

# **Summary of the Fourth Meeting of the Illinois Governor Rod Blagojevich Climate Change Advisory Group**

**July 10, 2007**

**Thompson Center  
100 West Randolph Street  
Chicago, Illinois**

## **Introduction**

The fourth meeting of the Illinois Climate Change Advisory Group (CCAG) began at approximately 10:45 a.m. Some 55 individuals were in attendance in Chicago, and another dozen joined via teleconference from Springfield, IL. Illinois EPA (IEPA) Director and Advisory Group Chairman Doug Scott opened the meeting by initiating a round of introductions and reviewing the group's accomplishments since the previous meeting. Director Scott also reviewed the overarching purpose of the ILCCAG, reminding attendees of the Governor's dual charge to reduce Illinois greenhouse gas (GHG) emissions to 1990 levels by 2020 and to sixty percent below 1990 levels by 2050.

Mr. Scott then outlined the day's agenda, noting that much of the day's discussion would focus exclusively on the multi-sector modeling exercise. He noted it was essential for the group to understand the underlying assumptions and key elements of the process in order to make decisions regarding which proposals to move forward and ultimately recommend to the Governor.

Dr. Jonathan Pershing, director of the Climate and Energy Program at the World Resources Institute (WRI) specifically thanked those individuals that had been engaged in the modeling conversations and modeling subgroup. Dr. Pershing also stressed for the group that despite the amount of work that had been invested in the modeling efforts, there would still ultimately be questions. Modeling, he noted, is not a straight-forward task with right and wrong answers, but rather an exercise to provide relative comparisons and perspective. He encouraged the group to be comfortable with this and to be careful not to interpret modeling output as answers or over-interpret the results.

## **Presentation of Energy2020 Reference Case (Glen Wood, ICF)**

Mr. Glen Wood of ICF International reviewed the final reference case, including sources of input data (principally drawn from the REMI model macroeconomic forecast and U.S. Department of Energy) and resulting greenhouse gas emissions projections from 2000-2020.

Several questions and comments regarding the reference case were raised by members of the CCAG and responded to by Mr. Wood and the modeling team. These included discussions around:

- **Personal income data.** Gene Trisko (UMW) noted that economic literature shows that the real median household income in IL has declined since 1999 largely due to an inflow of people who have lower education and hence lower wages. Yet the data used in the reference case purport an increase in per capita wealth. Mr. Wood explained that these data come from IL DCEO and WRI added that figures were expressed in nominal, not real terms, and therefore include inflation, showing a slow, but real, growth rate.
- **Age comparability of data.** Mr. Wood stated that most Energy Information Administration (EIA) data are from 2001 and specific state data tend to be more recent. Variables such as end-use energy consumption, however, do not change rapidly and many disparities in data were rectified during the building of the reference case.
- **Model assumptions regarding gas prices.** Mr. Wood explained that the Energy2020 model uses the EIA's Annual Energy Outlook gas and oil prices and then generates a price for electricity exogenously. Dr. Pershing (WRI) noted that there is no supply constraint assumed within IL (addressing a question of whether it is assumed supply will equal demand) and that a sensitivity run will address a high gas price.
- **Assumed transmission capacity for IL.** Mr. Wood noted that there were no assumptions made regarding constraints to in-state transmission; the model only looks at changes within nodes.
- **Vehicle efficiency trends.** Mr. Wood noted that changes in overall fleet efficiency (a peak in 2010 followed by a return to 2000 levels by 2020) reflect changes in gas prices and consumer's response to elasticity in the price. Mary Culler (Ford) suggested that it was not accurate to not include fuel efficiency improvements in the reference case. Dr. Pershing (WRI) acknowledged that it was ultimately up to the group to decide, but that the reference case was largely based on historic trends; the exclusion of efficiency improvements might therefore present a conservative approach.
- **Vehicle fleet composition.** It was noted that the model did not account for changes in the composition of vehicles on the road. Some concern was addressed that this did not adequately reflect a trend in changing consumer habits. However, Dr. Pershing (WRI) pointed out the purpose of the reference case was to only model business as usual without consideration of policy or other changes.
- **Changes made to underlying assumptions regarding coal and natural gas capacity numbers.** Mr. Wood also noted that several other additional refinements to the reference case had been made after the final subgroup call, but that, in general, the power sector agreed well with published forecasts.

