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MEETING SUMMARY
ALASKA CLIMATE CHANGE MITIGATION ADVISORY GROUP
Energy Supply and Demand Technical Work Group (ESD TWG)
Call #4, August 29, 2008, 1:00 PM – 3:00 PM

Attendance:

1. Technical Working Group members:
Peter Crimp, Clint Farr, Wayne Hall, Marilyn Leland, Jim Posey, Kate Lamal, Chris Rose
2. Center for Climate Strategies (CCS) staff:
Chris James, Jeremy Fisher, Dick LaFever, Max Chang

Background documents:

(all posted at http://www.akclimatechange.us/Energy_Supply_Demand.cfm)

1. Meeting Notice and Agenda
2. PowerPoint for Teleconference
3. Draft Summary of Meeting #3
4. Consolidated Energy Supply and Demand Draft Policy Options Descriptions

This was the fourth conference call of the ESD TWG.

Meeting structure

Introductions: Chris James called the meeting to order and took roll call. Seven members of the technical working group were present on the call. Chris announced several key changes in the structure of the Alaska's Climate Change Advisory Group Process: (a) the State is taking over the facilitation of the Adaptation Advisory Group and the Gas and Oil Mitigation Group; (b) the State has provided in-state facilitation assistance to other groups, including the Electricity Supply and Demand (ESD) Technical Working Group (TWG) [this group] – the Alaskan facilitator for ESD will be Dick LaFever. Dick LaFever introduced himself: consultant and facilitator since 1980s, in AK since 1978; announced interest in ensuring “process has voice of Alaska in it”.

Call agenda: (a) Review Inventory and Forecast (I&F) for electricity supply and demand (ES&D) and residential, commercial, and industrial sectors (RCI) – how can we improve the accuracy of the dataset? (b) Review ES&D policy options catalog and decide if it represents

consensus view of TWG for a complete portfolio of potential mitigation options. Review minutes of calls 2 & 3: no objections or changes, reminder to post minutes for call #2, edited for clarity.

Review of [Inventory and Forecast](#), Appendix A – Electricity Supply

Chris reminded the TWG that in many cases, the basis for the I&F are EIA data with two concerns: The data is extrapolated from historical 2000-2005 datasets. The data may therefore be outdated by a few years; if more up-to-date data is available from TWG members, it would be useful. *EIA clusters AK with other Northwest States*. Because AK has a unique grid structure, unique fuel needs, and electricity supply system, the data may not accurately represent processes in AK. Therefore, if local datasets are available from TWG members on electricity supply or demand, end uses, or supply-side resources, these would be welcome to ensure the accuracy of the emissions forecast. AK utilities are not required to file sales data at a national scale (unlike other states), so there is no metric for precision going forward.

Clint Farr (TWG member) raised a few directed questions about the I&F assumptions in Appendix A. He suggested that local TWG members should review the document to see if the baseline assumptions are reasonable based on their knowledge of AK ES&D. Clint noted that the calculations are fine, but the underlying data may be significantly flawed. He asked is the EIA data good enough for the purposes of this TWG? He noted that the overall fuel consumption numbers are probably reasonable, but the breakdown is not.

Growth in AK: listed as 1.7% per year (from 2000-2005), is this a reasonable value? Jim Posey suggested that most growth in AK has been in the Valley, not Anchorage, and therefore the 2005 data should be reasonably good. Marilyn Leland noted that her agency has 2007 data available in Form 990s (Chris confirmed that it is reasonable to use 2007 baseline).

New power plants and fuel mix: How much will hydroelectric capacity expand by 2020? Clint noted that the forecast assumes that new power plants will be built with a fuel mix of 40% wind, 40% hydroelectricity, 11% natural gas, 3% coal, and 6% petroleum (Chris clarified that EIA has formed the basis of the forecast in other states). Clint suggested that the petroleum fraction will be much larger, driving diesel generators in outlying villages. Jim Posey suggested that the assumptions are unrealistic – Alaska utilities are looking at replacing old generators, but not adding new ones right now. Replacing old rural generators with 10% more efficient units is likely to meet demand and drive down the expected GHG forecast (by 15-20% estimated). In addition, AK expects no more than 30 MW of wind power total along the railbelt because the grid isn't large enough to handle more.

Power plans: Jim suggested reviewing utility-filed integrated resource plans (IRP), suspected that numbers in the I&F don't come near to IRP numbers. For example, although the Beluga power plant may be retired by 2024, it may be replaced by 700 MW of new installed capacity (3/4 of state power supply) with a possibly different fuel mix.

Data and clarifications offered by TWG members:

- Peter Crimp suggested that because the EIA data is poor in Alaska, data should be used from the Regulatory Commission of Alaska (RCA) and the Alaska Power Commission (AKPC)
- A TWG member noted that all utilities with public customers are required to report to RCA and AKPC, but was unsure if non-public utilities needed to report. Another TWG member suggested that the Alaska Energy Authority (AEA) also collects data.
- Peter volunteered to work with the utilities and get information back to the TWG.
- TWG members suggested that they could work with the AK Power Association to produce better numbers for the inventory and forecast. Chris suggested that sooner is better because the policy analyses will depend on an accurate I&F (don't want to be modifying the I&F while analyzing policy options).
- Jim Posey offered to review the new generation assumptions (wind, gas, etc...)

