Role of Natural Gas in Sustainable Development
Global energy scenarios & proposed discussion points

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**GLOBAL SCENARIO VIEW – ENERGY DEMAND**

**World Primary Energy Demand by Fuel (Mtoe)**

*New Policies Scenario (NPS)*

Source: IEA WEO 2018

**Sustainable Development Scenario (SDS)**

Source: IEA WEO 2018

**Fossil fuel share (NPS)**

- 2017: 81% (Gas 22%)
- 2025: 78% (Gas 23%)
- 2040: 74% (Gas 25%)

**Fossil fuel share (SDS)**

- 2017: 81% (Gas 22%)
- 2025: 77% (Gas 24%)
- 2040: 60% (Gas 25%)
“The New Policies Scenario (NPS) is the central scenario of this Outlook, and aims to provide a sense of the direction in which the most recent policy ambitions could take the energy sector. In addition to incorporating policies and measures that governments around the world have already put in place, it also takes into account the effects of announced policies, as expressed in official targets and plans.”

“The Sustainable Development Scenario (SDS) was introduced for the first time in the WEO - 2017. Unlike the other main scenarios, it starts from the objectives to be achieved and then assesses what combination of actions would deliver them. These objectives are derived from the Sustainable Development Goals (SDGs) of the United Nations, providing an energy sector pathway that achieves: universal access to affordable, reliable and modern energy services by 2030 (SDG 7.1); a substantial reduction in air pollution (SDG 3.9); and effective action to combat climate change (SDG 13).” SDS fully aligned with Paris Agreement.
GLOBAL (NPS) – POLLUTANT & CO₂ EMISSIONS BY FUEL (SDG 3.9 & SDG 13)

Global SO₂ Emissions (Mt)
New Policies Scenario (NPS)
Source: IEA WEO 2018

Global NOx Emissions (Mt)
New Policies Scenario (NPS)
Source: IEA WEO 2018

Global PM2.5 Emissions (Mt)
New Policies Scenario (NPS)
Source: IEA WEO 2018

Global CO₂ Emissions (Mt)
New Policies Scenario (NPS)
Source: IEA WEO 2018
Natural gas holds a key position in helping achieve sustainable development goals. Over the next two decades, it is expected to be more than just a “transition fuel”. It is indeed “part of the solution”

But its role varies a lot from one region to another, presenting both challenges and opportunities.

• Need to go beyond claims such as “gas is cleanest fuel” and “it addresses the renewable intermittency issue” Fossil fuels continue to be challenged by climate change mitigation concerns; costs; renewables revolution; progress in battery storage; and politics, inter alia

• Have to address issues of methane emissions, associated gas flaring, and CO₂ emissions (not an easy task)

• Decarbonisation process in Europe poses serious challenge for natural gas, a lot of uncertainties, especially beyond 2030, for a shrinking or stagnant market

• Latest WEO indicate that future growth is in industry price sensitive segment – subsidies not sustainable

• Further natural gas penetration in transport sector (especially shipping) would help meet SDGs and open up new gas markets. Potential volumes are likely to be relatively limited, but much bigger environmental benefit

• Future gas demand growth concentrated in Asia-Pacific (50%), Middle East and Africa Opportunities for natural gas to help attain SDGs, but challenges presented by abundant coal availability in some areas; price competitiveness and price subsidies; renewables; and financial requirements of gas infrastructure investments
A lot of opportunities for further natural gas penetration in MENA region. But natural gas resources, like any resources, have to be managed adequately and common misconceptions about natural gas have to be addressed.

- Need to appreciate the fact that only a few countries in MENA are or will continue to be considered as “gas-surplus” countries, whilst majority being “gas-short”, especially due to rapid demand growth by power/seawater desal and energy-intensive industries. Full potential of intra-regional gas trade is more likely to be a long-term objective. But it should continue to be promoted, despite political challenges.

- Issue of domestic energy price subsidies must be addressed urgently to address inefficient/wasteful use of gas supplies. Schemes for vulnerable segments can be implemented. Even after a phasing out of subsidies, natural gas price in some key markets could continue to be commercially attractive. So the opportunities are still there!

- Positive energy price reforms (or price increases) have been initiated already in several countries, although a lot of efforts still required, especially for the reform of domestic natural gas pricing mechanism.

In MENA region, there is definitely a bigger role for natural gas to play in achieving some of the key SDGs. However, it is critical that all stakeholders from the public and private sectors revisit fundamentally the way natural gas resources are developed, marketed and consumed. Civil society and academic/research have a key role to play as well.