

**Prospectus for Synthesis and Assessment Product 4.5**  
*Effects of Global Change on Energy Production and Use*

**Public Review Comments**  
**23 February – 24 March, 2006**

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### **General Comments**

Ameren understands that the Synthesis and Assessment Product (“SAP”) 4.5 has been added to the original 21 SAPs developed as part of the Climate Change Science Program’s (“CCSP”) Strategic Plan. However, we are concerned that the draft Prospectus is rather negative as to what is available from various sources to produce a credible and worthwhile SAP 4.5. The CCSP guidelines say that the SAPs will support “informed discussion and decisions by policy-makers, resource managers stakeholders, the media, and the general public,” and “help define and set the future direction and priorities” of the CCSP Program. If the available sources are not available to meet the guidelines, then how will SAP 4.5 be able to provide the future direction and set priorities? Has the survey and assessment of the available literature been fully reviewed considering the short time since the decision to develop this document? Is there some additional mechanism to develop the appropriate documentation to enable SAP 4.5 to meet the guidelines of the CCSP and if not should the SAP proceed without that information?

### **Ameren Corporation, Pike**

First General: I was not able to participate in any of the stages that led to this prospectus and am therefore submitting some comments during this public review. Timeframe: Will it be possible to focus on two general time periods (e.g., 2030 and 2070) to try to say something about the role of climate change in this sector relative to other changes that will be occurring over time? Or to say something about potential threshold effects with temperature change?

Second General Comment: The prospectus states that new analyses will not be commissioned, and that new scenarios will not be generated. However, would it be possible to show the sensitivities of energy production and consumption under different ‘what if’ scenarios of temperature change, precipitation change, energy demand, technological change, etc.?

Third General Comment: Is there any plan to carry out, or even comment on, what was done in the Pew Center report (2004) on “U.S. Market Consequences of Global Climate Change”, where results from offline literature on the climate change effects on space heating and cooling were incorporated into the IGEM model as damage functions to help assess economy-wide impacts? Results such as this can shed some light on the importance of certain impact sectors over others.

**DeAngelo, U.S. EPA**

(Cover letter with attached comments) The Edison Electric Institute (EEI) appreciates the opportunity to respond to the above-referenced notice on the availability for public comment of the draft “Prospectus for Product 4.5,” which is a “topical overview” and a description of the “plans for scoping, drafting, reviewing, producing, and disseminating” another of the 21 final “synthesis and assessment products” (SAPs) planned to be produced by the U.S. Climate Change Science Program (CCSP) in the 2004-2007 time frame.

EEI is the association of U.S. shareholder-owned electric companies, international affiliates and industry associates worldwide. EEI’s U.S. members serve more than 95 percent of all customers served by the shareholder-owned segment of the industry, generate more than 70 percent of all electricity in the country, and serve nearly 70 percent of all ultimate customers in the nation. EEI also has long been a participant in matters related to climate change science and its assessments, particularly as observers to the Framework Convention on Climate Change sessions of its Conference of the Parties and its Subsidiary Body for Scientific and Technological Advice and to the Intergovernmental Panel on Climate Change sessions.

We note that while the “Proposed Timeline” for this Prospectus and for a September 27, 2005, “SAP 4.5 Stakeholder Workshop” provides for a “public comment period of at least 30 days,” we were surprised to learn that the Federal Register notice called for a reply in less than 30 days, particularly since EEI, in commenting on March 7, 2005, on another SAP Prospectus urged that the comment period for each SAP prospectus be at least 30 days. However, a review of the “Instructions for Submission of Comments” on the draft Prospectus includes a correction of the Federal Register notice date to March 24, 2006. While we appreciate the correction by way of the “Instructions,” as it affords a full 30 days for comment as we have urged, such correction apparently was not published in the Federal Register, which may mean that not all persons potentially interested in this proposed SAP are aware of the correction. Indeed, we nearly decided not to comment because the original notice period was less than 30 days. Fortunately, we made the effort to obtain the “Instructions.” We suggest that in the future any such correction also be

published in the Federal Register since that is the official government medium for public notification.

Enclosed are EEI's comments on the draft Prospectus in accordance with the "Instructions." If you have any questions about our comments, please contact me at (202) 508-5617 or Eric Holdsworth, EEI's Director of Climate Programs, at (202) 508-5103.

