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ROUNDTABLE ON PRO-ACTIVE POLICIES FOR GREEN GROWTH AND THE MARKET ECONOMY

-- Note by the Delegation of the United States --

This note is submitted by the delegation of the United States to the Competition Committee FOR DISCUSSION at its forthcoming meeting to be held on 27-28 October 2010.

English - Or. English

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ROUNDTABLE ON PRO-ACTIVE POLICIES FOR GREEN GROWTH AND THE MARKET ECONOMY

-- Note by the United States --

1. Introduction

1. In actively pursuing their mission to safeguard a robust competitive process, the U.S. antitrust agencies (Federal Trade Commission (FTC) and United States Department of Justice (DOJ)) work with other governmental agencies on issues related to supporting and improving environmental quality. This submission describes recent antitrust agency initiatives in this field, including comments on energy market policy issues, participation in the U.S. government's interagency Subcommittee on Smart Grid, and reviewing the competitive effects of energy conservation standards proposed by the Department of Energy for appliances. This submission concludes with a description of emissions permit trading systems in the U.S., and carbon offset programs and renewable energy certificates.

2. Energy market policy comments

2. The FTC recently submitted two comments to the Federal Energy Regulatory Commission (FERC) that address competition and green growth issues in the energy market.[1]

3. In an April 8, 2010 submission, the FTC commented on the integration of variable energy resources (VERs), such as wind and solar generators, into the United States' electric power grid.[2] VERs are called "variable" because, unlike traditional thermal generators (such as fossil-fueled and nuclear plants) that produce power predictably, they do not produce power at a constant rate. The FTC comment provided recommendations that, if adopted, would modify electricity markets to allow these variable resources to compete more efficiently by rewarding the facilities and programs that can supply power and ancillary services at a competitive cost for consumers. The comment also described how to integrate VERs into the process of balancing the supply of power produced with consumers' consumption of power. The FTC's comment highlighted the need to "support competition among technologies to deliver desired outcomes at the lowest cost to society."[3] Costs to society include the indirect costs from pollution and environmental degradation.[4] In particular, the FTC stated that:

> *"In the short term, efficient markets require existing plants and firms to compete to supply power and meet environmental goals and renewable portfolio requirements at the lowest cost to ratepayers. In the long term, emerging demand- and supply-side technologies should be able to compete with incumbent thermal and renewable technologies."*[5]

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1 Comment *available at* http://www ftc.gov/os/2010/04/V100009ferccomment.pdf and http://www.ftc.gov/os/2010/05/100521fercdemand.pdf.

2 Comment *available at* http://www.ftc.gov/os/2010/04/V100009ferccomment.pdf

3 *Ibid*., at p. 5.

4 *Ibid.*, at p. 1.

5 *Ibid*., at p. 5.

4. The comment also stated that "renewable portfolio standards and other environmental policies are efforts to reduce costs to society to make costs to ratepayers better reflect costs to society."[6]

5. In a subsequent May 13, 2010 submission, the FTC commented on demand response compensation in organized wholesale energy markets.[7] Demand response programs pay customers to reduce their use of electric power to a level below their "normal" usage level during greater scarcity periods, such as during hot summer afternoons when many people are running their air conditioners. By lowering the peak demand for energy, demand response programs reduce the need to construct new generation units necessary for meeting the infrequent "peak" use periods. The FTC's comment highlighted the need for an adequate compensation program for retail consumers, critical drivers of demand response programs, as a necessary factor to improve the competitiveness of organized wholesale energy markets. In particular, the FTC suggested introducing a method to compensate demand response that better reflects the full social costs of power, such as environmental degradation from power plant pollution. An electricity rate that does not fully incorporate social costs necessarily will lead to an inefficient amount of demand response.[8]

