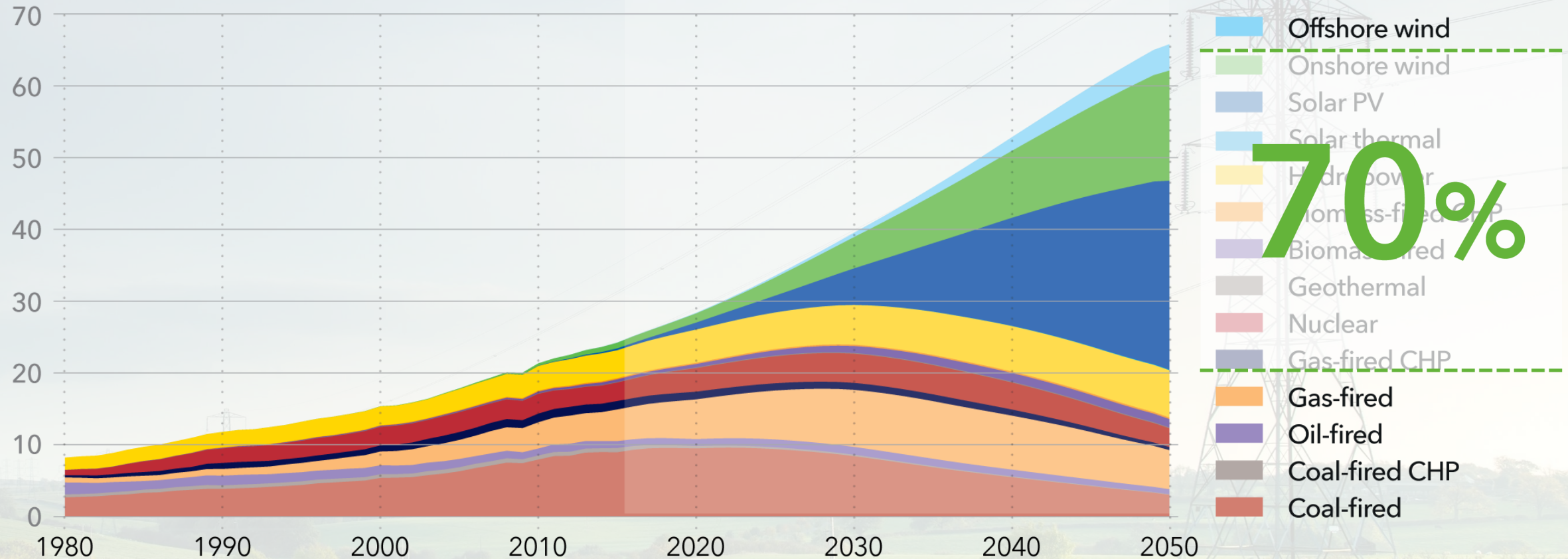
ELECTRICITY WILL MORE THAN DOUBLE

Units: EJ/yr



DRAMATIC RISE IN SOLAR PV AND WIND

Units: PWh/yr



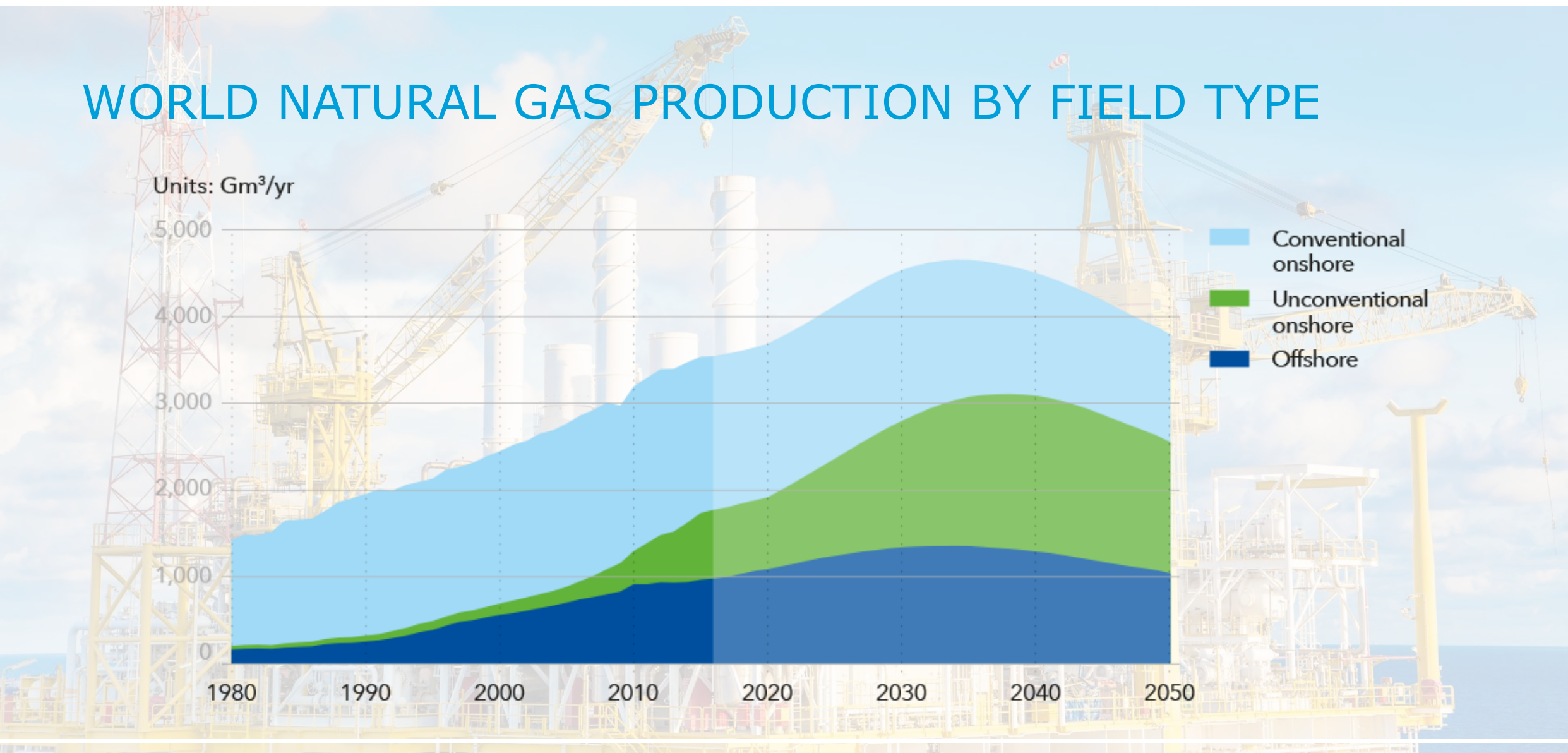
