



## California Energy Commission

2008 Integrated Energy Policy Report Committee  
and Electricity and Natural Gas Committee

# **AB 1632 Final Committee Report An Assessment of California's Nuclear Power Plants**

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# Overview of Committee Report

- Background: AB 1632
- Report Process
- AB 1632 Report Recommendations



## Background: AB 1632

AB 1632 (Blakeslee) requires:

1. Assessments of the potential impacts of a major disruption of large baseload plants (Diablo Canyon and SONGS)
2. Assessments of the vulnerability of these plants to a major seismic event or plant aging
3. These assessments must be adopted with the 2008 IEPR
4. Subsequent updates in future IEPRs, as new data on potential seismic hazards emerge



## **AB 1632 Assessments**

5. Potential impacts of a disruption on reliability, public safety, and the economy
6. Costs/impacts of nuclear waste accumulation
7. Other major policy issues related to these plants



# Report Process

- Study – AB 1632 Committee Report draws heavily upon a study by a multi-disciplinary team led by MRW & Associates
- Public process – 3 public workshops and written comments by stakeholders on draft reports
- Independent assessment - Detailed data requests sent to plant owners; Study Team did not meet with plant owners or interested parties
- Seismic Vulnerability Advisory Team – Provided periodic review of seismic assessment



# Summary of Recommendations



## Recommendations: Seismic Vulnerability

- SCE should develop an active seismic hazards research program for SONGS similar to PG&E's Long-Term Seismic Program.
- The utilities should use three-dimensional seismic reflection mapping and other advanced techniques at both plant sites and report on their progress and updated seismic assessment in the IEPR 2009.



## **Recommendations: Seismic Vulnerability**

- In upcoming IEPRs, PG&E and SCE should provide:
  - Updates on their seismic research efforts including tsunami hazard assessment
  - Assessment of the degree to which non-safety-related plant components comply with current seismic standards
  - Assessment of the seismic vulnerability implications of evolving seismic standards since Diablo Canyon and SONGS were designed and built
  - Evaluation of the implications for California plants of the 2007 Kashiwazaki-Kariwa earthquake in Japan





# Recommendations: Plant Aging

- Energy Commission should continue to closely monitor NRC actions and reviews of Diablo Canyon's and SONGS' performance.
- Energy Commission should monitor safety culture lapses at SONGS and require SCE to report on progress in developing and maintaining a strong safety culture.



## Recommendations: Impacts of a Major Disruption

- CAISO studies on aging power plants and once-through cooling should be completed as soon as possible to determine whether further studies on unplanned outages are needed.
- Energy Commission, CPUC, and CAISO should further evaluate uncertainties of extended outages at Diablo Canyon and SONGS and identify needed replacement resources.



## **Recommendation: Nuclear Waste Accumulation**

- As part of the CPUC's decommissioning cost proceedings, utilities should provide estimates of:
  - waste disposal costs (LLW and SNF)
  - plans for storage, transport, and disposal
  - amounts of waste to be generated through a 20-year plant license extension and plant decommissioning.



## **Recommendations: License Renewal**

- The Energy Commission, with the CPUC, should develop a plan for reviewing the overall costs and benefits of nuclear plant license extensions, the scope of the evaluation, and criteria for the assessment.
- Review should include:
  - plant safety culture and maintenance
  - waste storage, transport and disposal plans,
  - seismic hazards
  - comparison with generation and transmission alternatives, and
  - contingency plans for long-term outages.