

**Select Committee on Energy Independence and Global Warming
U.S. House of Representatives**

The Global Clean Energy Race

**Written Testimony of Mark Fulton
Managing Director and Global Head of Climate Change Investment Research**

**DB Climate Change Advisors
Deutsche Asset Management**

September 22, 2010

Chairman Markey, Ranking Member Sensenbrenner, and Members of the Select Committee on Energy Independence and Global Warming, thank you for the opportunity to provide testimony on the global clean energy race. My name is Mark Fulton, and I am Managing Director and Global Head of Climate Change Investment Research at Deutsche Asset Management, headquartered in New York, a member of the Deutsche Bank group. I am based in New York.

In my role in the asset management division, I co-ordinate a research team that looks at the investment opportunities that climate change and associated clean technology offer around the world. The Asset Management division then manages money on behalf of pension funds and retail investors globally. We currently have about U.S. \$6 billion of assets under management relating to climate and clean technology themes, mostly in public equities, with the majority of clients in Europe or Asia. Since we in Asset Management started issuing educational white papers on these themes in 2007, the basis of our investment thesis has been: demographic pressures on resources and environmental externalities as identified from scientific sources, combined with energy security and economic opportunity, has led to Government policy response at all levels, creating new technologies and industries as companies respond.

As we sit here today, the U.S. federal and indeed state governments are at a crucial cross-road in their policy stance on clean energy; will they take action to deepen and extend policies or will they fall behind other countries around the world? The stakes are high in terms of energy security, new jobs and industries and the climate. Certainly, in a U.S. context, policy at federal, state and local levels are all important.

This year in the United States has been a challenging one for those looking to invest in these new clean energy industries on a longer term basis. Uncertainty abounds. At a federal level, given political complexity, there has been no energy or climate bill passed out of the Senate to compliment the comprehensive approach taken by the House of Representatives in passing the American Clean Energy and Security Act (Waxman-Markey) that directly tackled climate issues and provided significant funding to clean energy and energy efficiency.¹ At the same time, the most comprehensive climate and clean energy provisions of any state are under threat from California's proposition 23 which seeks to suspend the state's Global Warming Solutions Act (AB32), and would have a significant impact.²

Working for investors as an asset manager, these uncertainties are discouraging to capital deployment in the U.S. in the long-term. We have formulated a simple but fundamental framework for assessing regulatory environments around the world which we call TLC – Transparency, Longevity and Certainty.³ Investors need transparency in policies to create understanding and a level-playing field. Longevity

means policy has to match the time frame of the investment and stay the course. Certainty refers to knowing that incentives are financeable and can be trusted in the financial return calculation and again are likely to be maintained over the course of the investment. In economic terms, TLC should result in a lower cost of capital for projects while still delivering a fair and market related return to capital.

For instance, I believe that U.S. renewable policies could include more elements of TLC. State level Renewable Portfolio Standards (RPS) set targets for renewable deployment. However, in most cases these do not have enforcement measures nor penalties to ensure that they are financed. Renewable energy projects have therefore relied much in the short term on the complementary Investment Tax Credit (ITC) and Production Tax Credit (PTC) tax equity programs to get financed. Due to lack of longevity, this produced an on – off pattern in renewable deployment.⁴ Since the financial crisis, the tax equity market has not been strong and so the American Recovery and Reinvestment Act of 2009 introduced the Section 1603 Treasury cash grant. This indeed has been successful in generating projects in the past two years (especially when combined with the Advanced Energy Manufacturing Tax Credit to encourage domestic production), with the Lawrence Berkeley National Laboratory estimating a gain of 143,000 jobs as a result in wind and the Solar Energy Industries Association estimated 58,000 jobs in solar.⁵ This has also allowed the U.S. to retain a strong position in project financing in the past two years or so, although China has become dominant. But these programs sunset in 2011 and the renewable project pipeline is already under pressure as the tax equity market still struggles.⁶ As outlined in a paper released on September 16, 2010 by the U.S. Partnership for Renewable Energy Finance (PREF), this puts over 100,000 jobs at risk.⁵ The Department of Energy's Sections 1703 and 1705 Loan Guarantee Programs for early and later stage clean energy projects also sunset in 2011. Again, the U.S. is prominent in private equity and venture capital investment, but government support for the "valley of death" funding is helpful in these new capital intensive clean tech industries.

Looking around the world, representing investors, we see many countries embodying TLC in their climate and energy policies and achieving capital deployment. As a German bank, we have knowledge of the German experience in particular. In our recent paper "The Green Economy: The Race is On,"⁷ we looked at the major elements of a strong policy regime. While there is often focus on the European Carbon Market, complementary policies play a crucial role. In the passage of the EEG in 2000 and updated in 2009, Germany established a feed-in tariff regime that supports the EU mandated goal of 20% renewable energy as a share of electricity by 2020. This embodies TLC for investors – standard offer, transparent contracts with up to 20 years of longevity, with guaranteed certain payment streams, and to ensure "right pricing" for electricity consumers, a tariff digression over time to match all reductions in technology costs, with an end target of grid parity with fossil fuels.³ The result has been 300,000 jobs⁸, renewable energy at a 13% share of electricity and rising, a rapid fall in solar PV costs in particular leading to lower tariffs on the digression schedule with a forecast of grid parity by 2013.

To build a secure, vibrant, twenty first century green and clean energy sector, U.S. policy has to engage in TLC in some policy package. The fully comprehensive approach, such as embodied in the American Clean Energy and Security Act, with a carbon price and carbon market linked to renewable energy and energy efficiency in the context of an overall climate target is certainly a fundamental framework with strong elements of TLC. However, that is clearly open to a great deal of debate. In the Senate, the American Power Act, sponsored by Senators Kerry and Lieberman, is broad, including a carbon price element as did The Carbon Limits and Energy for America's Renewal Act, sponsored by Senators Cantwell and Collins, while many other bills, such as Senator Bingaman's American Clean Energy Leadership Act or Senator Lugar's Practical Energy and Climate Plan, look at an energy-only approach.¹ Indeed even without a carbon market, a comprehensive and strong National Renewable Electricity Standard (RES) complimenting State RPS, combined with long term financial incentive programs that

have longevity and a “Clean Energy Bank” looking at loan guarantees, as well as continued focus on energy efficiency would be very encouraging. I happen to believe that state level feed-in tariffs, if they spread, would be positive.

In closing, I thank the Select Committee on Energy Independence and Global Warming for this opportunity to testify and share our perspective. In summary, I applaud the Committee’s commitment to addressing these important energy and climate issues. This is not just a matter of good policy for the United States – there is a global movement happening that is creating economic activity in a race to scale, and so there is a question of urgency and whether U.S. citizens will share in the new wealth being created.

Right now, by extending what is already working in the Section 1603 Treasury cash grant and the Advanced Energy Manufacturing Tax Credit, Congress can help to underpin a growing industry and create or preserve valuable jobs.

Thank you.

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