

## Can we keep the door to 2°C open?

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Energy efficiency can be the "game changer" to mitigate climate change and reduce carbon emissions, agreed expert panellists discussing the social and environmental impact of climate change at the Singapore Energy Summit on Monday.

Nicholas Fang, Director of the Singapore Institute of International Affairs (SIIA), moderated the session, titled "Keeping the Door to 2°C Open". He highlighted the urgency of the issue by pointing out the need for a new climate agreement as the Kyoto Protocol expires this year.

Toshihiko Fujii, Deputy Director General of the Global Energy Policy Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry (METI), Japan, highlighted Japan's experience in the context of energy solutions to climate change. His view was that energy conservation and renewable energy are the keys to keeping the door to 2°C open – but that this required setting specific targets for conservation and adopting renewables.

In this context, Dr Fujii cited Japan's post-Fukushima energy plan, explaining that Japan has set targets to triple power generation from renewable sources for its 2010 levels to 300 billion kWh by 2030. Of this, hydro power will account for 110 billion kWh. He said renewable energy capacity, excluding hydro power, is set to rise to 108,000MW by 2030, from 9,000MW in 2010.

"There needs to be continued improvement of existing feed-in-tariffs for renewable energy, but there also must be regulatory reform to introduce new energy technologies", said Dr Fujii. He explained that as renewable energy resources such as geothermal can be found within protected natural areas, regulatory changes are required for these resources to be tapped. This means that discussion among stakeholders is vital.

Dr Nawal Al Hosany, Director of Sustainability, Masdar, highlighted the need to find new sources of energy and said it was significant to see Middle East looking at unconventional sources of energy and renewables. She reasoned that there is a clear need to invest in a clean energy future so as to keep the door to 2°C open. She said the United Arab Emirates (UAE) has targeted 7 percent of electricity to be generated from renewable sources by 2020. Dubai has set a 5 percent target within the same time frame.

Yoshiyuki Miyabe, Managing Director and Member of the Board, Panasonic Corporation, emphasised that energy initiatives are needed throughout the residential, commercial and industrial sectors. Energy efficient appliances could be adopted to address the increasing trend of energy consumption in residential and commercial sectors.

Amidst the many proposals and rationales put forward for "keeping the door open", there were expressions of concern about whether this was still achievable. Hon. Eileen Claussen, President of the Center for Climate and Energy Solutions, was of the view that "while governments have adapted to the 2°C trajectory, I am a realist. Chances are slim, but that doesn't mean we should stop".

A sensible way forward, she added, would be to change the ways in which we generate and use energy. Renewables, natural gas, coal with carbon capture and storage (CCS) are the means to move towards a low carbon society, she said, also emphasizing the need to improve energy efficiency.

Jose Maria Figueres, President of the Carbon War Room and Former President of Costa Rica, was concerned that the door to 2°C has already closed. He asserts that 2°C is "no more a possibility under our present way of conducting our sales". Citing the population in Bangladesh that will be displaced by floods and rising sea levels, Figueres said future climate change dialogue would also need to be anchored on values. For example, should countries accept climate refugees?

A major step in the fight against climate change requires partnership among governments, private sector and people, said Claussen. She observed that companies are leading the fight instead of governments. Collaboration between companies and individuals could kick-start governmental action, she suggested.

Taking a leaf from the banning of CFCs through the Montreal Protocol, Figueres was hopeful that stakeholders can take concerted action to fight climate change. He pointed out that shale gas is not a climate change panacea and additional measures are necessary.

Dr Al Hosany reasoned that widespread adoption of renewable energy will be dependent on economic conditions in each country. In spite of the challenges, she predicted a general shift to renewable energy.

