Addressing RPS Compliance Costs in the PCIA/Indifference Calculation

Workshop # 1 on Departing Load PCIA Methodologies

Presented by Mark Fulmer, MRW & Associates LLC
On behalf of the Joint Parties

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Problem:

- The current Market Price Benchmark does not reflect the value of renewable resources even though the cost of these resources is included in the Indifference Rate calculation underlying the PCIA.

- As a result, above market costs are inappropriately shifted to departing load customers.

Potential Options

1. Remove all RPS renewables (costs and MWhs) from the indifference calculation
2. Adjust the Market Price Benchmark to reflect RPS values
3. Segregate RPS resources from conventional and create a separate benchmark/indifference calculations for each
4. Allocate a share of the renewable attributes to CCAs/ESPs.
5. *Other ideas?*

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1. Remove RPS from the Indifference Calculation

Rationale:

- Consistent with flexible RPS compliance

- RPS assets are never "stranded" as long as the departed load doesn't cause the IOU to be excessively long on RPS power

- Departing loads are responsible for costs of their own RPS compliance

- Simplicity: don't have to construct a price proxy for renewable power

2: Adjust the Market Price Benchmark

- Have the market price benchmark equal a weighted average of the brown market power forwards and a green price benchmark

- Weight the two factors based on that year's RPS requirement

- E.g., assuming a 20% RPS requirement, the Market Price Benchmark would equal:

  (Forward Price x 80% + Green Benchmark x 20% + other adders) x (1+ line losses)
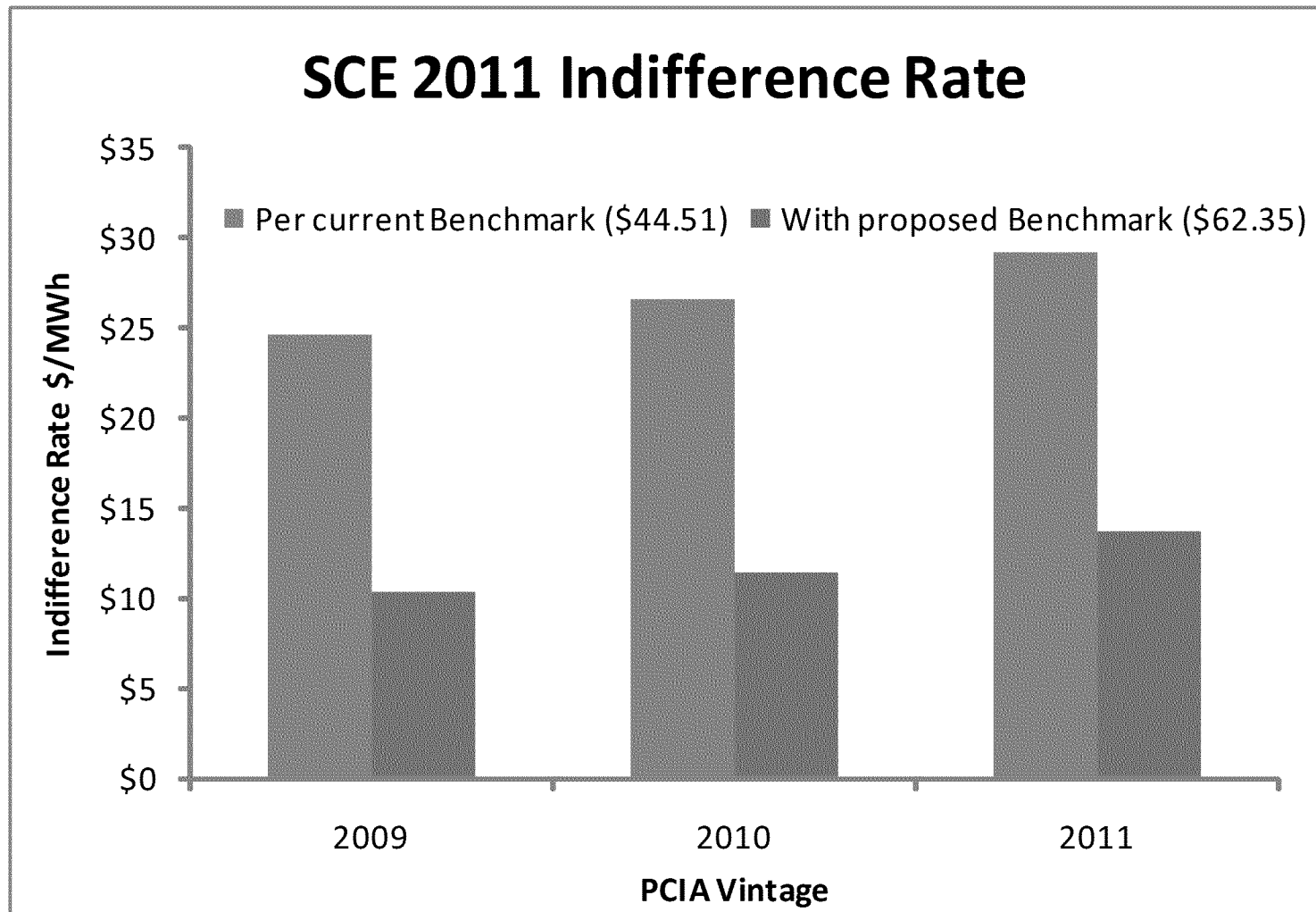
2: Adjust the Market Price Benchmark