**Edison Electric, William Fang**

(General Comments) We understand that the Climate Change Science Program's (CCSP) Strategic Plan has called for 21 Synthesis and Assessment Products (SAPs) over a four-year period. However, we further understand from the draft Prospectus that an April 2005 report by the General Accounting Office (GAO) contended that the original list of "21 SAPs do not satisfy" the "requirement" of section 106 of the Global Climate Research Act of 1990 for "periodic assessments of implications of global change on various systems and resources" in the U.S. (p. 1). Accordingly, the draft Prospectus reports that the CCSP added, as of July 15, 2005, a SAP 4.5 to its list of 21 assessment areas.<sup>1</sup> While such a SAP could be beneficial, we have several general concerns.

First, the draft contains a general statement that the SAP "will summarize the current knowledge base about possible effects of global change on energy production and use" in the U.S., with no further elaboration, including no explanation or discussion of the purpose or objective of such a summary (p. 1) (emphasis added). Moreover, it is unclear what is intended by the term "global change," as there is no explanation thereof. This term is defined in the 1990 Act,<sup>2</sup> but it is also defined differently in Article 1 of the Framework Convention on Climate Change (FCCC).<sup>3</sup> While this draft Prospectus makes no reference to either definition, since this SAP is being prepared in furtherance of the 1990 Act we assume that that definition would apply. However, the draft Prospectus does not explain how such a broadly defined global term applies to "energy production and use" solely in the U.S. and the "effects of global change" thereon. Indeed, in some respects the FCCC definition may be more appropriate, but is not likely to apply because

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<sup>1</sup> Section 106 requires that the federally established Committee on Earth and Environmental Sciences, as required by the Act, prepare at least every four years and submit to the President and Congress "an assessment," which, among other matters, "analyzes the effects of global change on. . .energy production and use." 15 U.S.C. § 2936.

<sup>2</sup> Section 2(3) of the 1990 Act defines the term "global change" to mean "changes in the global environment"— not just in the U.S. or regionally – "(including alterations in climate, land productivity, oceans or other water resources, atmospheric chemistry, and ecological systems) that may alter the capacity of the Earth to sustain life." 15 U.S.C. § 2921(3).

<sup>3</sup> Article 1 of the FCCC defines "climate change" to mean "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over a comparable time period."

of the 1990 Act definition. In any event, there should be a reference to the definition and an explanation as to how it applies regionally to the U.S.

Second, we are concerned that the draft Prospectus is rather negative as to what is available from various sources to produce a credible and worthwhile SAP 4.5 that, according to the CCSP guidelines, not only “will support” “informed discussion and decisions by policymakers, resource managers stakeholders, the media, and the general public,” but also “help define and set the future direction and priorities” of the CCSP Program.

The initial “scoping process” of the draft Prospectus did not have an auspicious start, which the draft states was “completed in September 2005” (p. 1). Apparently that is a reference to the “SAP 4.5 Stakeholders Workshop” held on September 27, 2005, at a Bethesda, Maryland hotel for the purpose of obtaining “Stakeholder Contributions to Discussions of the Draft Prospectus.” The written materials for that workshop, under the heading “**PROPOSED APPROACH AND ANALYSIS,**” explained what was planned for the SAP and asked several questions as follows:

SAP 4.5 will not commission new analyses, although it is likely to include new syntheses of available knowledge and data. Likewise, it will not develop climate change scenarios, instead drawing from the report of SAP 2.1 and other CCSP sources. Its focus will be on possible energy sector impacts of global climate, including a characterization of current uncertainties and research priorities for reducing uncertainties (where feasible through research) as a basis for informing decision-making. Although ideally it would quantify impacts under different scenarios for regional climate change and associated uncertainties, given limited data and knowledge, it is likely to emphasize vulnerabilities to impacts and general levels of confidence for statements about concerns. It will also identify where research could reduce uncertainties about vulnerabilities, possible impacts, and possible strategies to reduce impacts and increase adaptive capacity.

*Questions:*

- Who has carried out research and assessment on issues related to effects of global change on energy production and consumption?
  - How good is the current knowledge base as a foundation for conclusions about these issues?
  - To what degree is use of this knowledge base by SAP 4.5 likely to be affected by compliance with the Information Quality Act?
  - What are the most important questions to pursue in investigating available knowledge?
  - How should the SAP author team collaborate with other experts?
- (Emphasis added.)

