



# Comments on DOE's Upcoming 2012 Congestion Study



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# General Comments

- ◇ California has been fully participating in west-wide “economic” transmission studies (TEPPC since 2006, recently with much-appreciated ARRA funding)
- ◇ The 2005 Energy Policy Act gives DOE unclear scope regarding “congestion,” and a requirement to consult with states. *The following are essential:*
  - Clearly address the *specific* rationale for transmission: reliability, economic efficiency, resource priorities;
  - If considering *potential future* congestion\* contingent on certain conditions, fully consider the likelihood of those conditions and the consistency with state energy policies and actual market developments.





# Transmission Rationale 1: Reliability

- ◇ Relevant information sources on reliability as a potential driver of transmission should include:
  - The Calif. ISO's transmission planning and local capacity studies
  - The multi-agency process and studies addressing Once-Through Cooling (OTC) plant issues
  - The CPUC's long term procurement and resource adequacy (RA) programs
  - The CEC's Integrated Energy Policy Report (IEPR) and associated demand forecasts
  - Recent (substantial) transmission and generation additions or upgrades, including those in the SF and S. Calif. Areas
  - Non-transmission solutions deployed and planned, consistent with state policy and energy loading order, including efficiency, demand response, CHP, and DG.





# Transmission Rationale 2: Efficient Energy Dispatch and Delivery

- ◇ TEPPC studies and the WECC 10-year plan provide information on past and potential future congestion over WECC paths
- ◇ Assessing congestion in California, including economic indicators for transmission investment requires additionally looking at:
  - Actual congestion costs in the CAISO's LMP market
  - Economic congestion studies as part of the CAISO's annual planning process, using resource and demand scenarios consistent with California energy planning policy and priorities





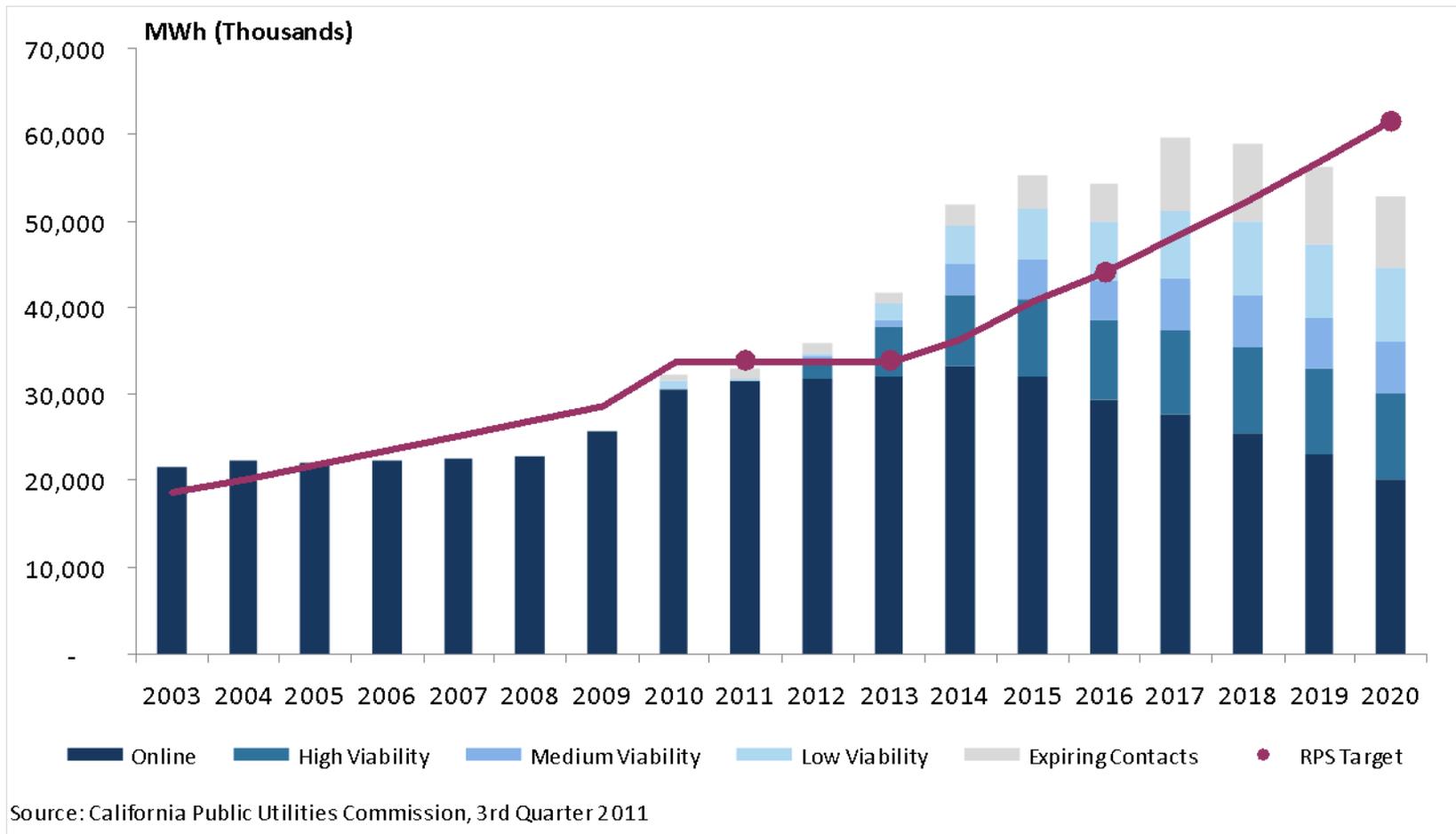
# Transmission Rationale 3: Supporting Resource Priorities

