



**European Commission
High Level Group on Competitiveness, Energy and the Environment
Sherpa Sub-Group
Meeting of Ad Hoc Group 11: International Action on Climate Change**

September 11, 2007
Guimard Building
Rue Guimard 10, Brussels

Clean Energy Group's Written Contribution

Clean Energy Group (CEG) is pleased to participate in the September 11, 2007 meeting of Ad Hoc Group 11 on International Action on Climate Change.

CEG is a US-based NGO dedicated to accelerating the development and deployment of clean energy technology through innovation in technology, finance, and policy. In addition to managing a national program of 17 state entities that finance renewable projects across the US, CEG has organized an International Initiative on Climate and Technology Policy (IICTP). (See www.climate-tech-policy.org.) CEG works to strengthen technology-oriented strategies that complement cap and trade policies. Our IICTP network includes government officials, academics, business and financial leaders, and other NGOs from the United Kingdom, Germany, the United States, and other countries. CEG seeks to extend this network to additional countries in Europe and Asia.

CEG's President, Lew Milford, has been invited to submit a summary paper and to give a presentation on climate and technology at the meeting of environment ministers at the G8 Gleneagles Summit taking place in Berlin from September 9 to 11. A copy of that paper is attached. Mr. Milford's paper addresses the range of questions for the September 11, 2007 meeting of Ad Hoc Group 11, except for questions relating to the mechanics of cap and trade agreements, which we will leave to others.

Our key message is simple: the post-Kyoto framework must include a strong, complementary technology innovation strategy, and the international community needs to devote significant intellectual and financial resources to creating that strategy. We have all discussed and read about technology innovation, but we have not done the hard work of applying innovation strategies from other sectors to the development of low and no-carbon technologies. As Mr. Milford's paper states, the post-Kyoto climate framework can benefit from a breadth of technology innovation strategies. These include short- and long-term no-carbon emitting technology goals and targets, specific technology commercialization agreements, sectoral no-emissions goals, CO₂ and energy efficiency performance standards, niche market strategies, technology prizes, advanced purchase commitments, government procurement, new strategies to address intellectual property rights, transition management policies, entrepreneurship activities,

and policies that bolster public and private research and development. One promising approach to advancing climate technology development involves new distributed and open innovation systems that are being used in IT, health, and agriculture, among other areas. These systems have been used and supported by both public and private organizations, often in partnership.

Along with fortified cap and trade strategies, we must adopt policies that directly accelerate the development and diffusion of no-carbon technologies. We know we need to go beyond conventional subsidy programs, information networks, and demonstration projects. A major rethinking of energy transitional strategies is happening now. The next two or three years will be critical for developing and incorporating new innovation strategies into a post-2012 framework.

After talking to many experts, we see some new technology-based directions that go beyond voluntary measures and that represent a truly radical and disruptive approach to technology innovation in climate:

- (1) We need to accept that pricing strategies of cap and trade alone will not produce massive technology innovation within critical timeframes.
- (2) We therefore need new and complementary technology-specific approaches that require significant intellectual and financial support, as least as significant as the support that has been dedicated to the creation and maintenance of cap and trade systems.
- (3) Distributed-innovation strategies from non-energy technology innovation areas like IT, AIDS vaccines, and agricultural productivity that major philanthropies and Fortune 500 companies are deploying are well-suited to the distributed nature of climate technology innovation.

We need to start a systematic and well-supported process now to explore a distributed-innovation approach focused on accelerating product development and commercial-scale deployment of clean energy technologies within the short time left for stabilizing the world's climate. A complementary climate technology innovation process could be pursued effectively through the G8 Gleneagles dialogue and other related multilateral initiatives, feeding into the post-2012 framework under the UNFCCC.

In many respects, all the questions posed by Ad Hoc Group 11's preliminary materials raise these key issues. We hope our paper opens up new possibilities for collaboration and policy exploration over the next few years while the post-2012 framework takes shape.

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