



NATURAL GAS AS A BRIDGE TO A RENEWABLE ENERGY FUTURE

Thursday, 21st April 2016

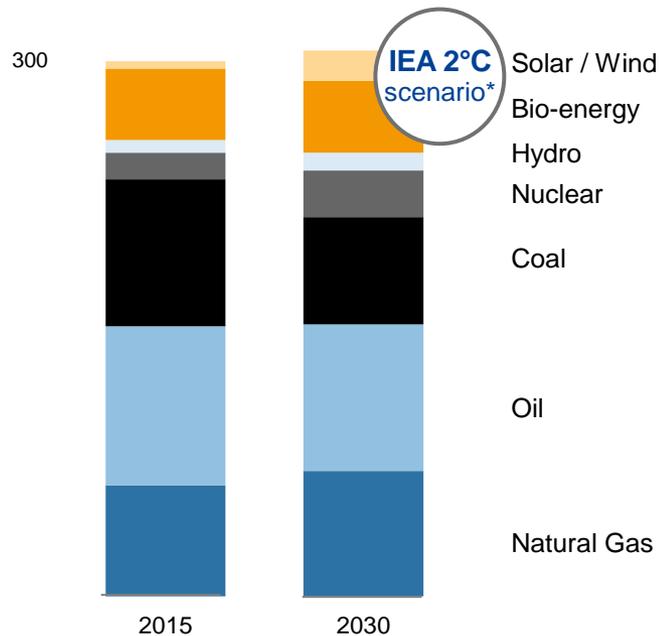
ESCP Europe Paris Campus – Laurence GOUET

