Time Value Considerations for Economic Comparability

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Intent of Power Plan

“Ensure the regions power supply and acquire cost-effective energy efficiency”

• Cost/efficiency – many perspectives?
  • Ensure customer values achieved;
    • Cost effective;
    • Adequate reliability

• Objective of plan
  • currently measured as least cost w/ plan risk
Comparison of Alternatives

Measure of cost effectiveness

- This presentation:
  - Support “apples to apples” comparability between alternatives including capital and operating costs
  - Topic of this presentation; avoid bias based upon financial differences, that inappropriately distort results.
  - Other underlying topics that create distortion should be also addressed.
Finance Differences Among Regional Constituents

- Ownership Differences
  - IOU’s (Debt/Equity, Regulatory Oversight, taxable)
  - Public Ownership (~Debt, Internal Regulation, non-tax)
  - IPPs
    - W/ PPAs (High leverage, contracted revenue, taxable)
    - Market sales (High equity, market revenues, taxable)

- Off Balance Sheet Financing
  - Sell/ Lease back or PPA (low lease costs /leveraged, fixed payment obligation on balance sheet/higher equity compensation)
Entity Cost w/ Finance Differences

- Revenue Requirements – CCCT

  NPV Revenue Requirement - Investment Cost
  - w/ PPA (take and pay)  1.0  *overnight cost
  - Public (~ 100% debt)  1.0  *overnight cost
  - IOU (50/50 debt/equity)  1.31 *overnight cost
  - Market (40/60 debt/equity)  1.40 *overnight cost
What is the solution?

- Market perspective assumes greatest investment risk, provides consumer latitude to elect options that best suit value/needs through time. Not easily measured since ownership w/ market risk is very sparse.
- IOU’s assumes greater level of investment risk than either public ownership or ownership w/ PPA.
- Election of one financing structure eliminates most of the bias however still undermines the real consumer cost by ignoring risk sharing resulting in some distortion.
Other differences not addressed

- **Quantifiable**
  - Tax and other incentives – discussion for another day, but *significant*! Includes tax credits, accelerated depreciation. Congressional wisdom or political whim; should impact be exploited?
  - Customer values; beyond least cost perspective

- **Non-quantifiable**
  - Non-internalized environmental

- Other.....