

Howard, Jeff (DEEP)

From: Howard, Jeff (DEEP)
Sent: Wednesday, September 30, 2015 8:46 AM
To: DEEP ClimateChange
Subject: Gordes comment on GC3
Attachments: Gordes Comments on GC3 Meeting of 9-29-15.docx; Putting the Role of the Renewable Portfolio Standard Into Historical Context F.pdf; Carbon Wedges Paper Pacala-Socolow Science-Short Version.doc

From: Joel Gordes [mailto:gordesj@comcast.net]
Sent: Tuesday, September 29, 2015 8:35 PM
Subject: Brief Comment on Today's Meeting of Governors Council on Climate Change

Dear EC3 members and interested others: Below and attached in MS Word are my comments and two attachments on today's meeting the Governor's Climate Change Council (GC3)

FROM : Joel N. Gordes
TO: The Governor's Climate Change Council (GC3)
SUBJECT: Comments on Meeting Content of September 29, 2015
DATE: September 30, 2015

Due to technical difficulties beyond my control, I was unable to verbally provide comments to the GC3. The following is a synopsis of what those comments might have been minus the verbal inflections:

1) I would like to thank Bryan Garcia for making mention of "adaptation" as also being important for the deliberations of the group. Later in the meeting a representative of DOT also reinforced that opinion. To me, the first obligation of government is to the safety, security & welfare of its citizens. Adaptation addresses this.

It is vitally important when we look at these human aspects of climate change we do so in a manner that is holistic in such a way that some envisioned mitigation efforts for climate change may exacerbate other threats such as cyber attacks on the grid. Greater centralization of some aspects of the grid may be one example.

2) Chairman House noted the experience Germany has had with its ambitious renewable energy. Many of the problems having to do with intermittency appear to have been mitigated but he did mention that with more use of renewables it is hurting those that are left without access. The same arguments have been made by our local utilities session to squash important aspects of SB 928 which pertained to shared clean energy facilities that may have benefited those with difficulties in physically accessing clean, distributed resources (orientation, shading, etc.) as well as low income users. As a Study Advisor to the Connecticut Academy of Science and Engineering on that project, I note that without a detailed Value of Solar study it is not possible to say distributed generation technologies will hurt non-participants. Studies in other jurisdictions have shown that the benefits often outweigh the cost to all ratepayers.

In addition, I offer the suggestion that PURA, within the limits of its authority, strictly reduce or limit support of future utility and other third-party investments into technologies that further centralize the grid. These include

large transmission facilities, gas pipeline expansions and nuclear plants that may lead to huge stranded cost for ratepayers in the future. PURA may also want to urge our utilities develop new business models to maintain the viability of all parties. We lag behind many in this respect.

These long-term, capital-intensive centralized power investments make us economically and physically more vulnerable to a number of threats to the grid (climate change, cyber and physical attacks, supply chain, etc.) Any strategy must approach this not only in terms of climate change but recognize that a holistic, all-threats approach be employed for budgeting purposes if no other.

3) Dr. Miller explained that the goal of reducing statewide emissions is basically an accounting problem. I agree with that but I do not think it should be totally defined in terms of what is emitted solely within state borders. For instance, if we do import large new supplies of Marcellus Shale Gas, it may be appropriate to attribute some portion of the methane leakage to Connecticut since we are at least partly responsible for creating demand. He also mentioned getting credit for mitigation in other locations and if we are to count that, shouldn't we also take some responsibility (real "leaders" take responsibility for good and bad outcomes) for those leakage problems? Finally, trying to predict the future a bit, the GC3 should "imagine" both Pennsylvania and New York might take legal action against Connecticut and other recipients of Shale Gas for their portion of the leakage rather than just those producing states becoming liable for ALL the leakage liabilities? (Add that to the cost of mitigation.)

4) What might be said to be the mirror image of the point above was a brief mention of the Maine wind power procured by Connecticut to meet its RPS. As such, this again opens the question of "additionality" since the primary purpose of the RPS (developed in the early 90's by Aitken and Rader) was NOT to meet climate change goals but to commercialize renewable energy technologies and (excluded large hydro.) See attached.

4) Finally, the GC3 discussion on setting numerical goals vs. use of ranges could be better represented if the Council were to adopt what is termed the Princeton Wedges (carbon wedges). There, the goals are to be met by selecting 7 of 15 technologies portrayed by wedges that expand carbon-savings over fixed times. It elegantly provides fixed goals and timetables for each wedge. (See attached from Science by its original authors, Professors Pacala and Socolow.)

Thank you for the opportunity to comment.

Best,
Joel N. Gordes
Environmental Energy Solutions
(860) 561-0566 Ph/Fax
www.enviroenergysol.net

"...the problem at hand, which is that centrally generated electricity is a vulnerable genie. In order to be used it must travel on an ugly, complex and inefficient labyrinth of wires and substations...Even from a security view (national or otherwise) such a fragile system is suicide." Gordes-February 1978 in a published Hartford Courant Letter to the editor.

"There's a strong likelihood that the next Pearl Harbor we confront could very well be a cyberattack that cripples our power systems, our grid, our security systems, our financial systems, our governmental system," Leon Panetta, the U.S. defense secretary.