GROUP STRATEGY INTEGRATING 2°C ROADMAP

SUSTAINABLE BUSINESS MODEL

Global energy demand

Mboe/d



Focusing on oil projects with **low breakevens**

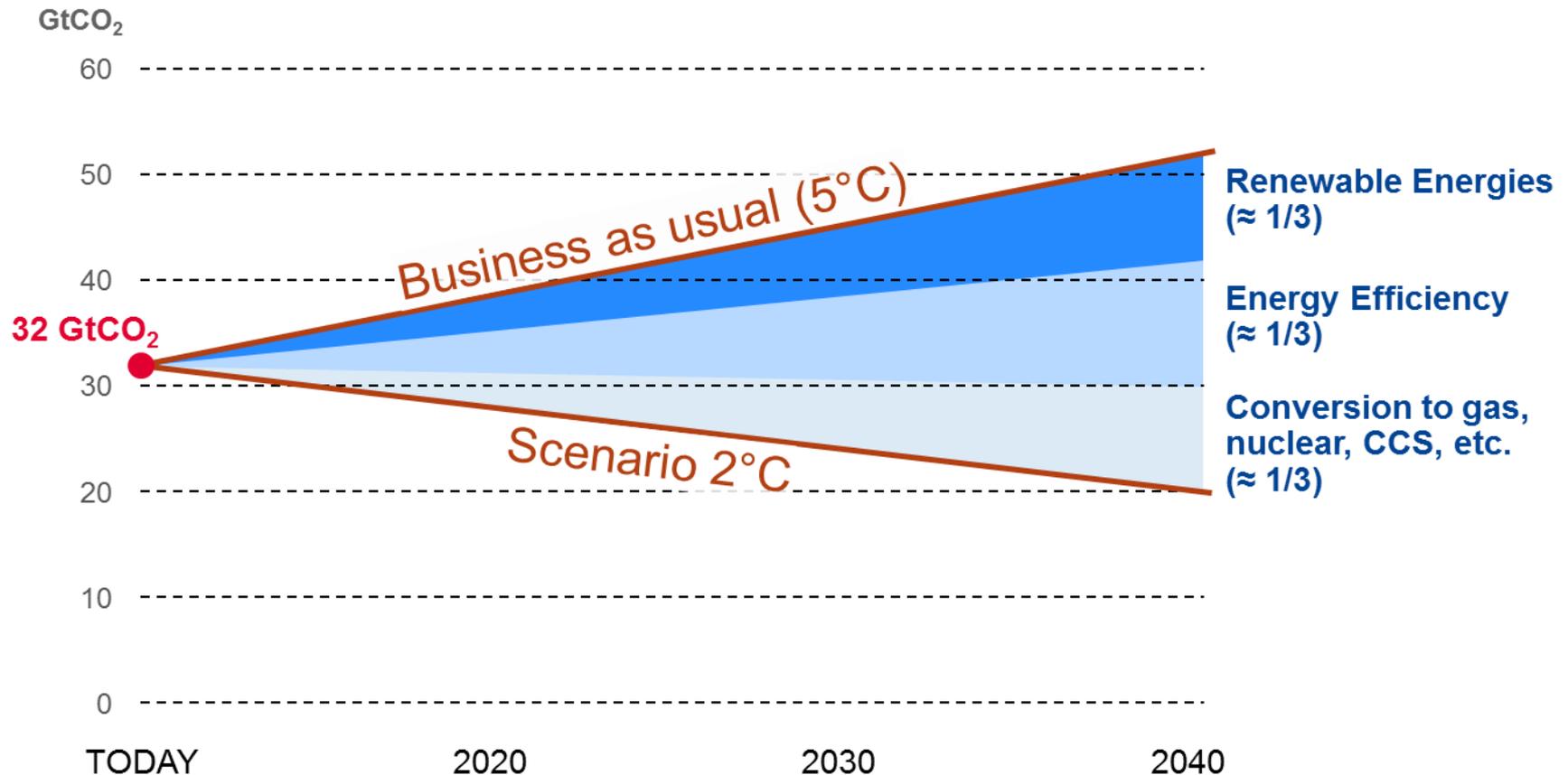
Prioritizing **gas projects**

Exiting coal business

Growing in **renewables and biofuels**

* International Energy Agency 450 ppm scenario

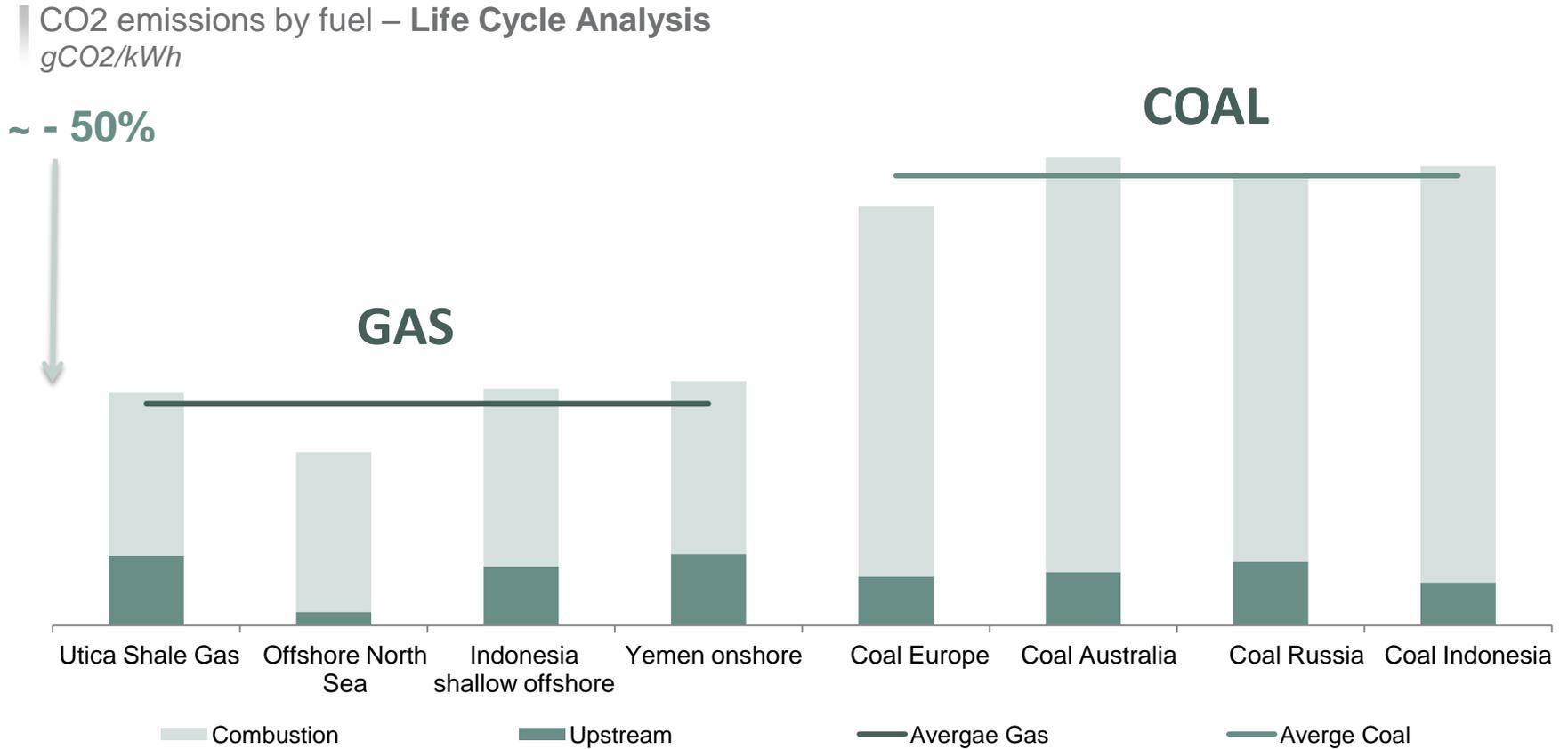
