

Control Number: 35077



Item Number: 1081

Addendum StartPage: 0



April 27, 2020

Ms. Ana Trevino
Filing Clerk
Public Utility Commission of Texas
1701 N. Congress Ave.
Austin, TX 78711



Re: *Project No. 35077; Informational Filing of ERCOT Interconnection Agreements
Pursuant to Subst. R. § 25.195(e)*

*First Amendment to the Generation Interconnection Agreement between Lone
Star Transmission, LLC and Jones City Solar II, LLC for the Crowded Star Solar
Project (Phase 2)*

Dear Ms. Trevino,

Please find attached Amendment No. 1 to the Generation Interconnection Agreement between Lone Star Transmission, LLC ("Lone Star") and Jones City Solar II, LLC for filing with the Public Utility Commission of Texas pursuant to 16. Tex. Admin. Code § 25.195(e). Because the Agreement contains deviations from the Standard Generation Interconnection Agreement, Lone Star has prepared this letter explaining the changes and requests that it be filed with the Agreement.

Exhibit B

Exhibit B has been replaced in its entirety and is attached to Amendment No. 1.

Exhibit C

Exhibit C has been replaced in its entirety and is attached to Amendment No. 1.

Exhibit E

Exhibit E has been replaced in its entirety and is attached to Amendment No. 1.

If you have any questions, please do not hesitate to contact me at (512) 236-3141 or by email at Tracy.Davis@Lonestar-Transmission.com.

Sincerely,

A handwritten signature in cursive script that reads "Tracy Davis".

Tracy Davis, Senior Attorney
Lone Star Transmission, LLC

Lone Star Transmission, LLC

5920 West William Cannon Drive, Building 2, Austin, TX 78749

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**FIRST AMENDMENT TO
INTERCONNECTION AGREEMENT**

This First Amendment is made and entered into this 23rd day of April 2020 between **Lone Star Transmission, LLC** ("Transmission Service Provider") and **Jones City Solar II, LLC** ("Generator"), hereinafter individually referred to as "Party," and collectively referred to as "Parties."

WHEREAS, the Transmission Service Provider and the Generator entered into that certain Standard Generation Interconnection Agreement executed on December 17, 2019 (the "Agreement"); and

WHEREAS, the Generator desires to make certain changes to the Commercial Operations Date and other technical specifications for Generator's Plant; and

WHEREAS, the Transmission Service Provider and the Generator have agreed to certain other changes to the Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the Parties hereto agree as follows:

1. Exhibits "B", "C", and "E" are deleted in their entirety and the Exhibit "B", "C", and "E" attached to this First Amendment are hereby added to the Agreement in lieu thereof.
2. Exhibits "B", "C", and "E" attached to this First Amendment will become effective upon execution of this First Amendment by the parties.

Except as otherwise expressly provided for herein, the Agreement will continue in full force and effect in accordance with its terms.

--signature page to follow--

IN WITNESS WHEREOF, the Parties have executed this First Amendment in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

Lone Star Transmission, LLC

By: *Aundrea Williams*
Aundrea Williams


Title: President

Date: April 23, 2020

Jones City Solar II, LLC

A Delaware limited liability company

By: RES America Developments Inc.
its manager

By: 
Chad Horton

Title: Senior Vice President

Date: April 22, 2020

Exhibit “B”
Time Schedule

- 1) Interconnection Option chosen by Generator (check one):
 X Section 4.1.A. or Section 4.1.B
 - A. If Section 4.1.B is chosen by Generator, the In-Service Date(s) was determined by (check one): (1) good faith negotiations, or (2) designated by Generator upon failure to agree.
- 2) December 17th, 2019 is the date (“NTP Need Date”) by which Generator must provide a written Notice to Proceed with station property acquisition and initial project scoping to award an Engineering, Procurement, Construction (EPC) contract. Additionally, November 30th, 2020 is the date (“NTP Need Date”) by which Generator must provide a written Notice to Proceed with design, procurement, and construction of the TIF and provide security, as specified in Exhibit “A”, Section 4.2 and 4.3, so that TSP may maintain schedule to meet the In-Service Date identified below. The NTP date shall be the date Generator provides written Notice to Proceed to TSP:
 - A. If Generator does not provide a written Notice to Proceed to TSP by the above NTP Need Date, the designated TIF In-Service Date, Scheduled Generation Trial Operation Date, and Scheduled Generation Commercial Operation Date, identified below, will each be extended day for each day after the NTP Need Date that the Notice to Proceed is delayed.
 - B. If Generator does not provide a written Notice to Proceed and provide security in accordance with Exhibit “E” to TSP by eighteen (18) months after the NTP Need Date (“NTP Deadline”), such non-provision of the Notice to Proceed shall constitute a Default, in accordance with Section 10.6.A of Exhibit “A”, by the Generator and written notice of Default shall be deemed to have been given by TSP to Generator on the NTP Deadline. If such Default is not cured in accordance with Section 10.6 of Exhibit “A”, then TSP may terminate this Agreement in accordance with the provisions of Section 10.6.B of Exhibit “A”.

