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Meeting #10 Summary
Governor's Commission on Global Warming
Little Rock, Arkansas
September 25, 2008

Attendees:

GCGW: Aubra Anthony, Nick Brown, Rep. Joan Cash, Steve Cousins, Jerry Farris, PhD, Rob Fisher, Richard Ford, PhD, Miles Goggans, Art Hobson, PhD, Kevan Inboden, Christopher Ladner, Elizabeth Martin, PhD, Robert McAfee, PhD, Hugh McDonald, Annette Pagan, Bill Reed, Cindy Sagers, PhD, Jeffrey Short, Kevin Smith, Gary Voigt, and Rep. Kathy Webb

Advisory Body Members and Staff: Jenny Ahlen, Jane Anderson, Karen Bassett, Lawrence Bengal, John Bethel, Martin Blaney, Maria Haley, Nancy Ledbetter, Lynn Malbrough, Teresa Marks, Grace Ellen Rice, John Shannon, Michael Borengasser (for Randy Young)

Governor's Office: Jillian Hicks, Andrew Parker

Arkansas Bureau of Legislative Research: Gina Mercer

Center for Climate Strategies: Tom Peterson and Randy Strait, and by phone, Hal Nelson and Lewison Lem

Others: See Attachment for Members of the Public Who Attended GCGW Meeting #10.

Background Documents: (all posted at www.arclimatechange.us)

1. Notice and Agenda
2. PowerPoint Presentation
3. Draft Summary of GCGW Meeting #9
4. CCS Memo to GCGW on Preparation for Meeting #10
5. Policy Option Descriptions for Analysis

Discussion and Conclusions:

1. Welcome and Introductions and Review of Day's Agenda

The Governor's Commission on Global Warming (GCGW) Co-chair Kathy Webb opened the meeting and asked the members of the GCGW Advisory Body to introduce themselves. Co-chairs Kathy Webb and Kevin Smith thanked the GCGW and Advisory Body members for their hard work throughout the process. Tom Peterson of the Center for Climate Strategies (CCS) briefly reviewed the agenda for the meeting. Co-chair Webb then asked members of the public to speak (a summary of the public comments is provided at the end of this meeting summary).

2. Approval of Draft Summary of GCGW Meeting #9

The GCGW approved the draft summary of GCGW Meeting #9 without any revisions. CCS noted that it will prepare a summary of the public comments and include them in the summary.

3. Review of Final Report Process

Peterson and Randy Strait (CCS) provided a brief review of the process for preparing the draft and final report.

4. Review and Final Approval of Arkansas' Draft GHG Inventory and Forecast

The GCGW approved the revised inventory and forecast incorporating the revisions that it approved at its last meeting for the Energy Supply and Agriculture, Forestry, and Waste Management sectors. It also approved (without any objections) revisions to the inventory and forecast for the municipal waste combustion category incorporating state-specific data provided by the Arkansas Department of Environmental Quality (ADEQ) shortly after the draft report was completed. These data replace default U.S. Environmental Protection Agency data for 2002 through 2005. Using these data also changed the forecast, which uses 2005 as the index year off of which the forecast is generated. The net change increased emissions by 0.45 million metric tons of carbon dioxide equivalent (MMtCO₂e) in 2025.

5. Review of GCGW Progress and Draft Results

Peterson noted that the GCGW will begin its final approval of the remaining 22 pending policy options today. He then reviewed several slides that summarize the draft quantification results. He noted that the information presented today will be revised as needed to reflect the GCGW's decisions on the pending policy options. The cumulative results presented are "scrubbed" to eliminate potential double counting where options overlap.

6. Review and Final Approval of Draft Pending Priority Policy Options

ENERGY SUPPLY (ES)

Peterson provided a brief overview of the ES options for which GCGW approval was pending, identifying revisions that the Technical Work Group (TWG) had made to the options since the last GCGW meeting, and ES TWG members provided additional information in responding to the GCGW's questions and comments. The following options are ready for the GCGW's review and final approval: ES-3A and ES-3B (the TWG recommends that these two options be merged), ES-4 and ES-5 (which are non-quantified options), ES-7, ES-8, and ES-10.

Summary of Comments and Responses to Questions:

ES-4 (Grid-Based Renewable Energy Incentives and/or Barrier Removal)—No clarifying questions or comments.