3. The Smart Grid project

6. On July 12, 2010, the U.S. National Science and Technology Council (NSTC) Committee on Technology announced the establishment of a Subcommittee on Smart Grid. The purpose of this subcommittee is to establish an interagency process that will further the goals of President Obama's comprehensive energy plan. The FTC is playing an advisory role in the Subcommittee. The Subcommittee aims to promote and implement the smart grid technology system as a way to reduce harmful emissions and foster competition in the global market for clean energy technologies.[9] The smart grid is defined as:

> *An automated electric power system that monitors and controls grid activities, ensuring the two-way flow of electricity and information between power plants and consumers -- and all points in between. Up and down the electric power system, the Smart Grid will generate billions of data points from thousands of system devices and hundreds of thousands of consumers. What makes this grid 'smart' is the ability to sense, monitor, and, in some cases, control (automatically or remotely) how the system operates or behaves under a given set of conditions.*[10]

7. Although the Subcommittee has yet to release any public documents, numerous studies already are available on the government's smart grid website. In particular, a study on the smart grid's environmental benefits highlights the role of the smart grid in reducing emissions at a lower cost than many new clean energy technologies. This study also foresees a 4% worldwide emission reduction in 2020 thanks to smart grid technologies.[11] The U.S. submission to the WP2 roundtable on *Electricity: Renewables and Smart Grids* in February 2010 discusses some of the competition issues relating to smart grid technology.[12]

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6 *Ibid.*

7 Comment *available at* http://www.ftc.gov/os/2010/05/100521fercdemand.pdf.

8 *Ibid.*, at p. 9. There is no clear consensus on the ideal level of compensation for demand response, and the FTC's position is one of a number of approaches reflected in comments submitted to FERC addressing this matter.

9 *See* Smart Grid's official website http://www.smartgrid.gov.

10 *See* http://www.smartgrid.gov/basics.

11 *See* Alex Zheng, Bruce Renz, Joe Miller, *Your Smart Grid environmental Benefits Toolkit*, available at http://www.smartgrid.gov/sites/default/files/pdfs/your_smart_grid_environmental_benefits_toolkit_11-2008.pdf.

12 DAF/COMP/WP2/WD(2010)9.

4. Comments on competitive effects of energy conservation standards for appliances

8. The Energy Policy and Conservation Act (EPCA), 42 U.S.C. §6291 *et seq.*, authorizes the Department of Energy (DOE) to establish energy conservation standards for a number of appliances, where DOE determines that those standards would be technologically feasible, economically justified, and result in significant energy savings. The EPCA provides that before the Secretary of Energy may prescribe a new or amended energy conservation standard, the Secretary shall ask the Attorney General to make a determination of "the impact of any lessening of competition … that is likely to result from the imposition of the standard."[13] The Attorney General's general responsibility for responding to requests from other government departments about the effect of a particular government program on competition has been delegated to the Assistant Attorney General for the Antitrust Division. 28 CFR § 0.40(g).

9. In conducting its statutory analysis, the Antitrust Division examines whether a proposed standard may lessen competition. In addition to harming consumers directly through higher prices, these effects could undercut the ultimate goals of the legislation.

10. In accordance with the EPCA, over the last 30 years DOJ has written DOE over a dozen such letters relating to proposed energy conservation standards for appliances, some of which have identified competitive problems with the standards. For example, DOE's 1997 final rule instituting room air conditioner energy conservation standards[14] noted that although DOE had simultaneously considered standards for many other products, it did not propose rules for appliances where "the evidence indicates that anticompetitive effects could result" from some of the standards it had considered. DOE's notice cited DOJ's letter of September 16, 1994, which pointed out those competitive problems. DOE subsequently introduced standards for most of those products, taking into account DOJ's comments. In a more recent example, a 2010 DOJ letter to DOE discussing a proposed standard for residential water heaters noted that only three manufacturers currently marketed products in certain categories. Given the substantial capital investment and research and developments costs associated with meeting the proposed standards, competition could be reduced even further, and DOJ urged DOE to consider the possible impact on competition in determining the final standards.[15]

5. Emissions permit trading schemes, carbon offset programs, and renewable energy certificates

11. The United States does not currently impose mandatory permits for greenhouse gas emissions at the national level. However, one national program addresses sulfur dioxide (SO_2) emissions, and a number of regional or local programs cover greenhouse gas emissions as well as other air and water pollutants. The U.S. antitrust agencies have had limited involvement with emissions trading issues. That involvement is briefly described below, including some consumer protection issues.