WORLD NATURAL GAS PRODUCTION BY FIELD TYPE

Units: Gm³/yr

5,000
4,000
3,000
2,000
1,000
0

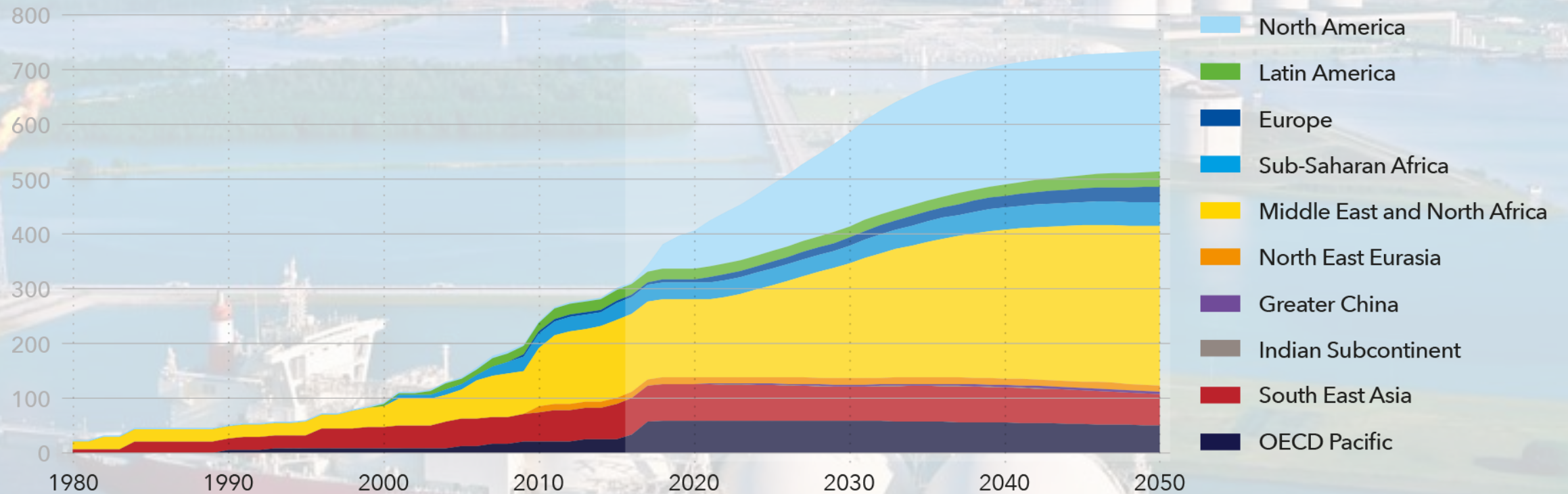
1980 1990 2000 2010 2020 2030 2040 2050

- Conventional onshore