ES-5 (Approaches Benefiting From Regional Application)—A member asked for clarification on what the “program” is under this option. A member responded that the objective of this option is for Arkansas to begin a dialog to respond to a federal cap-and-trade program, since both U.S. Presidential candidates have indicated their interest in pursuing such a program. Another member noted that the federal program is highly uncertain now, and it is important for Arkansas to start coordinating efforts to understand possible options, influence federal policy, and be a leader in the Southeast to help shape regional and national programs. It is important for Arkansas to be proactive and involved on the front end of a cap-and-trade program and other issues to make sure the federal government understands Arkansas’ position.

A member suggested changing “program” to “mechanism” to clarify that this option recommends that the state start planning on how to respond to federal cap-and-trade program proposals. The GCGW agreed to change “program” to “mechanism” in this policy recommendation and to make cap and trade broader to include “other federal climate policy.” The GCGW also agreed to assign implementation of this option to the GCGW, or its designee.

ES-8 (Transmission System Upgrades)—Under “Feasibility Issues,” the GCGW agreed to add the following text to note transmission system constraints for renewables:

“The functioning of the electric transmission network is somewhat analogous to the nation’s system of roadways. High-voltage transmission lines were originally constructed to efficiently transport power from local utility bulk power plants, usually constructed in nearby rural areas, to large load centers in metropolitan areas. This has evolved over time to building transmission to even more remote baseload generation, and interconnecting with neighboring utilities to take advantage of jointly owned generating stations and emergency assistance. Central station wind and solar have significant cost advantages over distributed resources, but prime locations are remote from Arkansas and in very rural areas without significant electric transmission infrastructure. If regional and national bulk electric transmission lines (the equivalent of the interstate highway system) are not built, access to significant and cost-effective renewable generation will be obstructed, and goals for such must be scaled back to levels reliably and economically achievable.”

ES-3A (Renewable Portfolio Standard [RPS]) and ES-3B (Renewable Energy Feed-In Tariff [REFIT])—The TWG recommended that these two options be combined with ES-3B being a back-up to ES-3A if ES-3A does not achieve its goals. Some members objected to ES-3A because they did not agree with a mandatory RPS, the high cross-subsidy cost of 5%, and costs for ES-3A are too high. It was noted that utilities do make investments in renewable resources without mandates. Another member felt that without a mandate there was a risk that the two options would fail. Another member noted that a mandate would help to bring certainty to the market encouraging investments in renewables.

The GCGW agreed to separate these options and vote on them separately.

ES-7 (Geological Underground Sequestration for New Plants)—It was noted that although the policy option is stated correctly, the two sensitivity analyses do not reflect the statement of the policy option. What is missing is that the Hempstead plant is built in 2020 with carbon capture and storage technology, and Plum Point would be subject to carbon capture and storage technology in 2020.

A member asked why the uncertainty or feasibility sections of the policy do not mention that there has not yet been a demonstration of carbon capture and storage system technology, nor are the potential insurance (liability) issues addressed.

A member noted that the Hempstead plant will be built with maximum achievable control technology, and it will be the cleanest and most efficient plant built to date. They also noted that in the U.S, about 60 coal plants have been canceled over the past 18 months. The net effect is that older, dirtier coal plants are not being retired or replaced by the newer, cleaner plants, thus contributing to air pollution that otherwise would not occur had the newer plants been built. They also cited reliability and cost issues associated with replacing the Hempstead plant with renewable sources, and noted that the Arkansas Public Service Commission (PSC) requires the utility to evaluate the application of carbon sequestration technology for the plant annually.

Another member supports this option because it represents a compromise, it is not recommending that no coal plants be built, and calls for a moratorium until sequestration technology becomes available. The member added it is important that the U.S. lead the way in developing carbon sequestration. Another member noted that this is the most important option the GCGW is considering because of the large magnitude of GHG reductions it will achieve relative to the other options.

Another member does not support new coal plants because of their impact on the environment. In the next few years, with the permit requests for coal plants under consideration, Arkansas could double its coal capacity, which is not what the state should be doing.

Another member noted that although Arkansas may not make a big impact in the overall international scene, it needs to do its part toward addressing the problem of climate change.

ES-10 (Carbon Tax)—This option recommends that the carbon tax policy be national only, that it be reviewed in conjunction with any national cap-and-trade program being considered, and that it be rebatable by including a roll-back (or tax shift) on income and payroll taxes (not on energy consumption), so that the ratepayers don't have to pay more in overall taxes.

A member recommended that Arkansas should be looking into a carbon tax mechanism and participating in the national discussion. They also object to any roll-back because it defeats the purpose of the carbon tax, which is to decrease energy use.

Another member noted that forests emit carbon as well as prescribed burning. One should think about how to design the language in the policy to ensure that these kinds of sources are not taxed.

