



ENERGY TRANSITION PATHWAY – A PERSPECTIVE FOR NATURAL GAS

By - HE Dr Mohammad Al Sada
Minister of Energy and Industry, Qatar

Energy markets are on the brink of a significant transformation over the next 25 years, as they chalk out pathways to serve the world's aspiration for development. Things are changing across the globe. Global GDP is expected to grow by 3.7% over the next year, a slight upswing from the 3.0- 3.4% seen over the previous five years.

Population growth and standard of living will be the main drivers of energy demand growth over the next 25 years, accelerating industrial production, urbanization and vehicle fleet expansion. Most population and income growth will take place in Asia and Africa, regions with the least energy access and the most fuel substitution potential. Emerging economies are entering the recovery phase; commodity markets are rebalancing to the benefit of the world economy. In the medium-term, relatively low prices of energy is stimulating its demand growth.

World energy demand is projected to grow briskly between 2017 and 2040. Fossil fuels predominately contribute about 81% of the current global energy requirements; even after a quarter century from now, it will contribute about three fourths of the global requirement of energy. As far as the energy demand is concerned, power generation and transportation will continue to be the two major consumers of energy in the foreseeable future.

The share of gas in the global energy mix will grow, as consumers seek an energy source that supports economic development and addresses environmental concerns. Majority of the prominent world energy analysts concur that global gas consumption will increase by over 50% between 2017 and 2040, and natural gas will become the fastest growing fossil fuel.

Within the natural gas sector, the LNG demand is expected to grow at 4.6% per annum. The outlook for LNG volumes is to grow from 264 Mtpa in 2016 to over 600 Mtpa by 2035. Market share of LNG in international gas trade is slated to grow from slightly less than 33% in 2015 to more than 50% by 2035, meaning that LNG volumes will grow from about 50% of piped volumes in 2015 to nearly equal to the piped gas volumes by 2035.

Gas is increasingly being considered as an alternative to petroleum fuels in some parts of the transport sector. Besides road transportation, LNG also has a very bright future as a maritime fuel. LNG bunkering infrastructure is also developing fast along the major international sea lanes.

The share of natural gas and renewables will increase gradually. This growth will be led by non-OECD Asia, followed by the Middle East and Africa. The power sector will remain the most significant engine for demand growth in the long-term.

Production and trade of pipeline gas and LNG has been rapidly expanding. The boom in LNG trade will continue until 2021, with significant incremental growth in LNG volumes observed in recent years.

The second expansion wave for LNG will come from Qatar and other gas producing Countries.

Qatar's history of being a reliable LNG supplier over the past two decades is well established. It intends to remain a leading player in the future as well. This is substantiated by the recent visionary directive of His Highness Sheikh Tamim bin Hamad Al Thani, the Emir of the State of Qatar, to lift the moratorium on the development of its North Field reservoir. This will increase Qatar's LNG production by 30% to 100 million tons per annum, to be fully operational by 2024.

Significant developments in pipeline infrastructure are also taking place in the CIS region, expanding pipeline capacity that drives exports to China and Europe. Unconventional natural gas resources are also expected to play a greater role in global supply.

The 2015 Paris Agreement has catalyzed momentum to reduce greenhouse gas emissions.

Natural gas emits half the CO₂ that of coal and considerably less polluting by-products, such SO_x, NO_x and particulates. These environmental advantages support the competitiveness of natural gas if they are well-integrated through efficient and reliable carbon pricing.

Natural gas is abundant and economically viable, due to the efficiency of gas-based technologies. GECF countries possess two-thirds of proven conventional gas reserves and have the ability to provide a secure gas supply. The development and integration of gas networks can improve access to energy, stimulate development and improve welfare.

With regard to market fundamentals, the challenge for the LNG industry today is to find a balance between buyers' pursuit of competitiveness and flexibility and producers' need to maintain a healthy cash flow out of the exploitation of their natural resources.

The LNG resource holders and investors need to be comfortable with the level and sustainability of future prices to determine the viability of their projects. This will not only soften the boom and bust cycles, but would also prevent supply shortages and price shocks down the line.