

# Adaptation of the Oil and Gas Industry

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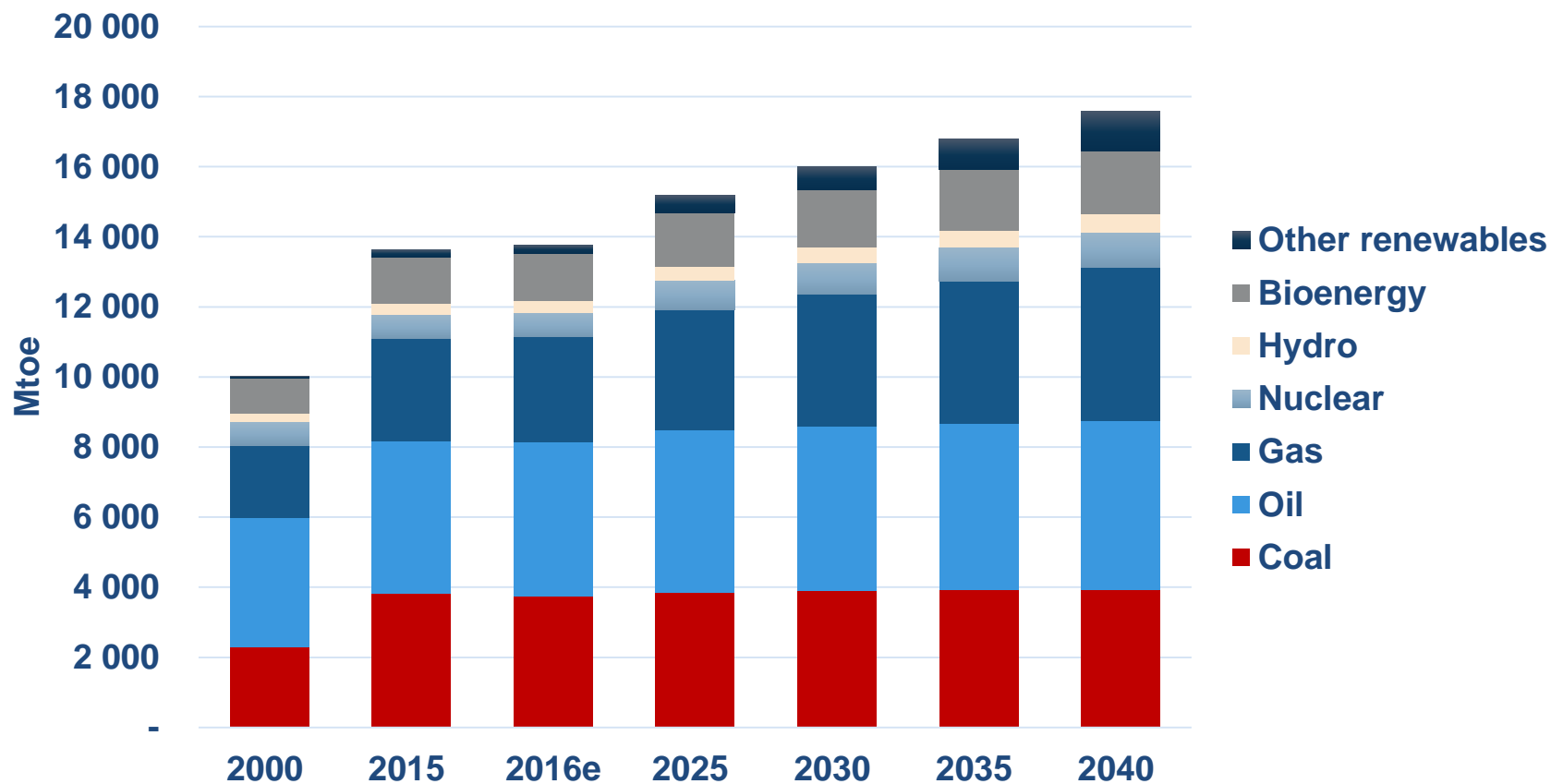
- ▶ Increasing demand
- ▶ New balance of the oil market
- ▶ Uncertain European gas market
- ▶ What strategy for the stake holders?

