

Climate Change Modeling and Adaptation: Perspectives from the Electric Power Industry

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Perspective from Electric Power Industry

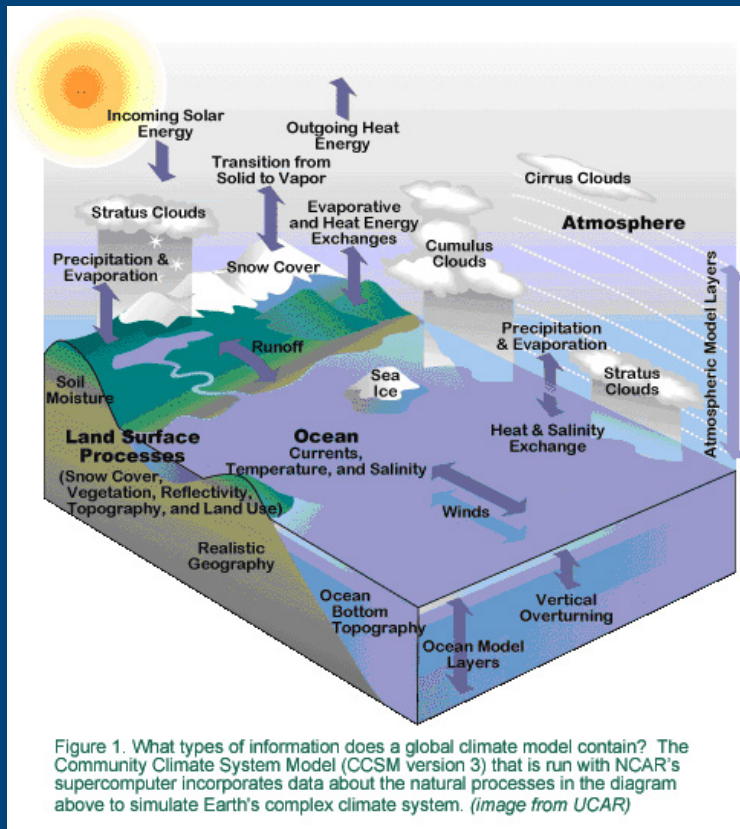
- EPRI organized a workshop in 2005 on adaptation by utilities
 - Held in Arlington, Virginia
- Attended by representatives from utilities from around the world, scientists, and consultants
 - No utilities from mid-Atlantic region
- Reviewed science of climate change and addressed adaptation



Major Conclusions

- Long-term mean change in climate is relatively small concern for utilities compared to other changes utilities will face
- Changes in extreme events, particularly in coming decades is an issue
 - Examples
 - European Heat Wave 2003
 - Hurricane Katrina
 - Supply disruptions
 - Transmission and distribution
 - Cooling water supplies
 - Demand spikes
 - Heat waves, droughts

Desired Climate Model Outputs



- Improved projections of temperature and precipitation; seasonality
- Extreme events projections:
 - 2-3 months in advance
 - Long term
 - Frequency and intensity
- Climate variability
 - Interannual
 - Decade to decade
- Regional Scenarios
 - Downscaling



General Comment

- Climate projections at decision-making scale will likely continue to be imprecise
 - Uncertainty about emissions
 - Range of projected changes in climate
 - Spatial and temporal scales not at desired resolution
- Challenge for adaptation is to make the best decisions with the information we have