International Energy Agency's Medium-Term Coal Market Report 2011
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On January 11, 2012, the CSIS Energy and National Security Program hosted an event to introduce International Energy Agency's *Medium-Term Coal Market Report 2011*. Guy Caruso, Senior Adviser at the CSIS Energy and National Security Program moderated the event. This is the IEA's first Medium-Term Coal Market Report. Ms. Maria van der Hoeven, the new Executive Director of the IEA, requested that the IEA publish two additional reports: one on coal and one on renewables, in addition to its yearly medium-term report on oil and gas

The coal report, which presents a comprehensive analysis of recent trends in coal demand, supply and trade, as well as an IEA outlook for coal market fundamentals for the coming five years, serves as a reminder of the significant challenges facing efforts to transform the global energy system to one that is sustainable, secure and low-carbon. The report also raises concerns about the global implications of China's massive appetite for coal, noting that events and decisions in China could have an outsized effect on coal prices – and thus electricity prices – around the world over the next five years.

Didier Houssin, Director of Energy Markets and Security at IEA, opened the presentation by noting that the report analyzes market trends, bearing in mind the impact that future uncertainties may have on the medium-term outlook for coal. Such uncertainties include: economic demand and economic activity, especially post- 2009; possible supply shocks, such as the Australian floods; and Chinese growth and its trade policies, especially given China's enormous share in international coal trade. Houssin also mentioned the impact that decarbonization and policies related to climate change could have, though he noted that progress has not been rapid enough to lend much influence.

Mr. Houssin mentioned that coal accounts for nearly half of total energy demand growth, which is almost as high as oil, natural gas, renewables and nuclear combined. Most of this demand comes from emerging countries, with China responsible for half of global demand. According to the IEA's report, world coal demand will continue to grow until 2016. The power sector is the main user of coal, especially in OECD countries. Almost 40% of world power generation comes from coal, and industry is the second largest user, with steel being the main consumer. Most coal production occurs in non-OECD countries and the increase in coal supply concentrates mainly in China.

Mr. Houssin also discussed the economics of the coal market. The cost of mining coal is moderately increasing, due to higher costs for inland transportation, which is especially true in China (from north China to coastal China) and southern parts of Africa. On the other hand, costs at destination have declined due to lower freight costs; implying that coal is still a cheap source of energy. Mr. Hussein also noted that although prices fell substantially before the economic crisis, they have been on the rise since 2009. For example, price for 1 ton of coal in May 2011 was $120, while in May 2009 it was only $60.

Much of this can be attributed to China, who, since 2009, has assumed a price setting role as its demand continues to drive prices.

Laszlo Varro, Head of the Gas, Coal and Power Division at IEA, discussed the economic side of coal and the international coal market. Although coal trade continues to increase, most of the production is consumed locally (as is the case of China). Despite the fact that China has an abundance of coal resources, it is the second largest importer of coal because of infrastructural difficulties such as the limited and expensive inland coal transports from mines in the north to coastal China. Mr. Varro briefly mentioned India, but noted that its future is quite uncertain and therefore difficult to predict.

Mr. Varro noted that China has made some profound changes to its coal mining industry, such as improved safety rules and some environmental policies; however, many uncertainties remain. He introduced two possible scenarios for the Chinese coal market that could impact international coal trade.

- Scenario 1: China increases its production, while reducing its imports.
- Scenario 2: High Chinese imports and low domestic production.

In Scenario 2, the U.S. would most likely become a major supplier as it has unlimited quantities of cheap coal resources. Yet, such predictions remain uncertain. Mr. Varro said that the Chinese coal market can either double or fall by two-thirds, which can cause extreme price volatility and investment risks. He noted several other potential causes of volatility, including uncertainty over international coal importers to China, with the industry not being tied up to any particular buyer. This is mostly due to coal exports dominated by short-contracts. Very high utilization of export infrastructure is another cause for price volatility. Among the big exporters, only the United States and Australia provide markets with significant spare capacity.

Overall, the key points from the IEA's *Medium-Term Coal Market Report 2011* are following:

- Global demand for coal will continue to expand aggressively and make substantial contribution to the global energy mix by 2016;
- Several economic uncertainties will shape global coal supply, demand, investments and trade in this industry;
- Coal demand and trade is projected to grow by 2016, but slower than in the last decade;
- China will continue to dominate global coal consumption and coal trade, with ever-growing influence by India;
- Investments in supply capacity and infrastructure should sufficiently meet increasing demand by 2016; however, delays in projects and climate-related events may tighten the market on occasions.