

## General Manager's Report and Recommendation on

# **Open Access Transmission Tariff** April 7, 2011

Volume 1



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a Sacramento Municipal Utility District Publication

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### Volume I

## April 7, 2011

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# I. Introduction

## 1. SMUD's Commitment to Our Customers

Although the electric utility industry is in a state of flux due to the combined impacts of the recent recession, new technology and regulatory changes, SMUD continues to focus on what we do best: providing the Sacramento region with reliable, competitively priced power, and helping our customers solve their energy-related problems.

Interest in the development of distributed renewable generation is growing rapidly. Within SMUD's service territory there are locations suitable for renewable generation. In 2010, SMUD launched its feed-in tariff for the purchase of distributed renewable generation from facilities within SMUD service territory. The feed-in tariff program sparked significant interest and is now fully subscribed. That program will provide 100 MW of distributed renewable generation. Additionally, in 2010, SMUD exceeded its renewable portfolio standard (RPS) goal of 20% with an overall fuel mix consisting of 23% renewable resources. SMUD estimates that its fuel mix will comprise 37% renewable resources by 2020.

As part of this rate process (See General Manager's Report on Rates and Services Volume 1), SMUD proposes a distribution wheeling tariff for local generating projects to further facilitate the development of renewable resources within SMUD's service territory. This will enable the transmission of that power to SMUD's bulk transmission system where the Open Access Transmission Tariff (OATT) will provide project developers with access to electricity markets outside of SMUD.

## 2. Overview

SMUD owns and operates high voltage transmission facilities and adopted an Open Access Transmission Tariff in February 2004 consistent with the regulations established by the Federal Energy Regulatory Commission (FERC). SMUD offers any excess transmission on our system to other entities that desire to transport energy through our service territory.

SMUD's Open Access Transmission Tariff establishes the rates, terms, and conditions under which we will provide transmission service. Although SMUD is not a jurisdictional public utility subject to FERC's rate jurisdiction under Section 205 or Section 206 of the Federal Power Act, SMUD voluntarily adopted an Open Access Transmission Tariff. Under the Open Access Transmission Tariff, SMUD provides network and point-to-point transmission service, of, or through the SMUD service territory.

This document presents proposed changes to SMUD's Open Access Transmission Tariff to the SMUD Board of Directors, as well as our customer owners and the interested public. It recommends approval of a revised Open Access Transmission Tariff with an effective implementation date of July 22, 2011.

# **II.** Proposed Tariff Revisions

## 1. Open Access Transmission Tariff

#### Issue

Formalization of these tariff revisions will serve the following purposes:

- It supports SMUD's commitment to engage in local, sub-regional, and regional transmission planning;
- It supports SMUD's participation in WesTTrans, the internet based system for open-access to information on transmission availability; and
- It ensures that SMUD continues to provide comparable transmission service on terms and conditions that remain consistent with the open access policy implemented by the Federal Energy Regulatory Commission (FERC).

## **Content of Proposed Tariff**

The proposed changes update the existing open access transmission tariff, as summarized below:

- Updated the general terms and conditions of the tariff to be consistent with FERC policy, and updated available transmission paths and the transmission rates for these paths;
- Updated rates for Ancillary Services provided by SMUD under Service Schedules 1-8;
- Added Service Schedule 9 for Generator Imbalance Service;
- Added Service Schedule 10 for Generator Regulation and Frequency Response Service;
- Updated Attachment C, Methodology for Calculating Available Transfer Capability (ATC), to refer to the standards adopted by the North American Electric Reliability Corporation (NERC);
- Updated Attachment D, the Methodology for Completing a System Impact Study;

- Revised Attachment K to reference SMUD's local, sub-regional, and regional transmission planning process;
- Added Attachment L which contains creditworthiness procedures;
- Moved the Large Generator Interconnection Procedures (LGIP) and the Large Generator Interconnection Agreement (LGIA) to Attachment M;
- Modified Attachment M to include Appendix 6 to the LGIP, and Appendix G to the LGIA relating to wind generators;
- Added Attachment N which includes Small Generator Interconnection Procedures and Small Generator Interconnection Agreement, for facilities no larger than 20 MW.

## **Customer and Revenue Impact**

The new rate will have no immediate revenue impact on SMUD since it has no customers currently taking long-term open access transmission service under the existing tariff. Charges imposed under the new rate are charged only to those customers taking service under the tariff and reflect the reasonable cost to SMUD of providing tariff service. SMUD's costs for providing service under the tariff were determined by 2009 data.

