



Accelerating Renewables in MENA

Egypt as a Frontrunner

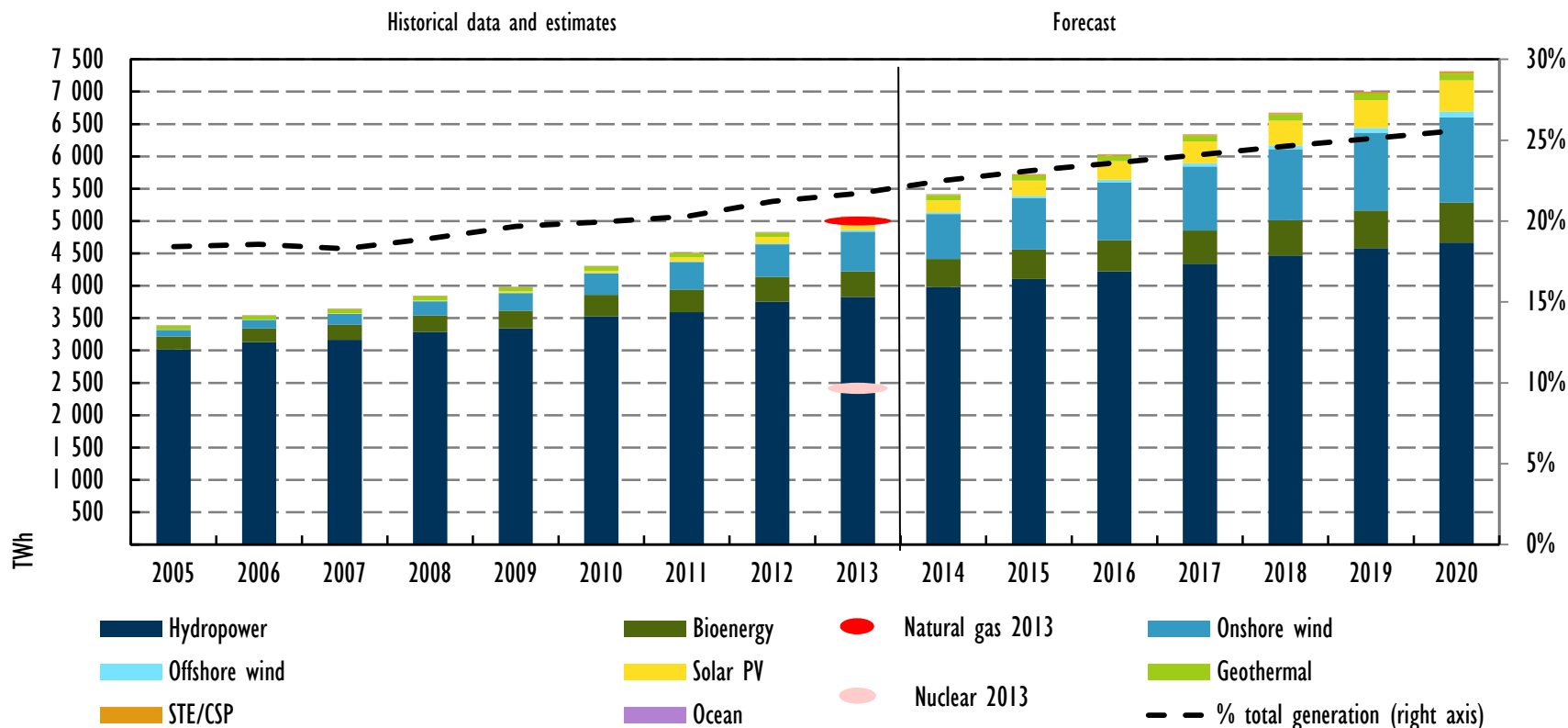
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The global context

