

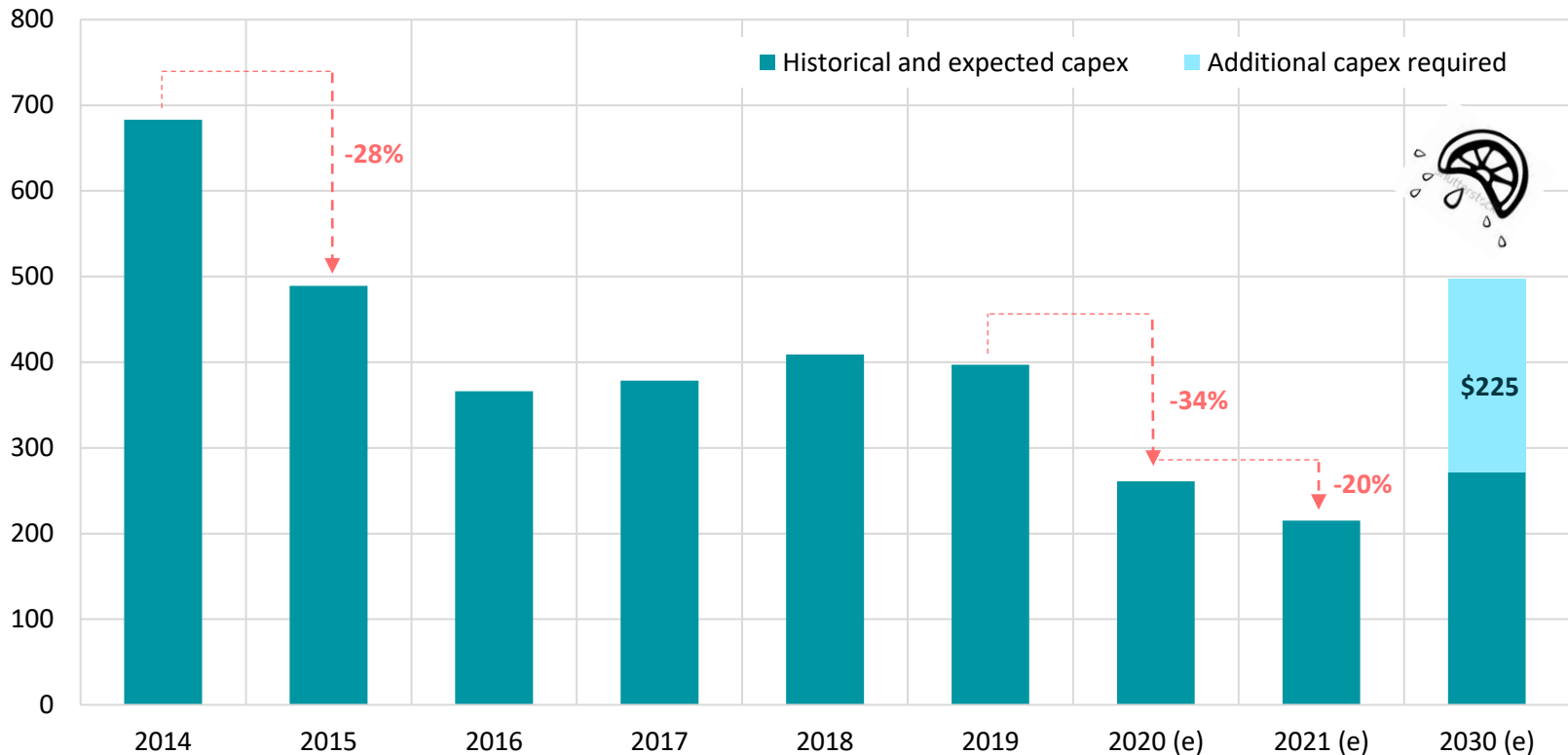


Energy Transition: Impact on MENA

Lower for longer E&P capex while cost curves and decline rates steepening

Historical & Expected Upstream Capex

Capex (\$billion)

