

# NTS ALERT

## Climate Change Negotiations: The Road to Copenhagen

*The year 2009 marks a new era of change. One would immediately associate it with the Obama administration and its promises for change, such as the US policies in addressing climate change. A shift has also been observed in mindset of participants at the recent 2009 Annual Meeting of the World Economic Forum (WEF) in Davos. Contrary to the perception that the current economic financial crisis would impede efforts to address climate change, participants at Davos were determined to turn the tables and create opportunities in the environment and energy sector amidst the financial downturn. This edition of NTS Alert examines the initiatives and proposals made by the United States and participants of the WEF in setting the stage for deliberations during the UNFCCC meeting in Copenhagen in November 2009.*

### Mapping out targets for Copenhagen

The United Nations Framework Convention on Climate Change (UNFCCC) meeting in Poznan in December 2008 marked a start of a series of meetings at official level to increase the pace of negotiations in establishing a post-2012 framework on climate change. A draft negotiating text for Copenhagen should be made ready by June 2009. Looking at the ambitious goals that countries are aiming in Copenhagen, there are several key elements worth noting.

First, is having a shared vision on climate change. A shared vision needs be obtained by formally agreeing to a goal in addressing global warming. For example agreeing to a maximum temperature rise (such as two degrees Celcius), a specific level of concentration of carbon dioxide in the atmosphere, or a vaguer target such as the G8 target to halve global emissions by 2050;

Second, is the issue of mitigation. This would involve determining individual states' targets in reducing carbon emissions. It is expected that the targets are set for short to medium term, commensurate with the IPCC range at the high end of the 25 to 40 percent by 2020 compared to 1990. It would be applied to both developed and developing countries with the principle of common but differentiated responsibilities;

Third, is the issue of adaptation. The developing countries need assistance to cope with the impacts of climate change such as floods, diseases and droughts;

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Fourth, is the development and availability of climate friendly technology. Developed countries should be committed to invest in developing such type of technology. Nevertheless, developing countries should also have access to affordable clean technology to reduce emissions;

Fifth, is the issue of financing the adaptation and mitigation. The developed countries should provide and manage the funds for the developing countries;

Sixth, is the commitment to decrease

deforestation that had caused about a fifth of global greenhouse gas emissions. Incentives need to be generated for developing countries to preserve their tropical forests;

Seventh, is the issue of carbon trading and offsets. There should be an agreement on how systems such as the UN clean development mechanism and the European emissions trading scheme set up under the Kyoto Protocol can be strengthened and expanded for the succeeding climate regime.

### **Parallel to Poznan: European Union meeting in Brussels**

A two-day EU climate summit in Brussels was held in conjunction with the final days of the Poznan meeting on 11 to 12 December 2008. The meeting in Brussels was aimed at finalising EU's unilateral commitment on its climate and energy package. This EU climate and energy package was planned to become law in early 2009. The summit has retained the 20-20-20 target. The summit agreed to a 20 percent increase in use of renewable energy by 2020, 20 percent cut in energy consumption through improved energy efficiency by 2020 and a 20 percent cut in greenhouse gas emissions by 2020, compared with 1990 level. Such cut in greenhouse gas emissions was argued to be less ideal compared to the required reduction level of 25 to 40 percent by 2020 stated by the IPCC.

Due to the global recession, the summit responded to the pressures from Germany, Italy, Poland, BusinessEurope – an umbrella group for multinational companies – and a number of other eastern European countries to give the industrial sector, especially manufacturing, exemptions from paying for their emissions of greenhouse gases. This was a change to the previous agreements whereby all EU firms would have to buy all of their carbon emission permits from 2013 onwards. Fewer Europe industrial firms would have to pay for their emissions at the agreed year. It was being pushed back in order to ease the burden for struggling economies in Central and Eastern Europe. This also meant that the actual domestic cuts could be as little as four percent.

The summit resulted in an agreement called the Brussels plan. The agreement asserted that two-thirds of emissions can be “offset”. Carbon offsetting is the practice whereby enterprises in the EU get carbon credits by sponsoring green projects in developing countries. The projects have to comply with the mechanisms set up by the Kyoto Protocol. However, some critics viewed this as a mechanism that allows polluters to pay others to reduce emissions on their behalf. Carbon offsetting made it possible for carbon emitters to claim that they have done their environmental duty. It was worried that this mechanism would create a condition where developing countries doing the work while the developed ones do not change their behaviour.

