



[www.arclimatechange.us](http://www.arclimatechange.us)

**MEETING SUMMARY**  
**ARKANSAS GOVERNOR'S COMMISSION ON GLOBAL WARMING**  
**Residential, Commercial, Industrial (RCI), Technical Working Group (TWG)**  
**Call #12, August 22, 2008**  
**1:00 pm – 3:00 pm CDT**

**Attendees:**

**GCGW:** Stephen Cousins, Annette Hagan, Chris Ladner, Robert McAfee, Cindy Sagers

**Governor's Office:** none

**Arkansas Energy Office:** Susan Nelson

**Advisory Body Members:** John Bethel, Jenny Ahlen for Maria Haley

**Other State Agencies:** Karen Bassett – ADEQ, Evan Brown – AR Energy Office

**Center for Climate Strategies:** Hal Nelson, Katie Pasko

**Public:** Paul Mies, Tracy Katz & Julie Brown – AR Home Builders Asso., Ludwig Kozlowski – AR Community Action Agencies Association, Joe Barack – Home Builders Association of Greater Little Rock

**Background Documents:** (all posted at [www.arclimatechange.us/RCI.cfm](http://www.arclimatechange.us/RCI.cfm))

1. Notice and Agenda
2. PowerPoint for Teleconference
3. Draft Policy Option Document

**Introductions and Review of Agenda**

Katie Pasko welcomed the RCI TWG members, and completed a roll call of the attendees. The meeting's goal was to continue review of policy option quantification and language.

**Review of Draft Policy Option Document**

The general commentary should include a note that all the data used in quantified policy options is reflective of current technology in a rapidly changing field. For example, LED lighting is available, but still expensive, for commercial and residential use. As new technologies become more widely available, more GHG reductions are expected, along with changing cost data.

Market-driven energy efficiency gains are not quantified in these policy options.

**RCI-2b. Utility and Non-Utility DSM and Energy Efficiency for Electricity - Approved on July 16<sup>th</sup> meeting to present to GCGW, the narrative (not the program target) section of goals was amended**

The TWG approved the changes and additions to the language supplied by Bob McAfee as a result of discussions at its July meeting. Language to clarify the modeling was added to the Timing section.

**RCI-3a. Reduced Energy Use in New and Retrofitted State-Owned Buildings: Government “Lead by Example” - Approved to present to GCGW as amended**

Chris Ladner reviewed the changes he made to the policy option, which were intended to clean up the language in the option, as discussed previously by the TWG.

Nelson also added language to the Assumptions, reflecting the quantification change resulting from Ladner’s edits. This change is to assume that renewable energy begins to get deployed when energy efficiency gains are 70% from current levels. This change lowered the cost per ton of CO<sub>2</sub> slightly.

**RCI-3b. Reduced Energy Use in Existing State-Owned Buildings: Government “Lead by Example” - Approved to present to GCGW as amended**

The TWG recognized the need to implement this policy as quickly as possible, as there are many lost opportunities in current construction projects, especially school projects.

The TWG increased the state goal from 30% to 50%, in the first line of the Goals section.

In addition, maintenance and operating costs should be included in the cost estimates for high efficiency buildings. Language will be added to the Additional Costs and Benefits section of both RCI-3a and RCI-3b: “*Maintenance and operating costs should be included in the lifecycle cost accounting of high efficiency buildings.*”

**RCI-4a. Promotion and Incentives for Improved New Building Design and Construction - Approved to present to GCGW as amended**

**RCI-4b. Promotion and Incentives for Improved Existing Building Design and Construction - Approved to present to GCGW as amended**

These two options are related policies. RCI-4a uses the new commercial construction rate of 2%/yr., which is the same rate as used for government buildings. RCI-4b covers major retrofits of commercial buildings separately from new construction.

The GHG reductions shown in these policy options are relatively low, because the bulk of the reductions are quantified in RCI-2a and 2b.

The TWG reviewed the changes to the options:

- Leave reference to ‘Green Globes New Construction’ in the Goals section.
- Correct, in all policy options, the tiered incentive levels to reference reductions ‘from 2005 levels’, with levels at:
  - 20% in 2014

- 25% in 2016
- 30% in 2018
- 35% in 2020

Include a comment in Key Uncertainties section of all policy options, except RCI-5 (not quantified) that *“The quantification of costs and benefits of energy efficiency only include technologies that are currently commercialized. New technologies, such as building integrated solar photovoltaic panels, LED lighting, etc. that might lead to additional GHG reductions at a reduced cost are not included in the cost analysis.”*

Benchmarks are ASHRAE 90.1-2004 energy standard for commercial buildings, and the 2004 Arkansas Energy Code for residential buildings

#### **RCI-5. Education for Consumers, Industry Trades, and Profession - Approved to present to GCGW as amended**

Language to correct and clarify the policy option Description and Implementation sections was distributed and discussed. The TWG agreed to insert these changes. Members will review and send additional comments to Hal Nelson and Katie Pasko.

