Chart of the Week #28: With High LNG Benchmark Prices, Some Asian Electricity Producers Are Considering Alternative Fuels

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Brent Crude and Australian Coal vs JKM LNG on an Energy Basis

$ per MMbtu

Based on daily prices: 12/31/2019 - 09/17/2021

Analysis Based on EIA and Barchart Data
As JKM – the Key Asian LNG Benchmark – Rises Ahead of Winter, Asian Electricity Generators are Considering Alternative Fuels, Including Crude Oil

• Prices of power generation fuels such as coal and natural gas have surged in Asia during 2021. The Japanese-Korea Marker (JKM) LNG benchmark has increased to an average of $18.70/MMbtu in September from $10.90/MMbtu in January. Similarly, the Australian coal benchmark has increased to $7.30/MMbtu from $3.50/MMbtu.

• By comparison, Brent crude has averaged $12.60/MMbtu in September, approximately 2/3’s that of JKM LNG.

• Japan has approximately 250,000 MWhs of generating capacity. Of this, a significant portion can switch between different fuel sources, in particular coal, LNG, and petroleum. If necessary, up to 38,000 MWhs can be purposed to use crude oil and 17,100 MWhs to use coal.

• Japanese power utilities typically make fuel purchase commitments two months ahead of time in order to have sufficient supplies.

• With prices rising for key power generating fuel sources, especially LNG, alternatives such as coal, fuel oil, and even crude oil have gained appeal because of their lower prices on an energy basis for Japanese electricity producers.

• More background information on tight global energy markets is available in EPRINC's Chart #27 Natural Gas Prices are Signaling Tight Energy Markets Ahead of Winter

• The expanded version of this slide deck is available at: https://eprinc.org/chart-of-the-week/

• For more information on this chart, please contact Max Pyziur (maxp@eprinc.org)
Additional Slides
Japan's Electricity Net Generation by Fuel, 2000-2019

Fukushima nuclear accident: March 11, 2011

- Other renewables
- Hydroelectricity
- Nuclear
- Petroleum and other liquids
- Natural gas
- Coal

Analysis Based on EIA Data