Furthermore, the Brussels plan showed that applying free market mechanism may caused governments to grant concessions to the worst polluters. Al Gore described the EU effort in Brussels this week to reach a compromise between environmental and economic priorities as a “struggle between hope and fear”

#### **Source**

Anup Shah, COP14—Poznań Climate Conference, *Global Issues*, 1 Jan 2009, <http://www.globalissues.org/article/771/cop14-poznan-climate-conference>.

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In summary Yvo de Boer, the Executive Secretary of the UNFCCC argued that agreements on commitments, institutions and funds are the three key elements to set a new agreement in Copenhagen. Moreover, he also added that engaging developing countries in this course of negotiation is imperative.

### *Time for Change in the US Climate Change Policies*

In Poznan, there was no new consensus on the key issue of carbon reduction targets as states were waiting for a shift in the US climate change policy under the Obama administration. Officials in Poznan said that discussion over new targets of carbon reduction would be postponed until the next G8 summit in July 2009 at La Maddalena Island, Sardegna, Italy. As one of the world's major carbon emitters, the US is expected to take a leading role in the new global climate change agreement succeeding the Kyoto Protocol. Greater role of the US is needed so that China and India, as major carbon emitters from the developing world could follow suit. Immense hope has been placed on the US in playing a more vigorous role in climate change, as was promised by Barack Obama during his campaign in the lead up to the elections in the US.

Fortunately, these hopes have begun to materialise. Barack Obama's team asserted that the US would have a "vigorous engagement" at the negotiations in Copenhagen and will reduce emissions sharply by 2020. He further said that the US would invest \$150 billion in new energy-saving technologies. In a Senate hearing, Steven Chu, Obama's designated Secretary of Energy, stated that Obama's plan for emission reductions includes a greater commitment to renewable energies, promotion of energy efficiency, as well as a cap-and-trade system for greenhouse gases, and continued development of nuclear power.

The Obama Administration has also ensured that its environmental policies would run in tandem with other concerns such as addressing the financial crisis. In light of this, job creation within the clean technology sector is one area that would be given emphasis in the US's energy

plan. He further stated that the plan would make the US ready for "a better energy and environmental future" and restore US leadership in green energy technology. On a similar note, prior to her appointment as Obama's Secretary of State, Hillary Clinton said in a keynote speech to the Senate that America would lead both at home and abroad on climate issues, by participating in the UN climate conference to develop a coordinated international response and by pursuing a low-carbon energy policy.

Prior to his inauguration, as the president-elect, Barack Obama chose to address climate change as his second major policy area. During the first 100 days of his presidency, climate change was promptly discussed along with the issue of energy security. Among other dramatic executive orders, the decision concerns national car emissions was signed. Despite the concern over the financial crisis and the struggle of US auto industry, Obama had asked the Environmental Protection Agency to review its earlier decision to block California and a number of other US states from setting their own auto emissions standards. California and at least 13 other states had wanted to pursue a more stringent auto emission standards as part of the effort to tackle climate change. However, the Bush administration was keen to retain a single national standard for cars made in the US because implementing a national fuel-efficiency strategy was argued to be better. In addition to the moves on emissions standards, Obama was expected to order the Transportation Department to enact short-term rules on how automakers can improve fuel efficiency of their new models based on a 2007 law.

Presently, the Obama administration is struggling with the issue of domestic regulation for carbon reduction. The new administration is being pushed to take ambitious moves and set tough goals by the international community. In preparation to formulate the US international climate change policy, Todd Stern who participated in the Kyoto Protocol negotiations on climate change (1997-1999), was appointed to be Obama administration's principal advisor on international climate policy and strategy as well as its chief climate negotiator.





Obama reaffirmed that his government would set strong annual targets that would place the US on a course to reduce emissions to their 1990 levels by 2020 and cut them by a further 80 percent by

**An Overview of the Obama-Biden Energy Plan**

***Provide Short-term Relief to American Families***

- Crack Down on Excessive Energy Speculation.
- Swap Oil from the Strategic Petroleum Reserve to Cut Prices.

***Eliminate Current Imports from the Middle East and Venezuela within 10 Years***

- Increase Fuel Economy Standards.
- Get 1 Million Plug-In Hybrid Cars on the Road by 2015.
- Create a New \$7,000 Tax Credit for Purchasing Advanced Vehicles.
- Establish a National Low Carbon Fuel Standard.
- A "Use it or Lose It" Approach to Existing Oil and Gas Leases.
- Promote the Responsible Domestic Production of Oil and Natural Gas.

