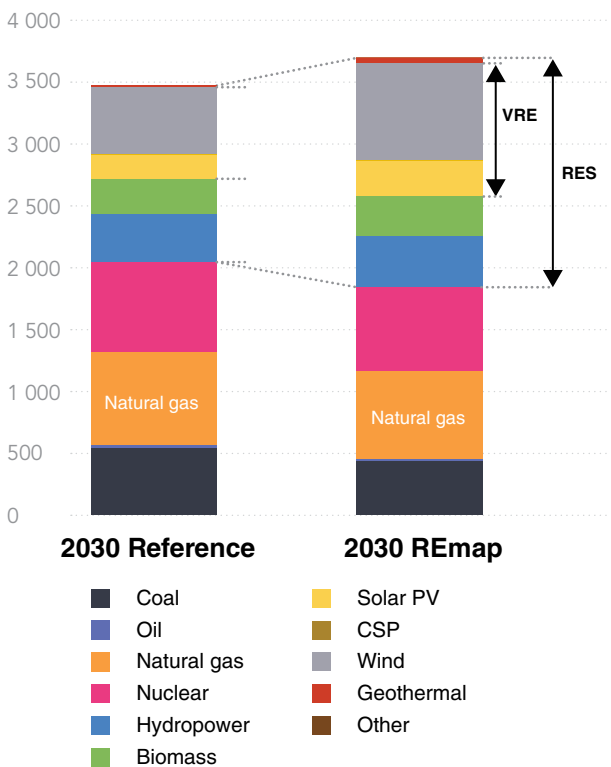


5. Providing flexibility to the electricity system

The EU is projected to generate 50% of all power from renewable sources by 2030, mostly from solar and wind; this means that thermal plants will be needed to dispatch extra power at short notice.¹² Gas-fired power plants are much more flexible than nuclear or coal-fired plants. Indeed, gas-fired plants are necessary for an integrated electricity system with an increasing share of variable renewables as the combination of electricity storage, demand-response and power interconnections alone cannot provide sufficient flexibility.

A recent report published by the International Renewable energy Agency (IRENA) and the European Commission confirms a key role for natural gas in the ambitious REmap Scenario, under which the share of renewables in the power sector increases to 50% by 2030. Compared with the reference scenario, the share of natural gas in the power generation mix decreases by only 6%, while the installed natural gas power generation capacity grows slightly compared with 2010 to accommodate for the increasing share of variable renewables.¹³

Figure 6: Power generation by technology (TWh)



Note: VRE = variable renewable energy

Figure 7: Installed power generation capacity (GW) by source