Another member recommended that the option be revised to reflect the wording that the GCGW approved for ES-5. It was suggested to use the term “tax shift” or “roll back” rather than “rebate.” The option was then put to vote after these two clarifications.

ES Voting:

- ES-4 (Grid-Based Renewable Energy Incentives and/or Barrier Removal)—unanimous approval; no objections.
- ES-5 (Approaches Benefiting From Regional Application)—unanimous approval with the revisions noted; no objections.
- ES-8 (Transmission System Upgrades)—unanimous approval with the revisions noted; no objections.
- ES-3A (Renewable Portfolio Standard (RPS))—majority approval, 10 objections of 21 members present and voting. GCGW members objected to this policy because (1) they do not agree with the mandatory requirement of the RPS if the REFIT policy has not achieved 250 MW (half of the 2015 goal) of renewables by 2012, and (2) the high cost of the policy.
- ES-3B (Renewable Energy Feed-In Tariff [REFIT])—super majority approval, 4 objections of 21 members present and voting. GCGW members objected to the high cost of the policy, and they believe that the upper limit on rate increases should be lower than 5%.
- ES-7 (Geological Underground Sequestration for New Plants)—majority approval with the revisions noted, 10 objections of 21 members present and voting. GCGW members objected to this policy because it recommends that construction of the Hempstead coal plant be delayed until 2020, the Hempstead plant will be the cleanest and most efficient coal plant built to date, it is uncertain if carbon capture and storage system technology can be demonstrated to be commercially viable and cost-effective by 2020, potential cost and reliability issues associated with using renewable resources in place of coal plants to meet base-load demand, and the PSC is requiring the Southwestern Electric Power Company to review annually all carbon sequestration and capture technologies as available in the future. One GCGW member objected on the basis that this would be de facto retro active policy making. Industry has a right to presume that the rules will not change in midstream on projects once they are begun. If the Commission wants to draw a line in the sand on the issue of coal fired power plants that must be done in the future and must not impact plants which have already had significant investments made in them under a current policy structure.
- ES-10 (Carbon Tax)—super majority approval with the revisions noted, 4 objections of 21 members present and voting. GCGW members objected to this recommendation in general, noting that this is a national issue because imposing a carbon tax on a local

market will cause Arkansas to be uncompetitive with other states that do not choose to impose such a tax. One GCGW member objected to the roll-back provision to adjust income and payroll taxes to offset any tax increase associated with a carbon tax, noting this defeats the purpose of the tax, which is to provide an incentive to decrease energy use.

AGRICULTURE, FORESTRY, AND WASTE MANAGEMENT (AFW)

A member noted that their comment to remove “marginal” from AFW-4 (Expanded Use of Agriculture and Forestry Biomass Feedstocks for Electricity, Heat, or Steam Production) at the last meeting was not addressed. CCS will look into this and make sure the comment is addressed.

TRANSPORTATION AND LAND USE (TLU)

Lewis Lem (CCS) provided a brief overview of the TLU options, and TLU TWG members provided additional information in responding to the GCGW’s questions and comments.

Summary of Comments and Responses to Questions:

TLU-2 (Research and Development for Renewable Transportation Fuels)—A TWG member noted that at the prior GCGW meeting, the analysis of this option was included with TLU-3. During a following TWG call, a member questioned how TLU-2 would be funded to achieve the funding level of “\$4,254,708” included in the Goals section of the policy option. The TWG members subsequently discussed this issue and agreed to remove the funding level from the option. The goal of this option is now revised to “...support research and development of renewable transportation fuels in order to increase the capacity of the state university system to develop and produce such fuels on a cost-effective basis.” A GCGW member asked why the cost should be removed. Another member noted that they only asked how it would be funded, not to remove the funding amount. Another member explained that the funding level originated from an estimate provided by the Division of Agriculture at the University of Arkansas. It was not from HR 1379, as noted in the previous version of the policy option under Related Policies/Programs in Place; HR 1379 was focused on production of biofuels for companies and not on promoting research and development (R&D) for biofuels. There was consensus among the GCGW members to remove the reference to HR 1379.

Another member noted that TLU-2 and TLU-3 are positive in that they promote R&D, and Arkansas is lagging behind most states in terms of investment in R&D.

The GCGW agreed to revise the text in the last paragraph under Implementation Mechanisms to read as follows and to remove the parenthetical information referring to HR 1379: “The state should consider providing continuing annual funding for program enhancement for biofuels and other biomass.”

