Launch of the Medium-Term Coal Market Report 2013

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Paris, 16 December 2013

Ladies and gentlemen, it is a pleasure for me to present the IEA’s Medium-Term Coal Market Report 2013.

There is no denying the controversial reality of coal, and its dominance of power generation worldwide. No fuel draws the same ire, particularly for its polluting qualities both locally and in terms of greenhouse gas emissions. And yet no fuel is as responsible for powering the economic growth that has pulled billions out of poverty in the past decades.

As we look to the long term, we must ask what role coal has to play in the energy mix that we want to achieve – because there will be a role.

But without mitigating the polluting effects of coal, pursuing business as usual will have enormous and tragic consequences.

Before turning over the podium to Keisuke Sadamori (whose team produced today’s report), let me underscore three points.

First, like it or not, coal is here to stay for a long time to come.

In 2012, coal consumption in the two largest markets, China and United States, was abnormally weak. In China, significant hydro-power output and slowing economic growth stabilized the demand for coal in the power sector, where most of it is destined. An extremely mild winter in North America, together with the steady increase of shale production, drove US gas prices below $2 per MBtu in April 2012 – and switching dramatically reduced coal’s share in power generation. Indeed, 2012 saw the second largest annual decline of US coal since the IEA’s founding.

But even in this “bad” year in the US and China, coal continued to maintain its substantial share in the energy mix globally, and increased its worldwide share among fossil fuels. Indeed, its growth rate comfortably exceeded that of oil and natural gas in 2012.

Moreover, the factors leading to the slowdown in China and the US are probably temporary – at least in such severity. As gas prices recover in the United States, coal is growing again there. And 2013 saw the renewed acceleration of energy demand and investment in China. As a result, our projections show coal demand to pick up in both countries.

Over the next six years, additional coal production capacity of a half-million tonnes per annum will be added worldwide ... each day. That will be necessary to meet a worldwide demand increase of 2.3% per year on average until 2018.

And while it is true that demand growth is concentrated in non-OECD countries, coal does not decline in the OECD. Despite all the policies in place, our projection show OECD coal demand to remain flat during the outlook period.

The second point relates to the contribution of coal to energy security, and specifically, to electricity security.
Coal is abundant and geopolitically secure, and coal-fired plants are easily integrated into existing power systems.

Modern plants are also flexible, providing affordable, base-load power while backing up variable renewable generation.

If coal-fired plants are well-designed and well-operated, emissions of local pollutants can be minimised.

The ability to switch relatively quickly between coal and gas also reinforces gas security. Extraordinary gas requirements in Korea and Japan are diverted from European LNG imports thanks to European coal capacity.

While gas has substantially reduced coal generation in the US, coal demand still represents double the generation potential of shale-gas production. In Japan, Korea and Taiwan, switching from Australian and Indonesian coal to LNG from the same countries would have increased the import bill by $40 billion in 2012.

And in China, the scale of coal in the economy is simply incomparable to fuels elsewhere. Replacing coal with gas in Chinese power generation would require twice the volume of all global LNG trade. Coal therefore continues to play an important role in economic growth and energy security worldwide.

So that’s my second point.

But ladies and gentlemen, it is important to emphasize that coal in its current form is simply unsustainable. That is my third, and most important point.

Coal-fired heat and power generation is the biggest single source of carbon dioxide emissions resulting from fuel combustion today. More than three-fifths of the rise in global CO₂ emissions since 2000 is due to the burning of coal to produce electricity and heat. And we should not overlook the health problems tied to local pollution produced by coal combustion.

There are solutions to both the issues of local pollution and CO₂ emissions. Underground coal gasification is a form of clean coal technology that mainly addresses the former.

Some major countries have recently announced policies to encourage the construction and use of highly efficient coal power plants ... and to promote carbon capture and storage (CCS). We welcome those efforts as part of the broader push to reduce the environmental impact of coal.

Yet if nothing more than those emissions-reduction policy commitments and pledges announced to date are implemented, we project that the long-term increase in global temperatures will reach 4 degrees Celsius. This would exceed the globally agreed target of limiting the long-term rise in temperatures to 2°C and would lead to a devastating and costly change in climate, the first signs of which we are already seeing today.

Radical action is needed to curb greenhouse gas emissions, yet that radical action is disappointingly absent.

Progress on CCS is effectively stalled, and a meaningful carbon price is missing.
Moreover, even though we’ve known how to build efficient, super-critical coal-fired power plants since the 1960s, most of the coal plants built since then – and a large proportion of the ones being developed today – are of the inefficient, sub-critical kind.

If these sub-critical plants under development in India and in ASEAN states (including Indonesia) were completed with the latest technology, it would save as much CO₂ as will be saved by all the wind turbines in Europe.

When it comes to a sustainable energy profile, we are simply off-track – and coal in its current form is the prime culprit. Yet with coal set to remain an integral part of our energy mix for decades to come, the challenge is to make it cleaner.

With that, let me now turn to Keisuke, the IEA Director for Energy Markets and Security, who will elaborate further on the report.