Strong momentum for renewable electricity



Global renewable electricity production, historical and projected



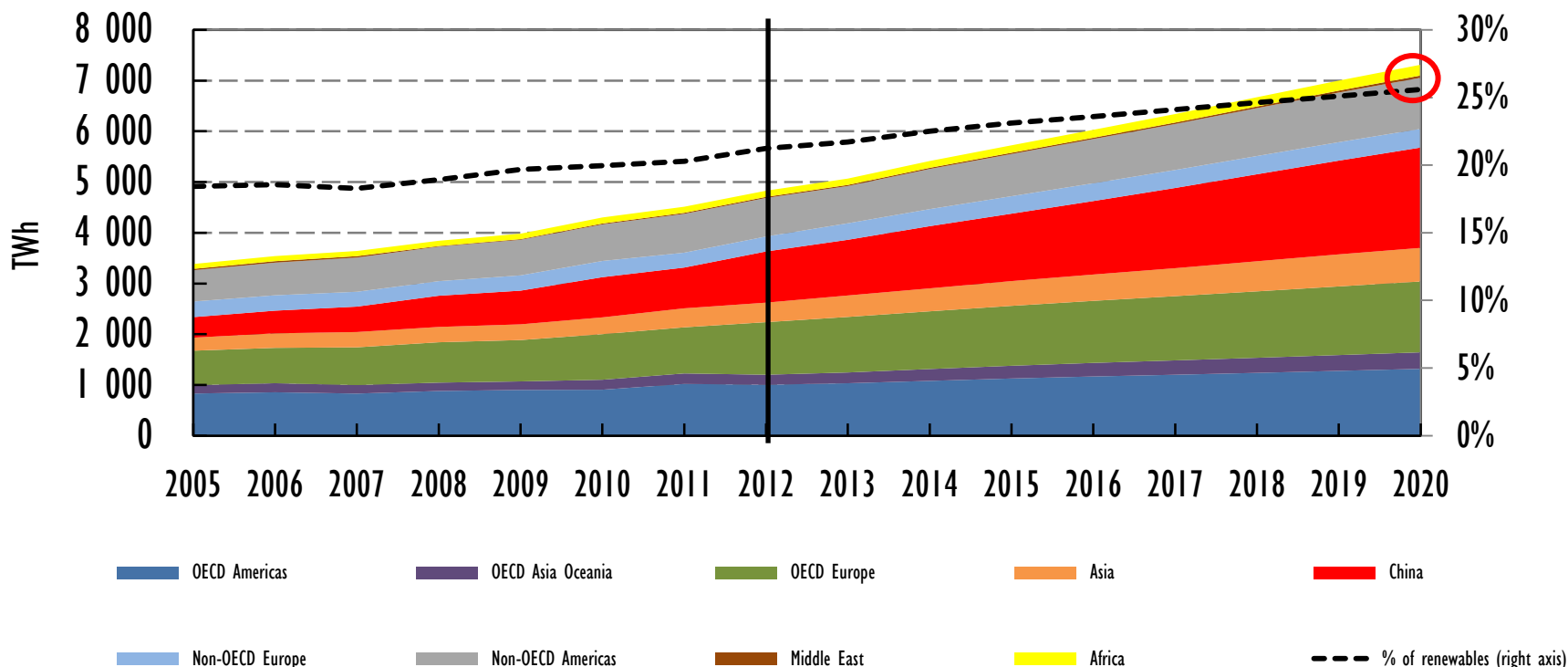
■ Renewable electricity projected to scale up by 45% from 2013 to 2020

■ Around 26% of world electricity from RE in 2020

MENA: small contribution so far but large long-term potential



Global renewable electricity production, by region (TWh)