## Recommendation

Approve the revisions to the "Open Access Transmission Tariff" effective July 22, 2011.

Authorize the General Manager and CEO, for a period of two years, to modify the non-rate terms and conditions of SMUD's "Open Access Transmission Tariff" as necessary or appropriate to be consistent with FERC orders as they apply to reciprocity tariffs filed by non-jurisdictional entities.

## 2. Summary of Tariff

This Section summarizes the proposed Ancillary Service revisions, and updated rate schedules for the identified transmission paths. Detailed description of these paths, as well as the complete requirements and rate schedules can be found in Volume 2 of this report, "Open Access Transmission Tariff."

## **Ancillary Services**

Ancillary Services provide necessary support of transmission capacity and energy between the generating resources and the utility customers' loads. They are critical to the reliable operation of the transmission system, in accordance with good utility practice.

SMUD added Service Schedule 9: Generator Imbalance Service. This Ancillary Service is provided when a difference occurs between the output of a generator located in SMUD's Balancing Authority Area and a delivery schedule from a generator to (1) another Balancing Authority Area, or (2) a load within SMUD's Balancing Authority Area over a single hour.

SMUD added Service Schedule 10: Generator Regulation and Frequency Response Service. This Ancillary Service is necessary to provide for the continuous balancing of resources (generation and interchange) with load and for maintaining scheduled Interconnection frequency at sixty cycles per second (60 Hz). The Transmission Provider may offer this Ancillary Service to transmission customers using transmission service to deliver energy from a generator located within the transmission provider's Balancing Authority Area.

The Tariff includes provisions for the following eight Ancillary Service schedules:

## Schedule 1: Scheduling, System Control and Dispatch Service

\$0.1488/KW-Month

## Schedule 2: Reactive Supply and Voltage Control from Generation Sources Service

\$0.0584/KW-Month

#### Schedule 3: Regulation and Frequency Response Service

\$0.1660/KW of Reserved Capacity per month

#### **Schedule 4: Energy Imbalance Service**

| Deviation bandwidth:       | +/- 1.5% with a minimum of 2MW   |  |  |
|----------------------------|--|--|--|
| Inside bandwidth           |  |  |  |
| Charge for Under delivery: | 110% of CAISO NP15 EZ Gen Hub<br>Hourly Spot Price                             |  |  |
| Credit for Over delivery:  | 90% of CAISO NP15 EZ Gen Hub Hourly<br>Spot Price                              |  |  |
| Outside bandwidth          |  |  |  |
| Charge for Under delivery: | greater of 100 Mills/kWh or 300%<br>CAISO NP15 EZ Gen Hub Hourly<br>Spot Price |  |  |
| Credit for Over delivery:  | None   |  |  |

#### Schedule 5: Operating Reserve – Spinning Reserve Service

Demand Charge: \$5.194/KW-Month x Transmission Customer's Load Ratio share of Transmission provider's spinning reserve requirement.

| Energy Charge: | 110% of Transmission Provider's system |
|----------------|--|
|                | incremental cost (SIC) for purchased   |
|                | energy                                 |
|                |  |

## Schedule 6: Operating Reserve – Supplemental Reserve Service

| Monthly delivery: | \$4.836/KW-Month x Transmission<br>Customer's Load Ratio share of<br>Transmission provider's supplemental<br>reserve requirement. |
|-------------------|---|
| Energy Charge:    | 110% of Transmission Provider's SIC for purchased energy.   |

## **Schedule 9: Generator Imbalance Service**

| Deviation bandwidth:       | +/- 1.5% with a minimum of $2MW$   |  |  |
|----------------------------|--|--|--|
| Inside bandwidth           |  |  |  |
| Charge for Under delivery: | 110% of CAISO NP15 EZ Gen Hub<br>Hourly Spot Price                             |  |  |
| Credit for Over delivery:  | 90% of CAISO NP15 EZ Gen Hub   |  |  |
|                            | Hourly Spot Price  |  |  |
| Outside bandwidth          |  |  |  |
| Charge for Under delivery: | greater of 100 Mills/kWh or<br>300% CAISO NP15 EZ Gen Hub<br>Hourly Spot Price |  |  |
| Credit for Over delivery:  | None   |  |  |

## Schedule 10: Generator Regulation and Frequency Response Service

\$0.1660/KW of Reserved Capacity per month

## **Point-to-Point Transmission**

## Firm Point-to-Point Transmission

Firm Point-to-Point Transmission service is the reservation and transmission of capacity and energy on a non-interruptible basis from the Point(s) of receipt to the Point(s) of delivery. (See Volume, Schedule 7 for yearly, daily and hourly rates.)