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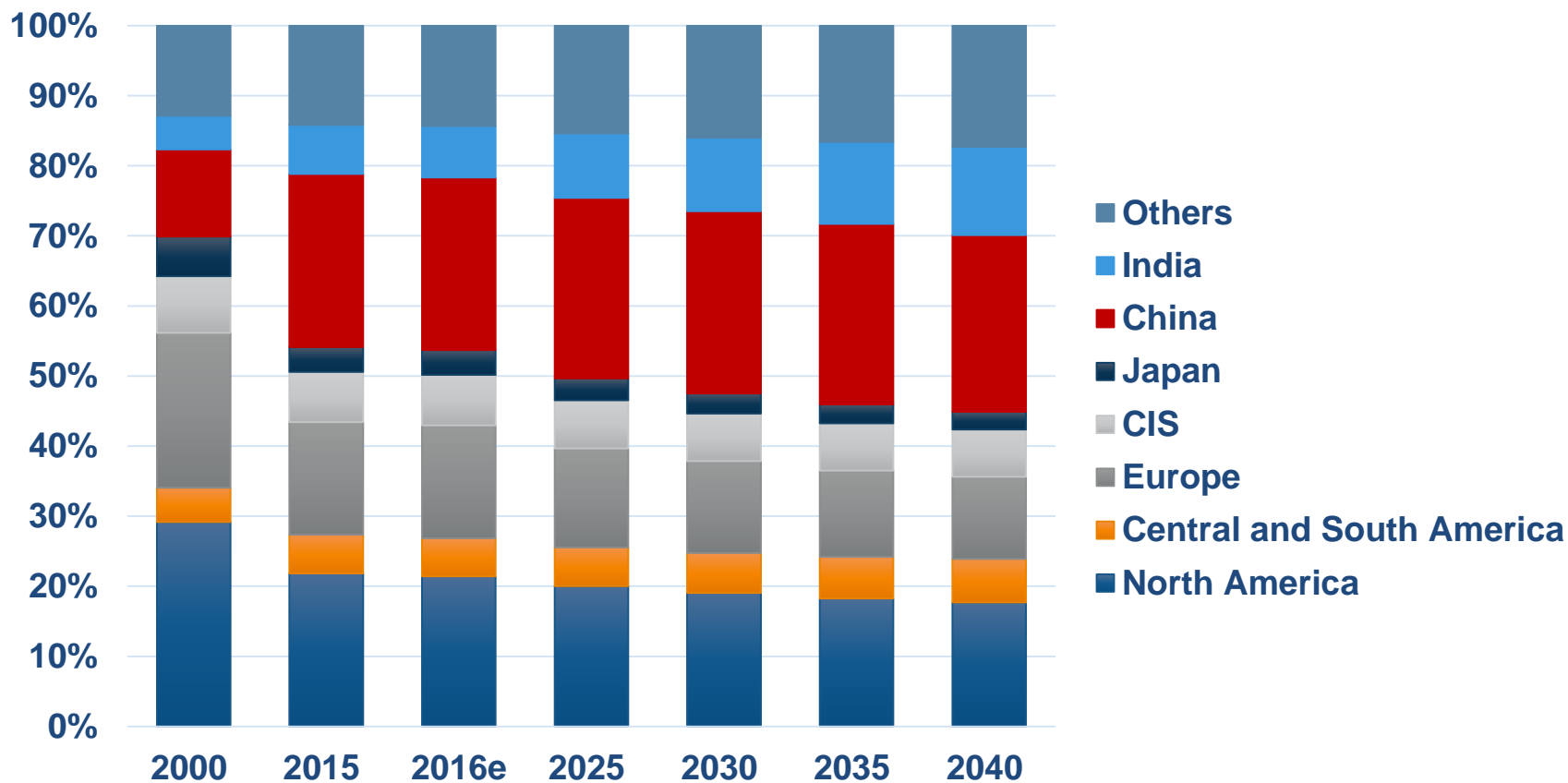
# Growing demand...

Energy demand - WEO 2017 NPS



# ...driven by emerging economies

Energy demand - WEO 2017 NPS



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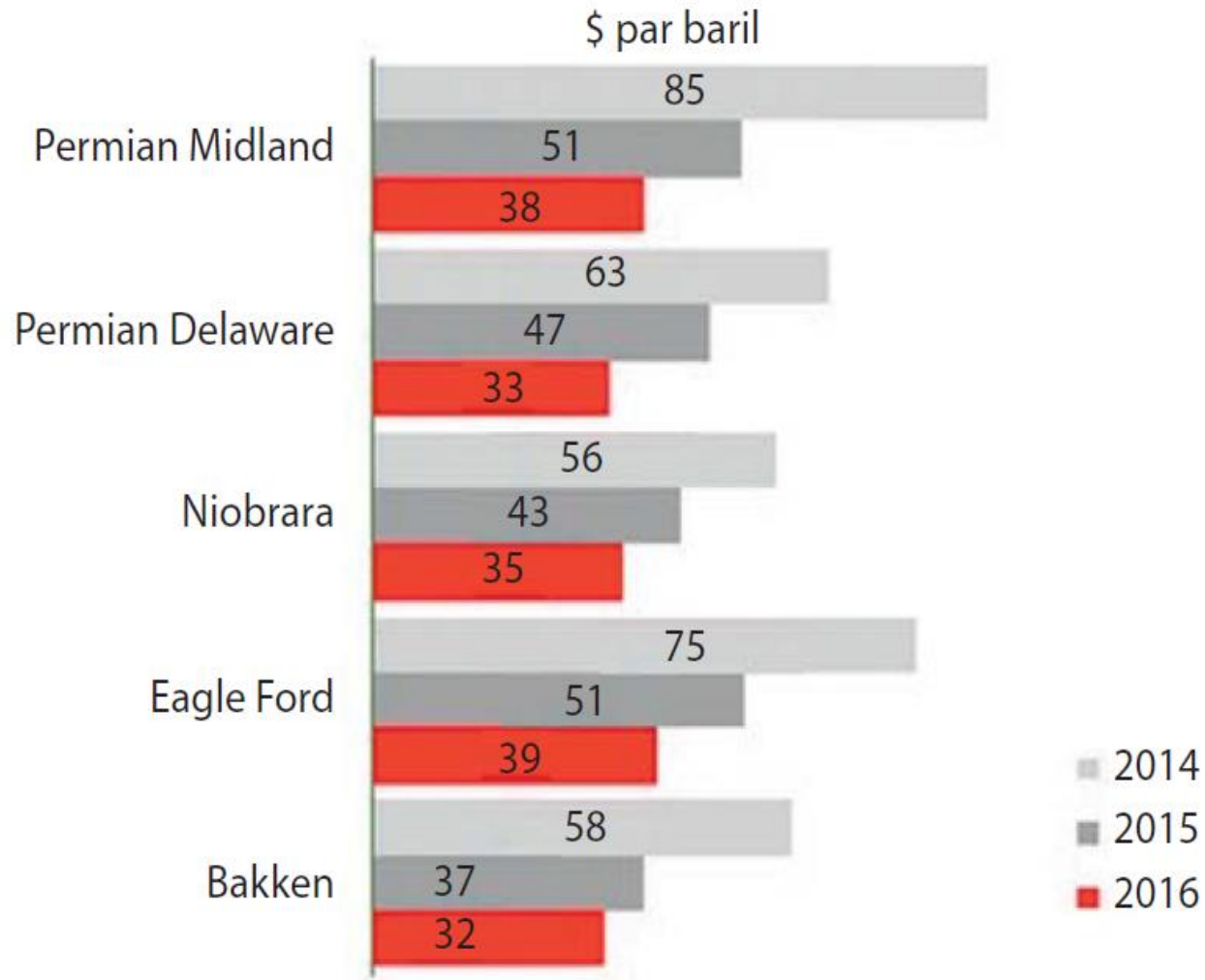
- ▶ Increasing demand
- ▶ **New balance of the oil market**
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# OPEC



