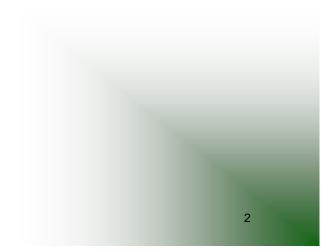# Operating Reserve Cost Allocation

Management Committee
November 29, 2006

Agenda

- Optimization Process

- Resource Costs

- Settlement Mechanisms

Optimization Process

◆ Software algorithm selects the least total production cost mix of resources to satisfy energy, and reserve, regulation and transmission reliability criteria over the commitment horizon.

◆ Prices for energy, reserve and regulation set simultaneously (co-optimized solution) by the marginal providers of the products.

▪ *Resource selection not based solely on peak load conditions, nor marginal costs of providers*

Resource Costs

- Costs associated with resource selection:
  - *Scheduling costs -*
    - Costs associated with operating resources at particular schedules
    - Costs incurred specific to the dispatch period
    - Captured in the energy, reserve and regulation clearing prices
  - *Commitment costs -*
    - Costs associated with having the resources on-line
    - Costs incurred specific to the commitment horizon and cost recovery period (e.g. 24 hours)
    - Captured in BPCG cost-recovery mechanisms
  - *Energy and reserve products treated consistently*

Issue Discussion

- ◆ Should Off-Peak Load Pay for Peak Load Reserve Scheduling?
  - ▪ *Competitive market design requires short-run pricing signals to be set by marginal providers of services to ensure:*
    - ● Consistent incentives for all providers of services
    - ● Cost recovery in the short run
  - ▪ *Average costing models do not fully capture the value of services in the price signals*

Settlement Mechanisms

◆ Short term price signals should be consistent between payers and providers of services:

- ▪ *Scheduling costs incurred in hour and allocated to withdrawals in that hour*

- ▪ *Commitment costs incurred over day and allocated to withdrawals in that day*

- ▪ *Energy and reserve products treated consistently*