



Vermont



Governor's Commission on Climate Change

www.vtclimatechange.us

DRAFT MEETING SUMMARY
Vermont Governor's Commission on Climate Change Technical Working Group
Energy Supply and Demand

Call #7, April 30, 2007, 1:30 – 3:30 pm

Prepared by Sivan Kartha and Jeff Merrell

Attendance:

TWG MEMBERS
Debra Baslow
Alan Betts
Paul Comey
Don Gilbert
David Hill
Thomas Jagielski
James Moore
Dale Rocheleau
ADDITIONAL PARTICIPANTS / ALTERNATES
Riley Allen
Matt Cota
David Lamont
VERMONT DEC
Jeff Merrell
FACILITATORS
Sivan Kartha
Energy TWG Members not present
Gina Campoli
Sean Cota
Elizabeth Courtney
Richard Cowart
Robert DeGeus
Robert Dostis
Chris Dutton
Michael Dworkin
David Epstein
David O'Brien



www.vtclimatechange.us

Background documents:

Unless otherwise noted, all documents are posted at

http://www.vtclimatechange.us/technical_work_groups.cfm,

(Click on Energy Supply and Demand under Technical Working Groups in the left-hand column)

1. Meeting Notice and Agenda, ESD TWG Call #7
2. Summary of Call ESD TWG Call #6 (April 17, 2006)
3. Powerpoint Presentation to ES TWG Call #7

Agenda:

1. Call to order, roll call, and approval of prior meeting summary
2. Discussion of priority options descriptions and analysis
3. Agenda, date and time for next meeting
4. Call to the public
5. Announcements

Discussion and decisions:

1. Call to order, roll call, approval of summary.

The meeting was called to order by Sivan Kartha shortly after 1:30pm, and roll call was taken. The summary of ESD TWG call #6 was approved by the group.

2. Review and discussion of priority option descriptions

Option #	Option Name
ESD-1	Evaluation and continuation / expansion of existing DSM for electricity and natural gas
ESD-2	Evaluation and expansion of DSM to Other Fuels
ESD-3	Building Efficiency Codes, Training, Tracking
ESD-4	Evaluate Potential for Contracting Nuclear Power
ESD-5	Support for Combined Heat and Power
ESD-6	Incentives and/or Mandate for Renewable Electricity*
ESD-7	GHG Cap & Trade and/or GHG tax
ESD-8	Incentives for Clean Distributed Technologies for Electricity or Heat
ESD-9	Wind-specific support measures
ESD-10	Hydro-specific support measures

Sivan Kartha presented the preliminary analysis of ESD-4, 6, 9, 10. (See slide presentation for further details.) General points that were raised by TWG members include:



www.vtclimatechange.us

ESD-6:

The relationship between the ESD-6 RPS and the SPEED legislation was discussed. The purposes of an RPS and SPEED are complementary (SPEED provides long-term contracts for renewable investments up-front, while an RPS provides incentives over the life of the investment for delivered electricity). Legislation is pending and a vote to extend and expand SPEED is likely at target levels that exceed the (near-term) targets considered in this analysis, which suggests that higher RPS targets are technically and politically feasible. The RPS levels considered were sufficient, given that it enables fossil fuels to be fully backed off under the assumption that VY and HQ continue at historic levels as per ESD-4 and ESD-10. It was suggested that a second scenario be explored, wherein ESD-4 and ESD-10 do not lead to continuation at historic levels, but at a lower level. *Sivan will conduct such a scenario, with VY and HQ providing electricity at half historic levels, and determine the RPS level under the same goal of backing off fossil power.*

The Techno-economic assumptions were discussed. Generally, the bottom line implications (cost per MWh) seemed reasonable, and were comparable to, for example, results from Vt DPS calculations. Some specific items were raised for Sivan to investigate/correct:

1. Lifetime for hydro might be short
2. Heatrate for biomass might be low
3. Include typical capacity if available
4. Capacity factor for wind should be 32%
5. Riley Allen will provide DPS standard discount rate (5.6%).

Sivan agreed to include references to techno-economics, and specifically to provide to Dale to check up.

It was suggested that the year old AESC (Avoided Energy Supply Cost study by ICF, December 23, 2005) figures for electricity costs appeared too low.

Riley Allen will send forward prices for next five years. Sivan should use these, and trend onto longer-term AESC prices.

The TWG agreed that the federal Production Tax Credit should not be included in the cost analysis as (i) it's a transfer payment and (ii) it is uncertain post-2008.

ESD-4:

The issue of costing ESD-4 was discussed. The cost of added reliability (e.g., via insurance will be) included, as discussed previously, for which DPS can provide estimates. The cost of power is more uncertain. Arguments were offered for why VY power will be lower than market prices (Vt has good negotiating position given the need



www.vtclimatechange.us

for relicensing, Vt's vertically integrated utilities have an interest in long-term contracts unlike most regional utilities, and the VY power is riskier unit contingent electricity (unlike market power) and other arguments were offered for why VY power may be more costly than historically (climate policy-induced demand for low-CO2 power).

Discussion of VY costs will continue with Riley Allen and James Moore.

Dale Rocheleau offered to do some offline research to narrow uncertainty on VY costs.

ESD-9:

It was agreed that the figure for additional wind supply (~150MW) was reasonable for the first scenario, and for the second scenario, can push this further in light of INL and Barge studies, within constraints of system integration.

ESD-10:

It was agreed that the figure for additional hydro supply (~50MW) was reasonable for the first scenario, and for the second scenario, can push this further in light of INL and Barge studies.

3. Agenda and proposed date for next meeting

The date for the next scheduled TWG meeting is:
June 7, 2007 from 1:30 - 3:30.

The tentative agenda for the next Energy TWG is:

1. Call to order, roll call, and approval of prior meeting summary
2. Discussion of draft policy analysis
3. Agenda, date and time for next meeting
4. Call to the public
5. Announcements

4. Public statements

There were no statements from members of the public.

5. Announcements

There were no announcements.

Sivan Kartha (skartha@sei-us.org; 617-627-3786)

Bill Dougherty (billd@sei-us.org; 617-627-3786)

Randy Strait (randy.strait@pechan.com; 919-493-3144x118)

Ken Colburn (kcolburn@symbioticstrategies.com); 617-784-6975)

Jeff Merrell (jeff.merrell@state.vt.us; 802-241-3859)