- ◇ Transmission planning in California is significantly driven by energy policy including 33% RPS, GHG goals, and an energy loading order emphasizing demand-side measures and renewables.
- ◇ Pursuit of these resource priorities is well underway, and should inform DOE's congestion study.
- ◇ Furthermore, prospects for PV and other distributed generation are growing, supported by the Governor's PV and CHP goals, and by several procurement programs administered by CPUC. *This has important transmission implications.*
  - Efforts are underway on several fronts, at multiple organizations, to assess and facilitate integration of DG into the grid.





# Risk-Profile of Forecast of RPS Generation from Executed Contracts





# CPUC Permitting of Transmission Since the 2006 Congestion Study

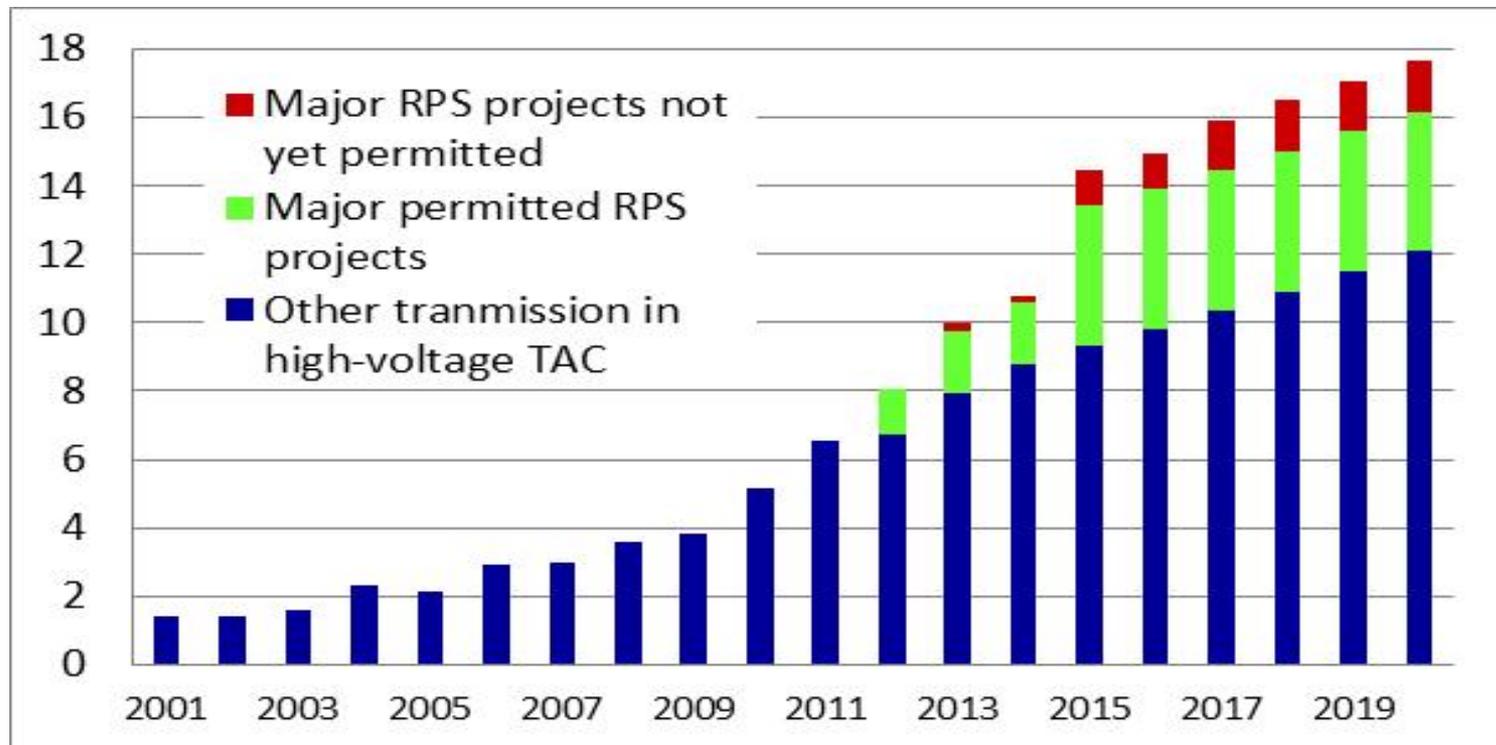
- ◇ 28 projects permitted
  - 4 large RPS projects ~\$5.8B
  - Other projects include several >200 kV, several for RPS, and 13 in the S. Calif. area previously identified by DOE as a “critical congestion” area
- ◇ 11 projects currently undergoing permitting
  - Five in the S. Calif. area
- ◇ 43 projects anticipated to file
  - Includes 25 in the S. Calif. area
  - 11 projects 200+kV
  - 3 large RPS projects ~\$2B