Source : Les Echos

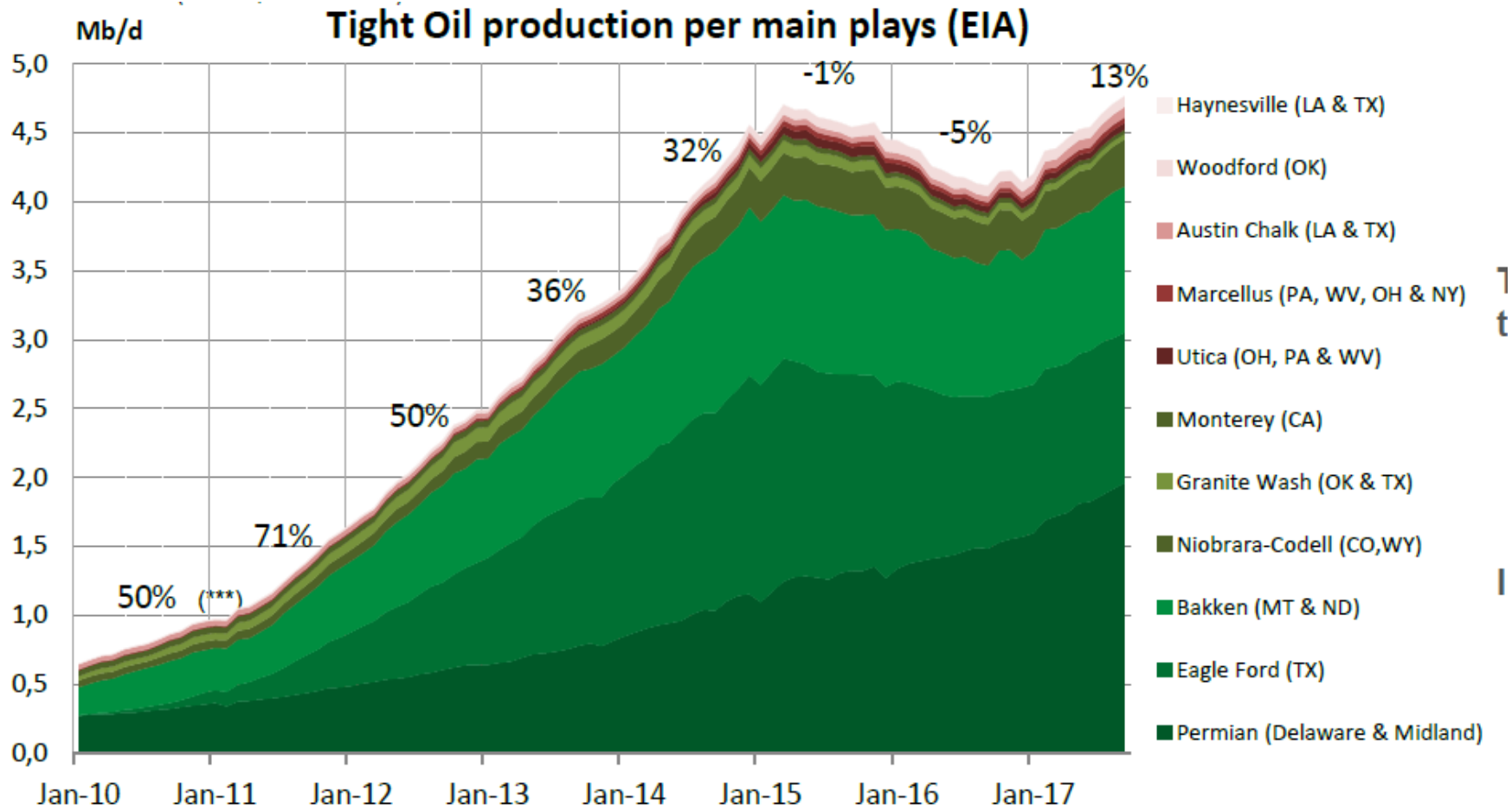
# LTO production cost



Source : Rystad Energy



# LTO production in the US



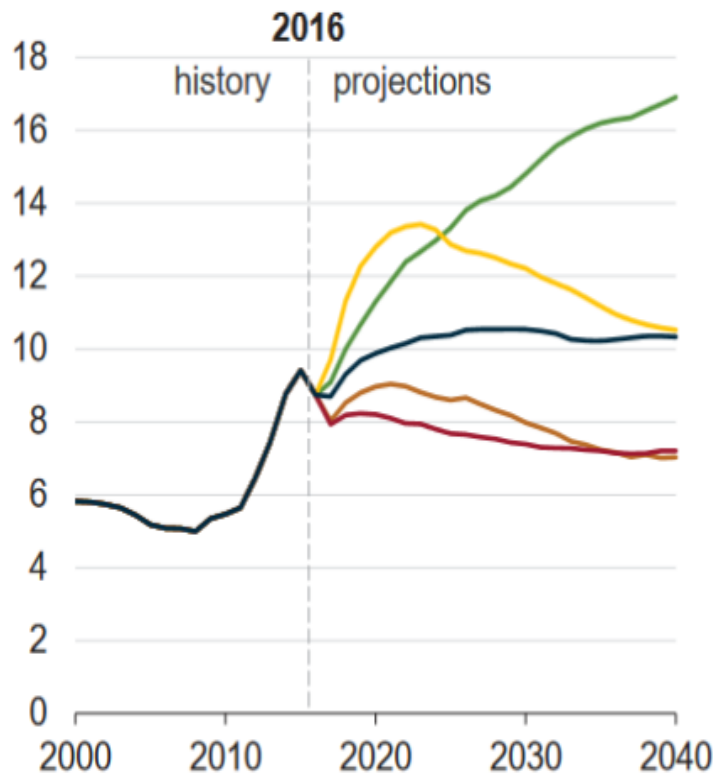
Source Total from EIA

# IOCs are coming back!

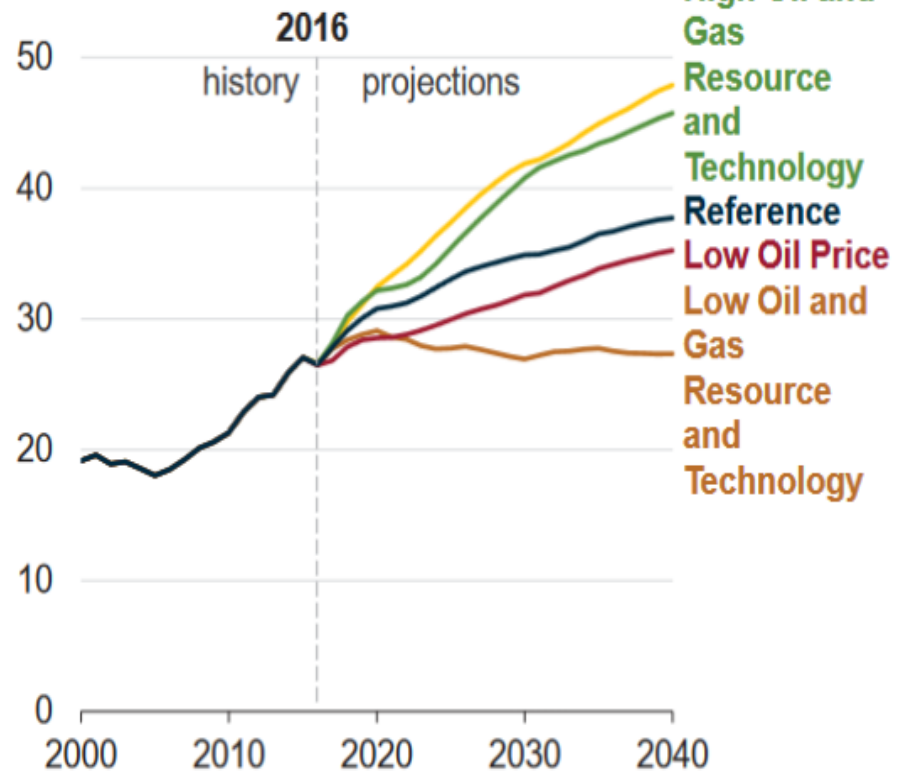
