
PG&E Comments on SWRCB Draft OTC Policy



December 1, 2009

Restore the Cost-benefit Variance

- Deletion of variance is a major step backward
 - Case law establishes a cost-benefit off ramp
 - The variance was the first acknowledgement that the nuclear plants require a different approach
 - Also acknowledges the need to balance water quality with GHG reduction, air quality, etc.
 - Variance process can be better delineated to reduce administrative workload

Restore the Cost-benefit Variance

- Critical Addition to Draft Policy
 - Essential to weigh the costs of compliance with the benefits achieved
 - Also important to look at those costs in the context of the relative impacts
 - Policy should include language explaining the rationale for the variance
- Provide Additional Detail to Variance Process
 - Specify method of monetizing benefits
 - Specify at what ratio cost is deemed wholly disproportionate to benefits
 - Specify a range of mitigation and hold funds in trust for restoration efforts
- Habitat Production Foregone
 - Methodology does not have a significant track record
 - Multiple levels of assumptions can create very broad ranges of “answers”
 - Consider initiating peer review or using existing approaches
 - Whatever method is chosen, set it out in the policy to remove ambiguity

Diablo Canyon – Rendering of Retrofit



Diablo Canyon – Cooling Tower Retrofit

- Adverse Environmental Impacts
 - 12-15 MMT of GHG Emissions for Replacement Power
 - 282,000 tons/year of GHG for Lost Generation
 - 4.5 million Gallons of Diesel Burned During Retrofit
 - Thermal Discharge Limit Challenges – Off-shore Diffuser to Deal with Warmer, Saltier Discharge
 - Significant Visible Plumes—visible from San Luis Obispo 18% of the year
 - Salt Drift -- 7,600 Tons/Year

Diablo Canyon – Retrofit Cost Estimate

In Millions by Category of Work:

\$325	Site Work – excavation, retaining walls
\$316	Demolition, replacement of buildings, roads, parking
\$298	Recirculating water/make-up water pumps, tunnels
\$269	Permitting, engineering, project management, security
\$242	Cooling Towers
\$199	Electrical systems, process/instrumentation, utility relocation
\$189	Worker transportation, commute wages, parking
\$131	Upgrades – condensers, sewage treatment, SCW
\$ 56	Blowdown water treatment, mixing station, diffuser
\$ 50	Plant shutdown and start-up

\$2,075 Total Direct Costs

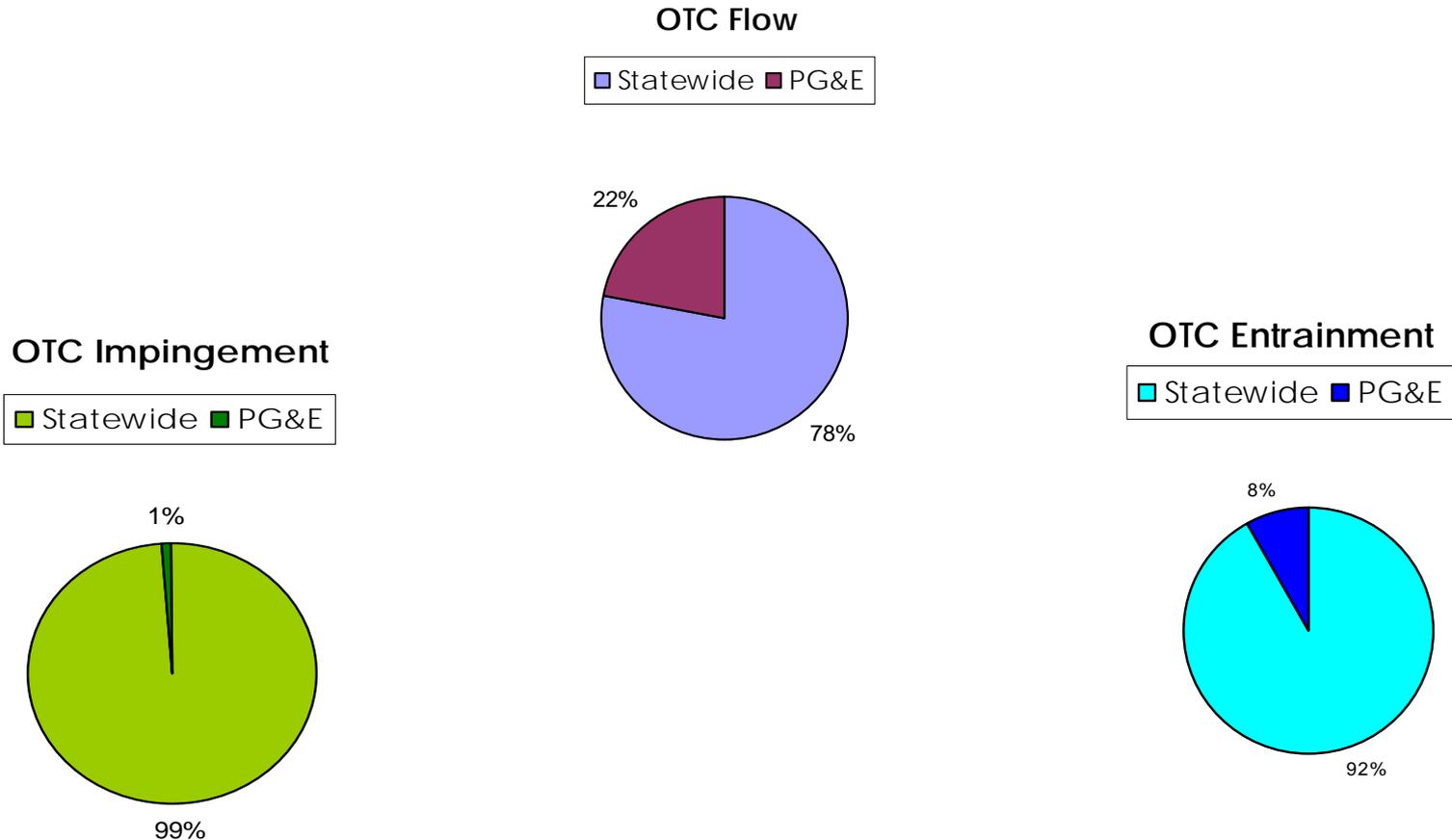
\$ 614 Project Indirect Costs and Contingency

\$2,689 Total Capital Costs

\$1,800 Replacement Power (at \$70 MWh)

\$4,500 TOTAL PROJECT COSTS

Diablo Canyon – Percentage of flow vs. impact



Data taken from SWRCB's Substitute Environmental Document.