



## Filing Receipt

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**PUC DOCKET NO. 53758**

<b>APPLICATION OF GRID UNITED</b>	<b>§</b>	<b>BEFORE THE</b>
<b>TEXAS LLC FOR PARTIAL</b>	<b>§</b>	
<b>CERTIFICATE OF CONVENIENCE</b>	<b>§</b>	
<b>AND NECESSITY RIGHTS PURSUANT</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>TO PURA §§ 37.051(C-1) AND</b>	<b>§</b>	
<b>37.056(B)(2) TO INTERCONNECT AN</b>	<b>§</b>	
<b>HVDC FACILITY TO THE ERCOT</b>	<b>§</b>	<b>OF TEXAS</b>
<b>TRANSMISSION GRID</b>	<b>§</b>	

**ONCOR ELECTRIC DELIVERY COMPANY LLC’S  
FIRST REQUESTS FOR INFORMATION TO GRID UNITED TEXAS LLC**

Oncor Electric Delivery Company LLC (“Oncor”) requests that Grid United Texas LLC (“Grid United”) provide the information requested and answer the attached questions under oath. It is further requested that the questions be answered in the order in which they are asked with as much detail as is needed to fully present all of the relevant facts.

**Instructions and Definitions**

Please answer the attached questions in accordance with Order No. 1, the Commission’s Procedural Rules, and the Texas Rules of Civil Procedure. The Commission’s Procedural Rules require that you identify the witness or witnesses who will sponsor each of your answers at the hearing on the merits in this docket. The Commission’s Procedural Rules also provide that these questions are continuing in nature and, should there be a change in circumstances which would modify or change any of your answers, then, in such case, please change or modify such answer and submit such changed answer as a supplement to the original answer within five (5) working days of your discovery that such change or modification is appropriate.

In answering these requests for information, you are requested to furnish such information as is available to you, including information which you are able to obtain by due diligence from your present or former attorneys, accountants, investigators, consultants, employees, agents, and persons acting on your behalf.

The singular includes the plural and the plural includes the singular.

Masculine, feminine, or neuter pronouns do not exclude the other genders.

The words “document” and “documents” have the broadest meaning that can be ascribed to them pursuant to the Texas Rules of Civil Procedure. The words “document” and “documents” mean the final form and all drafts and revisions of any kind of written or graphic matter, original or reproduced copy, however produced or reproduced, of any kind and of every kind, and all copies therefrom, which are different in any way from the original regardless of whether designated “confidential,” “privileged,” or otherwise restricted. Without limiting the generality of the foregoing, the words “document” and “documents” also include information stored or maintained on, or which could be reproduced from, email, film, microfilm, computer printout, disk or diskette, magnetic tape, cassette, phonographic disc, videotape, USB drive or similar means.

The words “and” and “or” shall be construed conjunctively or disjunctively as necessary to bring within each request all documents which might otherwise be construed as outside its scope.

The words “communication” and “communications” include, without limitation of their generality, both written and oral: statements, representations, discussions, conversations, speeches, meetings, remarks, questions, answers, panel discussions and symposia. These words include, without limitation of their generality, both communications and statements which are face-to-face and those which are transmitted by any writing or document or by media such as intercoms, telephones, email, television or radio.

The words “person” and “persons” as used herein, mean all individuals and entities, and shall be deemed to include natural persons, firms, partnerships, associations, organizations, joint ventures, corporations, municipalities, commissions, governmental bodies, and any other entities, including without limitation, any electric utility, electric cooperative, or other entity.

The words “regarding,” “relate,” “related,” “relates,” “in relation to” and “relating,” as used herein, mean involving, relevant to, referring to, having any relationship to, pertaining to, in connection with, associated with, or evidencing or constituting evidence of, in whole or in part.

The term “Commission” refers to the Public Utility Commission of Texas.

The term “Grid United” refers to Grid United Texas LLC.

The term “LCRA TSC” refers to LCRA Transmission Services Corporation.

The term “EPE” refers to El Paso Electric Company.

The term “AEP” refers to AEP Texas Inc.

The term “ERCOT” refers to the Electric Reliability Council of Texas, Inc. independent system operator or the Electric Reliability Council of Texas transmission system, as appropriate given the context.

The term “WECC” refers to the Western Electricity Coordinating Council.

The term “FERC” refers to the Federal Energy Regulatory Commission.

The term “CCN” refers to a certificate of convenience and necessity.

The term “DC” refers to direct-current.

The term “HVDC” refers to high-voltage direct-current.

The term “MW” refers to megawatts.

The term “Project” refers to the Pecos West Intertie Project, as proposed in Grid United’s application for a partial CCN in this proceeding. The term includes, without limitation, the proposed interconnection of HVDC converter facilities to LCRA TSC’s Bakersfield Switching Station or other ERCOT endpoint with an endpoint on EPE’s system that will allow the import of power into, and the export of power out of, the ERCOT transmission grid by Grid United. The term includes, as applicable and without limitation, all studies, facilities, approvals, work, operations, and other activities relating to the planning, development, design, construction, operation, and maintenance of the Project.

