

United Technologies Corporation
1401 Eye Street, N.W., Suite 600
Washington, D.C. 20005-6523
(202) 336-7436 eFax: (860) 660-0701
judith.bayer@utc.com



Judith Ann Bayer
Director
Government Business Development

**UTC POWER
COMMENTS ON
THE REGIONAL GREENHOUSE GAS INITIATIVE
MODEL RULE**

Submitted: May 22, 2006

I. INTRODUCTION

UTC Power appreciates the opportunity to comment on the Regional Greenhouse Gas Initiative (RGGI) Model Rule (the Model Rule). UTC Power, a business unit of United Technologies Corporation, is the world leader in commercial stationary fuel cell development and deployment. Since 1991, UTC Power has installed more than 255 phosphoric acid fuel cell systems in 19 countries around the world. UTC Power's PureCell™ 200 system provides base-load power and can operate connected to or independent from the grid and can switch between modes automatically or on command. The PureCell™ 200 system operates seamlessly during grid outages. Additionally, it is one of the cleanest power sources available today.

UTC Power also develops innovative combined cooling, heating and power applications for the distributed energy market. The PureComfort™ power solution is an ultra-efficient natural gas driven combined cooling, heat and power solution, capable of satisfying energy needs with or without the grid. It is flexible, environmentally benign and reaches efficiencies up to 90%. PureComfort™ power solutions consist of four to six 60 kW microturbines or a single 330 kW reciprocating engine and a double-effect absorption chiller/heater from the Carrier Corporation. The PureComfort™ system can operate in two modes: in parallel with the grid, shutting down in the event of a grid failure or in dual mode, operating in parallel with the grid and then operating independently from the grid in the event of a grid outage. Another UTC Power product, the PureCycle 200™ is under development. It is a zero emission technology that turns waste heat into electricity.

UTC Power believes a flexible and straightforward Greenhouse Gas (GHG) market-based cap and trade system is a sensible approach to emission reductions. Properly constructed, the RGGI program will help mitigate adverse effects of global climate change on member states' environment, economy, and citizens' health. UTC Power's comments focus on narrow ways to improve the Draft Model Rule by increasing its flexibility and administrative simplicity. In particular, UTC Power believes the Model Rule's offset provisions should be substantially more flexible.

II. GENERAL COMMENTS

RGGI is by design a relatively modest, albeit critically important, GHG emission reduction program. It is limited to one industry in a defined geographic region of the United States. Given those inherent program limitations, it is important that the Model Rule provide a flexible and simple approach to encourage GHG emission reductions through deployment of climate-friendly technologies and processes in the most cost effective means possible. UTC Power's views are based on our extensive experience interacting with customers who are considering investing in climate-friendly technologies that would advance RGGI goals. In general, customer access to various economic support programs will encourage climate-friendly projects, which help reduce greenhouse gas emissions. Access to multiple economic support programs, from a Renewable Portfolio Standard program to favorable tax treatment, is central to customer investment decisions. Additionally, as a manufacturer focused on cost control in every aspect of our business, we believe strongly that increased flexibility will enable RGGI goals to be met in the most cost effective way. In our view, despite any difference of opinion that may exist about what RGGI compliance costs may be, there is little disagreement that mitigating price impacts is critically important.

We believe climate change and GHG emission reduction is a national challenge that calls for a national solution. A national approach to climate change should be comprehensive and market-based; include a combination of policy measures, including but not limited to, funding for research, development and deployment; provide incentives for low and zero carbon technologies; and, ensure that organizations that have taken voluntary action prior to a mandatory regime are not penalized for such actions. We applaud the RGGI effort and hope the final Model Rule will serve as a constructive starting point for a national effort to achieve the RGGI goals on a broader scale.

III. THE MODEL RULE WOULD BE ENHANCED BY INCREASING THE PROGRAM'S FLEXIBILITY.

UTC Power believes the Model Rule would be substantially improved by increasing its flexibility in several key areas.