Generator Main Transformer Tap Position Communication to TSP Date: (If Generator Main Transformer(s) is equipped with a no-load tap changer) December 1st, 2021

TIF In-Service Date (Backfeed): The later of:

- a) November 30, 2021; or
- b) Thirteen (13) months after the NTP Date.

Scheduled Generation Trial Operation Date (Synchronization): The later of:

- a) September 1, 2022; or
- b) Seven (7) months after the TIF In-Service Date.

Scheduled Generation Commercial Operation Date (COD): The later of:

- a) December 1, 2022; or
- b) Three (3) months after the TIF In-Service Date.

Nothing in the definitions of the dates above shall preclude either Party from taking measures or actions that allow the actual Generation Trial Operation Date or the actual Generation Commercial Operation Date to be earlier than the scheduled dates above.

- 3) Due to the nature of the subject of this Agreement, the Parties may mutually agree to change the dates and times of this Exhibit B.

Exhibit “C”
Interconnection Details

1. Name: Crowded Star Solar Project (Phase 2)
2. Point of Interconnection (POI) Location: The POI between the GIF and TIF will be located at a new Generator-owned dead-end structure at the end of the Generator’s new 345 kV line located adjacent to Transmission Service Provider’s (TSP’s) new Open Sky Station (shown on Attachment “C-1” and “C-2”). The POI shall be the physical point where the TSP station facilities are connected to the GIF. This point is more specifically defined as being located at the 4-hole pad terminals on the insulator hardware at the dead-end structure where the Generator’s 345 kV “Crowded Star 2” line connects to Generator owned dead-end interconnect structure on the east bay of the new TSP Open Sky Station.
3. Delivery Voltage: 345 kV
4. Number and Size of Generating Units: The total capacity of Crowded Star Solar is 400 MW. Phase 2 of the project consists of the 185 MW comprising of 501,625 panels & 64 inverters. This Interconnection Agreement relates only to the Phase 2 of the Crowded Star Solar Project. Each phase will be addressed in separate Interconnection Agreements.
5. Type of Generating Unit: Phase 2 of the project is comprised of First Solar FS-6450A 450W panels & Sungrow SG 3150-U 3.150 MW inverters.

The Parties will amend this Exhibit “C” as necessary to reflect any changes Generator makes to the manufacturer, model, or type of generating units.

6. Metering and Telemetry Equipment: Metering (voltage, location, losses adjustment due to metering location and other), telemetry, and communications requirements shall be as follows:
 - 6.1 TSP shall, in accordance with ERCOT Requirements and Good Utility Practice, install, own, operate, inspect, test, calibrate, and maintain 345 kV metering accuracy potential and current transformer and associated metering and telemetry equipment (including communications and an RTU) located in the TIF. A one-line diagram showing TSP’s ERCOT-polled settlement (“EPS”) metering location is attached to this Exhibit “C” as **Attachment C-2**. If requested by Generator, and if available from the TSP RTU equipment, TSP will make Primary EPS metering data available to Generator via a communication link at Generator’s expense. If such metering data are not available from TSP RTU equipment, they may be available by alternate means at Generator’s expense. Such data, if provided to Generator, will be for Generator’s informational purposes only. Generator shall not rely on such data, as the primary source, for the metering data addressed in Section 6.2 of this Exhibit “C” below, or for

any other scheduling or operational purposes. TSP makes no guarantee of the quality or availability of such data. The provision of Section 5.5(G) of Exhibit "A" shall not apply to TSP's RTU.