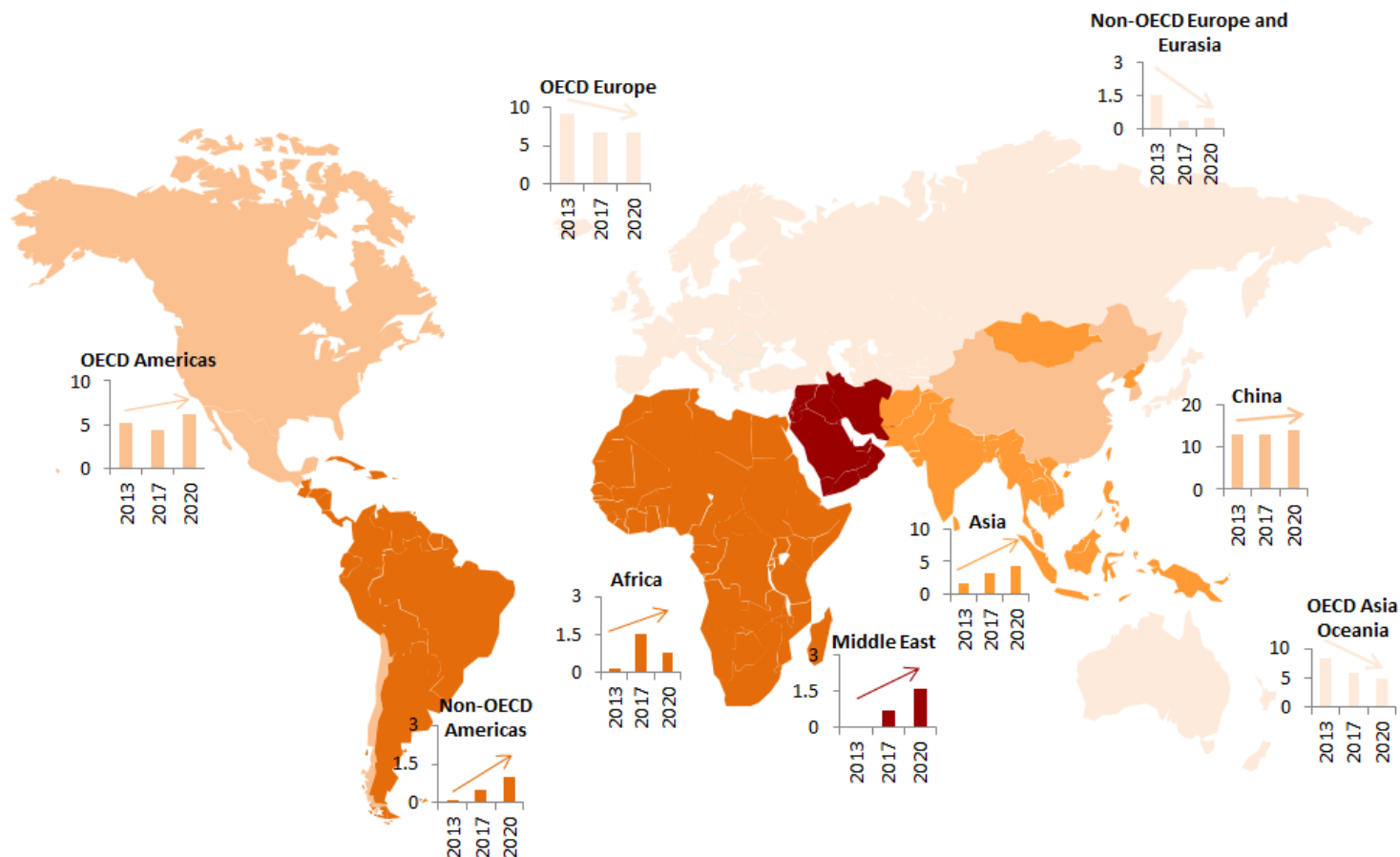


- Although small in global context, MENA's renewable power is fast growing: +75% over 2013-2020, +8% annually.