- Huge initial investments
- Big oil's big miss
- A new business model
- Heavy investments again

# US shale production

**Crude oil production**  
million barrels per day



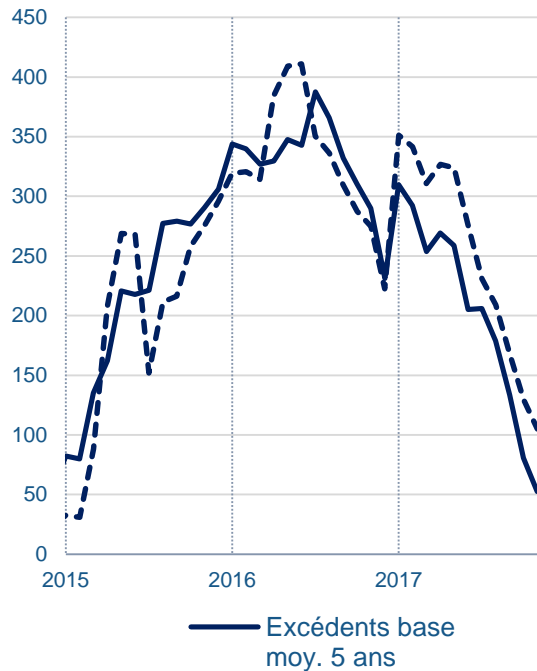
**Dry natural gas production**  
trillion cubic feet



