The Public Utility Commission of Texas (commission) proposes amendments to §25.211 relating to Interconnection of On-Site Distributed Generation (DG). The proposed amendments: (1) require all utilities that own and operate a distribution system to provide a banking service to operators of distributed generation facilities until January 1, 2002; (2) prohibit collection of distribution-related charges from an exporting customer; (3) prohibit collection of transmission-related charges from an exporting customer; and (4) specify the circumstances under which a purchaser of energy from an exporting customer may be assessed distribution and transmission-related charges. The amendments also define the term "banking" and change the reference to the "Office of Regulatory Affairs" in subsection (o) to the "Electric Division" to reflect a recent organizational change. Project Number 22540 has been assigned to this proceeding.

The commission solicits comment on the following issues related to DG:

1. Do technical complications arise from installation of significant amounts of distributed generation on a feeder? If so, please describe the nature of these complications, with specificity on both the magnitude of DG installation relative to feeder load and the potential impacts, and possible solutions.

2. Do technical complications arise if DG exported to a feeder exceeds total feeder load? If so, please describe the nature of these complications, with detail on whether the relevant measure of feeder load is minimum, average, or maximum load, and identify possible solutions.
3. Do technical complications arise if DG exported to all feeders served by a common substation exceeds substation load? If so, please describe the nature of these complications and possible solutions.
4. Is there a market-related need to limit the amount of energy that a particular customer can export to the distribution system as a percentage of total feeder load?
5. Is there a need to address allocation of transmission charges among customers when the total DG exported to a feeder exceeds feeder load? If so, what is the best allocation method?
6. Is there a need to limit the amount of insurance that can be required of an exporting customer? Please explain why or why not. If there is a need to limit the amount of insurance that can be required of an exporting customer, please explain what the appropriate insurance requirements should be. Should insurance requirements vary with the size of the installation?
7. Should the ten megawatt (MW) limit on interconnected capacity in the definition of "facility" be raised or eliminated altogether?

Ed Ethridge, Electrical Production Engineer, Electric Division, has determined that for each year of the first five-year period the proposed section is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the section.

Mr. Ethridge has determined that for each year of the first five years the proposed section is in effect the public benefit anticipated as a result of enforcing the section will be increased access to distributed generation. There is likely to be a beneficial effect on small or micro-businesses engaged in operating distributed generation facilities and exporting electricity as a result of enforcing this section because their costs of transmission will decrease. Also, other small or micro-businesses may benefit by having access to electricity at lower costs.

There is minimal anticipated economic cost to persons who are required to comply with the section as proposed. Electric utilities subject to the rule will not be entitled to charge certain distribution and transmission charges for distributed generation and therefore may lose some revenue. However, this rule recognizes that distributed generation benefits local distribution systems by reducing distribution line losses, substation transformer losses, and loading on the substation feeder. The provisions requiring electric utilities to bank exported distributed generation are likely to result in small additional costs to the electric utility. These costs would be administrative costs associated with tracking accruals and disbursements of energy and the nominal risk that energy will be withdrawn when the cost of fuel is higher than when the energy was banked. The overall cost impact on utilities from banking is expected to be negligible because fuel cost differentials are likely to offset one another over time and only modest amounts of distributed generation are exported.

Mr. Ethridge has also determined that for each year of the first five years the proposed section is in effect there should be no effect on a local economy, and therefore no local employment impact statement is required under Administrative Procedure Act §2001.022.

Comments on the proposed amendments (16 copies) may be submitted to the Filing Clerk, Public Utility Commission of Texas, 1701 North Congress Avenue, P.O. Box 13326, Austin, Texas 78711-3326, within 20 days after publication. Reply comments may be submitted within 30 days after publication. The commission invites specific comments regarding the costs associated with, and benefits that will be gained by, implementation of the proposed section. The commission will consider the costs and benefits in deciding whether to adopt the section. All comments should refer to Project Number 22540.

These amendments are proposed under the Public Utility Regulatory Act, Texas Utilities Code Annotated §14.002 (Vernon 1998, Supplement 2000) (PURA), which provides the Public Utility Commission with the authority to make and enforce rules reasonably required in the exercise of its powers and jurisdiction and specifically PURA §39.101(b), which grant(s) the commission authority to ensure that electric customers have access to on-site distributed generation and to providers of energy generated by renewable energy resources.

Cross Reference to Statutes: Public Utility Regulatory Act §14.002 and §39.101(b).

§25.211. Interconnection of On-Site Distributed Generation (DG).

(a)-(b) (no change.)

(c) **Definitions.** The following words and terms when used in this section and §25.212 of this title (relating to Technical Requirements for Interconnection and Parallel Operation of On-Site Distributed Generation) shall have the following meanings, unless the context clearly indicates otherwise:

(1) (no change.)

(2) **Banking** — A method of accounting for energy produced by a customer for export into the distribution system. The utility accepts energy from the customer to meet its own energy needs, credits this energy to the customer's account, and subsequently produces and disburses energy accrued under the customer's account at the customer's direction.

(3)~~(2)~~ **Company —** An electric utility operating a distribution system.

(4)~~(3)~~ **Customer —** Any entity interconnected to the company's utility system for the purpose of receiving or exporting electric power from or to the company's utility system.

(5)~~(4)~~ **Facility** — An electrical generating installation consisting of one or more on-site distributed generation units. The total capacity of a facility's individual on-site distributed generation units may exceed ten megawatts (MW); however, no more than

ten MW of a facility's capacity will be interconnected at any point in time at the point of common coupling under this section.