Unfortunately, attendance at the workshop was merely one stakeholder, namely, an EEI representative. Although our representative attempted to be responsive to these questions, the stakeholder “contribution” was limited, and thus it was not a particularly useful workshop. Of course, we do not know why it was not well-attended. Nevertheless, while the “scoping process” may be called “completed” in a technical sense, it certainly was not “completed” from a substantive standpoint. In short, it did not answer the above questions.

Third, despite a lack of response to the above questions, section 1.2 of the draft Prospectus states that this “product will summarize the current knowledge base about possible effects of global change on energy production and use” in the U.S. and that the “process” for preparing the “report will include a survey and assessment of the available literature,” but then states that such “literature is rather limited and in many cases in the form of reports that were not peer-reviewed” (p. 1) (emphasis added). However, there is no explanation of the basis for that statement. The section states that it will also “include identification and consideration of relevant studies” by the CCSP and other federal agencies, as well as “consultation with stakeholders such as the electric utility and energy industries” (emphasis added). Thereafter the draft Prospectus includes a substantial portion of the paragraph, quoted above, that was presented at the September workshop, but without the questions.

The draft Prospectus also adds that the SAP 4.5 “content. . .will include attention” to a list of “issues” in the draft (pp. 2-3). While this list holds some promise, the word “attention” leaves one with significant uncertainty as to what extent and detail those “issues” will be substantively addressed in the final report. Moreover, the list of issues seems to be only examples and fails to convey some degree of assurance that this list and possibly more will be actually addressed in the final report.

There is even greater uncertainty and vagueness conveyed by the rather negative statements about the limited availability of “literature,” and that even in the case of “relevant studies carried out in connection” with unspecified CCSP and other federal “programs,” they are only to be identified and considered. Further, in section 1.2, as noted above, the draft indicates that the “process. . .will include. . .consultation with stakeholders such as the electric utility and energy industries” as well as others. However, in section 4 of the draft, such participation by stakeholders appears to be limited to 1) the unproductive “scoping process,” 2) this 30-day process of comment on this draft and 3) comments “on the product” during a future “public comment period.” There is no real indication of how and when such stakeholder “consultations” are to be planned and undertaken by the authors during the preparation of the SAP and its various drafts. A discussion of the “Drafting Process” in section 5 of the draft does not really inform us about such “consultation” or the process as a whole.

As to the issue of developing “climate change scenarios,” the draft states, also as noted above, that it will not develop them, but “instead” the SAP will draw from SAP 2.1” and “other” unidentified “CCSP sources” (p. 2). While we are not necessarily supportive of the development of scenarios, last September at least the scoping paper indicated that but

for the “limited data and knowledge,” the SAP would “ideally. . . quantify impacts under different scenarios for regional climate change and associated uncertainties” (emphasis added).

We understand the SAP to be about “global” climate “effects” on energy production and use and not about climate change effects regionally – which we understand are difficult to ascertain based on current knowledge – and we are not convinced that either the Department of Energy (DOE) and its national laboratories or the Intergovernmental Panel on Climate Change is ready to develop “scenarios for regional climate change.” Nonetheless, we again observe a rather negative view of the drafters of this Prospectus on the availability of data, studies, etc. In addition, it is unclear from the draft or the scoping paper how and to what extent SAP 2.1 and those “other” sources will substitute for such scenarios.

Indeed, at this stage we cannot evaluate the significance and relevance of relying on the SAP 2.1 report, which according to its January 28, 2005, draft Prospectus, is scheduled for review of “Draft #2” this month, for “CCSP interagency committee” review and processing in June, and for final posting on the “CCSP web site” in August. We do not know whether that schedule is still current or whether it has slipped. More importantly, we do not understand how the authors of this SAP can commit now to relying on a SAP that is not complete and that calls for an update of “scenarios of greenhouse gas emissions and atmospheric concentrations,” which, according to the January 28, 2005, draft Prospectus for SAP 2.1, will consider four “stabilization levels” as a “basis for the stabilization scenarios.”<sup>4</sup>

In short, we are concerned about whether this SAP 4.5 will provide a meaningful synthesis and assessment of the “effects of global change” on energy production and consumption because of what we perceive to be a rather negative approach to the availability of valuable sources that are to contribute to the SAP and because it is inappropriate for this SAP to rely on a SAP that is not yet completed and that could be quite controversial. We urge that the draft be revised to explain more fully what and how those sources are and how and to what extent there will be meaningful “consultation” by the authors with stakeholders such as the electric power sector.