Example: Based on SCE November ERRA:

- Average 2011 Forwards: $35.27/MWh
- RA Adder: $7/MWh
- Line Losses: 5.3%
- Current Benchmark: ($35.27 + $7) x 1.053 = $44.51

- Green Benchmark: $120/MWh*, 20% RPS requirement
- New Benchmark:
 [(0.8 x $35.37) + (0.2 x $120) + $7] x 1.053 = $62.35/MWh

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* $120/MWh is for illustration purposes only

Impact of Weighted Average Benchmark on Indifference Rate

SCE 2011 Indifference Rate

Bar chart comparing Indifference Rate ($/MWh) across PCIA Vintage years 2009, 2010, and 2011. Legend: Per current Benchmark ($44.51) and With proposed Benchmark ($62.35).

How Should a Green Benchmark Be Set?

- RPS Market Price Referent (MPR)
  - But the MPR is long-term index
- REC values
  - REC market does not yet exist, so does not address immediate need for relief
- Some other "Green" Market Price
  - No published indices
- A Proposal: Infer market price from current year's IOU RPS-compliant purchases

Green Benchmark Proposal

The benchmark in year *n* would be the weighted average cost of all new renewable PPAs and utility-owned RPS compliant resources entering the revenue requirement in year *n*.

Green Benchmark Proposal

Rationale:

- We need a current price for the full spectrum of renewables
- The California IOUs are the primary buyers of renewables in the state (and likely the WECC)
- What the major buyers are paying for renewables is *de facto* what the market price is, as they are conducting most of the transactions

Green Benchmark Proposal

- Issues:
  - There would be some volatility, as the mix of new resources would change from year to year. How much? How big a problem would it be?
  - Would the Green Benchmark be IOU specific or a weighted average of all three?
  - How would it be reported, so as to protect IOU confidentiality AND provide for independent verification?

3. Separate RPS and conventional <u>indifference calculations</u>

- Create two parallel calculations based on two sets of resources and costs: those used for RPS compliance and those not.

- Use the Green Benchmark to calculate the indifference rate associated with RPS-compliant resources

- Use a brown/market benchmark to calculate the indifference rate associated with non-RPS resources

3. Separate RPS and conventional <u>indifference calculations</u>

- Each calculation would be based on the actual volumes in the RPS and non-RPS bucket

- Would allow more transparency in the Indifference rates

- Would add a level of complexity –two indifference calculations rather than one.

4. Allocate renewable attributes to CCAs/ESPs

- If no green benchmark is added, transfer some RPS attributes (RECs and/or any RPS compliance elements) to the providers of the departed load (CCAs and ESPs)
- How?

Recap

- Remove RPS renewables from the calculation
  - Avoids all need to set a benchmark for renewables
- Adjust the Market Price Benchmark for RPS
  - A challenge to come up with a Green Benchmark
- Separate Indifference calculations for brown and green power
  - Adds transparency but also complexity
- Allocate some portion of the renewable attributes to CCAs/ESPs
  - How?