Concerns were expressed about funding this policy option. The TWG agreed to add language to the Implementation Mechanisms section: *“Funding for educational programs could come from a variety of sources, including professional associations, matching grants from federal agencies, regional market energy efficiency organizations and energy efficiency funds from utilities and non-utilities, among others.”*

#### **RCI-6 Incentives and Funds To Promote Renewable Energy and Energy Efficiency -**

Chris Ladner presented revised goal numbers to be reflective of realistic conditions in Arkansas. Federal programs do not always include economic incentives and employer participation, with a two county pilot program to resolve implementation issues. The ultimate goal is to increase the number of low-income homes that have been made more energy efficient in a shorter timeframe.

The implementation timeframe needs to be at least five years, therefore, quantification assumptions will be that the program begins in 2009 ramping up to 20,000 homes in 2014. Currently, about 1500 homes are included annually at a cost of \$2800/home.

Discussion was held about striking the phrase ‘tax credit’ from the Policy Description section, in the next to the last paragraph. However, incentives for utilities and homeowners need to be addressed in order to encourage the capital outlays necessary for energy efficiency programs.

The goal section will be reviewed again at the next meeting.

#### **RCI-8. Nonresidential Energy Efficiency – Approved to present to GCGW as amended**

Nelson raised a question regarding the language and assumptions addressing new transformers. This policy option has not been quantified as yet because all new transformers must meet new efficiency standards, as set by DOE. As a result, it has been ruled that standards for medium and high voltage distributors have been ruled to have no significant impact on the environment.

The TWG decided that this should be a non-quantifiable option.

Add language addressing non-linear loads to the Key Uncertainties section, such as “Effectively addressing the efficiency of non-linear (variable) power loads, ie. computers, fluorescent lighting, etc., remains a consideration under the new standards.”

Move the addition to the Goals down to Related/Policies In Place: *Epaact 2005 set standard for NEMA TP-1 low voltage distributors, effective 2007. Standards for medium and high voltage distributors have been ruled to have no significant impact on the environment.*  
<http://www.epa.gov/fedrgstr/EPA-AIR/2007/November/Day-09/a22004.htm>.]

Combined heat and power (CHP) is primarily high-efficiency boiler configuration that captures heat. The initial quantification was done assuming 100% natural gas as the fuel. This results in a very high cost-effectiveness value, which is misleading as to the true value of this policy option.

The TWG recommended using an average power mix of 50/50 coal/gas rather than 100% natural gas, as industrial users are more likely to implement this initiative. Commercial users such as hospitals and laundries, with 24 hr. hot water demands, are also likely to pursue this or other fuel-efficient technologies.

Language has been added to the Key Uncertainties section to explain the high resulting cost from the 100% gas assumption. This will be changed with the above quantification change.

### **Next Steps**

Comments and concerns expressed by the GCGW at its next meeting will be reviewed.

The Key Uncertainties, Related Programs/Policies and Additional Benefits and Costs sections will be the next focus of the process.

### **Agenda, Date, and Time for Next Meetings**

The next meeting will be held on Thursday, September 11, from 1-3 Central. A second meeting in September will be scheduled by e-mail.

### **Public Input and Announcements**

Paul Mies had no comment.

Ludwig Kozlowski, Arkansas Community Action Agencies Association, spoke regarding the sales tax exemption for energy efficient appliances referenced in RCI-10. He recommended amending and expanding Act 120-1983, which provides a limited sales tax exemption for electricity for low-income residents. This act currently provides a sales tax exemption for incomes less than \$12,000 on the first 500 KWh of electric use. The ACAA recommends increasing these limits to \$26,000 and 1000 KWh to reflect equivalent 2008 levels.

Evan Brown, AR Energy Office, recommends better enforcement of existing codes, rather than creating new codes. Enforcement rates throughout the state vary from 60% and higher, but all could be improved. Adding new codes will have little effect without enforcement, and will only increase the number of homes failing to meet code. He will forward this data to Hal Nelson.

Julie Brown, AR Home Builders Association, informed the TWG about Green Building training and certification programs held by the Association. The next session will be held in November. She will forward information to Hal Nelson for inclusion in RCI-5 Related Policies section.