MENA expected to emerge as one of the fastest growing PV markets



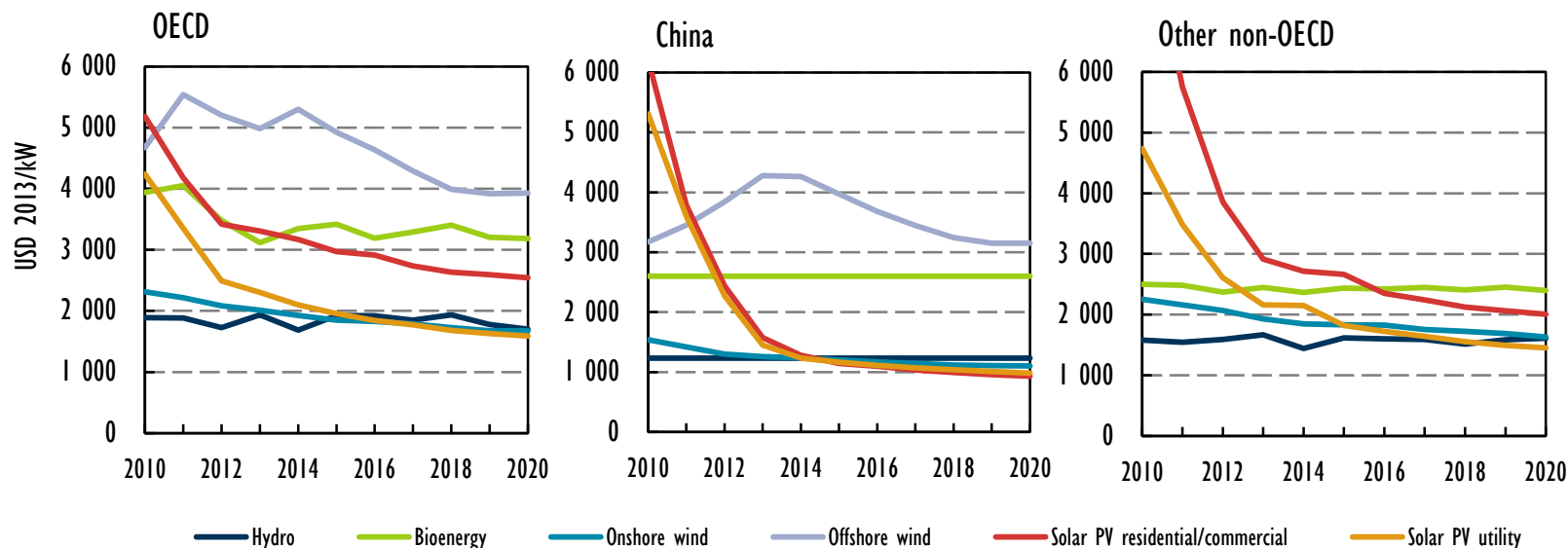
Solar PV annual capacity additions (GW)



Renewable investment costs falling



Weighted average annual renewable investment costs, historical and projected



Notes: Average unit investment costs are based on gross additions, which include capacity refurbishments that are typically lower cost than new capacity. Costs vary over time due to technology changes as well as where deployment occurs in a given year..

