



## Workshop on methods to address uncertainty in forecasting future values of key social, economic and resource variables

Revelle Conference Room, 2<sup>nd</sup> floor, AAAS Building  
1200 New York Avenue, NW  
Washington, DC 20005

Dial-in information for those participating via telephone: 1-800-391-1709 (domestic)  
001-310-539-2229 (international)  
312582 (Bridge number)

### Monday, March 18

- 10:00 – 10:15 Welcome and introductions
- 10:15 – 10:30 [Overview: Motivations and what we hope to accomplish – G. Morgan, CMU](#)
- 10:30 – 10:40 Discussion
- 10:40 – 11:30 Assessing past performance:  
Energy forecasts – P. Craig, UC Irvine  
[Energy forecasts – H. Gruenspecht, EIA](#)  
[History of natural gas price forecasts – J. Snyder, Wood Mackenzie \(via remote connection\)](#)  
The more believable the forecasts, the worse it will be – P. Fischbeck, CMU
- 11:30 – 12:00 Roundtable discussions of:
- Attributes of variables that can and cannot be reliably predicted.
  - Could we sensibly include uncertainty even if we want to?
  - If we could produce assessments with more complete descriptions of uncertainty, would many people continue to prefer single-value best-estimate forecasts of such variables?
- 12:00 – 12:15 Pick up box lunches
- 12:15 – 13:45 Thoughts on scenarios:  
IPCC experience – N. Nakicenovic, IIASA  
[The RCP process and the U.S. National Assessment experience – R. Moss, PNNL](#)  
[Experience from the assessment community – J. Edmonds, PNNL](#)  
Policy makers and assessors: What do they want and need? – H. Gruenspecht, EIA  
[Scenario development with the cross-impact balance \(CIB\) method – V. Schweizer, NCAR](#)
- 13:45 – 14:15 Roundtable discussions of:
- Is it feasible to be generating scenarios that are regions of a "function space" rather than a line through that space?
  - If folks were to start doing that, what would be the issues with users?
- 14:15 – 14:35 [A Bayesian approach to demographic forecasting – A. Raftery, UWash \(via remote connection\)](#)
- 14:35 – 14:45 Q&A and discussion. How well might this approach extend to other variables of interest in the areas of climate and energy assessment?
- 14:45 – 15:00 [A bounding analysis of future U.S. electricity demand - V. Schweizer, NCAR](#)

- 15:00 – 15:20 Q&A and discussion. Are the bounds Vanessa has produced so broad that they are useless? If an assessment like this were made so that it was interactive, and people could apply their own assumptions, would that be useful?
- 15:20 – 15:30 Break for tea and coffee
- 15:30 – 15:45 [MegaJoule – M. Henrion, Lumina Systems](#)
- 15:45 – 16:00 Q&A and discussion. Assuming that a system like this becomes widely used, would the likely diversity of views and projections that it would contain help to promote greater and more systematic treatment of uncertainty in forecasting?
- 16:00 – 16:20 [Incentives for scientists in describing and communicating uncertainty – B. Fischhoff, CMU](#)
- 16:20 – 16:30 Q&A and discussion
- 16:30 – 17:30 View around the table:
- Are you guys from Carnegie Mellon nuts to be trying to promote greater attention to uncertainty in forecasting?
  - If no, are there additional ideas for how this might be done that we have not talked about?
  - Do you have suggestions for issues that we should be discussing tomorrow?
- 18:30 – Group Dinner at the Tabard Inn, 1739 N Street, NW, Washington, DC (202-785-1277)

## Tuesday, March 19

- 08:15 – 08:45 Continental breakfast
- 08:45 – 10:30 Roundtable: Suppose we could develop better methods for characterizing uncertainty in forecasts. What should such "improved" forecasts look like? Would anybody use them? If so, who would use them and how? Ten minute comments by:
- M. Henrion, Lumina Systems
  - [T. Janetos, PNNL](#)
  - R. Lempert, RAND
  - [H. Dowlatabadi, UBC](#)
  - [E. Rubin, CMU](#)
  - G. Escher, EPFL
  - [E. Paté-Cornell, Stanford](#)
- 10:30 – 10:45 General discussion
- 10:45 – 11:00 Break for tea and coffee
- 11:00 – 12:15 Group discussion followed by reflections around the table from each participant:
- Do we need improved methods to describe uncertainty in forecasts of key social, economic and resource variables?
  - If yes, what research or demonstration activities would be best to promote their development and use?
- 12:15 – Lunch available – informal discussion around the table