- 6.2 Generator shall, in accordance with Good Utility Practice, install, own, operate, inspect, test, calibrate, and maintain the necessary metering potential and current transformers and associated metering and telemetry equipment in the GIF and/or Plant to satisfy the ERCOT Requirements for the provision of metering data by Generator's "Qualified Scheduling Entity".
- 6.3 Generator shall, in accordance with ERCOT Requirements and Good Utility Practice, install, own, operate, inspect, test, calibrate, and maintain the metering and telemetry equipment (including an RTU or other equipment acceptable to TSP) to supply all electrical parameters of the Plant and GIF, as specified in Section 11 to this Exhibit "C", to TSP at a location designated by TSP.
- 6.4 Prior to the In-Service Date, acceptance tests will be performed by TSP and Generator to ensure the proper functioning of all metering, telemetry, and communications equipment, and to verify the accuracy of data being received by TSP.
- 6.5 Following the Commercial Operation date, each Party shall test its metering, telemetry, and communications equipment in accordance with ERCOT Requirements and Good Utility Practice. Each Party shall give the other Party reasonable advance notice of such testing. Each Party shall have the right to observe testing performed by the other Party.
- 6.6 Any changes to Generator's metering, telemetry, and communication equipment, including meters, voltage transformers, current transformers, and associated RTU, panels, hardware, conduit and cable, that will affect the data being received by TSP hereunder must be mutually agreed to by the Parties.
- 6.7 Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry, or communications equipment or related situation that requires attention and/or correction by the other Party.

7. Generator Interconnection Facilities:

Generator will be responsible for the construction and ownership of the below:

- 7.1 Generator will be responsible for the construction and ownership of a 345 kV station and all facilities within it. Specifically, Generator's interconnection station(s) including control building(s), 345 kV step-up transformer(s), transformer protection package(s), 345 kV circuit breaker(s), 345 kV line disconnect switch(es), and protective relaying

panels for the Generator's 345 kV line(s) that will coordinate with the TSP's line panels at the TSP facility for the Generator line protection

- 7.2 345 kV line(s) with all necessary material to interconnect to Generator's dead-end structure(s) located right adjacent to the TIF, and the crossing of the existing TSP Transmission Line which is required to accommodate the Generator 345 kV line(s) in accordance to Exhibit "B" Section 8.2
- 7.3 Full tension, dead-end, 345 kV line structure(s) located adjacent to the TIF (Generator shall coordinate the height of this structure(s), the arrangement of the phases, and the exact location of the structure(s) with TSP) NOTE: Generator shall provide any necessary jumper post insulators for this structure(s)
- 7.4 Fiber optic cable (Alcoa Fujicura or equivalent 48 fiber, single-mode, fiber optic OPGW) from GIF's control building to TSP's OPGW cable splice box on the Generator's interconnecting structure(s) at the Point of Interconnection
- 7.5 Multi-ported RTU(s) and panels to provide breaker status, telemetry and energy data from the GIF to the Plant, the TSP, Generator and ERCOT
- 7.6 Associated structures, buswork, conductor, connectors, grounding, conduit, control cable, foundation work, perimeter fencing, grading/dirt work and any appurtenances necessary for construction and operation of GIF

The GIF also includes the communication facilities described in Section 9.1 below.

8. Transmission Service Provider Interconnection Facilities:

- 8.1 In order for TSP to interconnect the Generator at the new TSP 345 kV Open Sky Station, the following equipment will be required to be in place prior to energization. As this equipment was already described in the Crowded Star Solar (Phase 1) Interconnection Agreement, no additional equipment will be required to accommodate Crowded Star Solar (Phase 2).

8.1.1. Station Electrical:

- (4) – 345 kV, 5000 A, 63kA Gas Circuit Breaker (GCB)
- (16) – 345 kV, Motor Operated GCB Isolation Switches
- (4) – 345 kV, Motor Operated Line Isolation Switches
- (4) – 345 kV, Motor Operated Grounding Switches
- (2) – 345 kV, Line Trap with Tuner
- (12) – 345 kV, Surge Arresters
- (10) – 345 kV, Capacitive Coupling Voltage Transformers

- (2) – 345 kV, Capacitive Coupling Voltage Transformers with Carrier
- (2) – 345 kV, Wave Traps
- (6) – 345 kV, Extended Range Metering Current Transformers
- (6) – 345 kV, Metering Voltage Transformers
- (2) – 345kV, SSVT Sets
- (1 Lot) – Conduit and Grounding
- (1 Lot) – Aluminum Bus, Stranded Jumpers, and Connectors
- (1) – Control Building

