

ESD TWG Draft Notes – February 25, 2009

I don't have, and neither does Jackie in her notes, anything related to ESD # 5: Energy Efficiency for Generators (Kate and Jim were initially working on this, and Kate did write up the Policy Description and Design for the February MAG meeting)....

Here are the notes relating to the policy options being worked. The names in red are the leads coming out of our meeting on the 25th. I know Kate you were working #3 and #5 in the past.

- 1. ESD #1 - Transmission Optimization is a HIGH PRIORITY.**
 - a. STATUS: Tom Lovas** has already invested a great deal of time and thought in that option. Chris & Jeremy have distributed a list of questions that need to be answered in order to do the quantification.
 - b. WHAT'S NEXT:**
 - i. (I think) Tom** will take a look at the quantification needs and have answers in hand on 3/19
 - ii. Tom** and anyone else working on this option will send a fully fleshed out option to Chris & TWG for review by 3/16
 - iii. Tom & Sub-Group** will set aside 2 hrs for work session with Chris on 3/19

=====

- 2. ESD #2, 4, & 6 – Energy Efficiency is a PRIORITY (with acknowledgement that not everyone may agree with the Return on Investment)**
 - a. STATUS:** Lot of existing and proposed plans, programs, grants, etc. exist and some work already done. **Sean Skaling** will review all and draft ensuring consistency with State's direction and programs taking into account other possible programs and federal/regional priorities and resources.
 - b. WHAT'S NEXT:**

- i. Sean will draft these options and package them according to the template & send for review by 3/16
- ii. Sean and sub-group (?) will set aside 2 hrs for work session with Chris on 3/19

=====

- 3. ESD #3 – Renewable Energy is a HIGH PRIORITY.
 - a. STATUS: Couple of sentences exist in current options presented to MAG & needs to be fleshed out.
 - b. WHAT’S NEXT:
 - i. **Peter Crimp and Steve Colt** will further develop the policy statement(s) and corresponding matrix/spreadsheet for support. They will take all existing, proposed and possible options and programs into consideration, including those which may not be on the AEA radar screen, e.g. private, federal, native corp goals and plans.
 - ii. They will be broad but present examples which illustrate how the 50% Statewide Goal articulated by Gov Palin can be achieved.
 - iii. Peter & Steve & sub-group (?) will set aside 2 hrs for work session with Chris on 3/19

EARLIER IN THE CALL PRIORITIES WERE DISCUSSED:

STEVE DENTON’S input:

ESD 2,4,6 – Thinks difficult bucket to try and get arms around. Already exist (weatherization). A lot of industrial stuff is going to get done anyway because they have financial resources to get things done. Opportunity is relatively small bang for buck.

ESD 7,8, 9 – Would knock this out because a lot of this is R&D and should be punted over to Research Needs. Nuclear is least likely and pie in the sky.

MARILYN LELAND:

Feels very strongly about Energy Efficiency Option. Last January bought new Refrig., installed CFLs, and new front door. She was shocked at her reduction in energy – dropped about 40%. Money is not going into all areas.

SEAN SKALING:

Agrees with Marilyn. Efficiency Most Important: Quick, High Impact, Low Resources. Next Conservation.

STEVE COLT:

Transmission Optimization is most Important.

ESD 2,4,6 - Thinks expanding weatherization et. al. into industrial sector. EE bill in State House (maybe also Senate) bill. Agrees with Marilyn and Sean that demand side isn't presently being addressed adequately. Doesn't think we need to get bogged down in micro-managing detail in that. Also agrees with Steve Denton that weight of their recommendations should be toward 1, 3, & 5. Would like to be more explicit about "electricity" vs. "energy" supply and demand focus of their recommendations.

TOM LOVAS:

ESD 7,8, 9 - Thinks a general policy statement is necessary. Emphasis of support of state in development of alternative and retrofit of equipment for CCS and nuclear.