Under “Related Policies/Programs in Place,” the GCGW agreed to add text to be supplied by a GCGW member acknowledging research programs in the state related to this option. Following is the text that the GCGW member provided after the meeting:

"ASU has established a Center of Excellence on BioFuels and BioBased Products. One research project is designed to develop an inexpensive supply of enzymes for cellulosic biomass conversion. In addition, environmental sustainability of various potential energy crop systems will be evaluated based on soil quality, water quality, and water use, in addition to crop and fuel yields from the management of these energy crops. A third area will be testing spark-ignition and compression-ignition engine categories to determine the impact on emissions and engine performance when fueled by specific alternative fuels. We are investigating the fuel production comparisons that suggest that algae have the potential to produce up to 100,000 liters (L) of oil/hectare (ha), nearly 17 times the level of the highest terrestrial crop, oil palm (www.oilgae.com). Finally, we are investigating valuable new bio-based products from protein and carbohydrate components present in low-value plant processing residues, such as algae, rice bran, or other residues generated from the emerging Mid-South bioenergy industry."

TLU-3 (Advanced Biofuels Development and Expansion)—A question was raised about the supply feasibility of this option. It was noted that the policy design is higher than what the U.S. Energy Information Administration forecasts. Under the Timing section, it appears that the goal of 10% is all advanced biofuels and doesn't include renewable fuels; the advanced biofuels have the low-carbon footprint; and achieving the goal by 2015 may be too optimistic, as there will be significant lead time to get the plants built and operating by 2015. The GCGW was referred to Table 3 of the policy option description for clarification on the fuel assumptions used for the analysis.

A member noted that the policy design defines advanced biofuels as biofuels from non-food sources. A clarification was noted that the advanced biofuels definition includes biomass-based diesel, but excludes corn-based ethanol. The intent of the language in the policy is to avoid conflict with food prices.

A member asked what definition is being used for "alternative fuel" in the goals section. It was agreed that the goals need to reflect the percentages used for each fuel in Table 3.

TLU-6 (School and University Transportation Bundle)—A member noted their objection to this option because it is an unfunded mandate. Another member asked why costs were not estimated for this option. The response was that in order to estimate a cost, one would need to know what programs would be in place to reach the goal level. The goal is aspirational, rather than a mandate.

Under Implementation Mechanisms, some members objected to the term "mandate," and recommended that "mandate" be replaced with "suggest." The GCGW agreed to keep the first five bullets as is, and to put the remaining bullets under a category "to consider" or "to consider such as."

Change the bullet from "Mandate that all streets within a 1-mile radius of any K-12 school or university have sidewalks for pedestrian use" to "Suggest that all streets near any K-12 school or university have sidewalks for pedestrian use."

Under Goals, replace the first bullet as follows: "By 2010, colleges and universities will study and report on the environmental impacts, the health and financial costs, and other

costs and benefits associated with reduction of student vehicle miles traveled.” Then, for the remaining bullets under Goals, change “will” to “should consider.”

TLU-8 (Procurement of Efficient Fleet Vehicles [Passenger and Freight])—This is a "state lead by example" option. A member noted that this option seems to be focused on new vehicles and doesn't acknowledge available technologies for retrofits of older vehicles. A member responded that the intention of this option would include the procurement of efficient fleet vehicles, including retrofits.

TLU-9 (Fuel Efficiency: Clean Car Incentive)—A member asked if this policy could include used vehicles that are retrofitted to improve fuel economy. Another member responded that retrofitting used vehicles would be difficult, noting that in Europe and Canada, this program only applies to new vehicles.

TLU-11 (Lower Speed Limits and Enforcement)—The focus of this option is on rural limited access highways. One member doesn't agree that this option would result in a cost savings, because the analysis doesn't include the cost of lost time to drivers. Another member noted that the American Trucking Association favors lowering speed limits because it will reduce accidents and insurance costs. CCS noted that the cost of lost driver time is considered an indirect cost similar to the savings associated with lower insurance and accident rates, and that none of these indirect effects is included in the analysis. Another member felt that lower speed limits will increase congestion in urban areas (e.g., I-40), and idling time in congestion may offset fuel savings.

TLU Voting:

- TLU-2 (Research and Development for Renewable Transportation Fuels) and TLU-3 (Advanced Biofuels Development and Expansion)—super majority approval; 1 objection of 21 members present and voting. The GCGW voted on these two options together.
- TLU-6 (School and University Transportation Bundle)—unanimous approval; no objections.
- TLU-8 (Procurement of Efficient Fleet Vehicles [Passenger and Freight])—unanimous approval; no objections.
- TLU-9 (Fuel Efficiency: Clean Car Incentive)—super majority approval; 1 objection of 21 members present and voting. One member favors a national program, and objects to this option being implemented only in Arkansas.
- TLU-11 (Lower Speed Limits and Enforcement)—not approved; 11 objections of 21 members present and voting. Members objected to this option because of the concerns noted above.

RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL (RCI)

Hal Nelson (CCS) provided a brief overview of the RCI options, identifying revisions that the TWG had made to the options since the last GCGW meeting. RCI TWG members provided additional information in responding to the GCGW's questions and comments. The GCGW agreed to vote on RCI-6 (Incentives and Funds To Promote Renewable Energy and Energy Efficiency), RCI-9 (Support for Energy-Efficient

Communities, Including Smart Growth), and RCI-10 (Energy-Savings Sales Tax) without further discussion.

It was noted that the quantification for some options (e.g., RCI-3) is affected by the forecast assumptions for the ES sector, and that for these RCI options the quantification was revised to reflect the decisions that the GCGW made during its last meeting for the ES forecast. As a result, the costs for RCI-3a and RCI-3b are now showing a savings. The voting record for RCI-3a and RCI-3b will be revised to note that one member objects to options that show cost savings.

RCI Voting:

- RCI-6 (Incentives and Funds To Promote Renewable Energy and Energy Efficiency)—super majority approval; one member (of 21 members present and voting) objected to this option based on negative costs.
- RCI-9 (Support for Energy-Efficient Communities, Including Smart Growth)—unanimous approval; no objections.
- RCI-10 (Energy-Savings Sales Tax)—super majority approval; one objection (of 21 members present and voting) based on negative costs.

CROSS CUTTING ISSUES (CC)

Randy Strait (CCS) provided a brief overview of the CC options, identifying revisions that the TWG had made to the options since the last GCGW meeting. CC TWG members provided additional information in responding to the GCGW's questions and comments.

Summary of Comments and Responses to Questions:

CC-1 (Greenhouse Gas Inventories and Forecasts)—No clarifying questions or comments.

CC-2 (State Greenhouse Gas Reporting and Registry)—A GCGW member asked why the recommendation to remove the CO₂ exemption from the definition of “air contaminant” in Arkansas’ Regulation 18 is included in this option. The TWG responded that this recommendation was included because the exemption may be an impediment for state agencies to report CO₂ emissions if Arkansas joins a registry. The option recommends that emission sources (including state agencies) would voluntarily decide to join a registry. It was noted that this same recommendation is included in CC-11. Following this clarification, the GCGW agreed to delete the recommendation to remove the CO₂ exemption from Regulation 18, because it would not apply to a voluntary participant. The language under the Timing section will also be deleted.

In response to a question, the registries listed in the Policy Design section are not meant to limit sources to the registries they would consider; this is provided as reference information. The GCGW agreed to move this section to the Related Policies/Programs in Place section.

CC-3 (Statewide Greenhouse Gas Reduction Goals or Targets)—A GCGW member noted that the drivers for reducing and sequestering carbon are related to the availability of the technologies, and the costs to the economy of meeting the 2020 target are much

more expensive than the costs of meeting the targets for later years. They suggested eliminating the 2020 target and keeping the 2025 and 2035 targets, since the development of technologies, such as carbon capture and storage, and the deployment of nuclear power plants won't occur before 2020. It was noted that the TWG based these recommended targets on the cumulative GHG reductions associated with the policies quantified by the other TWGs. Another member would like to see the costs associated with these goals; and another member noted that the cumulative costs associated with the quantification of the policies considered by the GCGW are uncertain, but are the best available to the GCGW at this time.

Another member registered concerns with the percentage GHG reduction level for the 2025 and 2035 targets, noting that historically technologies that affect GHG emissions have not changed that much, and reaching the 2025 and 2035 targets would require a massive change in technologies.

One member noted the success of European countries in significantly lowering their per-capita emissions. Another member noted, using WalMart as an example showing that the private sector can move quickly to reduce GHG emissions quicker than government.

A member quoted Governor Beebe's Web site, stating: "We can make Arkansas the envy of the nation. It is imperative for the future of Arkansas and our nation that we work together to find common sense solutions to address global warming. This is a crisis that can be prevented. Now is the time to act."

CC-7 (Optimizing Best Scale-of-Reduction Policies)—In response to a question about whether the TWG considered optimization of costs or level of production for this option, a TWG member noted that the TWG considered optimization to include several different elements, including allocation of different initiatives and costs. The TWG talked about various programs, but also acknowledged that as time passes, the dynamic of the programs may change, and it will be important to continually monitor the programs.