- Unconventional onshore
- Offshore



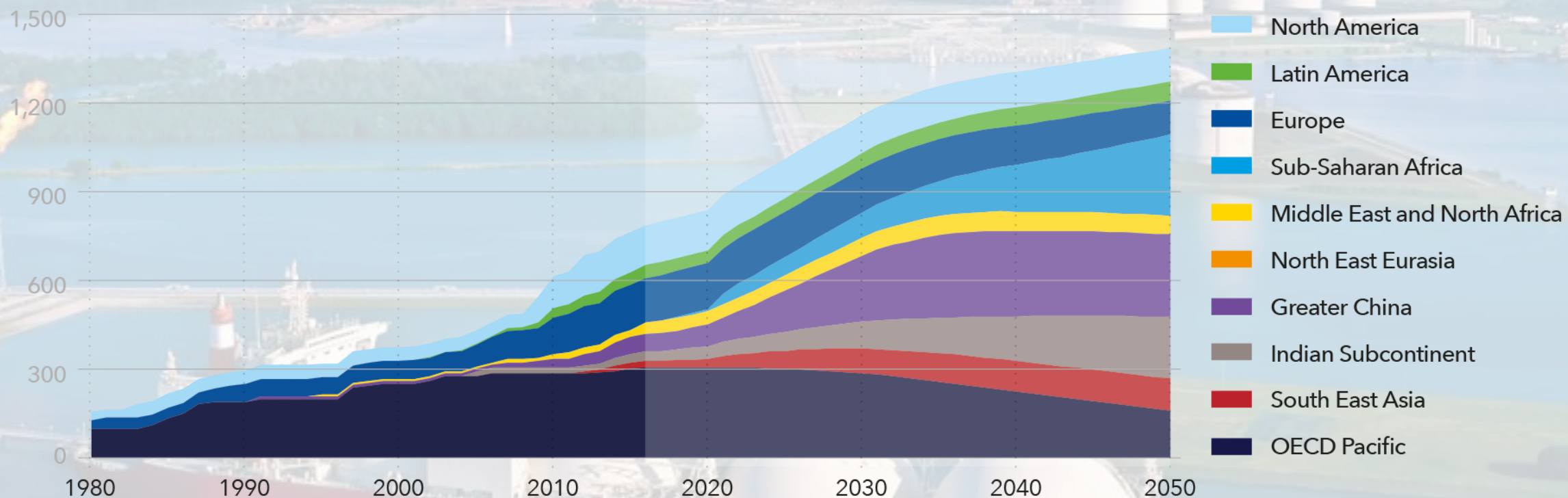
LNG LIQUEFACTION CAPACITY BY REGION

Units: Mt/yr

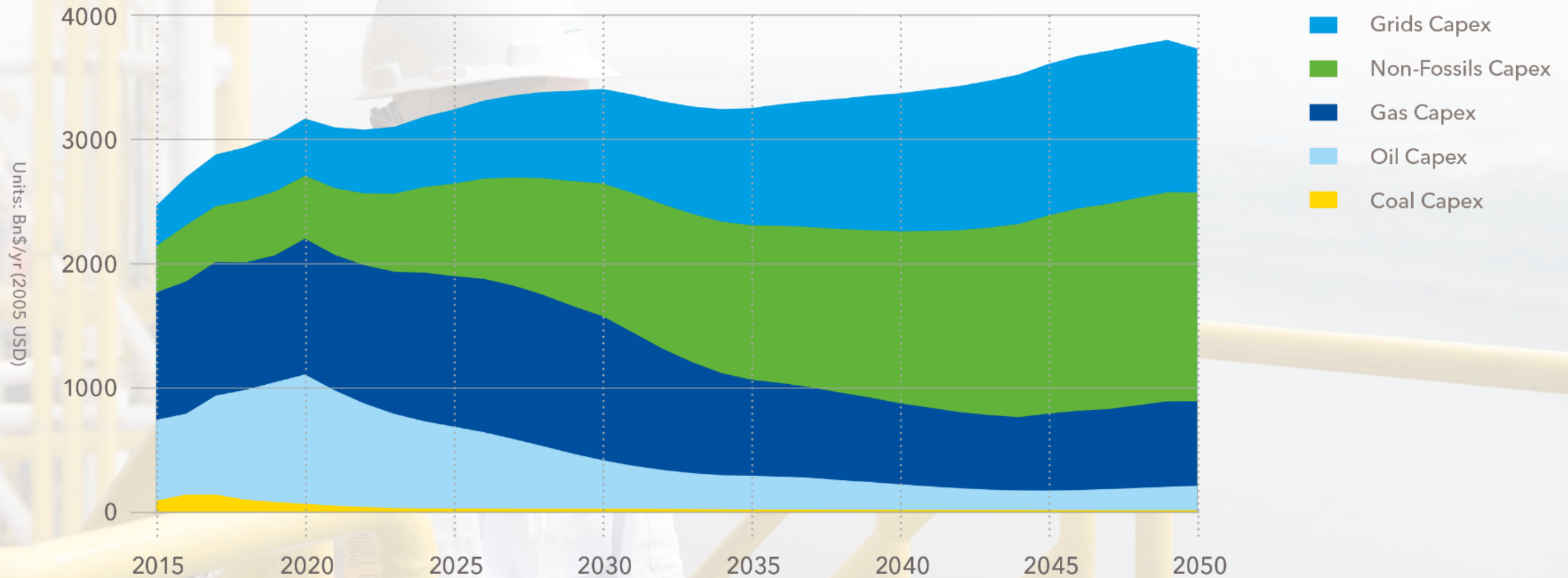