#### Schedule 7:

System Rate: Transmission between the SMUD System and any single point of interconnection between the Transmission Provider and an interconnected third party transmission provider, as specified on SMUD's OASIS.

Monthly delivery: \$0.871/KW of Reserved Capacity per month.

COTP Rate: Transmission between Captain Jack and Tracy 500 kV substations.

Monthly delivery: \$5.04/KW of Reserved Capacity per month.

## **Non-Firm Point-to-Point Transmission**

Non-Firm Point-to-Point Transmission service is the reservation and transmission of capacity and energy on an interruptible basis from the Point(s) of receipt to the Point(s) of delivery. (See Volume 2, Schedule 8 for yearly, daily and hourly rates.)

#### Schedule 8:

System Rate: Transmission between SMUD System and the SMUD System and any single point of interconnection between the Transmission Provider and an interconnected third party transmission provider, as specified on SMUD's OASIS.

Monthly delivery: \$0.554 /KW of Reserved Capacity per month

COTP Rate: Transmission between Captain Jack and Tracy 500 kV substations.

Monthly delivery: \$ 3.83/KW of Reserved Capacity per month

## Wholesale Transmission Service Rate Comparisons

|                          |             | (a) Proposed and Current Point-to-<br>Point Firm Transmission Rates |                              |  |
|--------------------------|-------------|---|------------------------------|--|
|                          | Proposed    | Current   |                              |  |
| System Rate <sup>1</sup> | \$ 0.871/KW | \$ 0.91/KW  | of Reserved Capacity / Month |  |
| COTP Rate <sup>2</sup>   | \$ 5.044/KW | \$ 3.36/KW  | of Reserved Capacity / Month |  |

| <b>(b)</b> | Proposed and Current Point-to-  |
|------------|---------------------------------|
| Po         | int Non-Firm Transmission Rates |

|             | Proposed    | Current    |                              |
|-------------|-------------|------------|------------------------------|
|             |             |            |                              |
| System Rate | \$ 0.554/KW | \$ 0.55/KW | of Reserved Capacity / Month |
|             |             |            |                              |
| COTP Rate   | \$ 3.863/KW | \$ 2.57/KW | of Reserved Capacity / Month |
|             |             |            |                              |

<sup>&</sup>lt;sup>1</sup> The current OATT refers to this path as Area A: Transmission between Rancho Seco, Lake, Hurley and Elverta Substations. <sup>2</sup> The current OATT refers to this as Area B.

## **Network Integration Transmission Service**

Network service provides transmission service to network customers whose network resources are integrated, economically dispatched and regulated to serve their network load. Currently SMUD has no network service customers.

## **Network Service Charges**

Transmission pricing for network customers varies depending on their network loads. The charges are based on the customer load ratio share of the Transmission Provider's monthly transmission revenue requirements for the applicable predefined rate area. Revenue requirements for each area are found in Attachment of Volume 2 of the "Open Access Transmission Tariff".

## Methodology for Calculating Available Transfer Capability

Attachment C of Volume 2 of the "Open Access Transmission Tariff" contains the methodology for calculating available transfer capability. Attachment C has been modified to provide that SMUD will calculate Available Transfer Capability in accordance with the reliability standards established by the North American Electric Reliability Corporation (NERC), as they may be revised from time to time.

## Methodology For Completing a System Impact Study

Attachment D of Volume 2 of the "Open Access Transmission Tariff" contains the methodology for completing a system impact study. Attachment D has been updated.

## **Transmission Planning**

Attachment K of Volume 2 of the "Open Access Transmission Tariff" refers to SMUD's Transmission Planning Process, which may be found on SMUD's OASIS. SMUD may revise Attachment K from time to time to reflect changes to SMUD's transmission planning process.