(6)~~(5)~~ **Interconnection —** The physical connection of distributed generation to the utility system in accordance with the requirements of this section so that parallel operation can occur.

(7)~~(6)~~ **Interconnection agreement —** The standard form of agreement, which has been approved by the commission. The interconnection agreement sets forth the contractual conditions under which a company and a customer agree that one or more facilities may be interconnected with the company's utility system.

(8)~~(7)~~ **Inverter-based protective function —** A function of an inverter system, carried out using hardware and software, that is designed to prevent unsafe operating conditions from occurring before, during, and after the interconnection of an inverter-based static power converter unit with a utility system. For purposes of this definition, unsafe operating conditions are conditions that, if left uncorrected, would result in harm to personnel, damage to equipment, unacceptable system instability or operation outside legally established parameters affecting the quality of service to other customers connected to the utility system.

(9)~~(8)~~ **Network service —** Network service consists of two or more utility primary distribution feeder sources electrically tied together on the secondary (or low voltage) side to form one power source for one or more customers. The service is designed to

maintain service to the customers even after the loss of one of these primary distribution feeder sources.

(10)~~(9)~~ **On-site distributed generation (or distributed generation) —** An electrical generating facility located at a customer's point of delivery (point of common coupling) of ten megawatts (MW) or less and connected at a voltage less than ~~or equal to~~ 60 kilovolts (kV) which may be connected in parallel operation to the utility system.

(11)~~(10)~~ **Parallel operation —** The operation of on-site distributed generation by a customer while the customer is connected to the company's utility system.

(12)~~(11)~~ **Point of common coupling —** The point where the electrical conductors of the company utility system are connected to the customer's conductors and where any transfer of electric power between the customer and the utility system takes place, such as switchgear near the meter.

(13)~~(12)~~**Pre-certified equipment —** A specific generating and protective equipment system or systems that have been certified as meeting the applicable parts of this section relating to safety and reliability by an entity approved by the commission.

(14)~~(13)~~ **Pre-interconnection study —** A study or studies that may be undertaken by a company in response to its receipt of a completed application for interconnection and parallel operation with the utility system. Pre-interconnection studies may include, but are not limited to, service studies, coordination studies and utility system impact studies.

(15)~~(14)~~ **Stabilized —** A company utility system is considered stabilized when, following a disturbance, the system returns to the normal range of voltage and frequency for a

duration of two minutes or a shorter time as mutually agreed to by the company and customer.

(16)~~(15)~~ **Tariff for interconnection and parallel operation of distributed generation —** The commission-approved tariff for interconnection and parallel operation of distributed generation including the application for interconnection and parallel operation of DG and pre-interconnection study fee schedule.

(17)~~(16)~~ **Unit —** A power generator.

(18)~~(17)~~ **Utility system —** A company's distribution system below 60 kV to which the generation equipment is interconnected.

(d) **Terms of service.**

(1) **Banking.** Through December 31, 2001, a company shall make banking services available to any customer upon the customer's request.

(2) **Distribution line charge.** No distribution line charge shall be assessed to a customer for exporting energy to the utility system.

(3) **Interconnection operations and maintenance costs.** No charge for operation and maintenance of a utility system's facilities shall be assessed against a customer for exporting energy to the utility system.

(4) **Scheduling fees.** No exporting customer may be charged for scheduling energy over a period of less than one month.

(5) **Transmission charges.** No transmission charges shall be assessed to a customer for exporting energy. For purposes of this paragraph, the term transmission charges means transmission line charges, transformation charges, and transmission line loss charges.

(6) **Contract reformation.** All interconnection contracts shall be conformed to meet the requirements of this section within 60 days of adoption.

(7) **Tariffs~~Obligation to serve~~.** No later than 20~~60~~ days after the effective date of this section as amended, each electric utility shall file a tariff or tariffs for interconnection and parallel operation of distributed generation, including tariffs for banking and scheduling fees, in conformance with the provisions of this section. This provision does not require a utility that filed an interconnection study fee tariff prior to the effective date of this rule as amended to refile such tariff. The utility may file a new tariff or a modification of an existing tariff. Such tariffs shall ensure that back-up, supplemental, and maintenance power is available to all customers and customer classes that desire such service until January 1, 2002. Any modifications of existing tariffs or offerings of new tariffs relating to this subsection shall be consistent with the commission-approved~~commission approved~~ form. Concurrent with the tariff filing in this section, each utility shall submit:

(A)~~(1)~~ a schedule detailing the charges of interconnection studies and all supporting cost data for the charges;

(B)~~(2)~~ a standard application for interconnection and parallel operation of distributed generation; and

(C)~~(3)~~ the interconnection agreement approved by the commission.

(e)-(n) (No change.)

(o) **Interconnection disputes.** Complaints relating to interconnection disputes under this section shall be handled in an expeditious manner pursuant to §22.242 (relating to Complaints). In instances where informal dispute resolution is sought, complaints shall be presented to the Electric Division~~Office of Regulatory Affairs~~. The Electric Division~~Office of Regulatory Affairs~~ shall attempt to informally resolve complaints within 20 business days of the date of receipt of the complaint. Unresolved complaints shall be presented to the commission at the next available open meeting.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

ISSUED IN AUSTIN, TEXAS ON THE 22nd DAY OF SEPTEMBER 2000 BY THE PUBLIC UTILITY COMMISSION OF TEXAS
RHONDA G. DEMPSEY