5.1 The Acid Rain program

12. The Acid Rain Program, which is administered by the U.S. Environmental Protection Agency (EPA) as part of the 1990 Amendments to the Clean Air Act (CAA), addresses SO_2 emissions in the 48 contiguous states using a cap-and-trade program, and focuses on emissions from the electric power sector. The first phase of the program started in 1995 and allocated allowances (*i.e.*, permits) to utility companies

13 Section 325(o)(2)(B)(I) of the EPCA, 42 U.S.C. §6295.

14 62 FR 50,122.

15 75 FR 20,235.

that operated the larger, higher emitting plants, based on historical data and a defined formula.[16] The second phase of the program started in 2000 and tightened the overall emission caps at the larger plants and set new restrictions at many smaller plants (generally covering all units larger than 25 MW). Along with the allocated permits, the EPA auctions a small portion (2.8%) of allowances annually. There are two auctions conducted each year: a spot auction for permits that can be used that year, and an advance auction, to allow planning (*e.g.*, new plant construction, expansion of existing facilities), for permits that can be used starting 7 years after the auction date (although they can be traded before then). All of the allowances are tradable and can be bought or sold by anyone, including individuals and companies that are not regulated. The allowances can be banked for use in future years. There is also an opt-in program that allows sources of SO_2 that are not required to participate in the program to opt-in and receive allowances. During the first 11 years of the program, annual SO_2 emissions from U.S. sources decreased by more than 40 percent.[17] By using a flexible, market-based mechanism, significant emission reductions were achieved at a fraction of the anticipated cost. Ex-post analysis of the program estimates annual benefits of the program in 2010 at $122 billion and costs for that year at $3 billion, a 40-to-1 benefit/cost ratio.[18]

13. In 2003, EPA began to administer the NOx Budget Trading Program under the NOx State Implementation Plan, also known as the "NOx SIP Call." The NOx Budget Trading Program (NBP) was a market-based cap and trade program created to reduce emissions of nitrogen oxide (NOx) from power plants and other large combustion sources in the eastern United States.

5.2 Regional, state, and local permit schemes

14. In 1994, the South Coast Air Quality Management District (AQMD) in southern California set up the Regional Clean Air Incentives program (RECLAIM), which regulates SO_2 and NO_x emissions in that region.[19] The program began with a focus on facilities that emitted four or more tons of SO_2 or NO_x per year. In RECLAIM, each firm receives trading credits equal to its annual emissions limit. The limits are based on past production and existing rules and control measures. Each year the number of credits is reduced. The credits are annual and can be bought and sold within the year they are issued. Firms can sell any credits that they have beyond their actual emissions.

15. The State of Illinois adopted the Emissions Reduction Market System (ERMS) for volatile organic compounds in the Chicago area.[20] The program went into effect in 2000 and focuses on major stationary sources that produce volatile organic compounds in the Chicago area; major sources are defined as sources that have baseline volatile organic compound emissions of 10 tons per "Ozone Season" (May 1 through September 30). The program issues trading units based on historical emissions, reduced by

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16 For the first five years of the program, the allowances were allocated at an emissions rate of 2.5 pounds of SO_2/mmBtu (million British thermal units) of heat input, multiplied by the unit's baseline mmBtu (as prescribed by Title IV of CAA). After 2000 the formula allowed 1.2 pounds of SO_2/mmBtu of heat input, multiplied by the unit's baseline. Beginning in 2010, the CAA places a cap at 8.95 million on the number of allowances issued to units each year.

17 See Napolitano et al. (2007), "The U.S. Acid Rain Program: Key Insights from the Design, Operation, and Assessment of a Cap-and-Trade Program" The Electricity Journal 20(7): 47-58, *available at* http://www.epa.gov/airmarkt/resource/docs/US%20Acid%20Rain%20Program_Elec%20Journal%20Aug%202007.pdf.