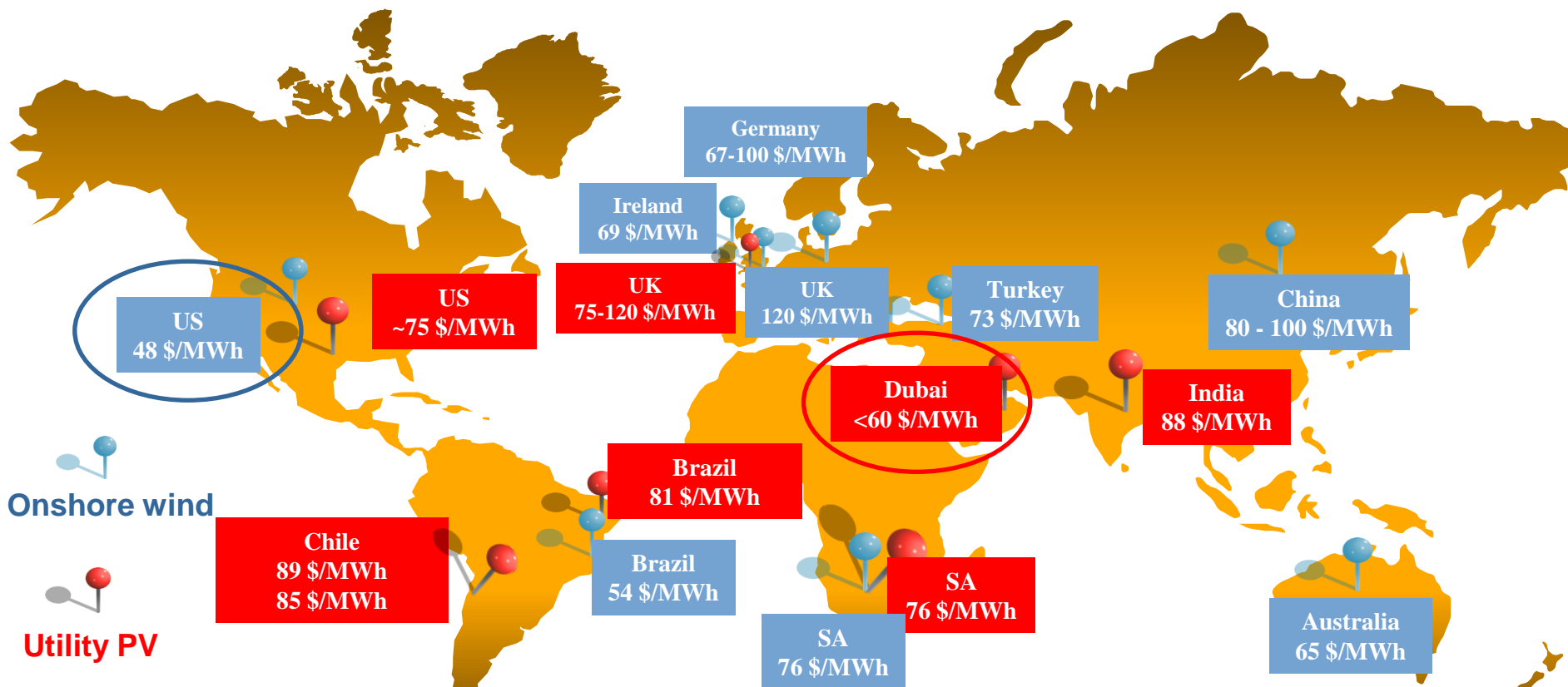
- With scale up of deployment and learning, investment costs of most dynamic technologies (solar PV and onshore wind) continue to fall
- Large scale wind and solar now increasingly competitive

What has been working...

Recent progress towards competitiveness



Recent long-term remuneration contract prices (e.g. auctions and FITs)