A. THERE SHOULD BE NO LIMITS ON OFFSETS.

First, there should be no limits on the use of RGGI compliance offsets. UTC Power recommends eliminating the proposed compliance offset limit of 3.3% of reported emissions in a compliance period. In our view, if the RGGI goal is to reduce emissions, it makes practical and economic sense that the Model Rule recommend that member States maximize the use of projects that further that goal. In addition, maximizing the opportunity to use offsets is the most effective way to mitigate RGGI compliance costs.¹ If member States conclude that there is a compelling need to impose any limits, on climate-friendly projects to help offset emissions, the limitations should be narrowly tailored.

B. THERE SHOULD BE NO ADDITIONALITY CRITERIA; IF THERE IS A COMPELLING NEED TO IMPOSE ADDITIONALITY CRITERIA, SMALL CLIMATE-FRIENDLY PROJECTS SHOULD BE EXEMPT.

UTC Power believes strongly that small clean energy technology projects should not be required to “pick a market” or incentive program. UTC Power understands the public policy reason not to provide public funds to a project that does not need them when the same funds could support a climate-friendly project that would not otherwise go forward. However, it is essential for the Model Rule to recognize that most small climate-friendly projects require multiple sources of economic support to encourage customers to pursue such projects. For this reason, UTC Power urges the Model Rule to allow small projects, defined as those under 2MW, to use revenue from multiple economic support programs.

The Model Rule presents the opportunity to bridge the gap between environmental and energy projects by ensuring that funding from multiple sources is available to small climate-friendly projects. Economic support programs for customers, such as Renewable Portfolio Standard programs can vary over time and in some cases, quite dramatically. This uncertainty undercuts customer financial investment decisions. Customers who want to invest in

¹ We believe the Model Rule should be restructured to ensure that once a project qualifies as an offset, it retains that status and the associated opportunities, irrespective of prospective changes in any one state's law. See, Model Rule at page 92. This type of certainty is important for project financing.

emissions-reducing energy technologies need stable support from a variety of sources to make the investment possible.

RGGI Staff set forth potential options relative to alternative additionality criteria that would allow certain projects to receive incentives or credits from various programs including: 1) Standardized Financial Additionality Test; 2) Size Threshold; and, 3) Market Penetration Threshold. Models such as financial additionality are subjective and are likely to be complex to administer, particularly in a fluid market. With respect to market penetration tests, it is reasonable to conclude without complex, ongoing analysis that small, climate-friendly technologies have not achieved material market penetration. Imposing market penetration or financial analysis tests on small climate-friendly projects that are expensive relative to traditional energy options would create barriers disproportionate to the very low risk that small energy projects would receive windfalls if they participate in multiple economic support programs. Small project eligibility could be revisited over time as small climate-friendly technology costs decline and as consumers have more time to react to incentive programs.

C. THE TWENTY FIVE PERCENT CO₂ ALLOWANCE ALLOCATION TO CONSUMERS BENEFITS SHOULD BE SET FORTH AS THE FLOOR FROM WHICH STATES CAN DEPART.

The Model Rule provides that twenty-five (25) percent of the CO₂ allowance allocations will go to consumer benefit or strategic energy purposes. UTC Power suggests that the Model Rule make clear that the twenty-five percent threshold is a floor and that each state is able to allocate a higher percentage of the allowances to strategic energy purposes based on their assessment of their circumstances, needs and policy preferences. The Model Rule should make explicit that states are free to choose that path. Increasing the allocation to consumer benefit or strategic energy purposes would also enable a greater focus on cost mitigation measures.

