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Proposed Approach for Enhanced Climate Adaptation Work with IOUs

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**Lead Commissioner Workshop
on**

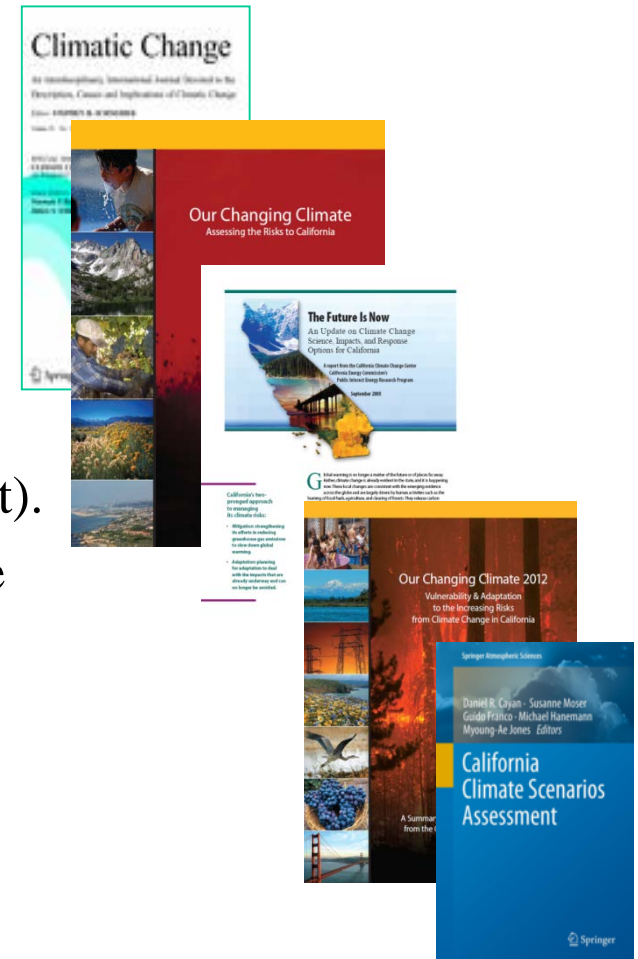
Customers of Energy-Related Climate Science Research

**Sacramento
April 11, 2017**



Evolution of CEC's Climate Science Research

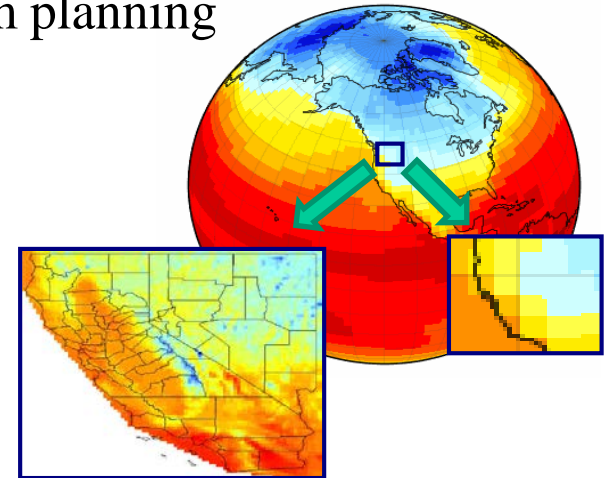
- Past climate research sponsored by the Energy Commission investigated how climate change would affect the energy system.
- Our current climate research projects are exploring adaptation options for the electricity and natural gas systems (e.g., energy part of California's Fourth Climate Change Assessment).
- Future projects (EPIC III) must inform effective *actionable* adaptation options.
- Closer collaboration between the CEC and the IOUs is necessary.





Examples of “Actionable” Research

- “Standard” climate scenarios for both research (California’s Fourth Climate Change Assessment) and long-term planning
- Identification of “win-win” strategies
 - Use of probabilistic hydrologic forecasts and a decision support system (INFORM) to improve the management of low-elevation hydropower units (10 year effort). System being adopted by DWR but not in place yet.
 - Snowpack measurements and telemetry for a hydrologic basin. Close collaboration with PG&E and DWR.
- Assistance with the identification of climate vulnerabilities
 - Vulnerability of the natural gas system in the Sac/SJ Delta. PG&E used the information to estimate adaptation costs and timing. The system is protected from overtopping for historical sea level rise (SLR) conditions. No immediate adaptation action is warranted but it will not be protected to 1+ meter of SLR unless adaptation measures are implemented.
 - Project with ICF, co-funded with SDG&E is examining the vulnerability of the electricity and natural gas systems to climate impacts.





Issues with the current approach used to select and manage climate adaptation research projects:

- IOUs direct role in the identification of general research needs.
- Participation in Technical Advisory Committees (TAC) may not reach all the IOU groups that should be involved.
- IOUs have been extremely helpful for the energy projects that are part of the Assessment but enhanced collaboration may be needed to expedite the transfer of information and to further assure IOUs that confidential information will be protected.



Proposed Approach

- Identification and scoping of research projects with the IOUs and stakeholders.
 - Public meetings
 - Other options?
- Sharing of information/data between IOUs and the research groups. The Energy Commission does not wish to receive confidential information.
- Identification of groups in the IOUs that would benefit from close participation in the TACs.
- Host informal climate science workshop every year involving EPIC researchers, research managers, and the IOUs.



Questions and Comments

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