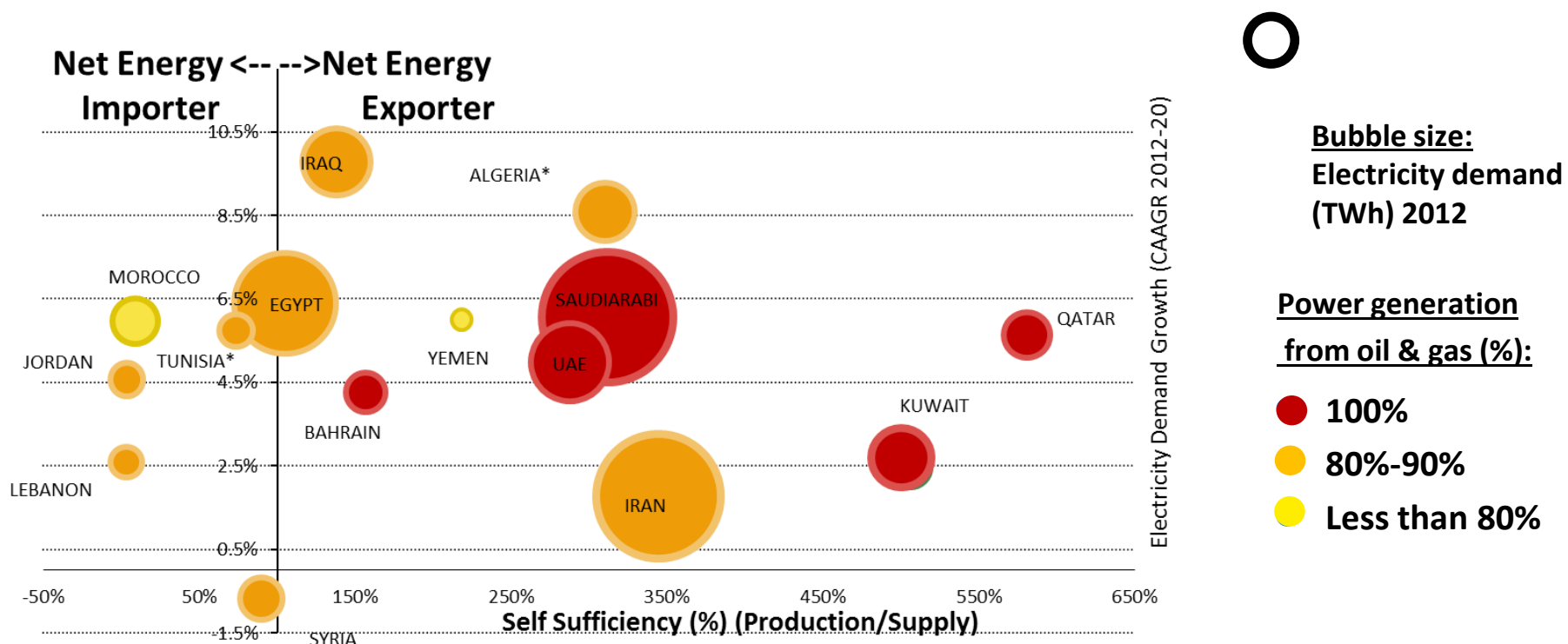


- Combination of technology cost reduction, better resources, appropriate regulatory framework attracting financing
- Long-term PPAs and price competition effective drivers
- RE can be competitive with new fossil fuel plants even with low oil prices

MENA profiles yield different drivers



- Drivers depend on expected demand growth, self sufficiency in meeting total energy demand, reliance on fossil fuels
- Energy security very strong driver for RE in importing countries

