# Memorandum

To:	Energy Supply and Demand Technical Working Group, CCS Alaska
From:	Jeremy Fisher, CCS & Synapse Energy Economics
Subject:	Notes on consolidated catalog and balloting process
Date:	October 22, 2008

On October 16<sup>th</sup> 2008 the Energy Supply and Demand (ES&D) Technical Working Group (TWG) for the Governor's Climate Change Sub-Cabinet met at the AEA/AIDA offices in Anchorage to discuss policy options in the consolidated mitigation catalog. At this meeting, TWG members eliminated, by consensus, approximately 30 options considered unlikely or non-feasible (listed as a ranking of "3"), characterized eight for holding for later consideration (ranked as "2"), and prioritized 35 options (ranked as "1"). The high ranking options were consolidated by a consensus process into seventeen (17) comprehensive policy options, with some having as many as twelve policy options included in the consolidation.

The purpose of this memorandum is to comment on the consolidations, review the ability of CCS to analyze some of these consolidated options, and suggest further re-ordering or splits of some of these options. These suggestions are not required, but may provide some guidance in how this process will work through the next phase.

Generally, some options cannot be analyzed because there are no costs, no foundations for a cost estimate, no emissions reductions due to the program alone, no foundation for calculating expected emissions reductions, or a combination of all of the above.

- Some policy options are best thought of as a wide grouping, incorporating fundamental groundwork (such as removing barriers and smoothing over policy), marketing or public awareness (such as education or training), and financial incentives (such as loans, grants, or tax credits). In these cases, it is sometimes useful to think of a policy programmatically.
- Some policy options are best considered as individual components, where consolidation may eliminate or attenuate the gains which can be had from more focused options. For example, an aggressive energy efficiency program may have a very low cost per ton of emissions reduced, but paired with a more expensive option, such as a generic green-buildings grant, may result in a less cost-effective program.

This document will walk through each of the 17 options with distinct suggestions prior to the balloting process. I have attached an alternative catalog in a second worksheet which has split and re-categorized the policy options according to the suggestions below.

#### ES&D-1 EE - Appliance Recycling and Standards

There was discussion at the TWG meeting that standards would not be effective in AK because the market is too small. In some states, national standards are used (such as EnergyStar) and applied either with an incentive or as a command-and-control. An

incentive to consider in AK may be that if a high efficiency appliance is purchased, the state will assist in transportation costs and pick up old appliances for recycling.

# ES&D-2 EE - School Curricula

The TWG may want to consider this option (as well as other pure policy options) as being fundamental components to a mitigation plan, to be advanced regardless of "expected emissions reductions" (which cannot be quantified). These types of programs lay essential groundwork.

# ES&D-3 EE – Industrial

This option can be analyzed and is well scoped. Audits, training, and management would be considered essential background policies of an industrial EE program. The TWG may want to consider including industrial CHP as part of this policy option.

## ES&D-4 EE / Advanced Technologies - Generators / Supply Side

The TWG may want to consider re-splitting the two components of this policy option for analytical purposes. The repowering of existing plants is quantifiable and distinctly different than incentives for advanced fuel technologies (important, but less quantifiable). The analysis of this option as a single entity would be a burden, and would combine two fundamentally different approaches.

# ES&D-5 EE – Transmission

When this policy is balloted, the TWG may want to consider if it is considering this to mean upgrades of the existing transmission system, or expanding the existing transmission system to meet a geographically wider audience. This will be a critical difference in scope.

# ES&D-6 EE - Comprehensive (AEA / AHFC AK EE Program Recommendations)

This option may contain too many components to be effectively analyzed as a single entity, unless there are analyses already conducted by the AEA / AHFC or Cold Climate Housing Research Center. If analyses already exist, we are able to adapt them for the purposes of this project, otherwise, we would suggest parsing this option into two components: building codes and standards, and EE/DSM for the RCI sectors.

The first component, Building Codes and Standards, could include adopted standards for new construction, and potentially incentives for going beyond code (whether LEEDS or otherwise). The EE/DSM component would include financial mechanisms to encourage EE or DSM in existing construction. Both of these policy options can be analyzed at a relatively high level.

- ES&D-7 EE State Policy Barrier Removal
- ES&D-8 CHP Incentives and / or Barrier Removal
- ES&D-11 RE State Incentives / Policy Barrier Removal

For all of the barrier removal options, we would suggest that these be considered for adoption without analysis (i.e. they are not balloted upon in a competitive fashion). It

essentially goes without saying that policy barriers need to be removed to lay the groundwork for any type of program.

#### ES&D-10 RE - Alaska Specific Technologies

This catalog option has the potential for some confusion in the TWG: does it mean funding for R&D only, or does it entail incentives for developing and building new RE resources? If it R&D only, we can agree on cost structures, but are unlikely to develop any substantive estimates of emissions reductions. If it is funding for development, we can estimate emissions reductions as well.

#### ES&D-12 RE - Incentives and Barrier Removal

This option is reasonably scoped, although should be disambiguated from ES&D 11 either before or after balloting.

## ES&D-13 RE - Biomass Co-Firing

This option is reasonably scoped.

#### ES&D-14 Coal-to-Liquids

This option is reasonably scoped, but will require significant data inputs from TWG members.

#### ES&D-15 Low GHG Fuels

This option is reasonably scoped, but will require significant data inputs from TWG members.

#### ES&D-16 GHG Leak Reduction

This option is reasonably scoped, but will require significant data inputs from TWG members.

#### ES&D-17 Nuclear

This option is reasonably scoped, but will require significant data inputs from TWG members.