Bill Calculator Model Overview
Residential Rate OIR Workshop

December 5 and 6, 2012
Purpose

- The three IOUs have developed bill calculators to ensure that interveners have the ability to evaluate residential rate design options and develop residential rate design scenarios such as
  - Non Time Of Use (Flat rate, multi-tiered up to 5 tiers)
  - Time Of Use (flat, with or without a baseline credit in cents per kWh)

- The IOUs in this effort worked to ensure as much consistency as possible in the model functionality, including available rate design options and output, to allow for apples to apples comparison of proposals across the 3 IOU service territories while maintaining the service territory differences to ensure that the results would be representative.

- These models were developed to replicate the rate design process for the IOUs. Actual results may differ when fully developed.
Bill Calculator Model Overview

**Input**
- Customer Sample Data
- Income Data
- Cost Basis Inputs
- Scenario Inputs
  - Common inputs for Non Time Of Use (non TOU) and Time Of Use (TOU)
    - Customer charge
    - Demand differentiated fixed charge
    - CARE discount
  - Non TOU inputs
    - No. of tiers
    - Tier differentials
    - Additional criteria
  - TOU inputs
    - TOU price differentials
    - Baseline credit

**Calculation**
- Rate design
- Bill amount calculation
- Underlying calculation for the report tabs

**Output**
- **Summary**
  - Scenario rates for non-CARE and CARE
  - Average rates by climate zones and by non-CARE and CARE
  - CARE discount and subsidy
  - Fixed cost recovery through a customer charge
  - Comparison with (a) cost based and (b) current rate based average rates
- **Bill Impact**
  - Distribution by range of bill impact (e.g., > 10% to 20%)
    - No. of customers
    - Average kWh
    - Average annual load factor
    - Average cents per kWh
    - Average bill to income ratio
  - Comparison with current rates based bill amount
- **Rate Efficiency**
  - Variation of average cents per kWh with average usage (kWh) range
  - Comparison with (a) cost based bill amount and (b) current rate based bill amount
- **Bill and Revenue**
  - Distribution of (a) average bill amount and (b) revenue collected by usage range
  - Comparison with (a) cost based bill amount and (b) current rate based bill amount
- **Reference**
  - Energy conservation estimates based on elasticity
  - Relationship between Income and usage (Correlation)