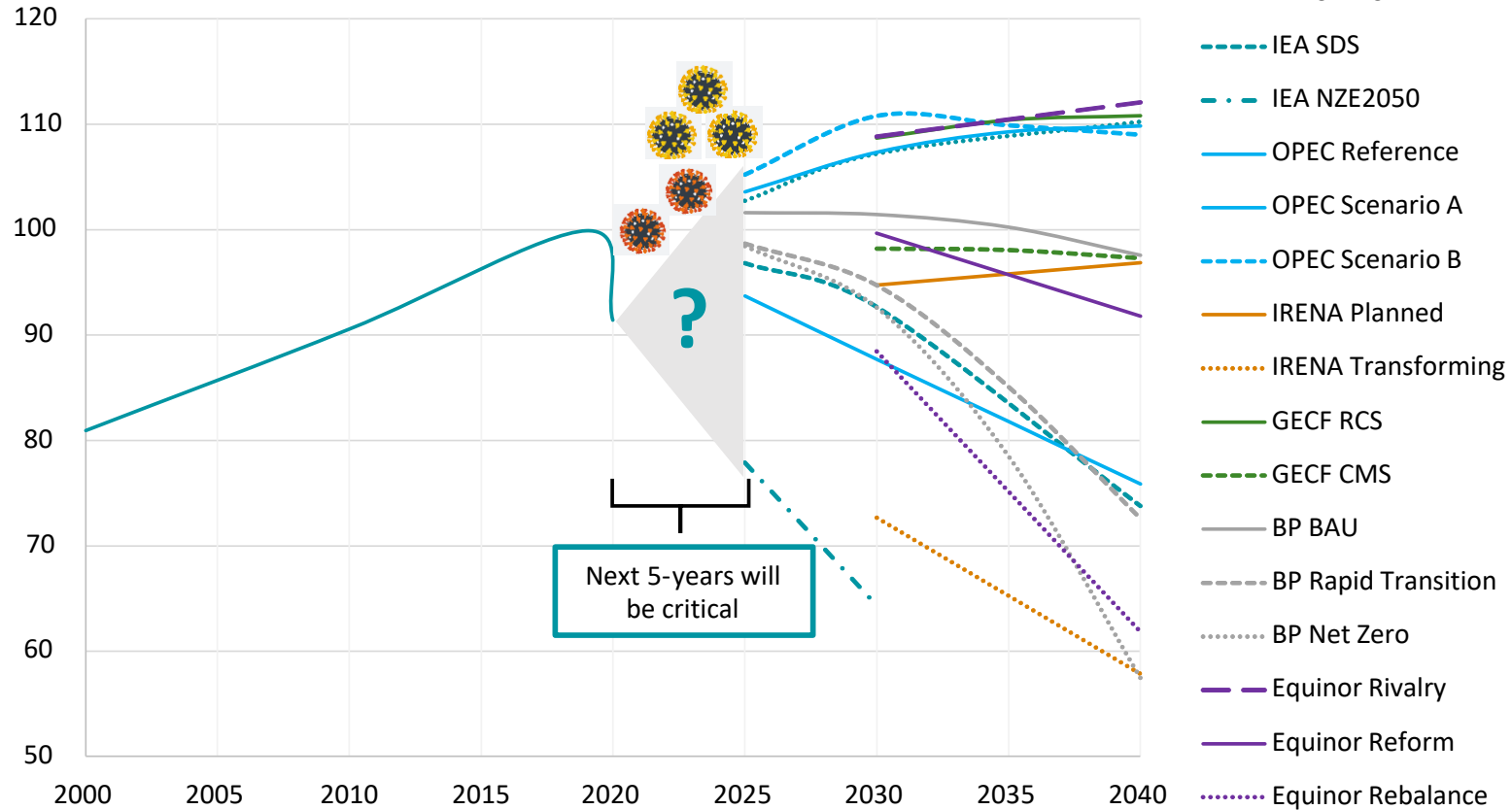


Source: IEF, IEF BCG Oil and Gas Investment in the New Risk Environment (Dec 2020)

