Economic Assessment - Base Analysis
Simulation, Weighing Costs and Benefits

Calculated Yearly Benefits

Exchange Costs

Project Benefits

Project Costs

(Total present worth in the project’s 45 years of lifespan)

If five alternatives, there will be 12 base cases. Each takes 8 hours to compute in production cost simulation.
Economic Assessment - Sensitivity Analysis
Account for Uncertainties

- Cost
  - -5%
  - +5%
  - +500 MW
- Benefit
  - +20%
  - -20%
  - Dry year
  - Wet year

Two selected alternatives
66 base cases to compute, each takes 8 hours

Alternative Y
Alternative X
Load forecast
New generation
Hydro
Natural gas price
Generation retirement
Alternative mix in RPS
Without PVD2

C3ETP Stakeholder Mtg on Apr 24, 2008 / Economic Assessment
Database and Tools

**Database**

**CAISO Project**
- 2015
- 2020

**CAISO Baseline**

**WECC Baseline**

---

**Project-specific modeling:**
- New lines
- New stations
- New ratings

**Status:**
- Data available
- To be implemented

**CAISO detailed model:**
- RPS in 2015 and 2020
- New generation
- New transmission
- Path OTC and nomograms
- Load scaling to CEC forecast

**Status:**
- To be developed by CAISO

**WECC releases:**
- 2015/2017 database

**Status:**
- To be released by WECC
Critical software features needed for C3ETP:
(a) Database change management
(b) TEAM report
(c) Pumped-storage scheduling
(d) HVDC scheduling
Economic Assessment
Phases and Steps

- Preparation
  - Implement Production Simulation Tool
  - Implement WECC Database

- Modeling
  - Develop CAISO Baseline
  - Model C3ETP Alternatives

- Computation
  - Base Analysis
  - Sensitivity Analysis

Baseline-Generic

C3ETP-Specific
Your comments and questions are welcome
For written comments, please send to: RegionalTransmission@caiso.com