DAN WHITE:

Represents the ESD TWG on the Research Needs WG and will help draft the policy statement or statements for #'s 7, 8, & 9 and will make sure it gets carried over to the RNWG. Will also leave it to reside here as well as a policy recommendation even if not an immediate or high priority. Will likely not quantify these or develop full templates. Can identify specific needs or programs to the extent possible.

GENERAL NOTES:

- Time interim products such that templates & quantified options can be posted for MAG review NLT March 27th in advance of the April 2nd meeting.
- Chris will come up for focused work sessions on 3/19
- All templates and quantification info will be circulated by 3/16 after which Chris & Jeremy will review and return a reply with Q's and additional info needs if necessary.
- Do your best to get as far as possible. We can wordsmith later; get general ideas down with sufficient wording so as not to be misinterpreted.

Earlier email from Jeremy Fisher

From: Jeremy Fisher [<mailto:jfisher@synapse-energy.com>]
Sent: Thursday, January 08, 2009 4:41 AM
To: cli@ak.net; 'Meera Kohler'; Edwards, Alice L S (DEC); 'Charlie Boddy'; 'Chris James'; 'Chris Rose'; cnye@giseis.alaska.edu; Farr, Clint J (DEC); 'Dan White'; 'Dave Benton'; 'Greg Peters'; 'Gwen Holdmann'; Poston, Jacqueline (DEC sponsored); 'Jim Posey'; 'Jodi Mitchell'; 'Kate Lamal'; 'Marilyn Leland'; Dabo, Martina (AIDEA); Crimp, Peter M (AIDEA); 'Scott Goldsmith'; 'Sean Skaling'; 'Steve Colt'; 'Steve Denton'; McNeil, Susan L (DEC); 'Tom Lovas'; 'Wayne Hall'; 'Gloria Flora'
Subject: AK ES&D TWG Transmission Policy Option (1) Comments

Dear AK ES&D TWG,

We (CCS) received the first straw proposal for an Alaska-specific policy option to mitigate greenhouse gas emissions: ES&D 1 (previously 5), Transmission Optimization and Expansion. The policy proposal is an excellent first step towards a constructive policy option. Having taken this first critical step, we now have the opportunity to start moving the process forward towards quantification of GHG benefits and costs. The MAG had asked each TWG to be prepared to provide initial quantification of each policy measure at the February meeting. In order to even have a chance at this, we will need to quickly reach consensus on the definition and scope of the policies and key assumptions.

The ES&D TWG agreed to work on the transmission policy option first, rather than split into teams to piece together the nine options which have been advanced for consideration. Our timing is now *very* tight and our opportunity to flesh out the policy options and analyze the results is disappearing rapidly. At this point, we need full engagement from the TWG.

I'd like to comment on the draft policy option and thank Tom for taking a great shot at this policy. **We need the TWG's expertise to tackle the next set of questions.** It would be useful ahead of our next call (and for those who are unable to make the call) to discuss which types of elements are useful and which may need further clarification. Please feel free to write back to the group as a whole or me directly if you have questions or comments.

The Transmission policy option advances four elements:

1. Optimize existing transmission
2. Expand the existing transmission system
3. Consider and implement smart grid features
4. Reduce line losses

There are several categories of questions which will need to be addressed before this policy option can move to an analytical stage:

A) Type of anticipated GHG / environmental benefits

The policy goal states that the “statewide emphasis on optimizing and expanding transmission...will provide economic and environmental benefits...” What forms of environmental (specifically GHG) benefits will be gained from this policy option?

What is the pathway towards reduced GHG emissions?

Is too much power is lost in transmission?

Do we expect low carbon resources to displace existing fossil resources?

Are there transmission constraints which currently compel high emissions generators to run when they otherwise shouldn't (economically)?

These policy areas need to be more specific. Recall that the purpose of these policy options is to reduce or mitigate GHG emissions.

B) Description of problem addressed by policy

Although not explicitly required by the policy drafting scope, these policies should really have the equivalent of a set of “whereas” clauses if possible. What are the problems which the policy will overcome? On transmission optimization and line-loss prevention, can we state what sorts of existing problems this will take care of and why it will result in GHG reductions? On transmission expansion, how do we guarantee that a larger transmission system will result in lower overall emissions?