Review of Inventory and Forecast, Appendix B, Demand in Residential, Commercial, and Industrial Sectors

Heating fuel: Chris asked if there is better information on heating fuel. Peter Crimp suggested that Steve Colt (TWG member) may have model output data: draft available after Sept 1. Jim Posey noted that this sector is problematic in AK where the same fuel sources are used for transportation and heating purposes interchangeably. Peter noted that *as petroleum prices rise, electrical resistance heaters are becoming more popular in SE AK (Anchorage and on the grid), while in the interior, wood is replacing petroleum for heating purposes.*

Electricity prices: Kate Lamal suggested that residential consumption in the interior has seen a 5.5% decrease, but a 1.7% increase in new connects: high prices and different electricity costs are pushing up costs. Kate suggested flattening electric consumption in Anchorage after 2012 or 2014 because long term contracts in Chugach will run out and prices will rise.

Industrial Sector Emissions: Chris pointed out that industrial sector emissions needed to be reviewed as well with emissions of SF₆ and other high potential GHG. Clint Farr volunteered to find information on SF₆ use in switchyards (insulator of choice).

Review of Combined Catalog

Purpose of Catalog: The catalog contains several dozen policy options which are supposed to capture all of the *potential* recommendations of the TWG; all options should be on the table. The TWG needs to ensure that this catalog is complete and reflects their thoughts and additions. Once the TWG has agreed that the catalog is complete, the TWG will rank the top 10 policy options which they feel are their top choices (by any criteria deemed appropriate by the individual TWG members). These top 10 options will be submitted to the Mitigation Advisory Group (MAG), which will decide which options will be analyzed at the Nov 5th MAG meeting. CCS will work with the TWG to develop analytical methods to analyze the options.

The catalog will be reviewed now and balloting may occur in September.

There was a suggestion from a TWG member that the ballot choices of the TWG, and the supplied “notional rankings” (of potential cost and scale of each policy option) be combined into a less subjective ranking. Chris noted that the notional rankings should be used for informational purposes only. Options which are small scale or cost ineffective typically do not make the top ranking.

Analysis methods: A TWG member asked when the analysis numbers would be developed, and it was clarified that only after the balloting and selection process would the analysis methods be developed. After balloting, TWG members will work to flesh out the details of the short-listed policy options in more detail. *(Eds note: it is expected that after balloting and policy option selection, individual or teams of TWG members will volunteer to write draft policy options with enough detail that analyses of the options can be developed and proceed. Example policy option narratives are available in the Catalog descriptions and from other state processes).*

Transportation costs: A TWG member was concerned that policy options which may have worked in other states will not be effective in Alaska because of transportation difficulties; new equipment often needs to be shipped by boat or air, adding significant expense. Transportation and capital costs are higher in AK.

Public Input: A TWG member asked how the public could track the CCS process. It was clarified that all note summaries and data are posted on the website (<http://www.climatechange.alaska.gov/>), the meeting times and public call-in numbers are posted, and the process was discussed in AK media as it began.

Next Steps and Agreements/Current Action Items:

- a. The next TWG meeting will be on September 19th from 10:00 AM – 12:00 PM, AK time.
- b. Chris is hoping to have an in-person meeting within two months with as many TWG members present as possible and will work with CCS to determine if there should be a joint meeting with O&G TWG.
- c. TWG members will be asked to review the combined catalog on September 2nd and asked to turn around any suggestions or modifications by September 9th.
- d. CCS responsibilities:
 - i. Post notes for this meeting (#4)
 - ii. Send combined catalog and reminder for additions / edits / questions on Sept 2nd.
 - iii. Start to arrange for live meeting in AK in Sept or Oct.
 - iv. Re-post meeting #2 notes (edited)
- e. TWG responsibilities
 - i. Review combined catalog, and submit additions / edits / questions to Chris at CCS by Sept 9th.
 - ii. Provide information to clarify Inventory and Forecast Appendices A and B.
 1. TWG member individual tasks:
 - a. Jim Posey (new generation assumptions)
 - b. Kate Lamal (energy prices and demand forecast)

- c. Peter Crimp (work with utilities to improve accuracy of forecast)
 - d. Steve Colt (review fuel use assumptions)
 - e. Clint Farr (SF₆ use)
 - 2. TWG member joint task: find information for I&F from:
 - a. Regulatory Commission of Alaska (RCA)
 - b. Alaska Power Commission (AKPC)
 - c. Alaska Energy Authority (AEA)
 - d. Utility IRPs
 - e. Other utility or non-utility publically available information
- iii. Review summary of meeting #4

Public Input: input from the public was solicited by CCS. No members of the public were present on the call.