# Impact of 2016 OPEC's strategy

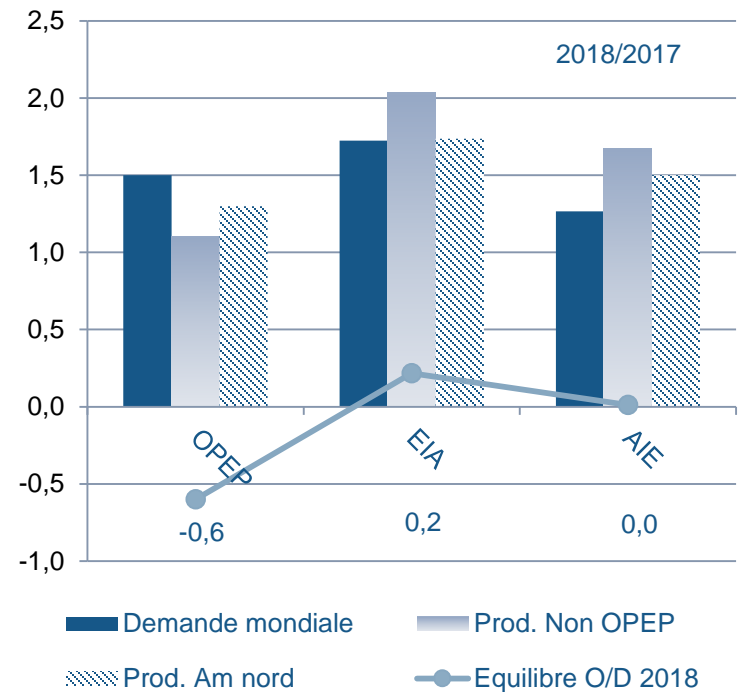
Ongoing stock drop

Stock surplus of OECD countries Mb



Source : IFPEN, base AIE

Supply/demand balance Mb/j

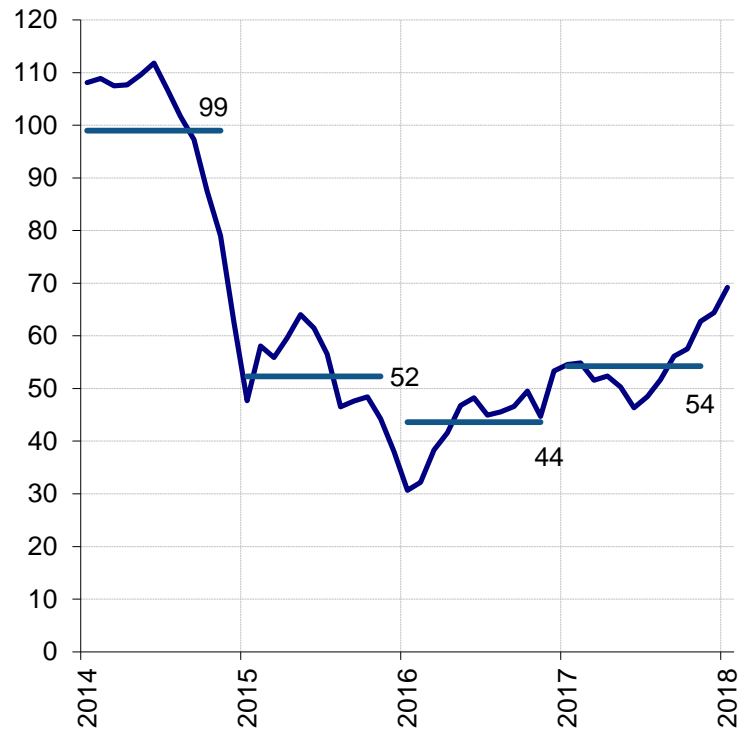


Source : IFPEN, base AIE, EIA, OPEP

# Market perspectives

## Brent price

2014/2018



Source : IFPEN, base Reuters

2018

→ Reuters : 55 / 70 \$/b

Key factors:

→ OPEC supply

→ US production

→ Demand

# Increasing geopolitical risk in the ME

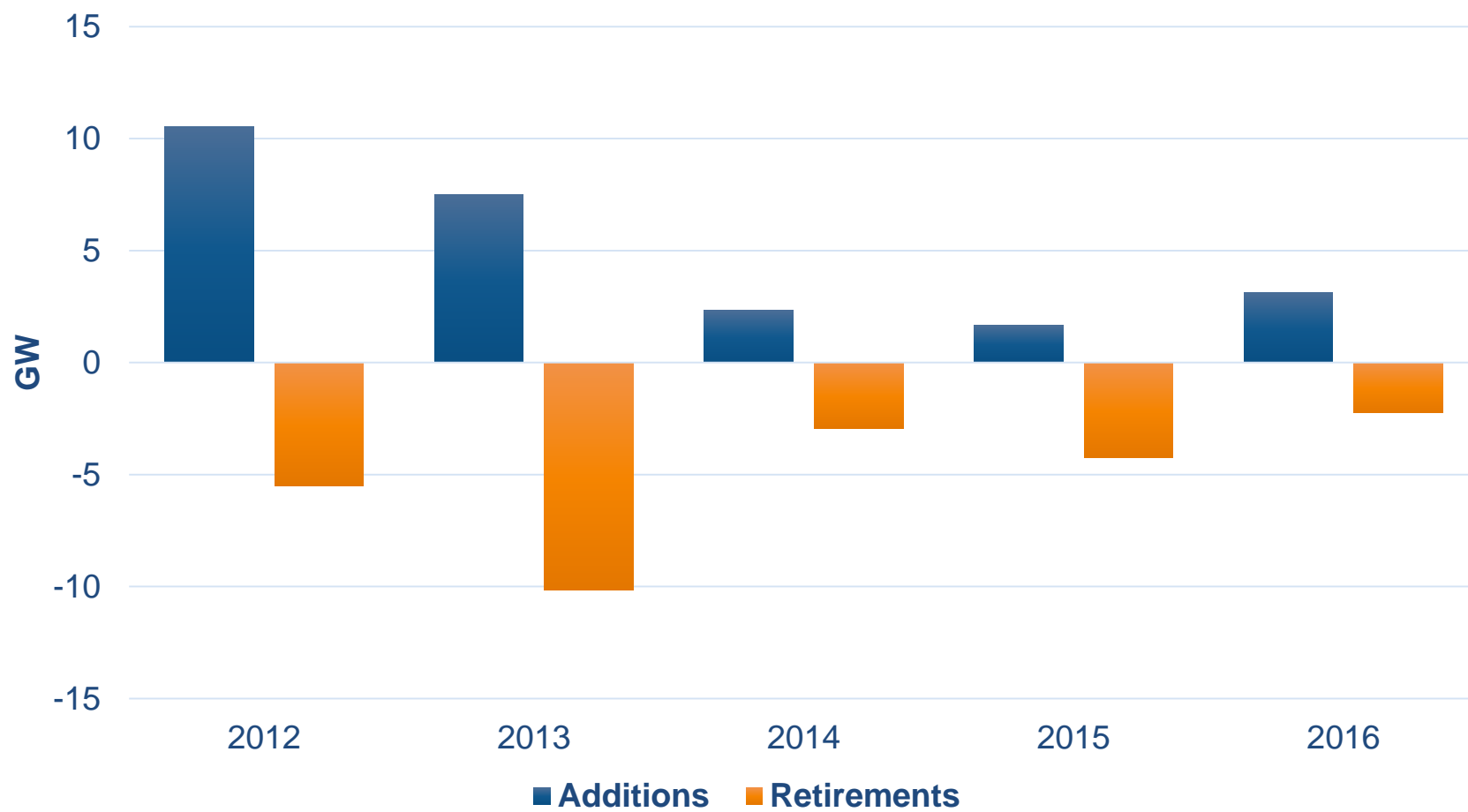


Source: [Mondoweiss.net](http://Mondoweiss.net)