C) Assumptions of new resources made available through transmission

There is an underlying assumption in the transmission expansion component that there will be new renewable resources available if transmission is built. What sorts of resources do we think these will be? Is it economic to develop new RE in absence of a policy to provide incentives for their development (recalling that this is not an RE development policy, just transmission). Would we expect new RE just to appear on a newly expanded grid? If not, would we actually expect lower GHG emissions just by connecting remote villages and commercial entities?

D) Smart Grid definition

The definition of a “smart grid” varies widely across the US. A smart grid could be a system which helps direct dispatch, reduce outages, prevents overloading, redirects quickly when faults occur, helps with bi-directional flows between load centers, or could be far more complex. California is currently exploring smart grid options to allow plug-in hybrids to operate as grid storage for intermittent resources; other states are looking at smart grid options to enhance demand-side management techniques. What do we mean by a smart grid here, and how would it be expected to act differently than the existing grid?

E) Timing

Ideally, the timing would define the timeline of project goals, rather than the start of the program (ideally, all perfect policies would be implemented immediately and start shortly thereafter!). This is really where the rubber hits the road. This section should have some indication of by when certain goals should be achieved. In this case, it could be

“A reduction of X% tons of CO₂ Eq by 20XX”

“The grid will serve X% of residential and X% of commercial customers by 20XX”

“The grid will reach X% new resources by 20XX”

“The grid will be X% more efficient by 20XX”

“The following benchmarks are expected:”

These really require going out on a limb, but we have no guidance for an analysis without this data.

F) Data sources

We don't need the data sources to write the policy option, but we should be cognizant of what will be required in order to actually analyze these policies. Defining smart grids, assuming new resources, or determining where current transmission constraints currently reside are all critical.

I look forward to talking to you soon, and very much look forward to your comments, critiques, and questions.

- Jeremy

Additional Resources:

Alaska Energy Report:

http://www.akenergyauthority.org/alaska_energy.html

See Governor's Press Release (full copy far below):

<http://gov.state.ak.us/archive.php?id=1605&type=1>

Renewable Energy Grant Guidelines – for review at the AEA Board Mtg this Thursday, 2/26:

http://www.akenergyauthority.org/BoardMaterials/2-26-09_AEA_PROGRAMFACTSHEETS.pdf

Below is the link to AHFC weatherization:

http://www.ahfc.state.ak.us/energy/weatherization_rebates.cfm

<http://www.ahfc.state.ak.us/energy/weatherization_rebates.cfm>

Governor Palin Releases Energy Guide

Renewable Sources by 2025 <http://gov.state.ak.us/print_news.php?id=1605> Printer

Friendly <http://gov.state.ak.us/print_news.php?id=1605>

FOR IMMEDIATE RELEASE No 09-09

Governor Palin Releases Energy Guide Goal: 50 Percent of Electricity Generation from Renewable Sources by 2025 January 16, 2009, Anchorage, Alaska – Governor Sarah Palin today praised energy coordinator Steve Haagenson and the Alaska Energy Authority for the release of their comprehensive guide to energy in Alaska. The guide, Alaska Energy - - A First Step Toward Energy Independence, identifies energy options for communities across the state.

“While lower crude oil prices are reducing the costs of energy today, we must remain committed to achieving energy security for our future economic well-being,” Governor Palin said.

The guide identifies and prioritizes energy projects; puts into place legal and government structures needed to allow them to go forward; and identifies potential funding sources.

“This tool will focus each community on their relative options for generating electricity and heat through the use of locally available resources,” said Haagenson.

The plan calls for Alaskans, the Legislature, local and regional governments, the University of Alaska and the private sector to work together to ensure that by 2025 half of the state’s electricity comes from renewable sources.

A copy of Alaska Energy - - A First Step Toward Energy Independence can be found at: www.akenergyauthority.org <<http://www.akenergyauthority.org>>

Audio from this announcement can be found at: http://www.gov.state.ak.us/audio/011608_EnergyRolloutPresser.mp3