LNG REGASIFICATION CAPACITY BY REGION

Units: Mt/yr



CAPITAL EXPENDITURE SHIFTS



THE OIL AND GAS INDUSTRY OF THE FUTURE



Faster

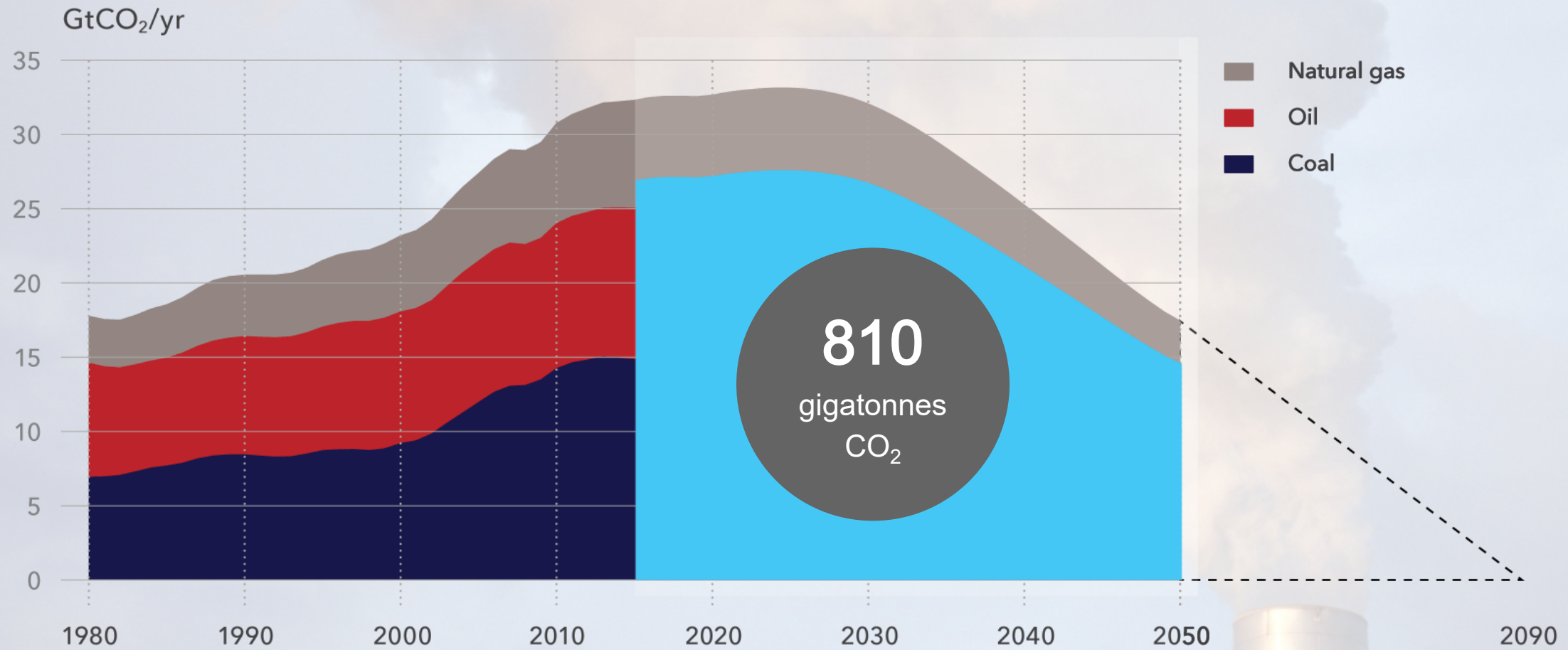