THE MAIN LEVERS FOR A LOWER CARBON INTENSIVE ECONOMY



Source : IEA energy technology perspective 2015

COMPARING EMISSIONS BETWEEN COAL AND GAS

EVEN IN A WHOLE LIFE CYCLE ANALYSIS, GAS REDUCE EMISSIONS BY 2

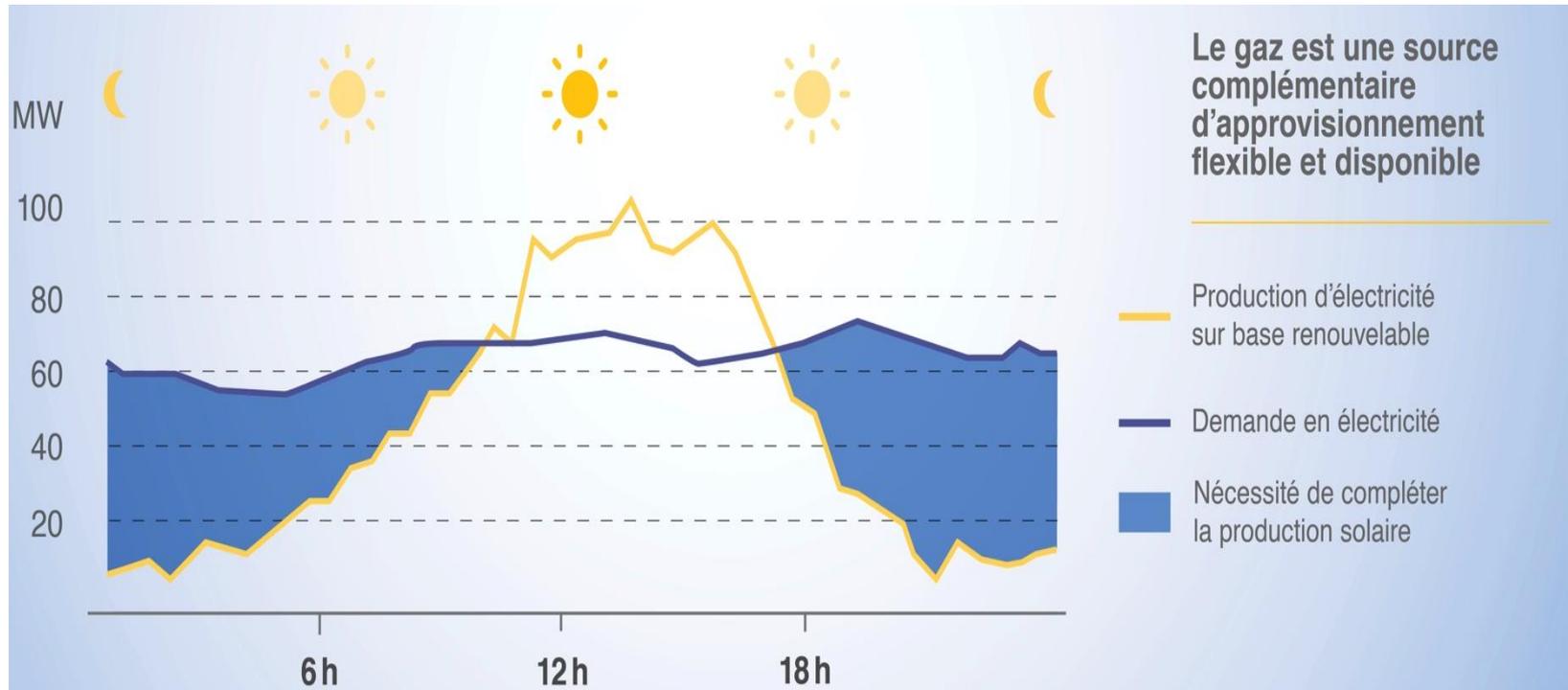


The whole life cycle of gas in power generation emits half as much CO2 as coal.

