



WWW.NMCLIMATECHANGE.US

DRAFT
Energy Supply TWG Call #14 Summary
August 30, 2006

Attendance:

1. TWG Members & Alternates:

Mike D'Antonio, PNM
Josh Epel, Duke Energy Field Services
Bruce Gantner, Burlington Resources
Peter Gould, NM Industrial Energy Consumers
Keven Groenewold, NM Rural Electric Cooperative Association
Jack Ihle, Excel Energy
Ben Luce, Coalition for Clean Affordable Energy
Jim Ramakka, BLM – Farmington
Tom Singer, NRDC
Bernie Zak, Sandia National Laboratory

2. NMED/EMNRD Staff:

Craig O'Hare, EMNRD
Lany Weaver, NMED

3. CCS Staff:

Tom Peterson, CCS
Ken Colburn, CCS
Mike Lazarus, CCS
Bill Dougherty, CCS
Sivan Kartha, CCS
Eric Williams, CCS
Tim Woolf, Consultant to CCS
David White, Consultant to CCS
Lorna Greening, Consultant to CCS

4. Other Attendees:

None

Background documents:

(unless noted, all posted at <http://www.nmclimatechange.us/documents.cfm>, click on Energy Supply)

1. Notice and Agenda for Call #14
2. Pending Policy Options with quantification to date

Discussion items and key issues:

1. Ken Colburn brought the call to order and called the roll. Ken began the call by reviewing the substantial amount of work remaining for the TWG before the final CCAG meeting at the end of October. Ken indicated that in order to accomplish the majority of this work in the remaining timeframe, CCS had determined that additional analytical capacity was necessary and had identified an expert analytical team led by Mike Lazarus for this purpose. The remainder of the call would be dedicated to (a) a discussion between the TWG and this team to enable the team to determine the best plan forward for each policy option, and (b) to hear the results of Lorna Greening's work analyzing policy options ES-10 through ES-13.
2. In order for the expanded analytical team to provide the TWG with results, and to secure the TWG's feedback and input, two additional TWG calls were scheduled for October 6, 2006 and October 20, 2006.
3. The expanded ES analytical support team then described their suggestions to produce a more simplified and transparent analysis, working from the policy descriptions and analytical work to date. This effort will involve some revisions to assumptions methods and results. In addition, some options that enable reductions rather than achieve reductions themselves will be revised to be non-quantified.

The forward plan is to produce a revised analytical plan and circulate this via e-mail to TWG members in mid-September. This analytical plan will draw from the discussion points noted below, and will also suggest the key assumptions for capital, fuel and other costs. The team recognizes that there are many uncertainties surrounding these assumptions; such uncertainties may be addressed through sensitivity analysis, time permitting, and/or through narrative explanation of how results might vary under different assumptions. The goal is to provide the TWG with draft revised analyses in advance of the October 6 TWG meeting, and with a final version available for review prior to the October 20 TWG meeting.

The analytical team also noted that they will pay close attention to overlaps among policies, and proceed in the 3-step fashion used previously: (a) assess each of the ES options in isolation, (b) assess the ES options as if they were all implemented together, and (c) assess the ES options in combination with the efficiency options. The team will aim to make the results as transparent as possible so that it is clear which GHG-emitting resources from the reference case would be avoided or displaced by individual and/or combined policies.

4. The expanded ES analytical team then proceeded to describe their initial thoughts regarding an appropriate analytical plan for each policy option:

ES-1, Mandate for renewable energy. The TWG discussed how the mix of renewable energy sources would be determined for this analysis. The mix of wind and concentrating solar power as developed by Eric Williams in the NEMS-based analysis may be a reasonable assumption (for the purposes of analysis only – this does not affect the policy design itself). Whatever mix is used should be explained in narrative form. The quantification methods section can spell out explicitly how many megawatts of each resource are implicated. Costs for renewables will factor in integration costs for intermittent resources (i.e., reflective of their capacity value) and costs of additional transmission where appropriate. Several TWG members offered to send information to help guide the choice of assumptions for renewable and conventional resource costs. It was also agreed by the TWG to consider “tightly linking” ES-1 and ES-4, Financial incentives for centralized renewables.

ES-2, Financial incentives for distributed renewables. In the interests of simplifying the analysis, the TWG agreed that further analysis could focus in particular on Scenario C which reflects a 10-year payback period. Other scenarios could be considered as sensitivity runs, time permitting.

ES-3, Renewable energy transmission and storage. The TWG agreed to **not** quantify this option separately.

ES-4, Financial incentives for centralized renewables. The TWG noted that there is considerable overlap between this option and ES-1. One of the principal differences between the two options is that ES-4 provides incentives for renewables production regardless of where the electricity is sold, and as a result could lead to new renewable capacity destined for loads in other states. Option ES-1 deals only with renewables for in-state load. The analytical team noted that this option will be among the more difficult to analyze, because the response to price incentives is very hard to predict, especially given large uncertainties in the future incremental costs of renewable energy sources.

ES-5, Research and development. The TWG agreed to **not** quantify this option.

ES-6, Advanced coal/fossil technologies. The analytical team will review and revise the existing analysis and to make it more transparent and consistent with other changes described here.

ES-7, Nuclear power. (The TWG had previously agreed to **not** quantify this option.)

ES-8, Incentives and barrier reductions for CHP. The group agreed to modify the policy design and analytical approach. Rather than base the penetration of CHP on the

assumption that a certain amount of fossil generation is displaced, it was agreed to instead conduct a bottom-up assessment of potential CHP sources in the commercial and industrial sectors, and then estimate a penetration of CHP on this basis.

ES-9, Demand-side management. (The TWG had previously agreed that the RCI TWG would quantify this option.)

ES-10, Transmission capacity and corridors. (This option is being separately analyzed with the assistance of Lorna Greening. A spreadsheet has been distributed to TWG members.)

ES-11, CO2 capture and storage or reuse. (This option is being separately analyzed with the assistance of Lorna Greening.)

ES-12, Methane reduction in oil and gas operations. (This option is being separately analyzed with the assistance of Lorna Greening. A spreadsheet has been distributed to the TWG members.)

ES-13, CO2 reduction from fuel combustion in oil and gas operations. (This option is being separately analyzed with the assistance of Lorna Greening.)

ES-14, GHG Cap and Trade. (The TWG had previously agreed to **not** quantify this option.)

ES-15, Generation performance standard. The analytical team will also revise the analysis of this option applying the same analytical framework used for several of the options above (ES-1, ES-4, ES-6) to ensure consistent results.

ES-16, Regulatory reform for electric cooperatives. (The TWG had previously agreed that this option will be quantified as part the other options because the other options already include coop-generation in their quantification.)

5. Lorna Greening provided a brief overview of her work on ES-10 and ES-12, concentrating on the latter. Lorna indicated that she had developed extensive spreadsheets (which were distributed to the TWG shortly before the call), and would be available for comments, questions, and discussion regarding her findings.

Next steps:

1. The CCS expanded ES analytical team will revise the analytical plan described above based on the feedback received from the TWG, and will flesh out the plan with the methods, data, and assumptions that it proposes to use to conduct the remaining analysis. This plan will be circulated to TWG members around the middle of September for their

review and input. The expanded ES analytical team will then proceed with its analysis in order to provide the TWG with initial results on its October 6th call.

2. TWG members will provide feedback back to the expanded analytical team as soon as possible in order to allow the time adequate time to prepare quantifications between mid-September and October 6th.
3. The next ES TWG call will be on Friday, October 6, 2006 from 9:30-11:30 am Mountain time.