**User Instructions for Mockup**

Brief Explanation of each input sheet

1. Executive Summary
   * Define CARE and non-CARE tiered tariffs
2. Category Names
   * Define the different customer categories and relative population
3. PV Parameters
   * Define PV prices and PV power production
4. Utility Costs
   * Define generation and delivery costs
5. Adoption Model
   * Define the factors that define a customer category

Brief Explanation of each output sheet

1. Adoption numbers across various divisions of customers
2. Load Profile across various divisions of customers
3. Tiered Variable Charge over time
4. Total PV Kilowatt Production by distributed generation
5. Change in average savings over time

Executive Summary

1. Specify the number of tiers (between 1 and 5) to define the annual increase in Tier 1 and 2 as well as the $/kWh difference between Tiers 3 and 4 and Tiers 4 and 5. Alternatively, specify “Ratio” to define the ratios between Tiers 2-5 and Tier 1.
2. Specify the summer and winter baselines as a percentage of the average aggregate usage. Specify the usage thresholds for each tier as a percentage of the summer and winter baselines.
3. Specify the minimum charges in $/month.
4. Specify the customer charge type as “Flat” or “Demand Differentiated”.
5. Specify the percentage discounts for CARE tariff.
6. Specify the Initial Rates for the first year
7. Specify initial PV Price, % Annual Drop in PV Price, % Subsidy and Start and End year of subsidy – prices can be manually changed in PV Parameters Sheet
8. Specify Total Customer Population, Utility Revenue requirement and number of customers that are ineligible for PV due to shading
9. Specify the simulation run time in months and the initial number of adopters – simulation begins number of adopters at 0 but initial adopters accelerate initial adoption rate

Category Names

1. There are four major categories that are a combination of Homeowners/Tenure and CARE/NonCARE Rates. - Define the % population in each category. Sum of all percentages has to sum to 100%, else an error will be raised
2. Define the % population in each consumption bin in each category. Sum of all percentages in each row has to sum to 100%, else an error will be raised. All customers in each combination of Tenure/Rate/Consumption\_Bin adopt PV in an identical fashion

PV Parameters

1. Define the Cost of PV per kW for each year from 2013 to 2032 – this is automatically generated from the executive summary sheet but can be manually manipulated - software reads PV prices from this sheet
2. Cost of PV without subsidy is for info purposes only to see the difference in PV prices due to subsidy
3. Define the power production (kWh per Kw of Solar)
4. Define the average PV size adopted by consumption bin defined in Category\_Names sheet

Utility Costs

1. Specify the generation and delivery costs. The marginal generation costs must be specified separately for each operating period.

Climates, Rates, Adoption Model

1. User can define the different adoption models available to each customer category by selecting a *Model Type* and *Parameter Values*. The *Model Type* selected must be one of the three defined. Otherwise, an error is raised.
2. Functions are used to specify the probability of adoption for each customer category
3. Explanation of variable names -

* *Innovators:* % of Population that adopts PV regardless of current prevalence of PV
* *Imitators:* % of Population that adopts PV based on current prevalence of PV
* *Coefficient of Savings:* multiplier on savings
* *Prevalence:* % of Population that has already adopted PV
* *Savings:* Amount of savings a customer gets from adopting PV (over a 20 – year time horizon)
* *Probability:* Probability that customer will adopt PV in current time-step
* *Innovators1:* % of Population that adopts PV regardless of current prevalence of PV with potential savings of <$15,000
* *Imitators1:* % of Population that adopts PV based on current prevalence of PV with potential savings of <$15,000
* *Innovators2:* % of Population that adopts PV regardless of current prevalence of PV with potential savings of between $15,000 - $25,000
* *Imitators2:* % of Population that adopts PV based on current prevalence of PV with potential savings of between $15,000 - $25,000
* *Innovators3:* % of Population that adopts PV regardless of current prevalence of PV with potential savings of <$25,000
* *Imitators3:* % of Population that adopts PV based on current prevalence of PV with potential savings of >$25,000

**Output Sheet**

Sheet 1: Adoption

* Total Adoption numbers by:
  + System-Wide
  + Consumption Bin
  + Rate Schedule

Sheet 2: Load Profile

* Load Profile of Adopters/Non-Adopters by:
  + Consumption Bin
  + Rate Schedule

Sheet 3: Prices

* Prices by Tier

Sheet 4: Mean Savings

* Mean savings by:
  + System-Wide
  + Consumption Bin
  + Rate Schedule

Sheet 5: Load served by DG

* Total PV Consumed by:
  + System-Wide
  + Consumption Bin
  + Rate Schedule