### **Second General Comment**

The draft Prospectus explains that DOE has the lead agency responsibility for the SAP 4.5, which we welcome (p. 1). According to the CCSP Guidelines for the SAPs, the lead and coordinating authors are “responsible for producing” the reports, and the authors are to be “scientists or individuals with appropriate technical expertise appropriate to the product” and may “be drawn from within or without the Federal government.” In the case of this draft Prospectus, the listed coordinating author and all of the other listed authors apparently are to be drawn solely from several DOE national laboratories.

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<sup>4</sup> On March 7, 2005, EEI commented on the draft Prospectus for SAP 2.1 and expressed some significant problems with that draft Prospectus. We do not know how or to what extent the CCSP addressed our concerns.

Accordingly, the draft Prospectus states that “SAP 4.5 will be prepared and authored by staff” from these laboratories, “drawing on their own expertise and knowledge basis.” The Prospectus adds that they will also draw upon “other knowledge bases, including those within energy corporations and utilities, consulting firms, non-governmental organizations, State and local governments, and the academic research community” (pp. 4-5). In addition, “DOE national laboratory staff” will also be contributors.

Although section 3 of the draft Prospectus strongly suggests that the authors have been selected, Appendix A of the Prospectus is titled “Bios for Potential Lead Authors,” which suggests that the listed authors may not have been selected, but only proposed (emphasis added). Nevertheless, we have several concerns.

First, we question such heavy reliance on the selection of authors solely from the national laboratories. We recognize that the laboratories generally have a broad range of expertise relied upon by many. However, we question why the selection of authors does not include scientists from any other research organizations or others from the private sector.

Second, as you know, electricity affects all other economic sectors.<sup>5</sup> However, while our review of the brief “Bios” indicates that these national laboratory individuals appear to be well-qualified researchers, most do not seem to have a background in, or are currently involved with, such matters as assessment and research related to the demand for electricity, the generation and transmission of electricity, and related energy issues significant to our industry and relevant in any consideration of the “effects of global change” on the generation of power and the use by electricity customers.

Third, several of the listed authors appear to be heavily involved in administrative activities at the labs, which would likely ensure that the authorship of various chapters of SAP 4.5 will indeed fall heavily on “DOE national laboratory staff” and raise questions about the extent of the involvement of these authors.

In short, while these may all be well-qualified scientists, there is an overemphasis on the national laboratories as a source of authors, particularly those who may be overcommitted to administrative duties so as not to be able to devote sufficient time and effort to the SAP 4.5, and there is no inclusion of authors from the private sector, including the electric utility sector. We urge reconsideration of the author selection process.

**Edison Electric, Eric Holdsworth and William L. Fang**

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<sup>5</sup> For example, the Executive Summary of the Energy Information Administration’s (EIA) December 2005 report on Emissions of Greenhouse Gases in the United States 2004 “divides energy consumption into four general end-use categories: residential, commercial, industrial, and transportation” and, in the case of “[e]missions from electricity generators” that provide electricity to each such sector, allocates them “in proportion to the electricity consumed” in and “losses allocated” to each sector (p. xii).

First General Comment: Since the Synthesis and Assessment Product (SAP) 4.5 is not expected to include new analyses of data but to summarize and integrate existing information, I want to call to your attention some of the studies performed by or for the Energy Commission in the area of climate change and energy supply and demand. These studies are:

Baxter, Lester W., and Kevin Calandri. 1992. "Global warming and electricity demand: A study of California." *Energy Policy* 20 (3), March: 233\*244.

Mendelsohn, Robert. 2003. "The Impact of Climate Change on Energy Expenditures in California." Appendix XI in Wilson, T., and L. Williams, J. Smith, R. Mendelsohn, *Global Climate Change and California: Potential Implications for Ecosystems, Health, and the Economy*. Consultant report 500-03-058CF to the Public Interest Energy Research Program, California Energy Commission, August.  
[http://www.energy.ca.gov/pier/final\\_project\\_reports/500-03-058cf.html](http://www.energy.ca.gov/pier/final_project_reports/500-03-058cf.html)

Georgakakos, K., et al. 2005. Integrating Climate-Hydrology Forecasts and Multi-Objective Reservoir Management for Northern California. *EOS* Vol. 86, No.12, 22 March.