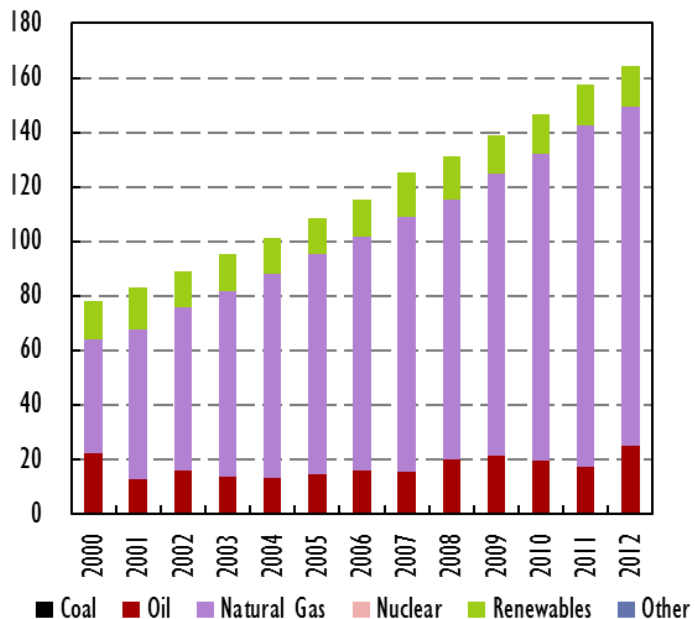


Egypt facing supply challenges

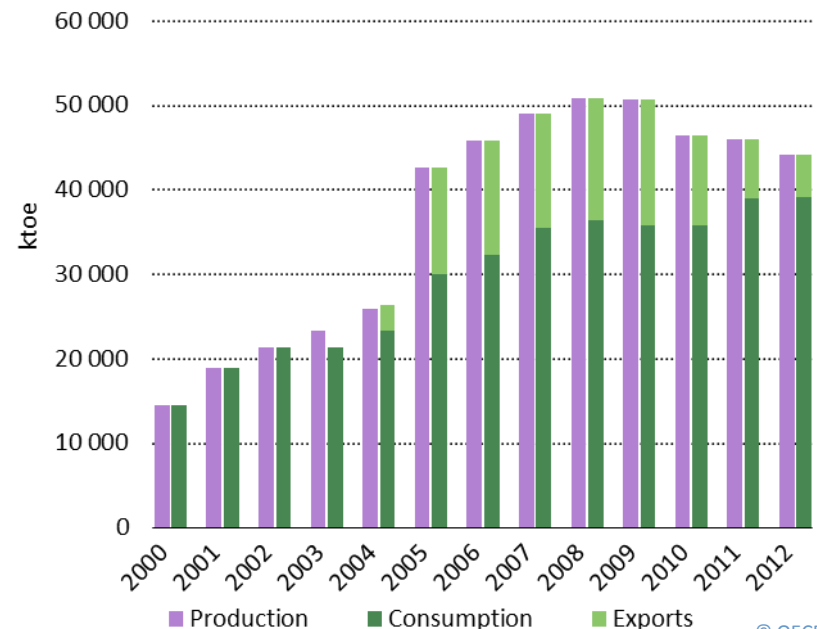


- Natural gas dominates electricity mix but is at risk of a supply shortages
- With power demand expected to grow 7% annually over medium term, alternative sources of power are needed

Power generation (TWh)



Natural gas supply (ktoe)

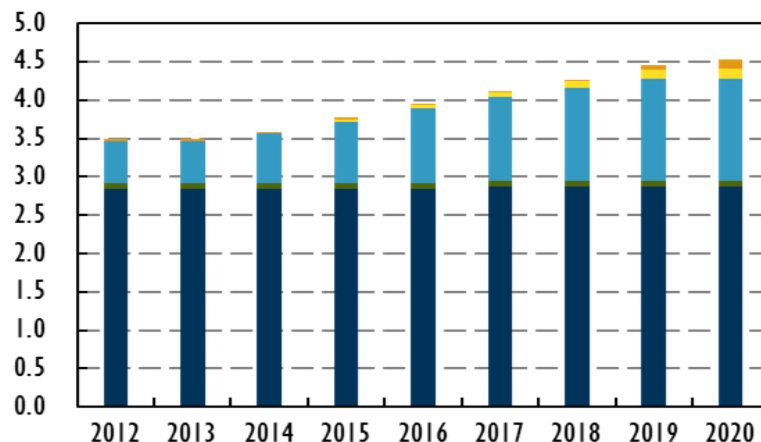


Egypt: Movement towards more supportive RE environment in 2014



- Ambitious targets but limited implementation until last year
 - Challenges: political stability, concerns over implementation of support policies, administrative barriers
- Strong acceleration in 2014 : subsidy reform started, new auctions, new merchant contracts, FiTs for wind and PV

RE cumulative capacity (GW)



Old MTRMR
Forecast as of
July 2014



What upside
revision in new
IEA forecast?

■ Ocean ■ STE ■ Geothermal ■ PV ■ Offshore Wind ■ Onshore Wind ■ Bioenergy ■ Hydro

Concluding Remarks



- Renewables a crucial element for energy security and diversification
- Potential massive acceleration of RE in MENA, and in Egypt in particular - Main drivers:
 - Security of supply and diversification with strong demand growth
 - Outstanding RE resources
- Maximizing cost efficiency remains crucial
 - Cost of financing key variable
 - Focus on consistency of policies and strategies, including on grids and energy infrastructures