At time of unprecedented uncertainty on demand risks and policy trajectories

Liquids Demand Scenarios Through 2040

Million barrels per day

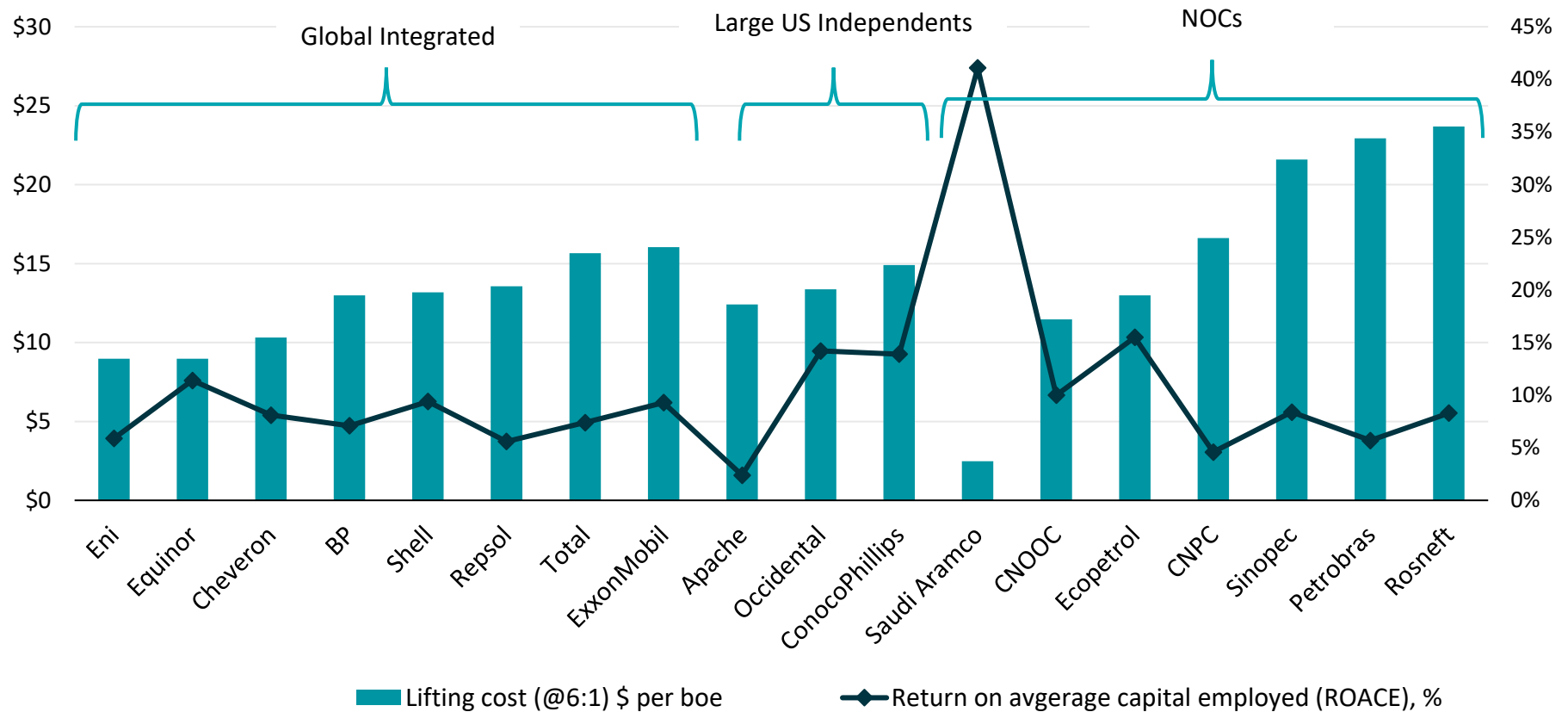


Source: IEF, IEA, OPEC, IRENA, GECF, BP, Equinor

Access to capital, materiality, profitability, cash flow & production uplift key for future

