



Electric Utilities
Environmental Conference
Phoenix, Arizona
February 1-3, 2010

COP-15 in Copenhagen: Hope or Hindrance for U.S. Action



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February 2, 2010

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What Was COP-15?

- The 15th Conference of the Parties to the UN Framework Convention on Climate Change held December 7-18, 2009 in Copenhagen.
 - Delegates from 193 countries,
 - Over 100 world leaders.
- Its goal was to reach an agreement that would replace the Kyoto Protocol after 2012.
 - The Kyoto Protocol was adopted in Kyoto, Japan in December 1997.
 - It was ratified by 184 nations (but not by the U.S.) and entered into force on February 16, 2005.
- Although progress was made, a legally binding successor agreement was not reached.





What Did COP-15 Accomplish?

Did Copenhagen Develop a Roadmap or
Create a Roadblock?

Key Issues: Pre-COP-15

- “How much are the industrialized countries willing to reduce their emissions of greenhouse gases (GHG)?
- How much are major developing countries, such as China and India, willing to do to limit the growth of their emissions?
- How is the help needed by developing countries to engage in reducing their emissions and adapting to the impacts of climate change going to be financed?
- How is that money going to be managed?”*

*Yvo de Boer, executive secretary of the United Nations Framework Convention on Climate Change (UNFCCC).



Major Elements of the Copenhagen Accord*

- Cut global emissions to
 - limit global temperature rise to below 2° Celsius,
 - reach peak GHG emissions ASAP, and
 - then reduce emissions rapidly, recognizing that “social and economic development and poverty eradication are the first and overriding priorities of developing countries.”
- Provide adequate, predictable and sustainable financial resources, technology and capacity-building to support the implementation of adaptation actions in developing countries.
- Commit to “quantified economy-wide emission targets for 2020,” submitted by developed countries (Annex I Parties) by 31 January 2010. These commitments will be listed in Appendix I of the Accord.



* Three pages, 12 paragraphs and two Appendixes; brokered by heads-of-state with a key role played by President Obama.

Major Elements of the Copenhagen Accord^{cont'd}

- Measure, report and verify developed country reductions and financing, so accounting for emissions targets & funding is rigorous, robust and transparent.
- Help developing countries implement “nationally appropriate mitigation actions...subject to international measurement, reporting and verification.” (MiRV)
Mitigation actions are to be submitted by January 31, 2010 and will be listed in Appendix II.
- Reduce emissions from deforestation and forest degradation via a new mechanism, including the REDD-plus program.
- “Pursue various approaches, including opportunities to use markets to promote mitigation actions.”









Major Elements of the Copenhagen Accord^{cont'd}

- Establish the Copenhagen Green Climate Fund to support projects, programmes, policies and other activities in developing countries.
- Commit “30 billion [dollars] for the period 2010-2012 with balanced allocation between adaptation and mitigation,” followed by the goal of 100 billion dollars per year by 2020 for developing countries.
 - \$3.6 billion from the U.S. pledged for 2010-12.
- Establish a Technology Mechanism to accelerate technology development and transfer based on national circumstances and priorities.
- Assess this Accord by 2015, and consider measures to limit temperature rises to 1.5^o Celsius.









Reductions Pledged by January 31, 2010

	Country	Reduction by 2020	Base Year	On 1990 Scale (+/-) CO2	Share of World's Total GHGs	Emissions per capita (tCO2eq)
	Australia	5 to 25% of tonnes	2000	-3.89% to 24.1%	1.30%	27.4
	Brazil	36-38.9% <BAU	N/A	+6.4 to +1.7%	6.6%	15.3
	Canada	17%	2005	+0.25%	1.86%	24.9
	China	40 to 45%	N/A	GDP Intensity	16.64%	5.5
	European Union	20% / 30%	1990	-20% / -30%	11.69%	10.3
	India	20% to 25%	2005	GDP Intensity	4.32%	1.7



Reductions Pledged by January 31, 2010

	Country	Reduction by 2020	Base Year	On 1990 Scale (+/-) CO2	Share of World's Total GHGs	Emissions per capita (tCO2eq)
	Japan	25%	1990	-25%	3.14%	10.6
	Marshall Islands	40%	2009	-	-	-
	Norway	30 to 40%	1990	30 to 40%	0.12%	11.2
	South Africa	34% <BAU	N/A	+48.2%	0.98%	9.0
	United States	17% of tonnes	2005	-3.67%	15.78%	23.1
	Cuba	Declined to join	N/A	N/A	0.09%	3.6



Perspectives on COP-15

- Denmark's logistics left many out in the cold with mixed results.
 - Thousands of delegates waited for hours outside in freezing weather. Even high-ranking officials couldn't get inside.
 - Over 200 side events provided puffery and political grandstanding, as well as serious discourse.
 - COP administrative processes were poorly managed.
- The U.S. and China pushed through a compromise via President Obama's shuttle diplomacy with a wide range of leaders.
- Divisions and disputes between rich and poor, developing and emerging nations, and developed and less-developed countries were acknowledged, but not resolved.