Vicuña, S., R. Leonardson, J. A. Dracup, M. Hanemann, L. Dale. *Climate Change Impacts on High Elevation Hydropower Generation in California's Sierra Nevada: A Case Study in the Upper American River*. 2006. Final white paper from California Climate Change Center, publication # CEC-500-2005-199-SD.  
[http://www.climatechange.ca.gov/climate\\_action\\_team/reports/index.html](http://www.climatechange.ca.gov/climate_action_team/reports/index.html)

Franco, G., A. Sanstad. 2006. *Climate Change and Electricity Demand in California*. Final white paper from California Climate Change Center, publication # CEC-500-2005-201-SD, posted: February 27.  
[http://www.climatechange.ca.gov/climate\\_action\\_team/reports/index.html](http://www.climatechange.ca.gov/climate_action_team/reports/index.html)

The last two papers were peer-reviewed using a process developed and implemented by the University of California Office of the President.

Other studies partially funded by the Energy Commission designed to better understand how adaptation to current levels of climate variability could help the state to cope or adapt to long-term climate change include:

Alfaro, A., A. Gershunov and D. Cayan, 2005: Prediction of summer maximum and minimum temperature over the central and western United States: The role of soil moisture and sea surface temperature. *J. Climate*,

Alfaro, A., A. Gershunov, D. Cayan, A. Steinemann, D. Pierce and T. Barnett, 2004: A Method for Prediction of California Summer Air Surface Temperature. *EOS*, 85(51), 553, 557-558.

Voisin, N., A. F. Hamlet, L. P. Graham, D. W. Pierce, T. P. Barnett, and D. P. Lettenmaier, 2005: The role of climate forecasts in western U.S. power planning, *Journal of Applied Meteorology*.

Davis, T. D., Gaushell, D., Pierce, D. W., and Altalo, M. A., 2005: Guessing Mother Nature's Next Move: What can be done to improve weather prediction and load forecasts? *Public Utilities Fortnightly*, August, 2005.

Second General Comment: The Prospectus for SAP 4.5 indicates that the final document will identify areas of research on climate change and energy generation and demand. We hope there will be an opportunity to exchange ideas in the near future about this topic. For example, some areas of research that we would like to discuss with the US Climate Change Science Program include:

- Potential effect of aerosols on orographic precipitation and hydropower generation
- Potential increased energy demand for groundwater pumping
- Potential effects of high temperatures on the onset of snow melting and their effect in the operation of high and low elevation hydropower units.
- Urban growth projections and energy demand for heating and cooling under different climate scenarios.

The California Energy Commission is funding a relatively robust applied climate change research program. The goal of our program is to complement national and international research efforts to inform climate change policy formulation in the state. Through this program we are tackling the research items listed above. We are eager to coordinate our program with your future research efforts.

**Franco, California Energy Commission**

Overall, a very good start. The authors selected are quite knowledgeable in their areas. One area of expertise, however, that needs support is offshore energy exploration and production. The climate change will have an impact on these activities. In particular, with the trend of Arctic sea ice, for example where the season extent has shrunk 25% over the past 25 years, the impact on deepwater, offshore activities in the Arctic, along with the impact on the infrastructure should possibly be addressed.

**Haut, Houston Advanced Research Center**

Energy production and its use continue to undergo profound change due to multiple drivers. Efforts to address effects on energy of the prospect of climate change have generally focused on the mitigation of GHG emissions in the provision of energy services and not on the long-term effects of climate change on demand for energy services and operations. The draft prospectus for SAP 4.5 appears to address only (or mostly?) the effects of a changing climate on energy, and not the effects of the much broader title of Global Change. The draft prospectus is not clear in either the timeframe over which effects are to be considered, or how it will deal with the profound changes in energy

technology and production that are expected over the long periods inherent in anthropogenic climate change.

**Kheshgi, ExxonMobil Research & Engineering Company**

The fact that the GAO has determined that 21 SAPs do not satisfy the scientific assessment requirement of the Global Change Research Act of 1990 reflects long-standing neglect of many vital issues, which in turn could mean that the proper scientific personnel has been denied crucial research opportunities over the last 15 years. Very likely staffing has also been reduced at the respective institutions. The present effort will hardly be able to mitigate this discontinuity, but only to compensate for it by modelling the elapsed period in retrospect. Recharging a young generation of scientists will likewise be time-consuming and may be weakened by awareness of the historically financial volatility of government commitments to resolving the underlying issues.