18 Lauraine G. Chestnut and David M. Mills, "A Fresh Look at the Benefits and Cost of the US Acid Rain Program," Journal of Environmental Management, Vol. 77, Issue 3 (November 2005), 252-266. Year dollars are 2000.

19 *Available at* http://www.aqmd.gov/reclaim/reclaim.html.

20 *Available at* http://www.epa.state.il.us/air/erms/.

approximately 12%. The program is seasonal, such that firms must hold enough trading units to cover their emissions solely during this period. Permits can be bought and sold or banked for the following season. The trading units can be bought and sold from October 1 until December 31 during what is called a reconciliation period. The ERMS also has an account of trading units that can be bought if a firm cannot buy trading units on the open market.

16. The Regional Greenhouse Gas Initiative (RGGI) is a regional CO_2 cap and trade program in the northeastern U.S. [21] and covers fossil fuel-fired power plants that generate 25MW or more each year. The program commenced in 2009 and applied a regional cap on emissions which will continue to be reduced by 2.5 percent each year from 2015 to 2018. The program has three year compliance periods, meaning that at the end of each period the regulated plant must have an allowance for each ton of CO_2 that was emitted over the preceding three years. The majority of the allowances are distributed through auctions, which are held quarterly by each participating State. The allowances are tradable and can be banked. Given its regional nature, the RGGI recognizes the potential for emissions "leakage," which occurs when polluters move outside of the regulated area while still providing the service that produces the pollution to the regulated area, thereby enabling the polluters to avoid regulation. The RGGI's member states thus are encouraged to monitor for possible leakage. The program also allows greater flexibility through offsets, enabling a limited number of greenhouse gas emission reduction projects outside the electricity sector to count towards compliance towards the program.

17. Although some of these programs have been in place for a number of years, there has been no evidence of permit market manipulation. At least one empirical study on the effects of banking in the Acid Rain Program found that the amount of banking during the first eight years of the program was efficient.[22]

18. The EPA's experience with the Acid Rain Program provides a good model for implementing a cap-and-trade program and has greatly influenced the development of other cap and trade programs both in the U.S. and abroad. The Program provides clear and strong incentives along with simple rules. It also uses information technology to collect large amounts of data that is made available to stakeholders, including the public. This allows for multiple levels of assessment to measure progress of the program. A 2007 EPA study[23] of the Acid Rain Program listed "key lessons" about effective design and operation of cap-and-trade programs in the U.S., including:

- Clear, comprehensive legislation makes it easier to implement the program and minimizes legal challenges that can introduce uncertainty, delays, and additional costs;
- A solid, but adaptable, program foundation is a substantial benefit, allowing room for new information, practices, and technologies;
- Flexibility in compliance approaches streamlines the decision-making process, fosters innovation, opens new compliance alternatives, and creates competition among emission reduction options, thereby reducing compliance costs—and lower costs make it possible to seek greater environmental protections where necessary;
- Accountability is a prerequisite for flexibility -- regulated sources must be held accountable for accurately measuring and reporting all emissions, and complying with program requirements;
- Clear, simple rules are easier and less costly to implement; complexity may be required in some cases, but should be minimized whenever possible;

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21 *Available at* http://www.rggi.org/

22 Ellerman, A.D., and J.-P. Montero (2007), *The Efficiency and Robustness of Allowance Banking in the U.S. Acid Rain Program*. The Energy Journal 28: 47-71.

23 See note 2 above.

- Clear and strong incentives can encourage better monitoring and improve compliance with allowance holding requirements;
- Regulators can create a cooperative relationship with industry by focusing on results and assisting regulated sources in complying with program requirements;
- Cap-and-trade programs can provide cost-effective, broad, regional reductions of air pollution and should complement efforts to attain and maintain local air quality;
- Transparency of data and program operation provide an additional level of scrutiny to verify enforcement and encourage compliance, and inform stakeholders, including the public, about the program and its results; and
- Assessment is an important tool to measure progress toward the goal of the program.