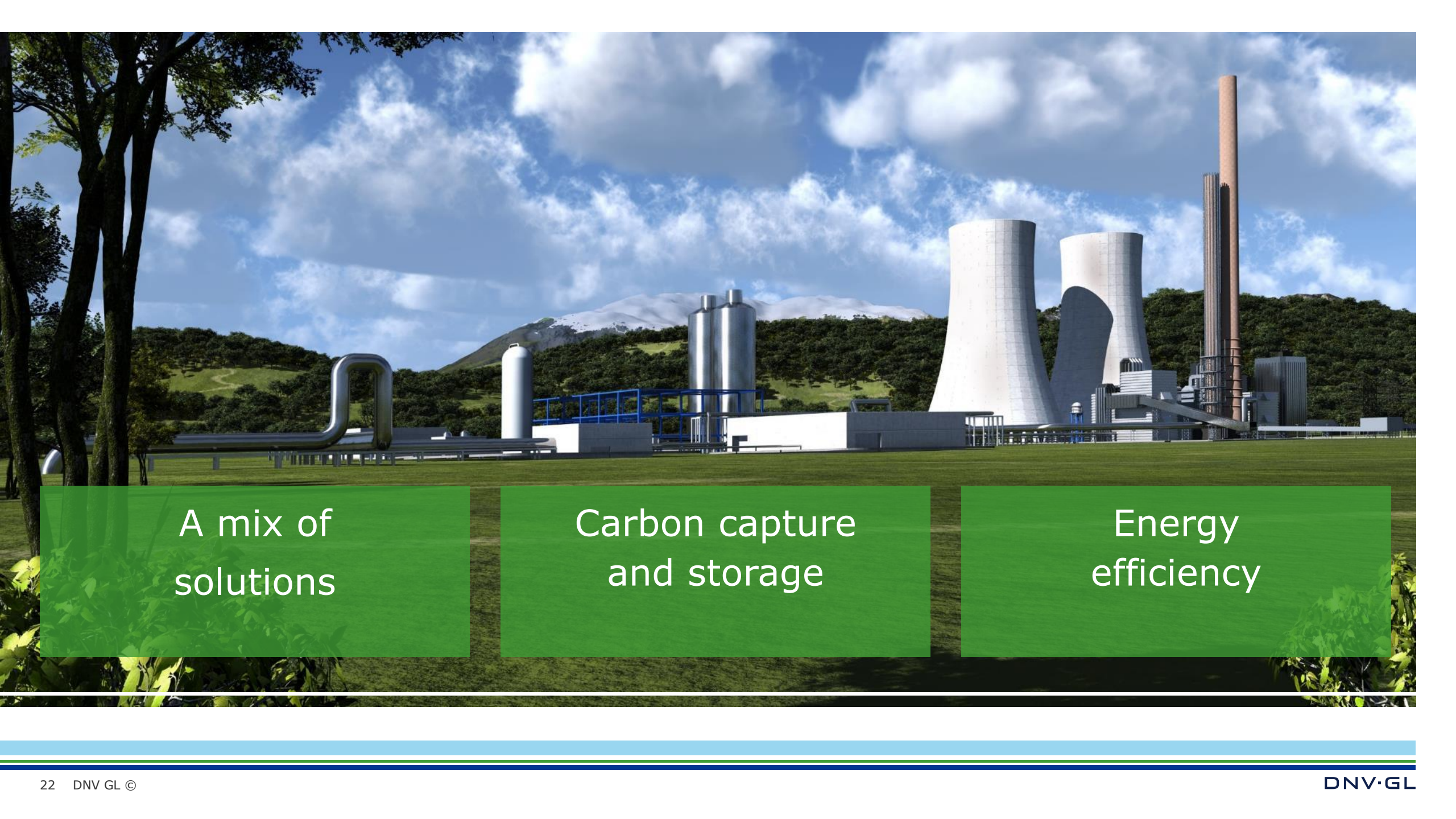
Leaner



Cleaner

EMISSIONS TO 2050





A mix of
solutions

Carbon capture
and storage

Energy
efficiency



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