***Create Millions of New Green Jobs***

- Ensure 10 percent of the US Electricity Comes from Renewable Sources by 2012, and 25 percent by 2025.
- Deploy the Cheapest, Cleanest, Fastest Energy Source – Energy Efficiency.
- Weatherise One Million Homes Annually.
- Develop and Deploy Clean Coal Technology.
- Prioritise the Construction of the Alaska Natural Gas Pipeline.

***Reduce our Greenhouse Gas Emissions 80 Percent by 2050***

- Implement an economy-wide cap-and-trade program to reduce greenhouse gas emissions 80 percent by 2050.
- Make the US a Leader on Climate Change.

Source: Energy Agenda, The White House, [www.whitehouse.gov](http://www.whitehouse.gov)

2050. As a comparison, under the Kyoto Protocol, 37 developed nations have agreed to cut emissions by five percent below 1990 levels by 2008-2012. Obama's environmental target was considered as a progress on the US climate change policy compared to that of the Bush administration. Nevertheless, Dr. Rajendra Pachauri, Chairman of the Intergovernmental Panel on Climate Change (IPCC) argued that this goal still fell short of the response needed to reduce emissions to levels that will avoid the worst effects of climate change. A number of developing countries also argued similarly.

Furthermore, despite the enthusiasm over a more active role of the US in climate issues, there was concern that the lengthy process in the US Congress would delay the US in bringing any commitment to the table in Copenhagen in late 2009. The target to cut the country's emissions down to the level of 1990 by the year 2020 by the President would only take effect after the Congress approves it, of which the process usually lasts a year. As such, it may threaten a new deal that needs to be agreed on to succeed the first expiry period of the Kyoto Protocol in 2012.

Nevertheless, change has taken place amongst US policymakers, and thus heralds a milestone for international climate change negotiations.

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### **Developments at Davos**

While solutions to the current financial crisis were an intensely debated topic at the 2009 Annual Meeting of the World Economic Forum in Davos, it was also recognised that it was vital to integrate environmental concerns into proposed measures.

In a statement by the members of the Global Agenda Council (GAC) on Climate Change, it was said that to "shape an opportunity out of [the current] economic crisis" is vital for the international community. The statement also noted that contributing a significant portion of fiscal stimulus for the economic downturn to laying the foundation for the long-term worldwide low-carbon economy, would ultimately assist in warding off the risk of much larger environmental impacts in the future.

Such efforts are already underway in the US under the new Obama-Biden leadership given their comprehensive energy plan that seeks to streamline economic and environmental concerns (see section on the Obama-Biden Energy Plan). Moreover, the US House of Representatives had recently passed a US\$ 820 billion stimulus package that includes spending on energy-efficient projects.

Participants at Davos also expressed confidence to an increasingly proactive role of the US on climate change. Speaking during the session on Rising to the Challenge of Copenhagen at the 2009 World Economic Forum in Davos, Nobel Laureate and former US-Vice President Al Gore referred to President Barack Obama as being "the greenest person in the room [White House]. He is pushing hard for a dramatic and bold move in the right direction.' Such a move would therefore be an encouraging sign of change for other governments to follow suit in ensuring a low-carbon future.

Discussions at Davos also highlighted the need for extensive multi-stakeholders collaboration among international business, civil society along with environmental economists as well as trade and climate experts working with governments. This public-private sector collaboration would play a valuable role in synchronising climate and economic agendas. Moreover, synchronising the long-term post-2012 international climate change agreement with various short-term plans for economic recovery could mutually reinforce each other.

***"The policies we need to overcome financial crises are the same to combat climate change. We need green sustainable growth. Green efficiency is sound economics."***

**- Anders Fogh Rasmussen,  
Prime Minister of Denmark**

In further strengthening efforts in adopting clean technology, the WEF – in collaboration with New Energy Finance – released a report entitled Green Investing: Towards a Clean Energy Infrastructure. The report outlined the scale of the investments needed to develop a clean energy infrastructure and move to towards a low-carbon economy. It noted that at least US\$ 515 billion per annum would need to be invested in clean energy between now and 2030, to prevent carbon emissions from reaching a level deemed unsustainable by scientists –causing temperatures to rise by two degrees globally.

The report also noted eight emerging, large-scale clean energy sectors that would significantly contribute to clean energy infrastructure in the future. These sectors are onshore wind, offshore wind, solar photovoltaic, solar thermal electricity generation, municipal solar waste-to-energy, sugar-based ethanol, cellulosic and next generation biofuels, and geothermal power.

