No Coal, Go Green!

Fact sheet 1: Problems Surrounding Coal-Fired Power Plants

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Electricity and the environment

- **Electricity is vital for our everyday life**

  Electricity has a variety of uses and is essential for our daily lives and industries. However, there are still approximately 1.3 billion people around the world who live without electricity. It is believed that escaping from energy poverty is crucial for developing these areas.

- **Producing electricity – a driver of climate change**

  Electricity is primarily produced by burning fossil fuels like coal, oil or natural gas. However, fossil fuels emit large amounts of CO2 which destroys the balance of the earth's environment and propels climate change.

  Since the Industrial Revolution, average global temperatures have risen by 0.85°C compared with pre-industrial temperatures. It is expected that by 2100, temperatures will rise by 1.15-5.56°C. Such extreme changes in temperatures will bring forth heat waves, melt glaciers, lead to extreme weather events like drought and floods as well as endanger the economic foundation that we depend on for our livelihoods. Those living in poverty will be hit especially hard. In response to these concerns, the United Nations aims to limit increases in global temperatures to below 2°C.

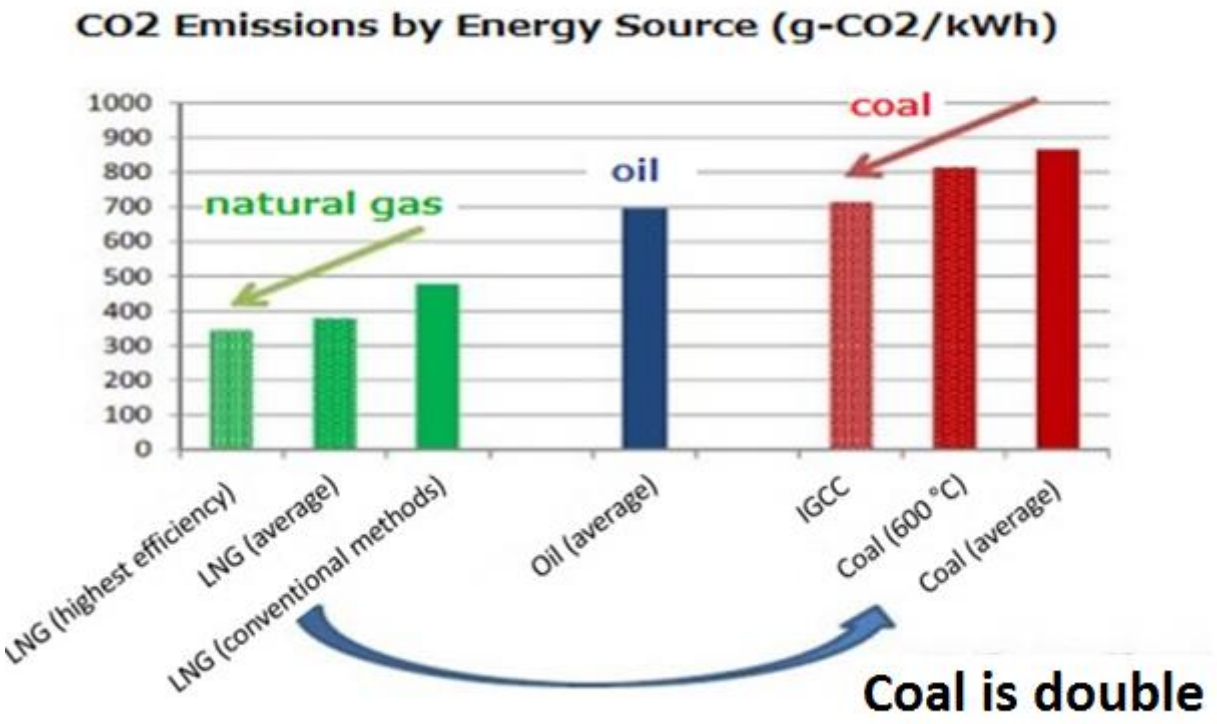
- **Shifting towards earth-friendly, sustainable electricity**

Producing electricity is a major source of CO2 emissions which is why the importance of shifting from fossil fuels to renewable energy sources like wind power or solar power has been widely acknowledged. Additionally, Fukushima's Daiichi Nuclear Power Plant accident has proved that nuclear power is also not a sustainable form of energy. We learned that dangerous radioactive waste has the ability to remain a risk far into the future. It is difficult to say that nuclear energy benefits our livelihoods.

Problems concerning coal-fired thermal energy

- **Even with state-of-the-art technology, coal is dirty**

When burned, oil, coal and natural gas all produce high amounts of CO2, but coal, by far, emits the highest amount of CO2. Currently in Japan, many kinds of technology are being developed to lower emissions for coal-fired power generation. Although these new developments are far better than conventional methods, coal-fired power generation remains the most polluting form of energy. For example, even with integrated gasification combined cycle (IGCC) technology, CO2 emissions are still twice that of natural gas. The only way to reach the 2°C goal is to suppress coal burning which is one of the leading causes of climate change.



Japan advocates coal energy while the rest of the world moves on

- **International trends**

In order to reduce emissions from coal-fired power generation, many countries are introducing new policies that set CO2 emissions standards and introduce make new emissions taxes for coal-fired power generation. Major developed countries such as the US and EU countries expressed that construction of new domestic coal-fired power plant should utilize carbon capture and storage (CCS). In addition, banks in the US, Nordic countries, the EU, etc. are setting policies that stop financing for coal-fired power generation in developing countries.

- **Japan continues to promote coal-fired power generation**

Japan plans to build new coal-fired power plants in Japan even without the utilization of CCS technology to capture CO2 emissions. Japan is also taking the position that coal-fired power plants can help Fukushima's economy recover from the Nuclear accident, which is a big concern as reducing emissions in the future will be very difficult. What's more, Japan is actively exporting coal-fired power generation technology as part of Japan's economic growth strategies. Through this policy, the Japan Bank for International Cooperation (JBIC) has been able to remain the biggest financer of coal-fired power plants in the world (see Fact sheet 2). Some of the projects that JBIC supports disregard environmental and social considerations, even infringing upon the rights of locals (see Fact sheet 3).

- **Policy change in Japan is needed to protect the environment**

Even as the negative impact of coal-fired power generations become clear, Japan continues to finance coal-fired power plants around the world. If this continues, the problem of a decentralized global and local environment will only get worse. Japan, and JBIC, must change their policies from intensive, large-scale coal or nuclear power generation to renewable energy. It is important that Japan supports developing countries from this point onward.