WHO KNEW?*

TSINGHUA - MIT CHINA ENERGY & CLIMATE PROJECT

Multi-disciplinary research effort assesses new tools for climate management

Multiple forecasts suggest that rapidly developing nations such as China will be responsible for most of the growth in greenhouse gas (GHG) emissions over the next 50 years. This expectation is the driving force behind the formation of a project launched in October 2011 involving researchers from MIT and China, known as the China Energy and Climate Project (CECP).

The CECP is an alliance between the MIT Joint Program on the Science and Policy of Global Change and the Institute for Energy, Environment and Economy at Tsinghua University in Beijing, China. At MIT, the CECP is associated with and supported by the MIT Energy Initiative. The goal of the CECP is to analyze the impact of existing and proposed energy and climate policies in China on technology, energy use, the environment and economic welfare by applying — and, where necessary, developing — both quantitative and qualitative analysis tools.

MITei MIT Energy Initiative

The development and application of such new tools include both national and regional energy-economic models of China. Growing out of the MIT Joint Program's Emissions Prediction and Policy Analysis model, these new tools are informed by three major components: First, researchers study the behaviors and trends that drive micro-level decisions made by households and firms to better understand supply and demand within energy-intensive sectors. Second, the researchers analyze specific technology prospects, including electric vehicles, advanced fuels and alternative sources of electricity, to determine China's technology potential. Finally, current and proposed climate and energy policies in China are evaluated for environmental and economic impact. These evaluations are conducted primarily through the use of the models developed for the project, based on similar methods employed in the MIT Joint Program over the last 20 years.

In June 2015, researchers from this initiative used their China-in-Global Energy Model (C-GEM) to assess approaches for meeting China's 2030 GHG targets. Researchers noted that to meet its new 2030 targets, China will need to take aggressive steps, including introducing a nationwide price on carbon emissions as well as preparing for the safe and efficient deployment of nuclear and renewable energy at large scale.

http://globalchange.mit.edu/CECP/news/latest/news_id/472

***A regularly featured column on industry, university and government initiatives in support of clean coal technology development & commercialization.**