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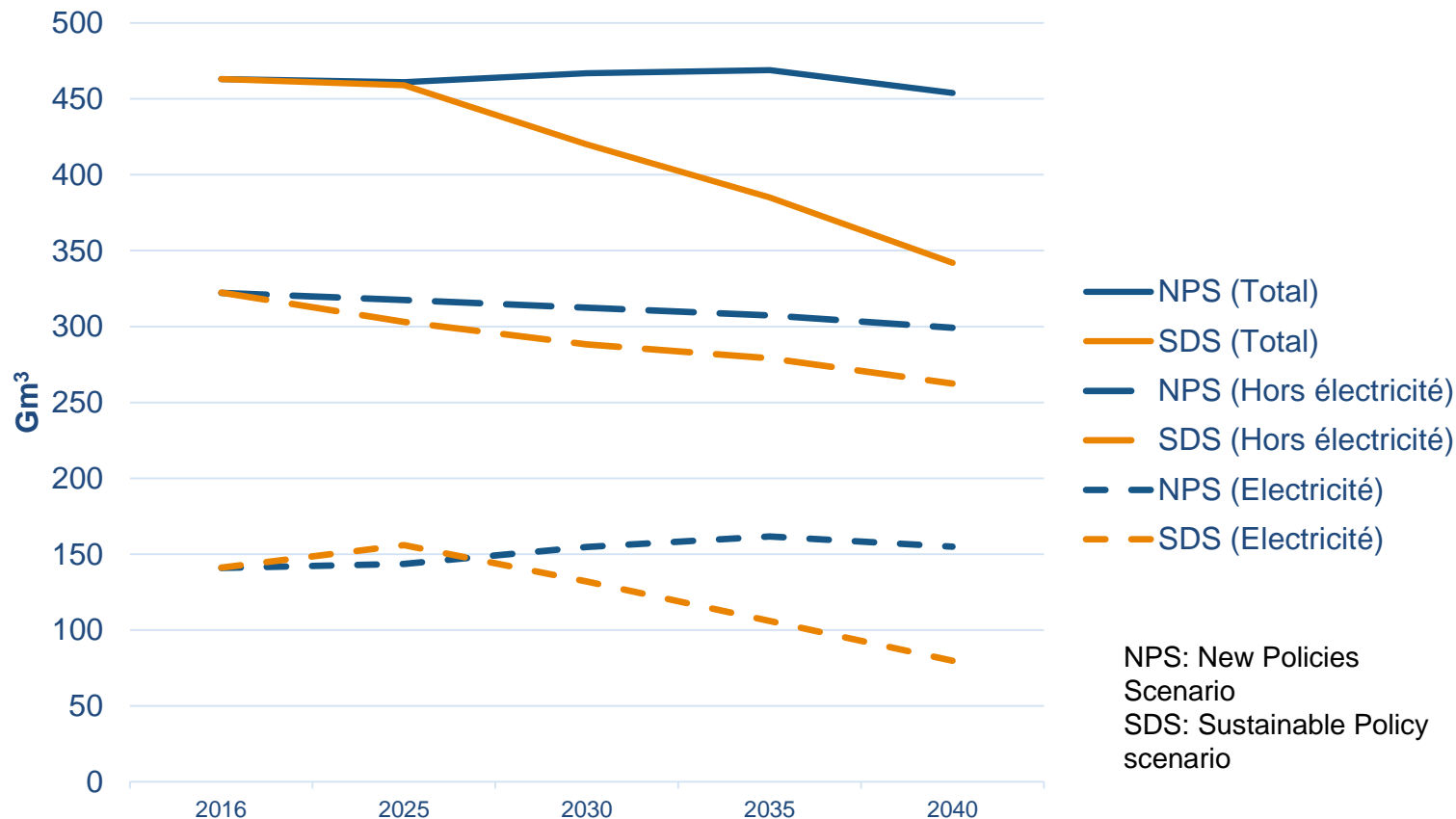
# Significant drop of capacities





# European gas market scenarios

## Natural gas demand - UE



NPS: New Policies Scenario  
SDS: Sustainable Policy scenario

Source: IEA WEO 2017

# Emergence of a new market: transport

## Le gaz est un carburant intrinsèquement propre

- ▶ Emissions faibles de  $\text{NO}_x$ , pas de particules et de  $\text{SO}_x$
- ▶ Une réduction de 15-23% des émissions de  $\text{CO}_2$
- ▶ Améliore considérablement la qualité de l'air et réduit les émissions de  $\text{CO}_2$