CC-8 (Creative Financial Mechanisms)—A member asked where the money would come from to support a state revolving loan program. Another member responded that the TWG initially considered impact fees as a funding source and considered recommending a funding level, but then decided that this should be left open because it is unclear how much funding will be needed. The TWG also felt that a wide range of funding options should be identified and considered.

It was noted that the TWG included under the Implementation Mechanisms section the recommendation that the state establish a board to oversee implementation of this option. Another member noted concern with the reference to a tax as a possible funding source, because the option does not clarify who will be affected by the tax. A member responded that the tax issue was put in as an opportunity, but not a requirement; it would be desirable to keep the funding neutral. Another member noted that a carbon tax could generate a lot of funding for implementing GHG mitigation programs in Arkansas.

A member noted that the goals as stated are really not goals, but are ideas to be presented to the Arkansas Climate Change Center. In contrast, two other members believe the goals as stated are goals. It was noted that because a numerical value isn't attached to the goals, the goals appear to be implementation mechanisms. It was suggested that the text under

the Goals section be moved to the Implementation Mechanisms section and vice versa. The GCGW approved this change.

CC-10 (Climate Change-Related Economic Development)—In response to a question about whether this option is recommending that a review board be established to which implementing parties would be subject, it was noted that this was not the intent of the option. Rather, it is focused on identifying creative ways to generate green economic development in the state. It was clarified that implementation of this option was left open, and reference to a clearinghouse-like entity in the first paragraph of the policy description was not intended to suggest that an authority be created to which implementing parties (a local chamber of commerce, industrial development authorities, etc.) under this option would be subject to review and approval of their plans. A member noted that this is one of the most important recommendations of the GCGW, because it focuses on creating green jobs in the state.

It was recommended that the focus of the option be broadened toward mitigating GHG emissions, including sequestration, rather than just focusing on GHG emission reductions.

A member expressed concern with the word “evaluation” in the first sentence in the second bullet under Goals; it was agreed to change this word to “analysis.”

CC-11 (Regulatory Realignment in Government To Encourage Constructive Climate Action)—Concerning bringing merchant plants under the review authority of the PSC, an Advisory Body member noted that this may be in conflict with federal authorities and statutes that regulate merchant plants. The PSC has not conducted a thorough review of the state and federal laws to determine if this would be inconsistent with federal law. They also noted that merchant plants are subject to air permitting and control requirements. It was noted that for any plant that qualifies for a Certificate of Environmental Compatibility and Public Need, the PSC is required to review the environmental impact of the plant and must solicit input from other state agencies on the impacts. The PSC also considers the need for the facility to serve Arkansas’ demand for energy.

A member noted that Arkansas Act 9 of 1960 authorizes cities and counties to issue industrial revenue bonds, commonly known as "Act 9 Bonds," to provide manufacturers with competitive financing. Merchant plants are eligible for these bonds. The GCGW may want to consider removing these incentives. It was agreed to add text to note that incentives for merchant plants to locate in the state should be reviewed.

An Advisory Body member noted that ADEQ is working on text that would provide for removal of the CO₂ exemption, but would include an emissions threshold so that small sources would not be regulated. ADEQ would not be in favor of a wholesale removal of the exemption. The GCGW agreed to add text to the policy to coordinate with ADEQ.

CC Voting:

- CC-1 (Greenhouse Gas Inventories and Forecasts)—unanimous approval; no objections.

- CC-2 (State Greenhouse Gas Reporting and Registry)—unanimous approval with the revisions noted; no objections.
- CC-3 (Statewide Greenhouse Gas Reduction Goals or Targets)—super majority approval; 3 objections of 21 members present and voting. One member objected with concerns about the ability and high cost associated with reaching the 2020 goal, since key technologies will not be available until 2020 or later. Two members objected to the 2025 and 2035 targets, because they do not believe they are achievable.
- CC-7 (Optimizing Best-Scale of Reduction Policies)—unanimous approval; no objections.
- CC-8 (Creative Financial Mechanisms)—super majority approval with the revisions noted; 1 objection of 21 members present and voting. One member objected to including reference to a tax in this policy without indicating who would be taxed.
- CC-10 (Climate Change-Related Economic Development)—unanimous approval with the revisions noted; no objections.
- CC-11 (Regulatory Realignment in Government To Encourage Constructive Climate Action)—super majority approval with the revisions noted; 2 objections of 21 members present and voting. One member objected because the Arkansas Pollution Control and Ecology Commission that has oversight over ADEQ had in fact already considered and unanimously rejected the suggestion that the state should amend the definition of “air contaminant” in Chapter 2 of the Arkansas Air Pollution Control Code (Regulation 18), and that the GCGW was overreaching in attempting to instruct that more narrowly focused Commission in how to perform their duties.