## Large Generator Interconnection Procedures and Agreement

Attachment M of Volume 2 of the "Open Access Transmission Tariff" contains the standard interconnection procedures and generator interconnection agreement applicable to a Large Generating Facility. Consistent with FERC policy, SMUD has added Appendix 6 to the Large Generator Interconnection Procedures (LGIP), and Appendix G to the Large Generator Interconnection Agreement (LGIA). Appendix 6 to the LGIP sets forth special procedures related to a variable energy resource. Appendix G to the LGIA sets forth certain technical standards applicable to a variable energy resource, including low voltage ride-through capability, power factor design criteria, and supervisory control and data acquisition capability.

## Small Generator Interconnection Procedures and Agreement

Attachment N of Volume 2 of the "Open Access Transmission Tariff" contains the standard interconnection procedures and generator interconnection agreement for a Small Generating Facility. The standard interconnection procedures and generator interconnection agreement are based on the FERC's *pro forma* generator interconnection procedures and generator interconnection procedures and generator interconnection procedures and generator interconnection procedures and generator interconnection agreement as applied to jurisdictional public utilities. SMUD, however, has modified the FERC form where necessary to reflect its non-jurisdictional status and accommodate regional differences.

The interconnection procedures establish standards and forms to initiate, evaluate, and implement an interconnection request submitted by a Small Generating Facility.

The standard form generator interconnection agreement sets forth rights and obligations of SMUD and the interconnecting customer with respect to the interconnection of a Small Generating Facility. The agreement addresses matters such as the effective date and termination; cost responsibility for interconnection facilities and distribution upgrades, testing and inspection; emergency and disconnect obligations; metering and communications; operations and maintenance; insurance, indemnity, and consequential damages; and dispute resolution.

# **III.** Environmental Assessment

- 1.0 Section 21080(b)(8) of the California Public Resources Code and Section 15273 of the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Sections 15000, et seq.) provide that CEQA does not apply to the establishment, modification, structuring, restructuring, or approval of rates, tolls, fares, and other charges by public agencies which the public agency finds are for the purpose of:
  - (1) Meeting operating expenses, including employee wage rates and fringe benefits;
  - (2) Purchasing or leasing supplies, equipment, or materials;
  - (3) Meeting financial reserve needs and requirements;
  - (4) Obtaining funds for capital projects necessary to maintain service within existing service areas; or
  - (5) Obtaining funds that are necessary to maintain such intra-city transfers as are authorized by city charter.
- 2.0 Section 15061(b) (3) of the CEQA Guidelines provides that where it can be said with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.
- 3.0 The proposed action to approve a revised Open Access Transmission Tariff with an effective implementation date of July 22, 2011, is for the purposes set forth in (1) through (4) of Section 1.0 of the Environmental Assessment. Therefore, this rate action is exempt from the requirements of CEQA.

# **IV. Glossary of Terms**

### **Ancillary Services**

Those services which are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's transmission system in accordance with good utility practice.

## **Balancing Authority Area**

An electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Balancing Authority Areas and contributing to frequency regulation of the interconnection. A Balancing Authority Area must be certified by the North American Electric Reliability Corporation (NERC).

#### COTP

The California Oregon Transmission Project 500 KV transmission line interconnecting the Northwest with California utilities. Of the 1600 MW transfer capability of this line and as a member of TANC, which co-owns the line, SMUD is entitled to 314 MW of transfer capability southbound and 410 MW of northbound transfer capability, though this amount may change over time.

## **COTP** Rate

Transmission service rate between the Captain Jack and Tracy 500 kV substations.

## **FERC**

The Federal Energy Regulatory Commission or its successor.

## Large Generating Facility

A Generating Facility having a Generating Facility Capacity of more than 20 MW.

## Network Integration Transmission Service

Transmission service provided to allow a Network Customer to integrate, economically dispatch and regulate its current and planned network resources to serve its network load in a manner comparable to that in which the Transmission Provider utilizes its Transmission System to serve its native load. (See Part III of Volume 2)

## **Open Access Same-Time Information System (OASIS)**

The information system and standard of conduct implemented by the Transmission Provider.

## Point to Point Transmission Service

The reservation and transmission of capacity and energy from a specified point of receipt to specified point of delivery.

## Small Generating Facility

A Generating Facility having a Generating Facility Capacity of 20 MW or less.

## System Rate

Transmission service rate between the SMUD System and any single point of interconnection between the Transmission Provider and an interconnected third party transmission provider, as specified on SMUD's OASIS.

## TANC

The Transmission Agency of Northern California comprised of SMUD and fourteen other California municipal utilities.

## WesTTrans

A web-based regional transmission market for a large portion of the western region of the U.S.