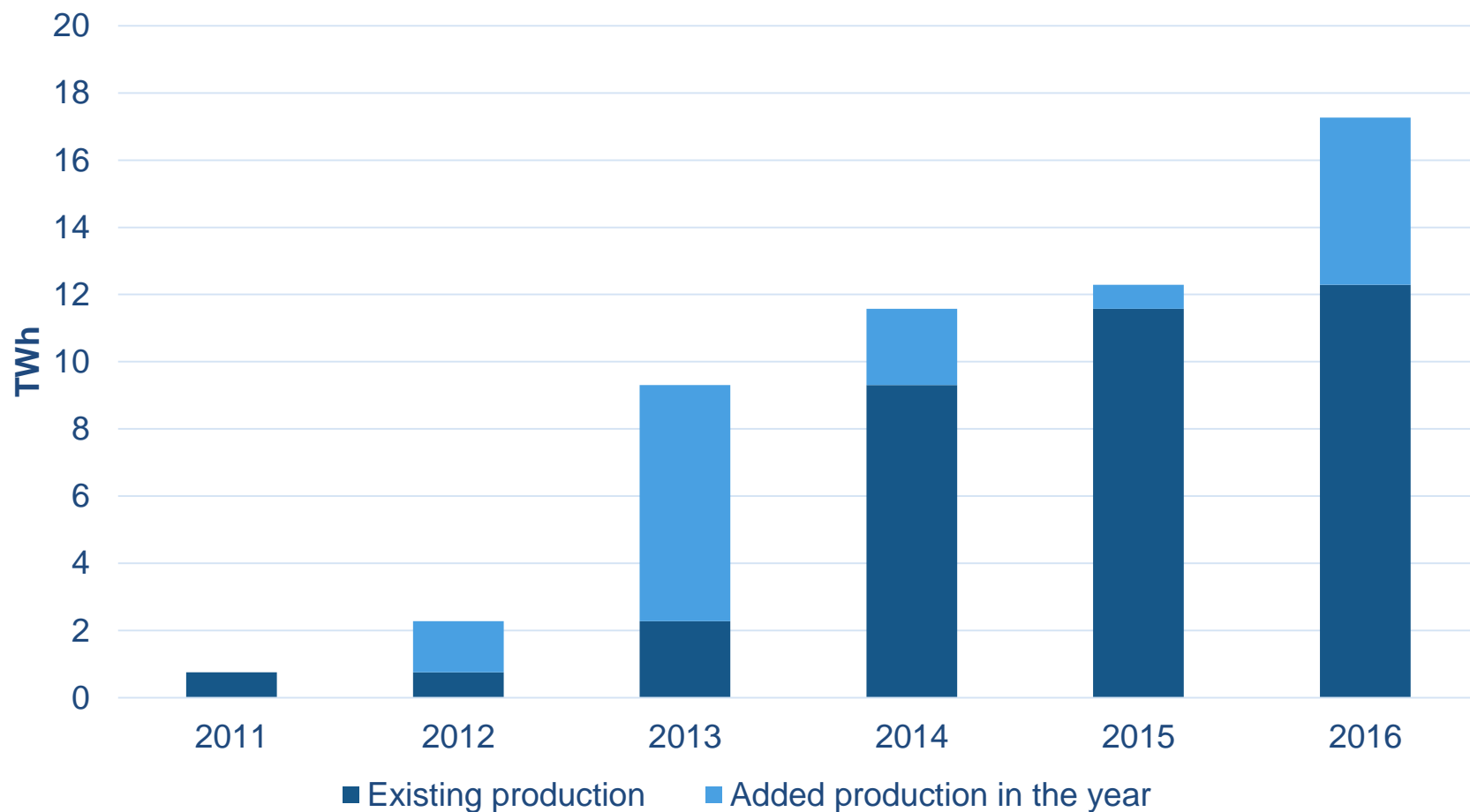


- ▶ Marché émergent au potentiel immense
- ▶ L'Europe est l'une des régions les plus actives pour le small-scale LNG

## Deux principaux marchés

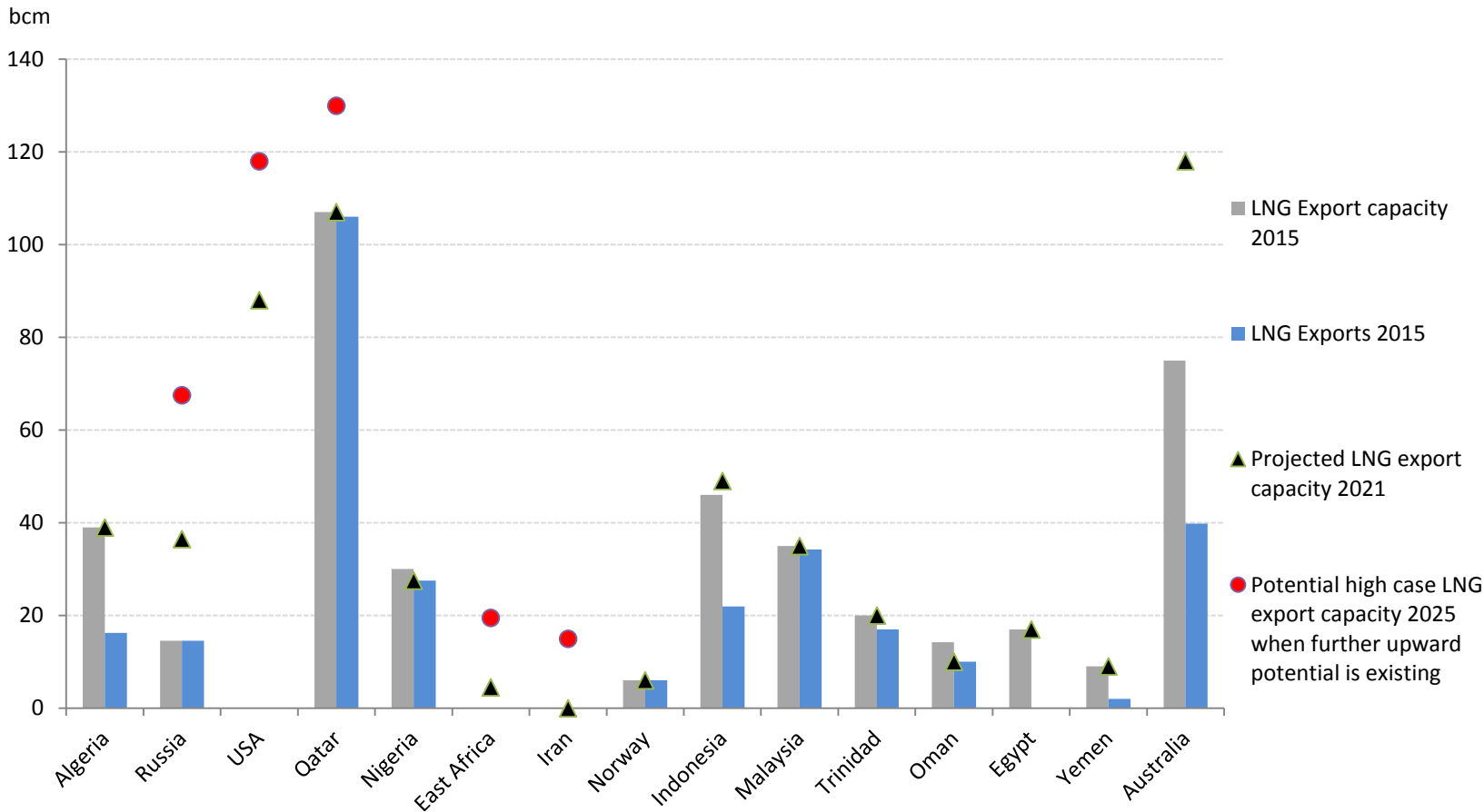
- ▶ Mobilité terrestre
  - 1.3 million GNV en 2016
  - Encouragé par la directive sur les carburants alternatifs (AFI)
  - Initiative Blue LNG Corridor
- ▶ Transport maritime
  - Nouvelle réglementation de l'OMI sur les émissions de soufre d'ici 2020
  - Les opérateurs européens à la recherche de nouveaux débouchés

