



Renewable Energy Transmission Initiative

October 4, 2008

Rachel McMahon

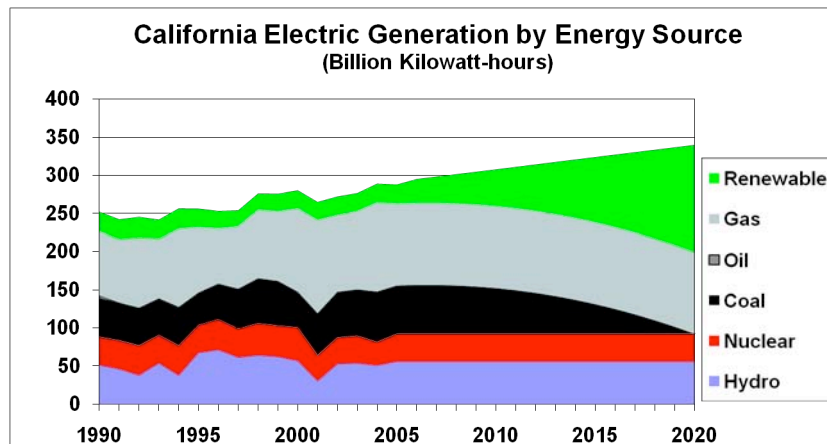
Center for Energy Efficiency and Renewable Technologies



CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES, SACRAMENTO, CALIFORNIA
"Providing global warming solutions for California and the West"



AB 32 - CA Global Warming Solutions Act of 2006



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Climate Change – 3 Questions

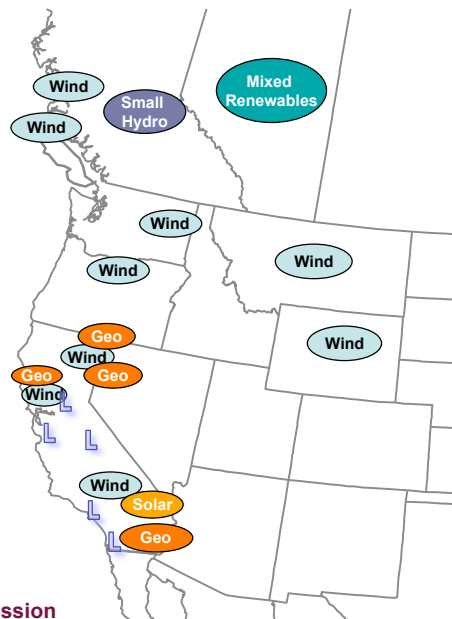
- 1) How much renewable energy do we need to meet our climate change targets and energy needs?
- 2) How will we access remote renewable resource areas and bring their power to load centers?
- 3) Which renewable resource areas should we develop first?



Where Are the Renewables?

- Alberta mixed Renewables
- B.C. Wind and Small Hydro
- Geysers Geothermal
- Mojave Solar
- Montana Wind
- California, Oregon, Nevada Geothermal and Wind
- Salton Sea Geothermal
- Solano County Wind
- Tehachapi Wind
- Wyoming Wind

Source: California Energy Commission





Renewable Energy Transmission Initiative

- **RETI initiated in 2007**
- **Long-term Stakeholder-Driven Planning Process**
- **Includes:**
 - **Municipal and Investor-Owned Utilities**
 - **State Agencies:** Independent System Operator, Energy Cmsn, Public Utilities Cmsn
 - **Federal Agencies:** Forest Service, BLM, Dept.of Energy, Military
 - **Renewable Energy Companies:** Solar, Wind, Geothermal and Biomass
 - **Other Representatives:** Environmental and Consumer Groups, Farm Bureau, Local Govt's



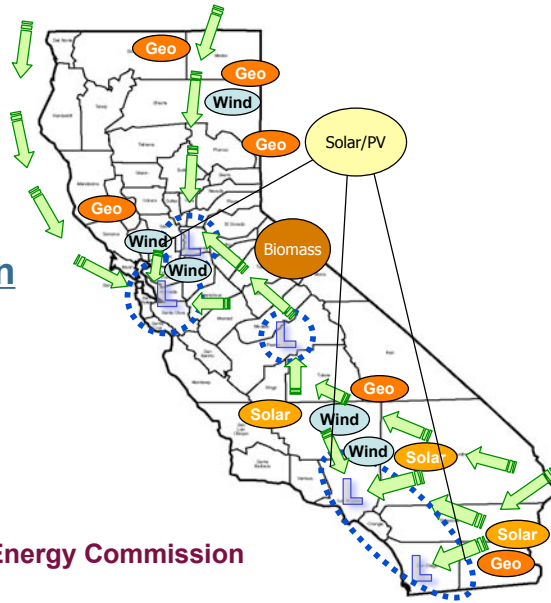
What is RETI's Job?

- 1) **Identify competitive renewable energy zones (CREZs) in California and neighboring states.**
- 2) **Establish data and methodology to assess environmental and economic costs.**
- 3) **Rank CREZs based on "least cost" criteria.**
- 4) **Develop conceptual transmission plans.**
- 5) **Inform energy planning decisions and agency siting and permitting processes.**





Possible California Renewable Transmission Pathways



Source: California Energy Commission



Environmental Working Group (EWG)

- **Chairs:** Natural Resources Defense Council and Sierra Club.
- Committee consists of many parties.
- Chairs coordinate with environmental groups.
- **Role:** develop environmental screens for CREZs
 - Category 1 and 2 lands identified by RETI.
 - Developed ranking criteria to assess potential environmental impacts of developing CREZs.
- www.energy.ca.gov/reti/environmental_com/index.html





Category 1 Lands – Prohibited

- **Federal:** Designated Wilderness Areas, Wilderness Study Areas, BLM National Monuments, National Park System, existing habitat areas approved by DFG, FWS and Army Corps of Engineers.
- **State:** Wilderness Areas, wetlands, Natural Community Conservation Plans.
- **Private Lands**



Category 2 Lands – Restricted

- BLM Areas of Critical Environmental Concern
- Critical habitats for endangered and threatened species
- West Mohave wildlife management areas
- Private lands donated to federal government
- Areas proposed to be protected
- Some Williamson Act lands





Environmental Ranking Criteria

1. Resource development footprint
2. Transmission development footprint
3. Land disturbance
4. Sensitive areas within CREZs
5. Sensitive areas within CREZ buffer zones
6. Significant species
7. Wildlife corridors

Each CREZ ranked 7 through 35. Lower scores reflect lower environmental impacts; higher scores reflect high likelihood of environmental impacts.



RETI – Where Do We Go From Here?

- RETI is in process of ranking “priority” CREZs based on combined economic and environmental rankings.
- Final RETI rankings and conceptual plan inform agency and utility processes to plan and permit renewable transmission lines.
- Guide developers toward “preferred” areas of development. Does **not** pre-judge CEQA.
- Stakeholder and Public Buy-In.





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