

Talk Series on Global Energy Trends: Petroleum vs Other Energy Resources

CONCEPT NOTE:

In 2021, global energy demand is expected to rise by 4.6 percent, more than offsetting the 4 percent decline in 2020 and putting demand 0.5 percent higher than in 2019. Emerging markets and developing economies are expected to provide for about 70% of the predicted increase in global energy consumption, with demand expected to rise by 3.4 percent above 2019 levels. Energy consumption in advanced economies is expected to fall by 3% from pre-Covid levels.

In 2021, demand for all fossil fuels is expected to increase dramatically. Demand for coal alone is expected to rise by 60% more than demand for all renewables combined, resulting in a nearly 5% increase in emissions, or 1 500 Mt. This expected increase would reverse 80% of the drop in 2020, with emissions ending up just 1.2% (or 400 Mt) below 2019 emissions levels.

Demand for coal is expected to rise 4.5 percent in 2021, with Asia accounting for more than 80 percent of the increase. China is expected to contribute more than half of global growth. Demand for coal is rebounding in the United States and the European Union, but it is still expected to remain significantly below pre-crisis levels. Only half of the reduction in coal-related emissions in 2020 came from the power industry. But the rapid increase in coal-fired generation in Asia means the power sector is expected to account for 80% of the rebound in 2021.

Consumption for natural gas is expected to rise by 3.2 percent in 2021, driven by rising demand in Asia, the Middle East, and the Russian Federation (“Russia”). This is predicted to increase world demand by more than 1% over 2019. This is predicted to increase world demand by more than 1% over 2019. The yearly rise in demand in the United States – the world's largest natural gas market – is expected to be less than 20% of the 20 bcm reduction in 2020, due to sustained expansion of renewables and rising natural gas costs. Industry and buildings will account for nearly three-quarters of worldwide demand growth in 2021, while natural gas electricity generation will stay below 2019 levels.

Demand for renewables grew by 3% in 2020 and is set to increase across all key sectors – power, heating, industry and transport – in 2021. The power sector leads the way, with its demand for renewables on course to expand by more than 8%, to reach 8 300 TWh, the largest year-on-year growth on record in absolute terms.

To address this challenging issue and to provide sustainable solutions, a talk series on “**Global Energy Trends: Petroleum vs Other Energy Resources**” is being organized by Chandigarh University on 4th September 2021 through virtual mode.

The talk series would focus on the following questions:

1. Is it possible to keep the global temperature rise below 2 degrees Celsius (°C) technically?
2. Would it be more economically, socially and environmentally beneficial than the path resulting from current plans and policies?

3. Can the global energy transformation create a world that is more prosperous and inclusive?

The speaker of this talk would be **Mr. Ahmad Shammari, Product Champion, PIPESIM steady-state multiphase flow simulator from Schlumberger.**

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