If you have any question concerning the attached Requests for Information or any of these instructions, please contact the undersigned.

Respectfully submitted,

By: /s/ Jared M. Jones

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**ATTORNEYS FOR ONCOR ELECTRIC  
DELIVERY COMPANY LLC**

**CERTIFICATE OF SERVICE**

It is hereby certified that a copy of the foregoing has been served by email on all parties of record who have provided an email address on this the 19th day of August, 2022, in accordance with the Commission's Second Order Suspending Rules issued on July 16, 2020, in Project No. 50664.

/s/ Michele M. Gibson

## **FIRST REQUESTS FOR INFORMATION TO GRID UNITED TEXAS LLC**

- 1-1 Please provide any Power System Simulation for Engineering (PSS/E) steady state and/or dynamics models (in .dyr file and .dll file, if user written) and/or cases, and associated study files, that were created or used in relation to the Project.
- 1-2 Please provide any Power Systems Computer Aided Design (PSCAD) or other electromagnetic transients models and/or cases, and associated study files, that were created or used in relation to the Project.
- 1-3 Please provide the planned HVDC converter and transmission line specifications, ratings, and operating characteristics, including, without limitation, behavior during fault events, ride-through, and disconnect/shut-down threshold. Please also provide all documents relating to the same.
- 1-4 Please provide all one-line diagrams illustrating the Project's connection to LCRA TSC's Bakersfield Switching Station.
- 1-5 Please provide all one-line diagrams illustrating the Project's connection to EPE's transmission system.
- 1-6 Please provide all one-line diagrams illustrating the Project's connection to AEP's Solstice Station if any were created prior to choosing the Bakersfield Switching Station as the Project's endpoint.
- 1-7 Please provide the Thevenin equivalent for the WECC interconnection, including the equivalent impedance and power factor across the interconnection's operating range. Please also provide any related documents.
- 1-8 Please explain whether the power factor and impedance values provided in response to Oncor RFI 1-7 are linear across the entire MW import and export range. Please also provide any related documents.
- 1-9 Please provide all documents relating to the Project's Dynamic Reactive Capability.
- 1-10 Please provide all documents addressing or otherwise related to any external or additional devices that may or will be required to meet the Project's full import and export capabilities.
- 1-11 Please explain all transmission upgrades that may be necessary to facilitate import and export over the Project and provide all communications and documents related to the need for such upgrades.
- 1-12 Please provide all studies, assessments, evaluations, analyses, or other documents relating to the Project's impact on voltage stability throughout the Permian Basin.
- 1-13 Please provide the hourly model output indicating the Locational Marginal Price at the two connection points for the proposed HVDC device from the final economic grid

simulation runs (both with and without the HVDC device in operation) in Microsoft Excel compatible format.

- 1-14 Please provide the hourly operation of the HVDC device in Microsoft Excel compatible format from the final economic grid simulation run.
- 1-15 Please provide an hourly representation of the regional marginal power prices (hub average price or System Lambda) for the ERCOT West zone and for the entire ERCOT region, as well as for the EPE balancing area and a larger surrounding area in WECC, such as the Public Service of New Mexico balancing area or the Southwest Reserve Sharing Group from the final economic grid simulation runs (both with and without the HVDC device in operation) in Microsoft Excel compatible format.
- 1-16 Please explain how voltage stability limitations were modeled in the economic grid simulation analysis for both WECC and ERCOT. Specify any interface or transfer limit definitions used in the study with numerical limits that were applied.
- 1-17 Please specify any other non-thermal limitations included in the input dataset for the economic grid simulation analysis. Please indicate how the limit was defined in the model input, and provide any numerical limits applied in the economic grid simulation runs.
- 1-18 Please provide all documents and communications relating the benefits, drawbacks, or other impacts of using voltage source converter (VSC) technology for the Project.
- 1-19 Please provide all studies, assessments, evaluations, communications, or other documents relating to system harmonics and subsynchronous resonance related to the Project.
- 1-20 Please provide all studies, assessments, evaluations, communications, or other documents addressing potential reliability impacts of the Project on either ERCOT, WECC, or both, and any facilities therein.
- 1-21 Please provide all communications and documents relating to any anticipated economic benefits to ERCOT or WECC that will be realized in connection with the Project.
- 1-22 Please provide all studies, assessments, evaluations, analyses, or other documents relating to the Project's impact on voltage stability in the vicinity of LCRA TSC's Bakersfield Switching Station.
- 1-23 Please provide all studies, assessments, evaluations, analyses, or other documents relating to the Project's impact on voltage stability in the vicinity of AEP's Solstice Station, if any were created before choosing the Bakersfield Switching Station as the Project's endpoint.