Perspectives on COP-15^{cont'd}

- Although many were disappointed that a binding post-Kyoto agreement was not reached, today's situation enables the U.S. to assume a leadership position by crafting our own mechanisms for GHG reduction and helping to draft a binding post-Kyoto agreement that is acceptable to Congress.
 - The U.S. must take a leadership role, if global reductions and global markets are to succeed.
 - National climate change legislation is more likely, if we are able to determine our own GHG targets and agree upon appropriate market and regulatory mechanisms, before a post-Kyoto international agreement is reached.
 - Nevertheless, any workable methods must be global in context, involve China as well as Europe, and build upon existing cap-and-trade experience and markets.



Perspectives on COP-15^{cont'd}

- COP-15 was a first for participation by heads-of-state.
- Future bilateral and multi-lateral negotiations will become increasingly important. Key players are:
 - U.S., China, Brazil, India and South Africa,
 - The R20 Group convened by California's governor, Arnold Schwarzenegger,
 - Nations with affected industries that want certainty, and
 - Nations with axes to grind: Cuba, Nicaragua, Sudan & Venezuela.
- Europe's EU ETS becomes the de-facto post-Kyoto global carbon trading mechanism via the Clean Development Mechanism (CDM).
- CDM reforms of governance, methods and additionality includes developing broadly applicable "standardized baselines" with a high level of environmental integrity, taking into account specific national circumstances.



Perspectives on COP-15^{cont'd}

- Monitoring, reporting and verification is a central part of the Copenhagen Accord, but there were only 28 signatories to the Accord.
- It is the first time China and India have agreed to GHG targets and will accept verification and transparency requirements.
- Serious funding commitments have been made.
- Consensus was reached on a science-based goal to limit global temperature rise to 2° C with future consideration of 1.5° C.
- REDD-plus is a sector-based program focusing on forests. Other sector-based programs could follow, preceding or complementing economy-wide actions.



Future U.N. COP Sessions

- An interim meeting in Bonn, Germany in June 2010, to prepare for COP-16,
- COP-16 in Cancun, Mexico from 29 November 2010 to 10 December 2010,
- COP-17 in South Africa from 28 November to 9 December 2011,
- COP-18 in Asia, to be determined.





Associated Press

Perspectives on China & the U.S.

Corresponding Goals Will Encourage
Bilateral Agreements.



Associated Press

Perspectives on China & the U.S.

- For both of the world's largest GHG emitters, maintaining "Sovereignty," achieving "Economic Growth" and promoting "Sustainability" are overarching objectives.
- China's 5-year economic plan includes climate change.
 - Each province must meet an economic growth goal and a GHG reduction goal (2011-2015).
 - These efforts are independent of international agreements.
- In the U.S. RGGI in the Northeast and AB 32 in California have the force of law and are proceeding. The Western Climate Initiative and the Midwestern Greenhouse Gas Accord are continuing, but may not persist in the absence of legislation.



Perspectives on China & the U.S. ^{cont'd}

- China is taking the lead in Clean-Tech industries, while the U.S. waits to commit.
- China's intensity targets (tonnes per unit of GDP) could be complemented by technology and fuel-differentiated emission performance standards (tonnes per MMBtu input or tonnes per unit output) for its industries.
- The U.S. could help China define "Best-in-Class" performance standards to be used as benchmarks, rather than insisting on overall emission tonnage targets or taxes on the GHG content of imports.
- "Best-in-class" benchmarks could also be used for allocation of U.S. emission allowances.





Where Now for the U.S.?

Will the Copenhagen Accord
Help or Hinder U.S. Legislation?

Where Now for the U.S.?

- The Copenhagen Accord
 - provides for monitoring, reporting and verification by China and India, which will help overcome Congressional doubts.
 - did not prescribe U.S. GHG targets, but
 - left open a global leadership role that the U.S. must fill.
- U.S. approaches to reducing GHG will continue to be addressed in several major arenas:
 - States and regions,
 - The President and the Congress,
 - U.S. Environmental Protection Agency,
 - Federal courts,
 - Affected industries,
 - Environmental groups, and
 - The public.



Legislative Status in Early 2010

- The House has passed the Waxman-Markey Bill (The American Clean Energy and Security Act of 2009).
- The Senate has to garner votes from both parties.
 - Nine Republican senators have supported action on climate.
 - Senator Murkowski wants to remove EPA's authority to regulate carbon under the Clean Air Act.
 - The Kerry-Graham-Lieberman Framework for Climate Action offers a basis for consensus.
 - Senators Kerry-Graham-Lieberman are working on a cap-and-trade and energy bill, while Senators Cantwell & Collins introduced a cap-and-dividend bill in December.
- U.S. energy legislation will complement cap-and-trade bills.
 - Incentives and funding for RD&D and low-emitting technologies (Clean-Tech),
 - Energy Efficiency (EE) standards, and
 - Renewable Portfolio Standards (RPS).