7. Public Input and Announcements

There were no announcements. Several members of the public commented on the issues the GCGW is addressing.

Sammie Cox, AEP–Southwestern Electric Power Company (SWEPCO)

The Turk (Hempstead County) plant should be built. The Arkansas Public Service Commission has approved the ultra-supercritical plant, which will be one of the most efficient coal plants in North America and will be retrofitted for carbon capture and storage technology when it becomes available.

David "Bubba" Powers, Arkansas House of Representatives

The majority of citizens of Hempstead County support construction of the Turk plant and are confident that SWEPCO will be a good steward of the environment.

Jim Kirchhoff, Hope Water and Light Corp.

The Turk (Hempstead County) plant should be built. SWEPCO has been a long-time provider of low-cost power and energy for Arkansans. Replacing coal with natural gas-fired electrical generation will significantly increase the cost of electricity.

Wes Woodward, Hempstead County Economic Development Corporation

Portions of southwestern Arkansas have experienced surges in energy costs caused by replacement of coal with natural gas-fired electrical generation, which have significantly hurt businesses in the area. Arkansas' demand for electricity will continue to grow. Arkansas needs to rely on a broad range of reliable, cost-efficient energy resources to maintain and grow its economy.

Matthew Petty (Omni Center for Peace, Justice & Ecology /Social Sustenance Organization)

The Turk (Hempstead County) plant should not be built. With the implementation of a tax on carbon, energy efficiency measures will be far more cost effective than electricity production from fossil fuels, will create permanent jobs in the state, and will reduce GHG emissions.

Kelly Mulhollan, citizen

The Turk (Hempstead County) plant should not be built. It's folly to be working to reduce global warming and at the same time allow more coal plants to be built.

Larry Brown, citizen

The Turk (Hempstead County) plant should not be built. Geothermal energy should be considered as an alternative source of energy. Arkansas has some hot areas that show promise. Smaller units could be built close to substations.

Malcolm Cleaveland, Professor Emeritus, University of Arkansas, Fayetteville

The Turk (Hempstead County) plant should not be built. There's substantial evidence that global warming is occurring, and catastrophic changes are inevitable. (See written comments below.)

James Burke, Ecological Conservation Organization

Mr. Burke read a quote from Al Gore stating why the Turk (Hempstead County) plant should not be built.

Joanna Pollock, Omni Center for Peace, Justice & Ecology

Building the Turk (Hempstead County) plant will harm Arkansas' ecology, and the costs will far exceed the benefits. The state should invest in renewable energy, which will protect the environment and create lasting employment for Arkansans.

Barbara Horn, Arkansas State Senate

Southwestern Arkansas residents support building the Turk (Hempstead County) plant.

Eddy Moore, Arkansas Public Policy Panel

The Turk (Hempstead County) plant should not be built. The Arkansas Public Policy Panel hired an independent expert who found that the cheapest source of energy in the state will be natural gas-fired generation and energy efficiency measures.

Steve Copley, The Interfaith Alliance of Arkansas

In its recommendations to the Governor, the GCGW should keep in mind the value of creation and the need and responsibility to protect the planet.

9. Adjourn

Co-chair Webb thanked all of the members of the GCGW and Advisory Body for their hard work and adjourned the meeting.

Attachment

Members of the Public Attending Arkansas GCGW Meeting #10
Little Rock, Arkansas
September 25, 2008

Name	Organization
Rodney Baker	Arkansas Farm Bureau
Ricky Belk	Arkansas AFL-CIO
Seth Blomeley	Arkansas Democrat-Gazette
Larry Brown	Citizen
James Burke	Ecological Conservation Organization
Malcolm Cleaveland	Professor Emeritus, University of Arkansas, Fayetteville
Steve Copley	The Interfaith Alliance of Arkansas
Rel B. Corbin	Citizen
Sammie Cox	AEP–Southwestern Electric Power Company
Ernest Cunningham	Arkansas Health Care Association
Ashley Davis	Clinton School of Public Service
Lynda Englehart	Mitchell Williams
Dennis Farmer	Arkansas Beverage Association
Jeffery Hall	Arkansas Farm Bureau
Kenny Hall	Arkansas State Chamber of Commerce/Associated Industries of Arkansas
Nicholas Hall	Clinton School of Public Service
Peggy Harris	Associated Press
Carmine Henry	Arkansas Electric Cooperatives
Mark Hicks	Zachary D. Wilson, P.A.
Steve Higgenbotham	Former Arkansas State Senator
Ann Hines	Arkansas Oil Marketers Association
Barbara Horn	Arkansas State Senate
Terry Horton	FTN Associates, Little Rock
Jim Kirchhoff	Hope Water and Light Corp.
Ludwik J. Kozlowski, Jr.	Arkansas Community Action Agencies Association
Claire LaFrance	Arkansas Earth Day Foundation
Polly Martin	Arkansas Grocers & Retail Merchants
Paul Means	Entergy Arkansas
Ark Monroe	Mitchell Williams
Eddy Moore	Arkansas Public Policy Panel
Kelly Mulhollan	