5.3 Carbon offsets and renewable energy certificates

19. As noted above, the United States has not established a mandatory federal program for greenhouse gas emission permits, and consequently does not have a market in which Federal emission permits are being traded. It does, however, have a voluntary market for renewable energy certificates (RECs) and instruments that aim to reduce greenhouse gas emissions. REC markets are largely driven by State initiatives requiring a certain level of renewable energy, but also have a voluntary component and fulfill the broader national market demand for renewable energy.[24]

20. **Carbon Offsets.** Carbon offsets are credits or certificates representing the right to claim responsibility for greenhouse gas emission reductions, resulting typically from individual projects. To be credible, credits should only be issued for reductions that would not have occurred in the absence of the program (i.e., they should be additional). For example, a carbon offset provider might develop a project to install a landfill methane collection system or plant trees in an effort to reduce greenhouse gasses and, in turn, will sell the emission reduction credits to interested parties once they have been verified and certified by the regulator or an accredited third party. By acquiring these greenhouse gas reduction credits, purchasers, including individuals, businesses, and governments, seek to reduce their "carbon footprint" or to become "carbon neutral." Offsets help these organizations and individuals fulfil environmental goals and provide a basis for their advertising claims (*e.g.*, "our coffee is carbon neutral").

21. **Renewable Energy Certificates.** In the United States, retail electricity customers can support renewable energy by purchasing either renewable electricity or renewable energy certificates. Under the first approach, consumers purchase renewable energy through traditional electricity contracts with their local utility or power provider, in areas in which such energy is sold. Such energy is often more expensive than conventional energy; consequently, consumers usually pay a premium for it. Generators can recover some of this premium by splitting their output into two products: the electricity itself, and certificates representing the renewable attributes of that electricity. Under this second approach, generators sell their electricity at market prices applicable to conventionally produced power, and then charge for the electricity's renewable attribute separately by selling certificates to brokers and retailers for resale to individuals and organizational purchasers across the country who use them to characterize the conventional electricity they buy as renewable and lessen their carbon footprint. The REC market, therefore, helps renewable energy generators by expanding the number of potential renewable energy purchasers, possibly avoiding transmission costs associated with traditional contracts, and helping to ameliorate supply and demand problems associated with the intermittent operation of some renewable energy facilities *(e.g.*, solar power facilities).

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[24] The following summary is based on the Federal Register Notice of the FTC's January 8, 2008 workshop on the marketing of carbon offsets and renewable energy certificates (*available at* http://www.ftc.gov/os/2007/11/P954501carbfrn.pdf).

22. Because there is no Federal mandate for renewable electricity in the United States, the interstate market for RECs is largely voluntary.[25] RECs do, however, play a role in mandatory markets as well. For example, many states require electricity providers to purchase a minimum percentage of their electricity from renewable sources. Since purchasing renewable energy directly is not always practical, most states allow providers to meet their quotas through the purchase of RECs.

23. Where carbon offsets and RECs are not generated to meet regulatory targets, they are bought and sold in voluntary markets, which are growing rapidly.[26] In these voluntary markets, no federal agency currently has a comprehensive oversight role. In the absence of national regulation, voluntary third-party certification programs have arisen, and more are under development, to help reduce inappropriate practices and provide guidance to marketers through the development of industry standards.

24. An August 2008 United State Government Accountability Office Report on Carbon offsets found that:

> *"Increased federal oversight of the U.S. voluntary market [for carbon offsets] could enhance the market's transparency and improve consumer protection, but may also reduce flexibility, increase administrative costs, and stifle innovation… Including offsets in regulatory programs to limit greenhouse gas emissions could also lower the cost of compliance….However… concerns about the credibility of offsets could compromise the environmental integrity of a compliance system."*[27]

5.4 U.S. Agency activity in this field

25. The US Department of Justice Antitrust Division has been a long time proponent of market-based solutions in regulatory contexts, including in emissions trading. In particular, the Division has encouraged the auctioning of permits in situations as far back as the 1986 EPA phase-down of the use of asbestos,[28] and was involved in planning for the Acid Rain Program in the 1990s.

