



# Draft 2012 Integrated Energy Policy Report Update

California Energy Commission

**DOCKETED**  
**12-IEP-1A**

TN # 68379

NOV 05 2012

November 7, 2012



## Background

- CEC prepares IEPR every two years and update in intervening years
- *2012 IEPR Update* – covers activities begun in 2011 *IEPR* and completed or continued in 2012
- Main focus of report – Renewable Action Plan
- Other items:
  - Electricity and natural gas demand forecast
  - Natural gas outlook and market trends reports
  - Assessments of CHP potential and barriers
  - Assessment of electricity infrastructure needs in Southern California





## **Electricity/Natural Gas Demand Forecast**

- Average annual demand growth 2010-2022:
  - Electricity: 1.03% to 1.69%
  - Natural gas: 0.58% to 0.81%.
- Uncommitted efficiency savings not reflected in forecast; preliminary estimates provided to CPUC in July 2012
- Updated assessment of uncommitted impacts in summer 2013 based on updated CPUC Goals Study



# Electricity/Natural Gas Demand Forecast

- *Recommendations*
  - Expand analysis of effects of climate change
  - Disaggregate forecast beyond usual planning area level
  - Improve reflection of uncertainty in forecast due to zero emission vehicles, combined heat and power, and distributed generation





# Natural Gas Market Outlook and Trends

- Hydraulic fracturing
  - Potential impacts of environmental concerns on price/supply
  - CEC monitoring activities at state and federal levels
- Demand increases
  - Nationwide seeing shift from coal to natural gas
  - California seeing increased demand from NG plants for renewable integration and NG as transportation fuel



## **Natural Gas Market Outlook and Trends**

- Electric and natural gas market harmonization
  - Coordinate scheduling of pipeline deliveries with electricity dispatch decisions.
- Pipeline safety and reliability
  - Potential price increases from San Bruno event
  - Potential decreases from added pipeline capacity and increased competition





# Natural Gas Market Outlook and Trends

- *Recommendation*
  - CEC and CPUC should monitor and participate in FERC proceedings related to:
    - ✓ Natural gas supply and pipeline development
    - ✓ Electric/natural gas harmonization



## **Combined Heat and Power**

- Assessment of technical/market potential
  - 8,500 MW of existing CHP
  - 14,000 MW of additional potential
- CHP barriers
  - Cap and trade rules
  - Interconnection
  - Nonbypassable, departing load, standby, and demand charges
  - Metering costs
  - Eligibility rules for net energy metering





## Combined Heat and Power

- *Recommendations*
  - CEC to revisit and update CHP technical assessments in 2013/2014
  - Facilitate interconnection process for facilities that expand generation capability
  - CEC/CPUC evaluate progress of QF Settlement Agreement, AB 1613, and other CHP programs and report to Governor and Legislature.



## **Electricity Infrastructure Assessment**

- Issues affecting Southern California infrastructure needs
  - OTC policy
  - Lack of emission offsets
  - Efficiency and demand response uncertainty
  - Renewable integration needs
  - Multiple agencies involved
  - SONGS outage
  - Climate change impacts
  - Electrification in the Los Angeles Basin





# **Electricity Infrastructure Assessment**

- Multiple studies underway for Southern California
- Uncertainties affecting assessment of statewide needs
  - Demand forecast changes
  - Timing of OTC and other retirements
  - Projects in the pipeline
  - Mix and location of RPS projects
  - DG/CHP
  - Climate change effects
  - Cap and trade



# Electricity Infrastructure Assessment

- *Recommendations*
  - CEC will participate in reliability assessments for summer 2013/2014 and SONGS investigation
  - CEC will conduct public workshop during 2013 IEPR to review CAISO nuclear facility replacement study
  - 2013 IEPR will track progress of AB 1318 studies
  - CAISO should provide refreshed assessments of OTC compliance schedules
  - CPUC should consider rulemaking for a forward procurement mechanism for flexible capacity





# Renewable Action Plan

- *Renewable Status and Issues Report* developed during 2011 IEPR identified renewable challenges and suggested strategies
  - Identifying and prioritizing geographic areas for renewable development
  - Evaluating costs and benefits of renewable projects
  - Minimizing interconnection costs and time at the transmission and distribution levels
  - Promoting incentives for projects that create in-state jobs and economic benefits
  - Promoting and coordinating existing financing and incentive programs for critical stages in the renewable development continuum



# Renewable Action Plan Principles

- Promote renewable-centric portfolio that maximizes benefits and minimizes cost/risk
- Position California for higher renewable targets
- Fill gaps left by market
- Recognize connections between actions
- Broaden electricity planning
- Promote clean energy investments
- Address cost issues





***Strategy 1: Identify and prioritize geographic areas in the state for both renewable utility-scale and distributed generation development.***

- ***Recommendations***
  - Identify renewable energy development zones
  - Incorporate distributed renewable energy development zones into local planning processes
  - Conduct 2030 analysis
  - Continue development of renewable energy on government property



**Strategy 2:** *Evaluate cost of renewable energy projects beyond technology costs – including costs associated with integration, permitting, and interconnection – and their impact on retail electricity rates.*

- **Recommendations**

- Modify procurement practices to develop a higher value portfolio
- Strengthen links between transportation and clean electrification
- Revise residential electricity rate structure
- Improve transparency of renewable generation costs





***Strategy 3:*** *Minimize interconnection and integration costs and requirements at both the distribution and the transmission levels.*

- *Transmission Interconnection Recommendations*
  - Consider environmental and land-use factors in renewable scenarios
  - Monitor status of California ISO approved transmission projects to ensure timely completion
  - Streamline transmission permitting



## ***Strategy 3 (cont'd)***

- ***Distribution Interconnection Recommendations***
  - Develop dialogue on distribution planning and opportunities for a more integrated distribution planning process
  - Enable deployment of advanced inverter functions
  - Disaggregate CEC demand forecast
  - Create a statewide data clearinghouse for renewable energy generation planning





## ***Strategy 3 (cont'd)***

- ***Grid-Level Integration Recommendations***
  - Develop a forward procurement mechanism
  - Define clear tariffs, rules, and performance requirements for integration services
  - Provide regional solutions to renewable integration
  - Ensure adequate natural gas pipeline infrastructure



***Strategy 4: Promote incentives for renewable technologies and development projects that create in-state jobs and support in-state industries, including manufacturing and construction.***

- ***Recommendations***
  - Better align workforce training to needs
  - Enhance linkage between clean energy policies, workforce, and employers
  - Support the Innovation Hub (iHub) Initiative at the Governor's Office of Business and Economic Development





**Strategy 5:** *Promote and coordinate existing state and federal financing and incentive programs for critical stages including RD&D, precommercialization, and deployment.*

- *Recommendations*
  - *Advance R&D for existing and co-located renewable technologies; innovative renewable technologies; renewable integration, and siting of renewable projects*
  - *Create interagency clean energy financing working group*
  - *Support extension of federal tax credits*
  - *Study the effectiveness and impacts of the property tax exclusion*
  - *Modify the Clean Energy Business Financing Program*
  - *Develop marketing outreach plan for Energy Conservation Assistance Account*



## Next Steps

- Comments due COB December 3
- Instructions on submitting written comments under November 7 heading at:  
[www.energy.ca.gov/2012\\_energypolicy/documents/index.html](http://www.energy.ca.gov/2012_energypolicy/documents/index.html)
- Release of proposed final *2012 IEPR Update* anticipated January 30, 2013
- Proposed adoption February 13, 2013