Matthew Petty	Omni Center for Peace, Justice & Ecology /Social Sustenance Organization
Mike Poe	Z/P Documentary Film Co.
Joanna Pollock	Omni Center for Peace, Justice & Ecology
David "Bubba" Powers	Arkansas House of Representatives
Ken Smith	Arkansas Audobon
Nathan Wilson	Winds of Change
Angela Wisely	Audobon Arkansas
Wes Woodward	Hempstead County Economic Development Corporation
Randy Zeek	Arkansas State Chamber of Commerce/Associated Industries of Arkansas

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To the Governor's Commission:

I wish to discuss some reasonably complex concepts and apologize for expression of my frustration when limited to two minutes in the public comment session. I will try to be succinct here.

I would like to inject some urgency into what some seem to see as just an attempt to put a useless restraint on industry. Unfortunately, the issues are much more serious than that. Today the scientific evidence is clear, despite a well-funded disinformation program that would do credit to the CIA. Global warming is occurring, and humans are responsible.

But some will say, "We have hundreds of years to solve this problem and why should we make any effort now, when there is still at least some scientific uncertainty about our vulnerability and we are still developing key technologies to mitigate the problem?"

Wrong! We may not have much time and we could see catastrophic changes in the lifetimes of many people on the Commission. The paleo-climatic record shows that step changes in climate may occur in decades, perhaps even years in some cases.

How could this happen? Changes are often:

1. Nonlinear-some are exponential functions, like rabbit populations when there are no predators.
2. The result of positive feedbacks in the climate system. What is a positive feedback? Think of an explosion that starts with a spark but quickly escalates. An example of a positive feedback is warming of the Arctic tundra, which releases large quantities of frozen methane. Methane itself is a potent greenhouse gas, and as methane concentrations increase, temperature will increase, releasing more methane in a vicious cycle.
3. Threshold effects or tipping points. Past a certain points, positive feedbacks take over and catastrophic change becomes inevitable. We could be very close to a threshold for revolutionary climate changes.

What are possible consequences? How severe could they be? An example is the deglaciation of the polar regions. Deglaciation is proceeding at a phenomenal rate and it appears to be accelerating. The Greenland ice cap is shrinking; if it were to go completely, sea level would rise at least 20 feet, submerging trillions of dollars of infrastructure and displacing hundreds of

millions of people. The West Antarctic Ice Sheet (WAIS) is also losing mass and could easily become destabilized. That would raise sea levels 10 to 20 feet. In addition to the huge human costs, critical coastal ecosystems would be destroyed.

Other impacts of global warming are already being felt widely. For example, the ongoing loss of mountain glaciers and snowpacks that provide water supplies and hydroelectric power to over a billion people and the extension of fire seasons, resulting in catastrophic fires.

Are we sure that bad things will happen if we continue business as usual? Bad things are already happening, but we cannot say with complete certainty that catastrophic changes will follow, and will follow quickly. Do we want to gamble with huge chunks of our civilization? If change will be catastrophic, prudent people make those preparations necessary to avoid that outcome.

Ask the Chinese - they gambled that a big earthquake would not occur during school, so they did not quakeproof their schools in a known high risk seismic zone. The results? More than 10,000 children dead and many more injured and psychologically traumatized.

We are in a known climate change hazard zone. In the face of uncertainty, but with horrific consequences for inaction, prudent people act. Reduction of greenhouse gases (GHGs) is critical. We should at least take "no regrets" actions toward that goal, such as increasing economic efficiency. It is my understanding that new coal fired power is much more expensive than conservation efforts to reduce demand. And improvement of the national transmission grid would move existing excess power where it is needed.

In a way it is unfair that Arkansas should have to undertake to limit GHGs without leadership from the Federal level. Unfortunately, there has been no semblance of guidance from the feds, so the states have been taking the lead. It is time that Arkansas joined them and showed a little leadership of our own.

-- Malcolm Cleaveland