Lifting Costs (2018) and Returns

Lifting cost (@6:1) \$ per boe | ROACE %

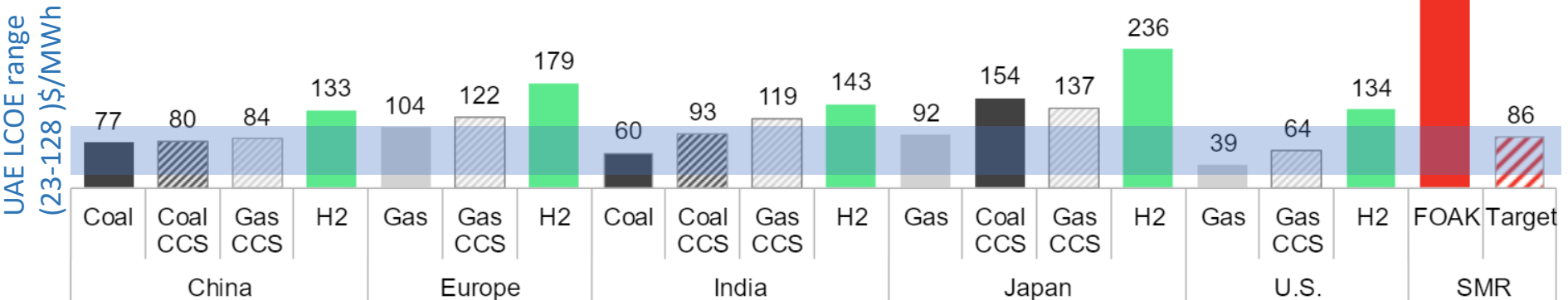


Source: IHS Markit, IEF

Gas investments under higher pressure while upscaling RE require more than just funding

Levelized cost for load-following power plants financed in 2030

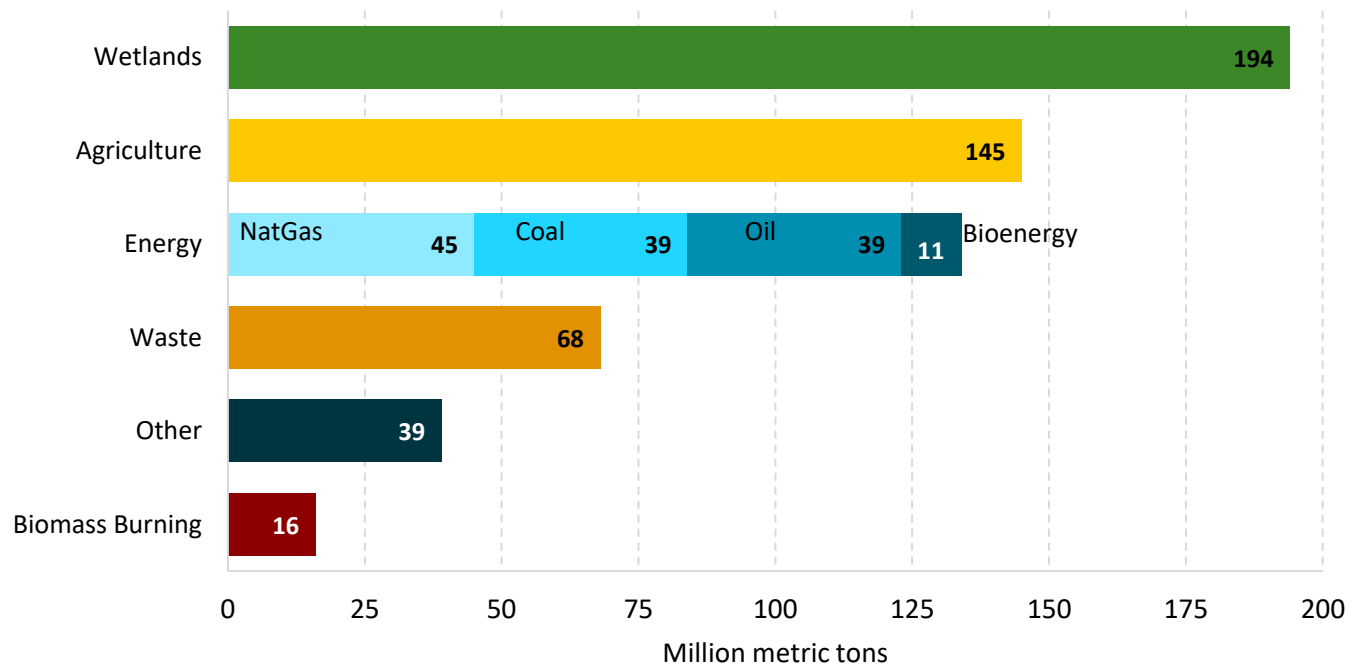
\$/MWh (2020 real)



Source: BloombergNEF. Note: SMR is small modular nuclear reactor, CCS is carbon capture and storage, H2 is green hydrogen-fired turbine, FOAK if first-of-a-kind project. Assumes a 55% capacity factor, typical of a load-following plant. Includes a carbon price in Europe and China. CCS does not include CO2 transportation and sequestration costs. In this analysis, we use the term 'load-following plants' to describe power plants operating flexibly with a annual capacity factor of 55%.

Role for international Cooperation: Methane reduction, tradable carbon intensity

Global Methane Emissions by Source



Source: IEF, Energy Futures Initiative, IEA



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