26. The Federal Trade Commission is currently reviewing its environmental marketing guidelines, also known as the Green Guides.[29] Last updated in 1998, the Green Guides outline general principles for all environmental marketing claims and provide specifics about certain green claims, such as degradability, compostability, recyclability, etc.

27. As part of its Green Guides review process, the FTC held a January 8, 2008 workshop on the marketing of carbon offsets and renewable energy certificates (RECs)[30] as detailed in a Federal Register

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25 RECs can play a role as carbon offsets for compliance, and emerging State and regional programs are actively considering offsets as a key component to achieving emission reduction targets.

26 See United State Government Accountability Office, "*Carbon Offsets: The U.S. Voluntary Market is Growing but Quality Assurance Poses Challenges for Market Participants*" (Report to Congressional Requesters, August 2008), *available at* http://www.gao.gov/new.items/d081048.pdf.

27 *Id.*

28 Comments of the United States Department of Justice on Asbestos; Proposed Mining and Import Restrictions and Proposed Manufacturing Importation and Processing Prohibitions, EPA Docket OPTS-52036 (June 30, 1986).

29 See http://www.ftc.gov/green,

30 See http://www.ftc.gov/bcp/workshops/carbonoffsets/index.shtml.

Notice mentioned above.[31] The FTC solicited and received 57 public comments in connection with the workshop, that are available on its web site.[32]

28. The FTC also combats unfair and deceptive practices in these carbon offset and REC markets as part of its general consumer protection mission. Under the FTC Act, all marketers making express or implied claims about the attributes of their product or service must have a reasonable basis for their claims at the time they make them. In the environmental advertising realm, such reasonable basis often requires competent and reliable scientific evidence.

29. On October 6, 2010, the FTC released proposed revisions to the Green Guides for public comment.[33] The proposed revised Guides address RECs and carbon offset claims, neither of which were addressed in the older Guides. With respect to RECs, the FTC proposes that marketers should qualify "made with renewable energy" claims by specifying the sources of the energy. In addition, marketers should qualify their renewable energy claims if not all the product or package's significant manufacturing processes were powered with renewable energy or conventional energy offset by RECs. Further, the FTC suggests that marketers that generate renewable energy (*e.g.*, by using solar panels), but sell RECs for all the renewable energy they generate, should not represent that they use renewable energy. With respect to carbon offset claims, the FTC proposes that marketers should support emission reduction claims with competent and reliable scientific evidence, and should not sell the claimed reductions more than once. Furthermore, marketers should disclose if the offset purchase funds emission reductions that will not occur for two years or longer. Finally, the proposed new Guides suggest that marketers should not advertise carbon offsets if the activity underlying them is already required by law.

30. The Dodd-Frank Wall Street Reform and Consumer Protection Act,[34] signed into law on July 21, 2010, establishes an interagency working group to conduct a study on the oversight of existing and prospective carbon markets. The Chairman of the FTC is a member of this working group.

31. The US Environmental Protection Agency's Green Power Partnership is a voluntary program that supports the organizational procurement of green power by offering expert advice, technical support, tools and resources. The program encourages organizations to buy green power as a way to reduce the environmental impacts associated with purchased electricity use. The Partnership currently has hundreds of Partner organizations voluntarily purchasing billions of kilowatt-hours of green power annually. Partners include a wide variety of leading organizations such as Fortune 500 companies, small and medium sized businesses, local, state, and federal governments, and colleges and universities.

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31 Supra note 11 above.

32 *Available at* http://www.ftc.gov/os/comments/carbonworkshop/index.shtm.

33 See http://www.ftc.gov/opa/2010/10/greenguide.shtm.

34 H.R. 4173, 12 USC. §5301 *available at* http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/content-detail.html.