D. THE MODEL RULE SHOULD RECOGNIZE WASTE HEAT

UTC Power requests that the Model Rule recognize waste heat as an eligible offset. Waste heat fits comfortably within the general offset criteria set forth in the RGGI Memorandum of Understanding at page 4: waste heat is “real, surplus, verifiable, permanent and enforceable”. Moreover, unless waste heat is captured and put to good use, it is simply vented into the atmosphere, which serves no energy or environmental purpose. To illustrate the benefit of putting waste heat to productive use generating additional electrical energy, we note that the

avoided CO₂ emissions from just one UTC Power PureCycle™ 200, a 200kW system, are equivalent to planting 300 acres of forest. Further, waste heat recovery from combined heat and power applications can supply hot water for domestic purposes, space heating and dehumidification, and in addition, can power air conditioning and refrigeration via an absorption chiller cycle. The ability to use waste heat to power air conditioning, a primary contributor to the electric system's peak demand that generally occurs in the summer when air quality is most challenged, means it can make a material and simultaneous contribution to the electric system and to the environment. The productive use of waste heat meets the Model Rule's Offset criteria, provides unique energy and environmental benefits and merits recognition.

E. SHOULD NOT BE LIMITED TO NEW OR WHOLE BUILDING RETROFIT

The Model Rule provides that a project that reduces CO₂ emissions by reducing on-site combustion of natural gas, oil, or propane for end-use in an existing or new commercial or residential building by improving the energy efficiency of fuel usage and the energy-efficient delivery of energy services may qualify for the award of CO₂ emissions offset allowances, provided it meets certain requirements. However, the Model Rule limits eligible new buildings to those designed to replace an existing building on the project site, or new buildings designed to be zero net energy buildings.

UTC Power suggests eliminating the restriction on eligibility to narrow categories of new buildings. First, a zero net energy building requirement is too stringent. UTC Power concurs that a net energy zero building standard is an appropriate overall objective in the long term given our energy and environmental challenges. We believe, however, that requiring a building to be net zero energy to participate in this aspect of the RGGI program is premature. Establishing it as a current prerequisite would in fact preclude the RGGI program from helping building owners move closer to that standard.

Second, a facility owner who constructs a new building that is not zero net energy but who may nevertheless be willing to make substantial investments to reduce onsite CO₂ emissions should be encouraged to do so in order to advance RGGI goals. To exclude that category of facility owner from the program creates lost opportunity. Once a new building is constructed, the costs of making subsequent improvements designed to reduce onsite emissions can be substantially higher. It would appear to be most cost effective and efficient to encourage owners of new buildings to maximize emissions reductions without the artificial limitations in the Model Rule.

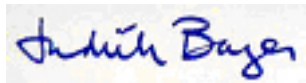
F. EFFICIENCY IMPROVEMENTS SHOULD BE SPECIFICALLY RECOGNIZED AS AN EMISSIONS REDUCING ACTION.

Conservation and energy efficiency present substantial opportunity to reduce greenhouse gas emissions and should be recognized as compliance mechanisms. As drafted, the Model Rule appears not to recognize energy efficiency improvements as a compliance mechanism. For example, in the calculation of credits at page 41 of the Model Rule, fuel switching can receive credit but efficiency improvements cannot. Energy efficiency is an essential element of the RGGI's overall purpose and measures to increase efficiency should receive credit accordingly. The Model Rule should be revised to recognize wherever possible the value of actions to increase energy efficiency as reflected in the Memorandum of Understanding. Toward this end, UTC Power recommends the use of output-based emissions standards in lieu of the input based model currently reflected in the Model Rule. An output-based emission standard would implicitly recognize the importance and value of energy efficiency without compromising the other standards.

III. CONCLUSION

UTC Power strongly supports the RGGI goals to address the challenge of climate change while increasing energy efficiency investments and stimulating emerging clean energy technology markets. We commend Staff for its substantial work to date on the Model Rule. We encourage Staff to improve the Model Rule by building in greater flexibility and simplicity, particularly in the offset portion of the program. We believe increased programmatic flexibility and simplicity will increase the likelihood of customer interest in the program, which will better enable member States to meet RGGI goals of GHG emission reductions in the most cost effective means possible.

Respectfully Submitted,

A handwritten signature in blue ink that reads "Judith Bayer". The signature is written in a cursive, flowing style.

Judith Bayer