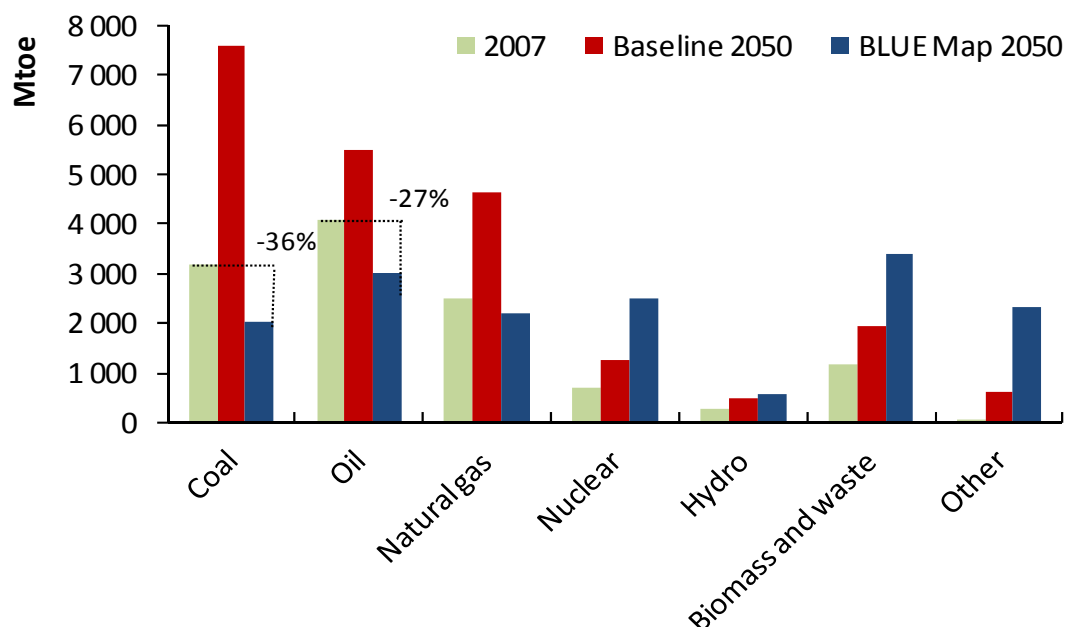




## Bridging the Gap

The decades to come will see an increasing focus on limiting the environmental impact of worldwide energy demand growth by reducing carbon dioxide (CO<sub>2</sub>) emissions. The International Energy Agency (IEA) has estimated that more than \$45 trillion in investment will be required to produce the halving of global CO<sub>2</sub> emissions by 2050 called for by some world leaders. While there have been early signs of progress in this proposed “decarbonization” of the global economy, the pace of expected growth dictates that oil and gas will continue to play an integral role in meeting the world’s energy demand, even as renewable alternatives are developed. These and other themes were discussed earlier this week at the Japan Society, where head of Poten & Partners’ Tanker Department activities, Jeffrey Goetz, moderated a presentation by IEA Executive Director, Nobuo Tanaka.

Mr. Tanaka was appearing at the Japan Society to relay the findings of the IEA’s *Energy Technology Perspectives* report, which contains scenarios for the future development of energy demand and carbon emissions. Released earlier this summer, the report presents a baseline scenario in which energy demand and policy continue along their current path and a BLUE Map scenario which envisions a step-change reduction in CO<sub>2</sub> emissions. These scenarios are not forecasts, but rather an attempt to illustrate changes necessary to meet proposed emissions reduction targets, as summarized in the chart below.