**Michel, Ing.-Büro Michel**

### **Specific Comments**

Page 1, line 3: The title of the SAP should reflect the content of the SAP. The current draft SAP does not focus on the many aspects of Global Change that are of primary importance for Energy. Suggest that either the title be changed to reflect the prospectus, or the prospectus be changed to include the many aspects of Global Change that are of primary importance for Energy.

**Kheshgi, ExxonMobil Research & Engineering Company**

Page 2, line 18-21: The draft prospectus seems to imply that SAP 2.1 will develop climate scenarios, whereas the SAP 2.1 prospectus defines its role of assessing emission scenarios, and the associated changes in energy systems that lead in scenarios to various stabilization levels. While this prospectus might use energy system scenarios from SAP 2.1 (if they are of sufficient detail to be useful), it would need to find scenarios for climate change from some other source.

**Kheshgi, ExxonMobil Research & Engineering Company**

Page 2, Line 32: It is not apparent what context is intended by the qualification "(both positive and negative)" of possible effects. There will generally always been positive effects of any event. For instance, the Chernobyl tragedy significantly enhanced the prospects for the development renewable energies. Exclusively one-sided benefits or detriments generally indicate that market mechanisms either are not in place, or they have been prevented from developing the regulative action for which they were intended.

**Michel, Ing.-Büro Michel**

Page 2, Line 34 - 36: Very glad to see that regional differences will be taken into consideration. Suggest that an overlay of the hygrothermal zones be performed. Also, may want to consider the update/adoption of new technologies on a regional basis along with societal issues.

**Haut, Houston Advanced Research Center**

Page 2, Line 39: Implicit to "other possible effects" are the entire complex interrelationships between economic and sociological trend developments that would accompany climate change, with however very few deterministic processes being ascertainable.

**Michel, Ing.-Büro Michel**

Page 3, Line 4 - 5: An effect that needs to be considered here is the seasonal extent of Artic sea ice and the impact that will have on the technologies that can be deployed in the future.

**Haut, Houston Advanced Research Center**

Page 3, Line 6 - 8: Should also include oil and gas transport – the aging of the infrastructure, the ability to meet demand, potential changes in population centers and new infrastructure that would be required.

**Haut, Houston Advanced Research Center**

Page 4, lines 1-13: Section 1.5 lists three bulleted questions “to be addressed by SAP 4.5.” The first two are too vague and general to be useful. At a minimum, in all three questions the words “climate change” should be stricken and the statutorily defined term “global change” be inserted, which is also consistent with the title to the draft Prospectus. In addition, the words “negatively and positively” should be inserted in each of the first two bulleted questions.

We also suggest a fourth question as follows:

How and to what extent might global change affect, positively and negatively, energy demand and local planning in the United States and in various regions thereof, taking into consideration temperature changes and other relevant factors, and to what extent will such change affect, positively or negatively, resources such as water, natural gas, coal, nuclear energy, hydropower and other renewable fuels in the United States and regionally that are important to energy production and use.

**Edison Electric, Holdsworth and Fang**

Page 5, Line 6 - 17: Great selection of authors, however, lacking in expertise in upstream energy industry (oil and gas exploration and production).

**Haut, Houston Advanced Research Center**

Page 4, line 45: The draft author team is comprised solely of authors from the National Labs, and would benefit from the inclusion of authors from a broader range of institutions.

**Kheshgi, ExxonMobil Research & Engineering Company**

Page 8, lines 1-19

It appears that the “Proposed Timeline” in the draft has slipped and needs to be revised (p. 8). For example, the timeline states that the “due date for SAP 4.5 is the second quarter of FY 2007 (March 31, 2007)” (*id.* at line 3). However, the proposed timeline states that this 30-day comment period would be in the “December 2005-February 2006” time frame with the “[p]rospectus revision and approval” scheduled for “March 2006” and the “[p]reparation of a first draft by Lead Authors,” etc. scheduled for the March-June 2006 time frame (*id.* at lines 8-12). Moreover, the timeline specifies that the third draft of the SAP is due in the “February-March 2007” time frame (*id.* at line 17), and thereafter must be reviewed by the “CSSP Interagency Committee,” scheduled for “April 2007” (*id.* at line 18), and approved by the National Science and Technology Council (NSTC), which is scheduled for “June 2007” (*id.* at line 19). Thus, the above “due date” is clearly not achievable, and the timeline in the draft needs to be revised. That revision should take into consideration the late entry of last July and, despite our concerns and comments, projected reliance on the SAP 2.1 report, including the status and projected availability of that report.

**Edison Electric, Holdsworth and Fang**