

**Remarks as Prepared for Delivery by  
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**Delivered at the  
Washington International Renewable Energy Conference  
Market Adoption and Finance Closing Plenary Session**

**March 6, 2008**

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**BACKGROUND:**

- 9 sessions, 59 speakers
- Sessions focused on (A) grid, (B) off grid, and (C) renewable fuels; looking across three challenges; (1) transition from lab to market, (2) adoption in emerging markets, and (3) adoption in developed markets
- Included decision makers and thought leaders from industry, financial community, entrepreneurs, researchers, academics, and civil society
- Represents the DNA of today and tomorrow's solutions
- In the time allotted, I will avoid giving you a blow-by-blow, but rather will summarize briefly 10 cross-cutting themes from yesterday's sessions:

**TOP TEN THEMES**

*[No particular order]*

- 1. Grid Interconnectivity:** Critical to RE adoption. Denmark likely the leader in managing large intermittent energy loads into the grid. Need greater compatibility of standards and codes for RE producers to build once and integrate everywhere.
- 2. R&D Alignment:** Opportunity to intensify collaborative R&D efforts. Currently much of the global funding is geographically bounded. Highest and best use of resources likely to be through a greater amount of global collaboration.
- 3. Policy Experimentation:** Virtual policy laboratory evolving globally – need to take heed from successful and unsuccessful policies and recognize that one size

- does not fit all. Useful emerging market models where some debate ensued comparing the relative benefits of feed-in tariffs (price set by government, volume by market) vs. credits (price set by market, volume by government). General call for improved awareness of successful policy practices.
- 4. New Development Models:** Leapfrog last-mile electrification models in favor of village to grid distributed generation. New alignments between producers and consumers.
  - 5. Emerging Markets:** Enormous potential exists for solar, geothermal, and hydro in emerging markets. Participants discussed the Sahel and Rift Valley where high electricity costs 30-50 cents/Kwhr prevail despite exceptional renewable energy sources.
  - 6. Liberalization of Energy Markets:** Participants noted that approximately 80% of global energy assets were owned or controlled by governments. An accelerated transition to renewable energy requires a decoupling of production, transmission, and consumption of energy.
  - 7. Suboptimal Private and Public Capital Markets:** Investments in the clean technology market require large sums of capital over long time horizons with relatively high levels of risk. Panelists agreed that, generally speaking, the venture capital community has the risk appetite but not the capital to scale projects and private equity players may have the balance sheets but not the risk appetite. There is a need for larger sums of capital with greater risk tolerance. Analogous to this point, discussants observed that most of the scale up is being financed through equity rather than through debt financing leading to higher costs of capital.
  - 8. Arbitrage between Renewable Technology and Markets:** Participants observed that renewable energy technology can speed its path to market by finding the optimal geographies in which to scale. Panelists referred to certain cellulosic technologies in the U.S. that could scale at a fraction of the cost and time in Brazil.
  - 9. Regulatory Consistency:** The need for comprehensive (beyond mandates) and consistent policies echoed throughout the panels. One participant called for policies to be “legal, long, and loud.”
  - 10. Sustainability:** Biofuels Sustainability was discussed at each of the renewable fuels sessions and brought up by Vinod Khosla on the opening day. Many believed this issue was not well understood and often distorted. It is often overlooked, for example, that almost all the incremental (~98%) of incremental feed stock demand in the next 10 years is due to changing diets in the emerging markets (namely China) to provide feed for meat. Participants acknowledged that there were good and bad methods to produce biofuels and we ought to distinguish between them.