# Developpement de renewable gas



# LNG : Competition Russia, USA, Qatar, East Africa, Australia...

## Development of LNG export capacities

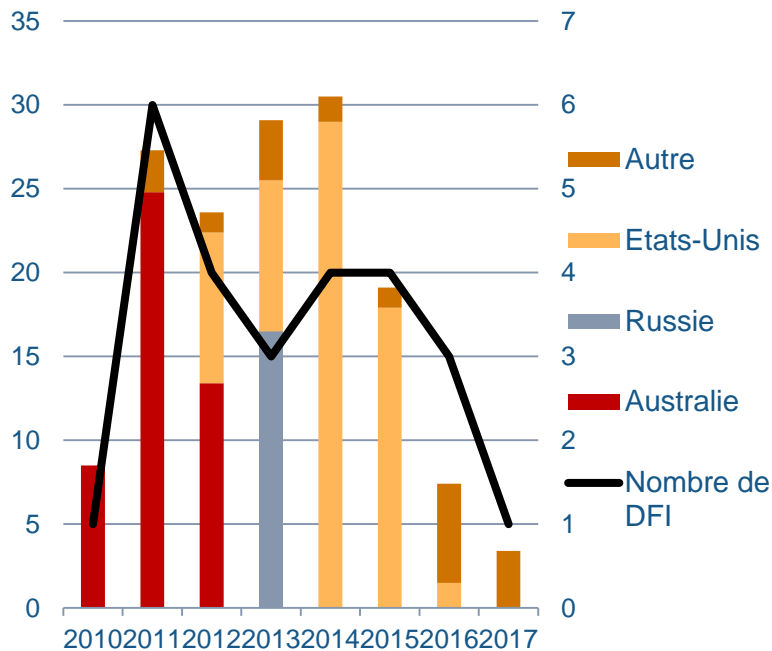


Source: Ifri, IEA, EIA, BP

# LNG market

## Potential tension MT

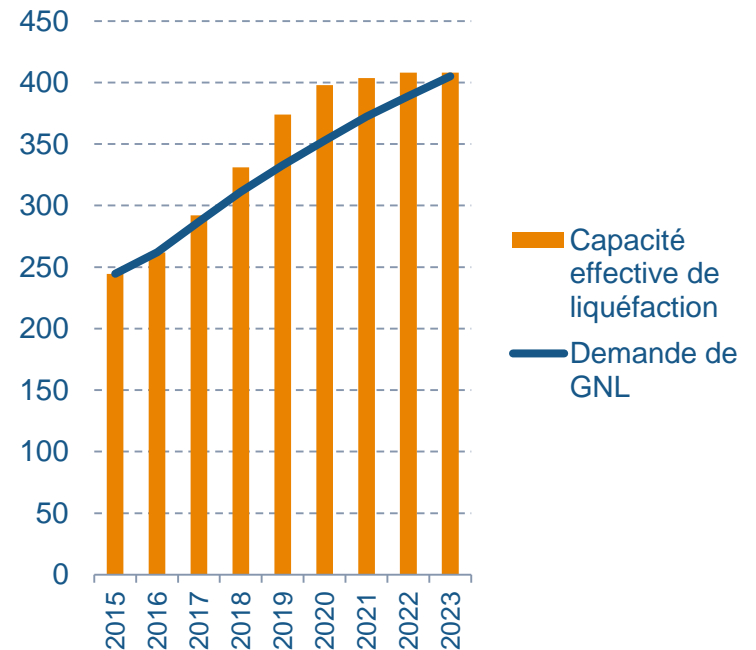
*FID for liquefaction plants Mt*



*DFI = Décisions finales d'investissement*

Source : Cedigaz

*Supply/demand balance Mt*



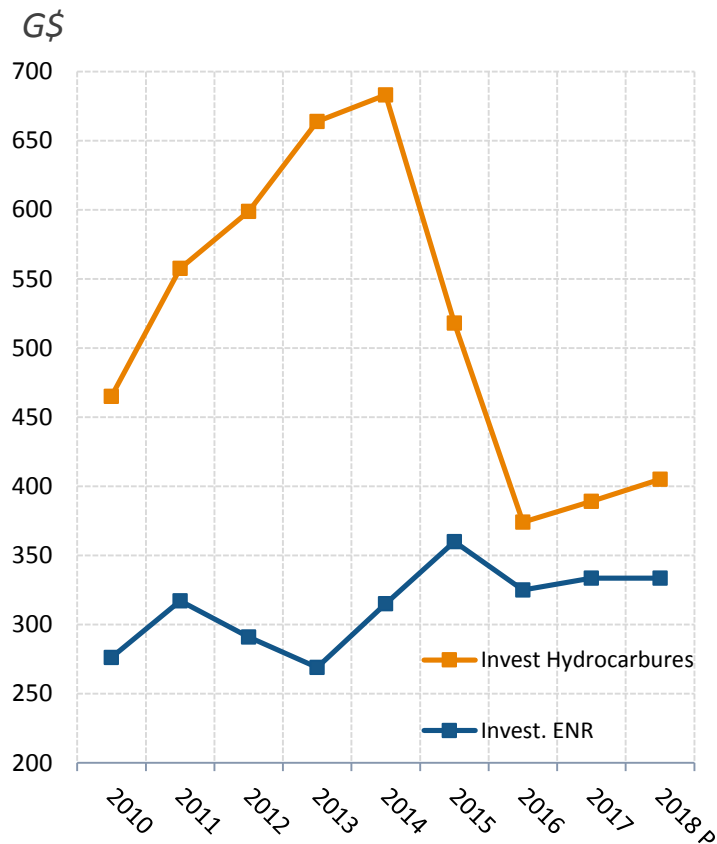
Source : Cedigaz

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# Investissements REN vs Oil/Gaz

## Investissements pétrole & gaz et renouvelables



## Investissements EnR

→ Quasi équivalent à ceux du secteur pétrolier

→ 40 % en Chine, 17 % chacun pour Etats-Unis et Europe

→ 80 % du total pour le solaire (48 %) et l'éolien (32%)

Source : IFPEN & BNEF

# Strategic drivers

- Producing countries
- IOC
- Some examples



Thank you

