

## PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

EVALUATION AND COMPLIANCE DIVISION  
Energy BranchRESOLUTION E-3020  
March 25, 1987R E S O L U T I O NORDER AUTHORIZING SOUTHERN CALIFORNIA EDISON COMPANY (SCE)  
TO ESTABLISH EXPERIMENTAL SCHEDULE RTP, GENERAL SERVICE -  
LARGE (CUSTOMER), REAL TIME PRICING TEST.

By Advice Letter 756-E, filed January 22, 1987, Southern California Edison Company (SCE) requests authorization to establish Experimental Schedule RTP, General Service- Large, Real Time Pricing Test. The facts are as follows:

1. Real Time Pricing (RTP) is the practice of continuously varying prices to customers to reflect hourly variations in the marginal costs of generating, transmitting, and distributing electricity.
2. SCE will use Experimental Schedule No. RTP to test the feasibility of Real Time Pricing with respect to customer response, customer acceptance, hardware and software performance, tariff administration, and cost effectiveness.
3. SCE plans to test the Real Time Pricing concept on approximately 10 commercial and industrial customers over a two-year period. SCE plans to allow customers to participate in the experimental real-time pricing test under this rate schedule as early as April 1, 1987. However, customers will not be allowed to begin participating in the RTP test after December 31, 1987.
4. Customers who agree to participate in the RTP experiment must sign up for a minimum of one year of service, and it is SCE's intent to encourage them to remain on the experimental RTP rate schedule for an additional year following the successful completion of the initial year.
5. The Applicability section of the rate provides that the schedule will expire on December 31, 1989.

6. In this experiment SCE will use a collection of nine 24-hour price scenarios ("scenario" in this context, is defined as a 24-hour stream of RTP rates associated with a unique combination of day type and weather conditions). SCE will select the RTP rate scenario which most closely corresponds to the day type (i.e., summer and winter weekday or weekend/holiday) and maximum temperature forecast for the next day.

7. SCE's experiment will not attempt to reflect hour-to-hour actual system operating conditions, but instead will simulate both capacity shortage and excess capacity situations. Therefore, SCE plans to widely vary both the RTP rate levels and the amounts of advance warning given before a given hour's RTP rate becomes effective.

8. Forecasted RTP rate levels for 1987 range from a low of 1.5 cents per kilowatt-hour to a high of \$1.50 per kilowatt-hour. In no event will the highest price actually charged exceed \$1.50 per kilowatt-hour. However, SCE will reserve the right to occasionally charge customers less than 1.5 cents per kilowatt-hour. These extremely low prices will be designed to reflect SCE's marginal cost on a real-time basis during those hours of the year when SCE is rejecting extremely low cost economy energy purchases and will test RTP customers' ability to respond to very low rates. In no event will any of these very low RTP rates be less than SCE's marginal cost.

9. SCE is designing the RTP rate levels to cover the entire range which customers would face when RTP rates are allowed to fluctuate with SCE's actual system operating conditions.

10. SCE will also be testing customers' ability to respond to RTP rates. SCE will provide varying amounts of advance warning of the rates to be charged. As a result, RTP customers may be billed RTP rates provided well in advance of the period when they are charged, as well as RTP rates provided with very little prior warning.

11. Customers will be notified each day, through equipment installed, owned, operated, and maintained by SCE, of the hourly RTP rates that are forecast for the following day. Rates will be verified or updated hourly. Each hourly RTP rate is subject to change.

12. The advice letter also establishes a Form No. 16-254 - Real Time Pricing Test - Participation Agreement for use in the Real Time Pricing experiment.

13. SCE is designing the real time rates to be revenue neutral with the current Schedule No. TOU-8 - General Service Large, for an average TOU-8 customer. The rate design developed by SCE shall be subject to review in SCE's pending General Rate Case Application 86-12-047.

14. In order to tie the Real Time rates to major changes in the TOU-8 rate level, SCE intends to adjust the real-time prices at least annually. SCE will make this adjustment by applying a multiplier across-the-board to all real-time prices, except that no value will be less than its associated marginal cost.

15. SCE anticipates that any revenue impact due to the experiment will be minimal and will be spread to all customers through the Electric Revenue Adjustment Mechanism (ERAM).

16. SCE has been working closely with the Public Staff Division (PSD), in developing the scope and direction of the project.

17. SCE's real-time pricing experiment will involve approximately ten (10) very large commercial and industrial customers who voluntarily agree to participate. This group of customers is not expected to be representative of the very large commercial/industrial population as a whole. Rather, it is expected to be representative of the types of customers who may eventually volunteer for billing under a real-time tariff once a standard RTP tariff is in place.

18. SCE wishes to begin serving customers under the new Schedule commencing on or after April 1, 1987.

19. Staff believes that the tariff should be approved to be effective through December 31, 1989. Customers on the schedule can, at that time, take service on any other applicable schedule.

20. SCE is expected to file a status report to the Commission on the feasibility of Schedule RTP with respect to customer response, customer acceptance, hardware and software performance, tariff administration, and cost-effectiveness by August 1987. In addition, SCE shall file an Annual Report at the end of each calendar year following the same reporting requirements as Pacific Gas and Electric Company's RTP Annual Report which was authorized by this Commission in Resolution E-2083 dated April 16, 1986. The PSD will provide SCE with a written outline detailing the content and format of the Annual RTP Report. SCE will submit 10 copies of a Draft of the Annual Report to the assigned RTP Project Manager on or before December 1, 1987 and again on or before December 1, 1988. Upon receipt of SCE's Draft Annual RTP Report, Staff will determine whether its contents meet the desired standards of completeness and thoroughness. Within two weeks after the receipt of the Draft Report, PSD will advise SCE of any aspects of the report deemed unacceptable.

21. By February 1, 1988 and again on February 1, 1989, SCE will submit the Final RTP Report for 1987 and 1988 respectively.

22. Copies of this advice letter have been sent to all interested parties which appear on the attached service list to the advice letter. The Commission has received no protests in this matter.

23. This filing has been reviewed by the Staff of the Evaluation and Compliance Division and recommends its approval.

24. We find that this advice letter is just and reasonable and will not increase any rate or charge, cause a withdrawal of service, or conflict with any other schedules.

THEREFORE:

1. Advice Letter 756-E and accompanying tariff sheets shall become effective under Sections 454 and 491 of the Public Utilities Code and by Section A of General Order No. 96-A.

2. Southern California Edison Company is hereby authorized to implement proposed Experimental Schedule No. RTP and Real Time Pricing Test Participation Agreement Form No. 16-254 commencing on or after April 1, 1987 to be effective through December 31, 1989.

3. Southern California Edison Company shall file a status report to the assigned RTP Project Manager on or before August 1987. Additionally, Southern California Edison Company shall file a Draft of the RTP Annual Report to the assigned RTP Project Manager as outlined in Paragraphs 20 and 21 above.

4. The above mentioned Advice Letter No. 756-E and tariff sheets shall be marked to show that they were authorized for filing by Commission Resolution E-3020. The tariff sheets and agreement form shall become effective April 1, 1987. This Resolution is effective today.

I certify that this Resolution was adopted by the Public Utilities Commission at its regular conference on March 25, 1987. The following Commissioners approved it:

STANLEY W. HULETT  
President

DONALD VIAL  
FREDERICK R. DUDA  
G. MITCHELL WILK  
Commissioners

  
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Executive Director

Commissioner John B. Ohanian,  
present but not participating.