Fundamental Issues to Consider

- Economic growth and job creation,
- National security,
- Environmental risks of increasing GHG,
- Costs of emissions reductions,
- Potential co-benefits, and
- How to implement proven regulatory and market mechanisms that can
 - operate across international borders,
 - incorporate appropriate measurement, reporting and verification requirements, and
 - provide essential incentives for developing improved technologies and achieving significant GHG reductions.



Topics for Legislative Debates

- Effects on the economy and job creation,
- The need for R D & D, and
- The cap-and-trade mechanism.
 - Cap-and-trade is a successful market mechanism that will provide additional incentives to develop new technologies, but the method is unjustifiably tainted by skepticism about Wall Street and basic misunderstandings about the need for profits to create and sustain jobs in our market economy.
- Debates will continue about
 - The future of coal, nuclear and renewable technologies,
 - Points of regulation,
 - Command-and-control vs. cap-and-trade vs. cap-and-dividend vs. taxes vs. emission fees,
 - Allowance allocations vs. allowance auctions,
 - Flexibility mechanisms,
 - Offsets,
 - Environmental justice and co-benefits, and
 - Simplicity, workability and public acceptability.



Concluding Remarks

- Cap-and-trade markets can
 - align energy, economic and environmental goals,
 - provide incentives to develop and install more efficient energy infrastructure and low-emitting technologies, and
 - enable firms to make profits and create jobs.
- The U.S. must demonstrate our leadership by
 - conducting serious bilateral negotiations with China, India and others,
 - building on the framework and lessons-learned from the U.S. SO₂ cap-and-trade market and the European Union's Emissions Trading Scheme, and
 - passing comprehensive energy and environmental legislation that will commit us to reduce GHG.





Appendix

Concerns About the Scientific Evidence and Timetables for Global Warming

Concerns About Scientific Integrity Might Delay Efforts to Reduce Global GHG

- ClimateGate Emails
 - The University of East Anglia's Climate Research Unit...
 - Were non-conforming data and differing conclusions suppressed by peer-reviewed journals?
- Scientific Uncertainty vs. Misrepresentation vs. Errors
 - Remaining lifetime of Himalayan glaciers (2305, not 2035).
 - Were other scientific uncertainties misrepresented by the IPCC?
 - How should uncertainties be explained to a skeptical public?
- Scientific perfection is impossible, but apparent biases or misrepresentation in a public debate can cause doubts about those policies and legislation that rely on the preponderance of scientific evidence.





About Van Horn Consulting

www.vhcenergy.com



Van Horn Consulting

- Founded in 1987, Van Horn Consulting (VHC) helps its clients examine energy and environmental markets and contracts, evaluate competitive and regulatory issues, review projects, devise business strategies, prepare expert testimony and value assets.
- Rigorous analyses of a broad spectrum of market, contractual and business decisions combined with management consulting constitute our core practice.
- We have developed and analyzed strategies and conducted major studies for EPRI, EPA, electric and gas utilities & market participants.
- VHC provides independent reviews, evaluations and expert testimony regarding electricity, fuels, technology and emissions markets, regulations and contracts.



VHC Senior Consultants



- **Michael Katz, M.S., P.E.**, Senior Consultant, has over 25 years experience in electric and natural gas markets, risk management, strategic planning and operations of physical assets. With VHC, Mike leads Independent Evaluator assignments for renewable, conventional and demand-side contracts for both Southern California Edison and SDG&E. As PG&E's Vice President, California Gas Transmission (CGT) from 2000 to 2004, he led a department with \$400 million in revenue and 500 people. Earlier, he led PG&E's Power Generation Department and was Director of Generation Portfolio Management and Power Generation Business Planning, after holding positions in Electric Resources Planning. Mike provides analysis and advice regarding operations, planning, technologies and strategy.
- **Edward Remedios, Ph.D., MBA**, Senior Consultant, formerly worked for Chevron Research Company and for Pacific Gas & Electric Company (PG&E). While at PG&E, Ed coordinated PG&E's long-range planning and was the head of the Economics and Forecasting Department with responsibilities for economic and sales forecasts and project evaluations, including financial, economic and technical assessments. Ed provides evaluations of projects and analyses of markets, tariffs and regulations.
- **Andrew Van Horn, Ph.D.**, Managing Director, has 30 years experience evaluating *electricity, natural gas, coal and emissions markets*, analyzing and implementing new markets, contracts and regulations. He is an Independent Evaluator for SDG&E and SCE. He developed EPRI's first Integrated Resource Planning model, provided the price for the first SO₂ allowance trade in 1992, analyzed both the 1977 and 1990 Clean Air Act Amendments and projected impacts of greenhouse gas (GHG) policies from 2000 to 2050. He has advised clients on electricity and natural gas procurement and contracts, SO₂ and GHG market design, technology cost and performance, R&D, price forecasting, plant valuation and strategic planning. He has testified about power, natural gas, steam and emissions contracts, economic damages, resource planning, reasonableness reviews, tariffs and the impacts of regulations before the FERC, state agencies and courts.



Selected Clients

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American Electric Power
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Cogeneration Association of California
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