Source: TOTAL

GAS IS THE IDEAL PARTNER OF INTERMITTENT RENEWABLE ENERGIES

Daily Power demand and Solar power supply
MW



TOTAL IS ACTIVE IN ALL SEGMENTS OF THE GAS VALUE CHAIN

AN INTEGRATED GAS & LNG LEADER

Gas Production



Shipping



Regasification



New uses



Upstream

Midstream

Downstream

Liquefaction



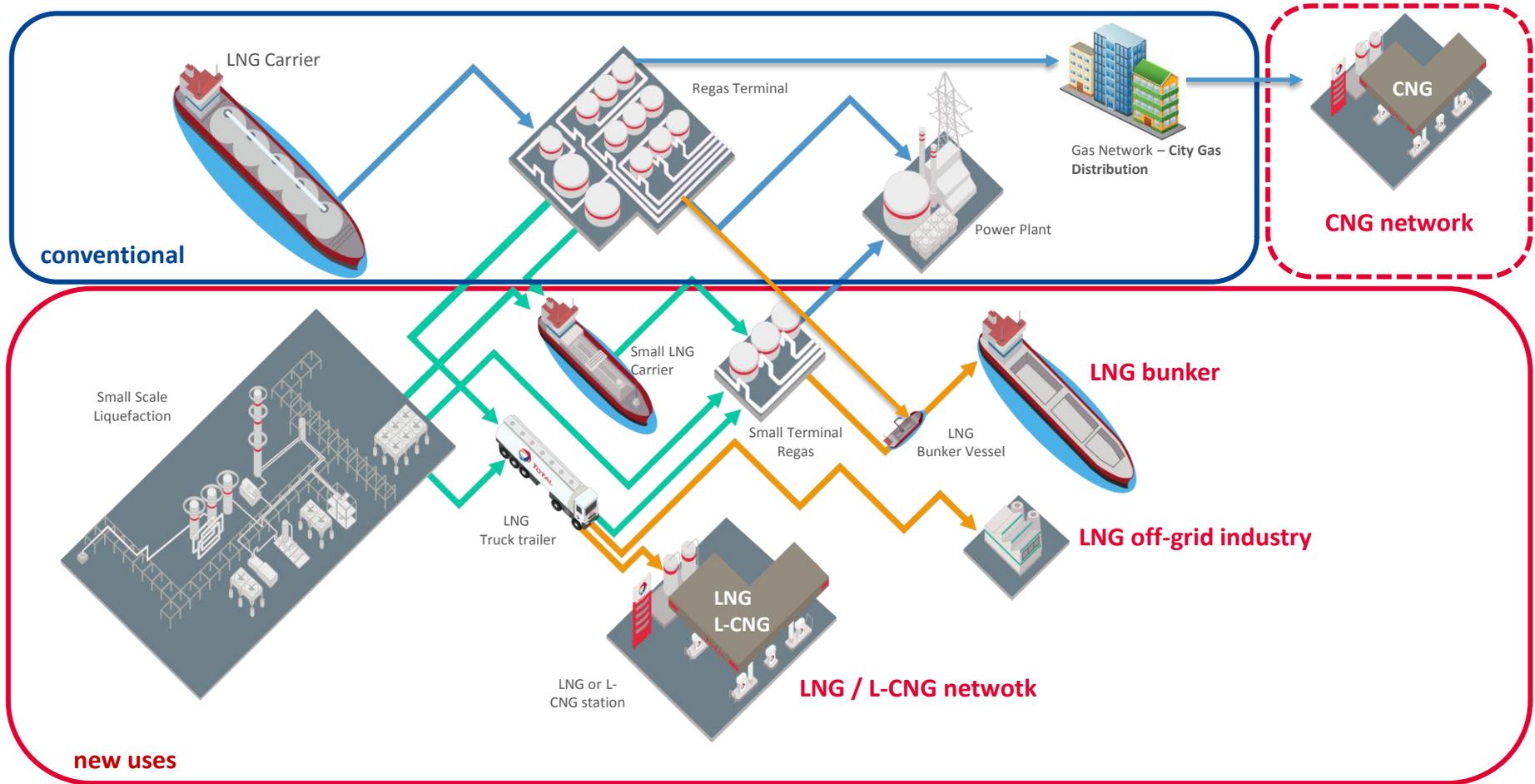
Trading



B2B Marketing



« SMALL SCALE » NEW USES



**A new small scale market organized in 3 segments:
LNG bunkering, off-grid industry and LNG network.
Margin spread all along the value chain**

LONG TERM VISION

COMMITTED TO GAS INTEGRATED BUSINESS MODEL, INVESTING IN NEW ENERGIES

Capturing the Full Value Chain



Adding **long plateau** production

Global, well balanced and **integrated** position

Growing trading portfolio with **increasing flexibility**

Competitive new projects

Positioning in New Energies



Taking advantage of **fast growing** renewable energy market to build a **profitable business**

SunPower affiliate, a **high quality platform**

~0.5 B\$ Capex per year in new energies (solar, biofuel)