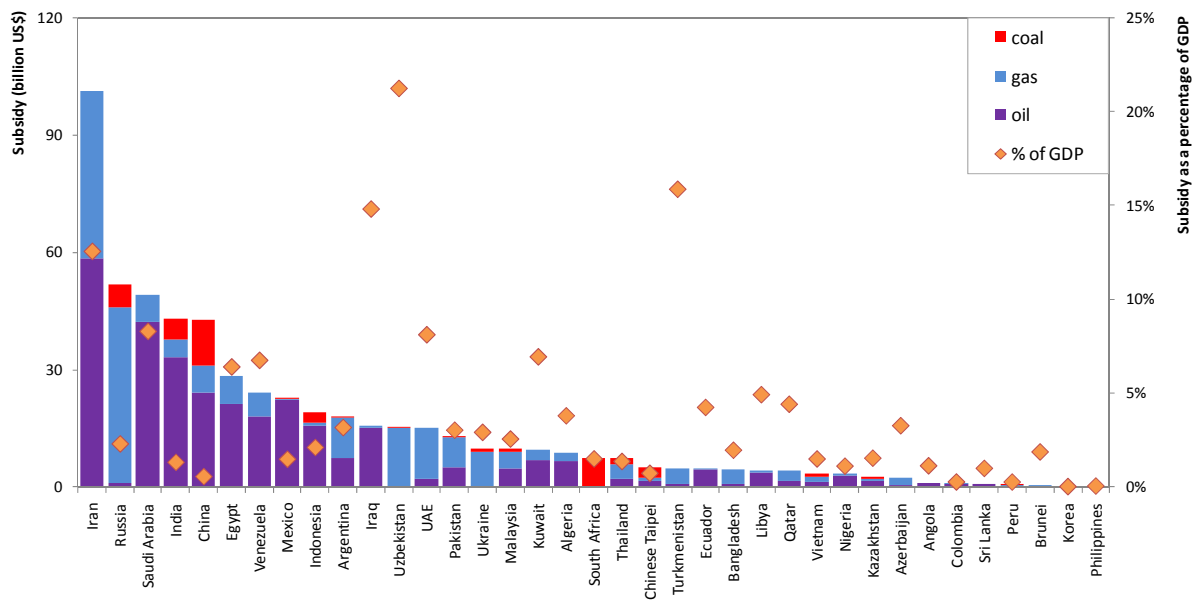


Source: International Energy Agency

## The Practical & the Political

According to Executive Director Tanaka, bringing about the changes envisioned in the BLUE Map scenario will be challenging due to the significant lifestyle changes required of consumers and need for close international cooperation. Specifically, he said meeting the BLUE Map scenario's ambitious goals would require heavy investment in nuclear power plants, renewable power generation and especially carbon capture and storage (CCS) projects around the world. Mr. Tanaka stressed that while a doubling of government support for research and development would be necessary to help foster these renewable energy technologies, public support will have to be supplemented with private investment.

On the policy front, Mr. Tanaka called on governments to curb subsidies for fossil fuels, which he said can send consumers the wrong signal about consumption and lead to increased emissions. Such subsidies amounted to more than \$550 billion in 2008, and were highest among some of the developing world's biggest consumers, including China and India, as shown in the chart below.



Source: International Energy Agency

Drawing upon his experience in Japan following the 1970s oil shocks, Mr. Tanaka highlighted efficiency as the most important resource currently available to slow the expected growth in emissions. He cited the example of Japan's economic transformation in response to the challenges and opportunities presented by the need to reduce dependence on imported oil during the 1970s. This experience gave Mr. Tanaka hope that there are significant business opportunities within similar efforts currently underway in China and elsewhere around the world.

Tanker owners and charterers have long been encouraged by basic shipping economics to embrace efficiency by following the most direct routes and employing the largest vessels possible. These practices have been motivated by the desire to reduce costs, but as attempts to limit bunker fuel consumption have expanded to include slow steaming and virtual arrival procedures by some companies, they have had the added benefit of reducing emissions. The *Energy Technology Perspectives* report itself acknowledges that options for reducing CO2 emissions from marine transport are limited. It suggests that advanced biofuels and numerous efficiency options the organization has identified for shipping offer the best hope for future emissions reduction.

The Executive Director's speech made clear that development of all available hydrocarbons will be necessary for the foreseeable future, even as the contribution of renewable energy sources rises. Such discussion of the world's long-term energy challenges provides important context for proposals to regulate marine emissions of greenhouse gases while also reminding that tankers will continue to play a critical role in meeting the world's energy requirements throughout the years to come.

*Poten Tanker Market Opinions are published by the Marine Projects & Consulting department at Poten & Partners. For feedback on this opinion or to receive this via email every week please send an email to [tankerresearch@poten.com](mailto:tankerresearch@poten.com). For information on the services and research products offered by our Marine Projects & Consulting department or to contact our tanker brokers please visit our website at [www.poten.com](http://www.poten.com).*