- **The agriculture and forestry sector and the model's ability to track loss of potential emissions reductions from forestry activities.** Mr. Wood stated that the Energy2020 model only includes emissions from energy use in this sector.
- **Inclusion/exclusion of RPS policy option in the reference case.** Howard Learner (ELPC) noted that the IL legislature was currently discussing a more stringent RPS, and suggested that since it was likely to pass it be incorporated into the reference case. Mr. Wood stated that this option would be modeled with the policy package. There was substantial discussion around what constituted a "best-guess" scenario with reasonable predictability and the incorporation of policies that are not yet "on the books," particularly for policies such as the RPS with significant environmental and price implications.
- **The expiration of nuclear licenses in 2022.** The reference case shows relatively constant nuclear generation through 2020. All nuclear plants in Illinois currently holds licenses that expire after 2020 and therefore such potential expirations do not influence the reference case. Nonetheless, such expirations should be taken into account when considering policy recommendations.
- **Modeling to 2050.** Director Scott noted that it was up to the group to decide how to handle addressing the Governor's emission reduction targets for 2050. Mr. Scott supposed that iterations of the ILCCAG would be necessary going forward to track and chart a longer-term strategy. He suggested that the "1990 by 2020" number was the focus for this group. Several group members concurred that this would likely be an iterative process in the future.
- **Increased licensing of ethanol plants and production of ethanol.** The modelers noted that these were not incorporated into the reference case, with the exception that the REMI economic forecast includes some implicit growth of new ethanol plants. Representatives from the Sierra Club stated that the amount of energy used by the life-cycle production of ethanol can produce significant emissions, on par with new power plants. Dr. Pershing (WRI) noted that increases in ethanol might get captured in gas prices, but likely not significantly.
- **Increasing state transmission capacity and associated costs.** Ron Burke (IEPA) stated that the reference case does not include a large number of new coal plants. Howard Learner (ELPC) added that very little new transmission is proposed and that existing intrastate transmission is likely adequate. This is also true for wind, where many proposed projects are located near transmission centers. It was noted, however, that proximity to "a line" does not guarantee there is sufficient transmission capacity and that costs of new transmission should still be considered.

Director Scott concluded by asking that additional comments regarding the reference case be submitted by the following Friday at noon.

## **Presentation of Policy Options Modeling: All but Cap and Trade (Glen Wood, ICF)**

Mr. Glen Wood of ICF International reviewed the status and initial results from the modeling of the “all-in minus cap and trade” policy package. This policy package included 22 of 24 policies under consideration (policy #16—state-level cap and trade and policy #12—carbon offset for electric generation were excluded from this run). Initial findings showed that this policy package results in 2020 emissions of 294 MtCO<sub>2e</sub>, approximately 32 MtCO<sub>2e</sub> below the current reference scenario (or about 1/3 of the 2020 goal).

In the case of several policies, particularly those pertaining to improved energy efficiency, much of the anticipated emissions reductions occur out-of-state. Policy synergies also accounted for emission reduction estimates that were lower than those calculated in the original policy straw proposals. It was noted additionally that some policy options, such as improved building codes, will likely have a greater impact in the future (beyond 2020).

These results represent initial findings and some numbers defining each policy may be slightly adjusted before the recommendations are finalized.

