# DeSabla Centerville Project
# FERC No. 803

# Relicensing

Public Utility Economics

**April 24, 2007**

# Public Utility “Cost of Service” Ratemaking

- PG&E has an the obligation to serve electricity to all who want it within its service territory.
- In exchange, PG&E has an opportunity to recover its reasonable costs (its “Cost of Service) through CPUC ratemaking

# Public Utility Economics

- Public Utility economics are made from the customer's perspective
- PG&E is a net purchaser of electrical power, meaning PG&E no longer owns enough generating facilities to meet demand
- PG&E purchases supplemental electrical power from the market
- DeSabla-Centerville qualifies as a "renewable" electricity source per the State's Renewable Portfolio Standard (RPS)

# Resulting Economic Goals

- "Competitive" power generation projects are preferred; "economic" projects are essential
  - "Competitive" means the cost of replacing the project's future generation with a market alternative exceeds unrecovered sunk costs plus future costs
  - "Economic" means the cost of replacing the project's future generation with a market alternative exceeds future costs
- The CPUC's expectation and PG&E obligation is for PG&E to obtain electric power for its customers from the least cost, best fit sources
- A problem occurs if a project's cost-of-production exceeds the cost of purchasing equivalent electric power from market alternatives.

# Economic Analysis Methods

- Life-cycle analyses using FERC's current-cost method
- Project costs summarized as Cost-of-Production (COP)
- Project benefits are the avoided replacement Power costs

| One-Time and Annually Recurring Costs<br>2007 Dollars (x $1,000) | FERC no action alternative | Estimated Range of Costs over New FERC License Term | | |
|---|---|---|---|---|
| | | Strawman PM&Es w/ Centerville Ph As-is | Strawman PM&Es w/ Centerville Ph Decom | Strawman PM&Es w/ Centerville Ph Rebuild |
| Relicensing Transaction cost | $14,500 | $14,500 | $14,500 | $14,500 |
| New License Condition Capital (Strawman) | $0 | $4,800 | $4,800 | $4,800 |
| New License Condition Annual Expense (Strawman) | $0 /yr | $785 /yr | $785 /yr | $785 /yr |
| Net Book Value | $31,400 | $31,400 | $31,400 | $31,400 |
| Avg Annual Other O&M | $2,500 /yr | $2,500 /yr | $2,500 /yr | $2,500 /yr |
| Centerville PH Capital Costs (As-is, Decom or Rebuild) | $0 | $0 (As-is) | $17,300 (Decom) | $39,800 (Rebuild) |
| Avg Annual Other Capital | $480 /yr | $480 /yr | $360 /yr | $580 /yr |
| Average Annual Energy, GWh/yr | 155.7 GWh/yr | 119.9 GWh/yr | 119.9 GWh/yr | 140.5 GWh/yr |
| Replacement Power Value | $12,876 /yr | $9,964 /yr | $9,916 /yr | $11,622 /yr |
| | Historical Operations (prior to 2001) w/ Centerville Ph Generation | Historical Operations (prior to 2001) w/o Centerville Ph Generation | Historical Operations (prior to 2001) w/o Centerville Ph Generation | 2005 Operating Plan w/ Centerville Ph Generation |

## Estimated Cost of Production (COP) over New License Term*