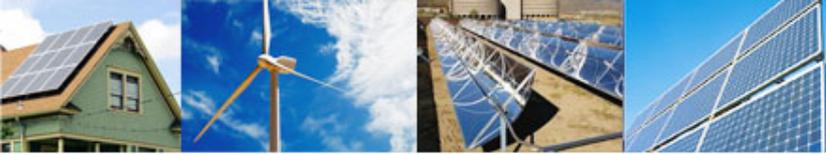
# Growing Transmission Investment for RPS, Reliability and Other Purposes

CAISO high-voltage transmission access charge (TAC), nominal \$/MWh



Source: E3/CPUC Evaluation Metric Calculator for use in LTPP proceeding, 2011





# Coordinating RPS and Transmission Planning

- ◇ A two-way street (including CPUC-CAISO MOU)
  - Resource priorities and scenarios inform transmission planning cases
  - Transmission plans and costs inform resource planning and procurement
- ◇ Process reforms
  - CPUC “backstop” cost recovery for RPS transmission
  - Multiple CAISO planning and interconnection reforms
  - High priority efforts underway to further coordinate resource & transmission planning, including better integration of the generator interconnection process
  - Transmission development *cannot* be separated from this broader context





# Coordinating RPS, Transmission and Environmental Planning

- ◇ Environmental protection and management are important parts of California's resource-transmission prioritization, which must be factored into DOE's congestion study.
  - ***Renewable Energy Transmission Initiative (RETI)*** - - a broad stakeholder process using detailed information, analysis and consultation to develop a blueprint for resource zones, conceptual transmission and areas to be avoided - - which has productively informed resource and transmission planning in recent years.
  - ***BLM's Solar Programmatic EIS*** - - has identified multi-state areas available vs. excluded from solar development, including two priority development zones in Calif. Final PEIR expected mid-2012.
  - ***Desert Renewable Energy Conservation Plan (DRECP)*** for California. A state-federal effort with broad stakeholder involvement. More granular than RETI. Will further identify areas for development vs. protection. EIR/EIS expected end of 2012.





# Collaborative Resource + Transmission + Environmental Planning in California



RETI Phase 2B – conceptual transmission segments, overlay on environmental, land use, and resource information



DRECP boundary area