Another round of questions and comments followed Mr. Wood’s presentation. Issues discussed included:

- **Illinois’ electricity export capacity.** Mr. Wood noted that the model uses the existing inter-connections and establishes limits based on this predetermination.
- **Leakage.** It was noted that in the context of cap and trade, reductions in in-state emissions may increase emissions elsewhere, but that the model can account for this.
- **The geographic boundaries of the model.** This is based on the IPM region and exports, imports, and leakage are generally associated with neighboring states to the north, east, and west.
- **Financial costs associated with policy package.** Mr. Wood said that there wasn’t a good answer for this yet since the iterative modeling with REMI had not been completed, but noted that that initial estimates put consumer electricity prices in 2020 at 2-3 percent above current levels. There is also a differentiation of costs (GDP vs. energy vs. equipment) that will have to be interpreted.
- **Proposed modeling of Cap and Trade.** Discussion included the policy option description and need to model separately.
- **Remaining emissions reduction gap.** Dr. Pershing (WRI) noted the reality that many of the estimated emissions reductions calculated in the policy straw proposals did not produce as significant a reduction in the model run (see above).

- **Assignment and allocation of policy-generated revenue.** It was noted by WRI staff that while the policy description directs revenues to be spent to support specific public benefit activities such as CCS deployment and energy efficiency, for modeling purposes these revenues will not be recycled and instead put aside to quantify what funds may be available for such activities in the future.
- **The feasibility of modeling policy options separately.** A number of group members stated that they would like more detailed modeling information regarding what amount of emissions reductions could be expected from particular policy options. Mr. Wood and Director Scott noted that this would require that many iterative runs of the model be performed separately, so these policies really have to be interpreted as a package. In addition it was noted that as soon as you combine policies, their interactions have overwhelming effects; therefore assessing them in isolation may lead to erroneous conclusions. For these reasons, in addition to time and resources, a full analysis of this scale may not be possible. Dr. Pershing (WRI) stated that the straw policy proposals were done in order to provide a sense of relative scale and that it might be possible to give relative weights to certain policy options in the final report based on this type of analysis.

### **Additional Discussion**

Following a short break, Director Scott put forth to the CCAG that during the entire process, only a handful of proposals had caused substantial consternation and discussion, noting that the other “non-controversial” proposals had been generally accepted. Mr. Scott proposed that with the exception of proposal numbers 18, 5/10, 9, 12, and 16, all other policy option proposals be moved forward and incorporated into the final report as recommendations to the Governor.

Matt Most (Midwest Generation) noted that the current suite of policy options did not create a proportional representation from each of the economic sectors; he noted that there was a disproportionate weight on the power sector.

Doug Scott proposed that certain policies could be more stringent or additional policies from other sectors could be considered.

Michael Schlesinger (UI-UC) suggested that the group might consider reexamining policy options that had not made the initial “cut” during the voting process.

Other group members stated that they were open to enhancing policies.

Director Scott presented the option that if it was determined by the CCAG that certain policies should be strengthened, subgroups could be reconvened to assess and make such determinations.

Mike Johnson (City of Chicago) asked whether it was possible to identify the relative maximum reductions from each policy option and where this set of current policy options stand in relation.

Howard Learner (ELPC) noted that any significant changes in emission reductions would likely only be achieved by enhancing one of the “large reduction” proposals.

Rob Carney (Caterpillar) addressed the group stating that action on climate change should be taken at the federal level. He noted that while some recommendations have merit, he can’t say yes or no to proposals that will be part of a state mandate and therefore would abstain from taking a position on any of these recommendations.

Finally, questions were raised regarding the construct of the final report. Doug Scott noted that the level of detail would be based on the subgroup straw proposals. The final policy recommendations would not include formal legislative or regulatory language. Implementation of the policy options was not the focus of this group.

The set of 19 policy options (see above) was accepted under consensus by the ILCCAG for inclusion in the final report to the Governor.

### **Next Steps**

Dr. Jonathan Pershing (WRI) then reviewed the following action items, expected to take place prior to the next CCAG meeting:

- Completion of the modeling runs for the policy option package and a review of the results.
- Staff will begin to put together pieces of the final report.

The next meeting of the CCAG is expected to occur in mid-late August.

The meeting adjourned at approximately 4:30 p.m.