Prior to the advent of the financial crisis, clean energy investments increased from around US\$ 30 billion in 2004 to over US\$ 140 billion by 2008. The report also noted that investments in 2008 exceeded expectations at US\$ 155 billion (according to the report's projections for 2008,





US\$ 142 billion would be invested by year-end). It was also encouraging to note that investments in clean energy has also increased in developing countries from attracting only 13 percent (US\$ 1.8 billion) of asset financing in 2004 to 23 percent (US\$ 26 billion) in 2007. Such positive results reflect a great deal of potential in expanding clean technologies in the developing world.

The report also noted four key enablers for a shift to clean energy namely energy efficiency, smart grids, energy storage, and carbon capture and storage.

### ***Energy efficiency***

Energy efficiency would make a significant contribution towards closing the gap between energy demand and supply. Improving the efficiency of the world's energy infrastructure, both on the supply and demand side could even produce returns above the cost of capital of any major business. Nevertheless, there is a need to be aware of the barriers that may impede investments in energy efficiency technologies. These include a general lack of consumer education, fuel subsidies that encourage (or at best fail to discourage) inefficient energy use, and an asymmetry of benefit that leaves landlords and tenants resistant to energy efficiency because they believe that the other side stands to gain more. Greater awareness is therefore needed amongst consumers and investors. Policies must also be sustained over the long term, thereby ensuring that changes in political regime will not hamper the efforts towards a low-carbon future.

### ***Smart Grids***

It is also important to streamline power generated from what will be a much more diverse range of sources. Effectively putting this into action would require substantial investment in electricity networks around the world. Electricity grids would also have to cope with decentralised, fluctuating supply and deliver an expanded range of services to help with demand-side energy management. Given these challenges, the report suggested that "smart grid" technology will allow intermittent power from renewable sources such

as wind and solar, as well as distributed generation, to be integrated into the grid alongside baseload power from conventional sources and nuclear energy. Sophisticated software to manage (and ideally match) electricity supply and demand in the most efficient way possible will ensure that power is delivered where and when it is needed. At the consumer level, metering technologies can be used to monitor energy use in homes and offices, or individual energy using devices. Such metering data can thereby provide incentives to owners to cut down on energy use, while a the public service provider can use the information to help optimise their energy use.

### ***Power Storage***

Power storage facilities and mechanisms are an increasing need given the concerns related to powering hybrid and electric vehicles, smoothing out fluctuations in supply and demand, balancing intermittent renewables and extending appliance functionality. All application areas will provide investment opportunities in the coming years as the need for low cost, lightweight, high energy density technologies intensifies.

### ***Carbon Capture and Storage (CCS)***

As seen in several UNFCCC deliberations, CCS has been cited as a major solution to mitigating climate change. It involves removing carbon emissions from processes that utilise fossil fuels for power or industrial applications, then trapping it in subsurface geologic formations or using the gas for other purposes. The potential for CCS is enormous given its significance in the concept of clean coal and the fact that coal-fired power generation accounts for 41 percent of global emissions. However, CCS still faces difficulties in gaining widespread use due to technical issues, but mostly because of insufficient legislative incentives, incomplete regulatory frameworks, and lack of public acceptance.

Nevertheless, the current push in CCS research and development is two fold, namely implementing demonstration projects and improving CO<sub>2</sub> capture techniques. To increase CCS's viability as a widespread commercial

option, the entire process from capture to storage and monitoring must be demonstrated on a utility scale. While this has not yet happened, small scale projects are currently underway, with several large-scale projects being planned with a total value of over US\$ 53billion. Moreover, costs – which is a major obstacle to the construction of large-scale demonstrations – is expected to decrease by more than half the current price (down to US\$ 30-60 per tonne CO<sub>2</sub>) as capture technology improves. These demonstration projects will also serve to provide information necessary to establish effective regulatory frameworks.

As such, deliberations at Davos have therefore provided some sense of optimism amidst concerns that the global financial downturn would impede efforts to address climate change. The challenge at the UNFCCC meeting in Copenhagen in November 2009, will nevertheless be to synchronise these concerns with that of member states. Nevertheless, in the mean time, greater public-private collaboration – especially amongst participants of the WEF – can be forged and thereby will increase the momentum and viability of such negotiations and concrete action.

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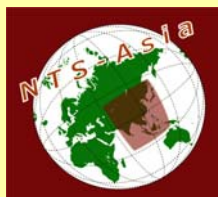
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