Application No:	A.10-03-xxx
Exhibit No.	SCE-2
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SOUTHERN CALIFORNIA EDISON

An *EDISON INTERNATIONAL* Company

(U 338-E)

Workpapers for Prepared Testimony Supporting Application Proposing a Net Surplus Compensation Rate Pursuant to Assembly Bill 920

Before the
Public Utilities Commission of the State of California

March 15, 2010
Rosemead, California

I.

NET SURPLUS COMPENSATION RATE

SCE recommends that the Commission establish a payment method that reflects the California Independent System Operator (CAISO) Market Redesign and Technology Upgrade (MRTU) Integrated Forward Market (IFM) South of Path 15 (SP 15) Generation Hub[1] and the United States Department of Energy (DOE) renewable attribute prices.[2] This proposed compensation methodology updates monthly and reflects the value of electricity over a specific customer's relevant period.

The IFM SP15 Generation Hub prices are published daily, and reflect hourly day-ahead generation prices. From the CAISO website, these prices can be uploaded by searching "Locational Marginal Prices" report, "DAM" market, and "TH_SP15_GEN-APND" node for the appropriate time period. The Generation Hub is the location at which utilities purchase generic supply in order to match generation to load. In addition, utilities purchase the majority of their day-ahead net energy positions in the IFM.

The DOE updates the renewable premium periodically, and SCE's calculation of the renewable premium used in our NSCR will update each time the DOE updates these numbers. SCE performs this calculation by first filtering for only Western Electricity Coordinating Council (WECC) states.[3] SCE then calculates a straight average of all cents-per-kilowatt-hour (¢/kWh) prices reported by WECC utilities. SCE may not include the premium under certain circumstances. If the price is a range, SCE uses the average value of the range for the calculation.

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1 *See:* http://oasis.caiso.com/mrtu-oasis/?doframe=true&serverurl=http%3a%2f%2ffrptp09%2eoa%2ecaiso%2ecom%3a8000&volume=OASIS

2 *See:* http://www.eere.energy.gov/greenpower/markets/pricing.shtml?page=1

3 Currently this consists of 11 states.

A. Compensation Methodology – Payout Percentage

In order to establish the price, SCE proposes the calculation of a Payout Percentage using the following methodology:

$$\text{Payout Percentage} = \frac{\text{Class Avg. IFM SP15 Price (for prior 12 months)} + \text{Latest DOE WECC Renewables Premium Average}}{\text{Class Avg. Full Retail Rate}[4] \text{ (for prior 12 months)}}$$

SCE will then apply this Payout Percentage to each customer's remaining bill credit at the end of the relevant period, as described below, in order to determine the proportionate amount that each customer will receive of this final bill credit.

$$\text{Customer Compensation} = \text{Payout Percentage} \times \text{Left-over bill credit (at end of relevant period)}$$

To calculate the Class Average IFM Price, which represents an approximated cost of procuring energy for a specific customer class, SCE must compile a matrix of prices for every hour of the previous 12-month period.[5] In addition, SCE must compile a second matrix of identical size with the hourly load of a specific customer class for the previous 12-month period. SCE then obtains a class average IFM price by multiplying the two matrices and subsequently dividing each cell by the average 12-month load of the specific customer class.

SCE's Rate Design group calculates the class average full retail prices. As such, the described calculation of the Payout Percentage for a class will consist of the sum of the class average IFM price and the renewable premium divided by that class's average full retail rate (measured in $/kWh). Hence, SCE will calculate the Payout Percentages for each class on a monthly basis. SCE will then multiply a customer's remaining bill credits at the end of the customer's relevant period by the Payout Percentage associated with that customer's class. SCE will then pay this calculated amount to the customer in

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4 As determined by SCE

5 A 12-month period consists of 8760 hours.

the form of direct compensation by check or by a roll-over bill credit that the customer may use to pay for any subsequent utility charges.

This methodology converts each customer's remaining bill credit at the end of that customer's relevant period, which reflects the value of kWh generated over the relevant period, into a proportionate payment. This methodology results in an appropriate, class-specific compensation rate that is determined through calculations that incorporate existing market and internal data.

B. Compensation Methodology – $/kWh Rate

An alternative methodology that the Commission could adopt is a dollars per kilowatt hour rate equal to the class average MRTU price plus the DOE renewable premium. The combined price of the electricity and renewable attribute can be updated monthly by calculating the Class Average IFM Price as performed in the previously described methodology and adopting the current DOE published price. This rate could then be applied to each customer-generator's surplus kWh at the end of that customer's corresponding relevant period.