8.1.2. Station Civil & Structural:

- (1 Lot) – Site Work/Water Diversion
- (1 Lot) – Ground Grid
- (1 Lot) – Security Fence
- (1 Lot) – Lot Final Surfacing (Crushed Limestone)
- (1 Lot) – Structural Steel
 - A-frames
 - Bus supports
 - Equipment supports
 - Static Masts
- (1 Lot) – Foundations

8.1.3. Relay & Control:

The new TSP Open Sky Station control house will have room to install the additional metering and relaying panels, and any other equipment as needed:

- ERCOT Polled Settlement Metering Panel
 - Primary ERCOT Polled Settlement Meter
 - Backup ERCOT Polled Settlement Meter
- (1 Lot) – Relays & panels, load centers and batteries
- (1 Lot) – Control Cable Installation and Termination

8.1.4. Line protection transfer trip requirements and control system requirements are as follows:

- Line Protection Requirements at TSP's station:
 - 345 kV Transmission Lines
 - Compatible (SEL411) Line Distance protection
 - Compatible (SEL311L) Line Current Differential protection
 - Compatible Pulsar ULPC
 - Compatible Multifunction Recorder (DFR – APP)
 - Customer 345 kV Generator Tie Lines
 - Compatible (SEL 411L) Primary Line Current Differential Protection
 - Compatible (SEL 311L) Backup Line Current Differential Protection

- Compatible (SEL451) breaker failure protection with direct transfer trip via fiber optic communications to trip Customer 345 kV breaker
- In the case where both line terminal breakers are open, an anti-islanding transfer trip via fiber optic communications to trip Customer breaker(s) or Generator Step Up 345 kV breaker (should open at the synchronizing breaker)
- No automatic reclosing; use dead line, hot bus permissive controls for closing line breakers
- Line Protection Requirements at Customer Facilities:
 - Customer 345 kV breaker failure protection to send direct transfer trip via fiber optic communications to trip TSP's new station 345 kV breakers

9. Communications Facilities:

9.1 Generator shall, in accordance with ERCOT Requirements and Good Utility Practice, provide communications facilities that are, or may in the future be, necessary for effective interconnected operation of the Generator's Plant with the transmission system.

9.2 TSP will bear the costs of its communications facilities at the new TSP station.

10. System Protection Equipment:

Protection of each Party's system shall meet the following TSP requirements in addition to ERCOT Requirements. If there is a conflict between the TSP requirements below and ERCOT Requirements, the ERCOT Requirements shall prevail.

10.1 Generator and TSP shall design, install, operate, maintain and test system protection equipment consistent with the applicable criteria as described in the ERCOT Requirements and any applicable requirements of Governmental Authorities, including NERC Reliability Standards. Generator shall, at its expense, provide modifications or additions to its control and protective equipment required to comply with changes in ERCOT Requirements or requirements of Governmental Authorities, including NERC Reliability Standards.

10.2 Generator, using Good Utility Practice, shall install sufficient digital fault recording equipment to thoroughly analyze all system disturbances occurring on the Plant and GIF to thoroughly analyze the Plant and GIF performance during system disturbances on the ERCOT system. This equipment shall monitor the voltages at major nodes, current at major

branches, breaker and switch positions, and dc logic in the relay control scheme.

- 10.3 TSP assumes no responsibility for the protection of the Plant and GIF for any or all operating conditions. Generator is solely responsible for protecting its equipment in such a manner that faults, Sub-Synchronous Oscillations (“SSO”), or other disturbances on the TSP System or other interconnected system do not cause damage to the Plant and GIF.
- 10.4 It is the sole responsibility of the Generator to protect its Plant and GIF from excessive negative sequence currents.
- 10.5 The GIF shall be designed to isolate any fault, or to disconnect from or isolate any abnormality that would negatively affect the TSP’s system. The Generator shall be responsible for protection of its facilities. TSP reserves the right to isolate the Plant and GIF consistent with ERCOT Requirements and NERC Reliability Standards for any of the following reasons:
- The Plant or GIF, upon TSP’s determination, cause objectionable interference with other customers’ service or with the secure operation of the TSP System.
 - The Plant output as determined by TSP exceeds the operating boundaries outlined above.
 - Generator’s control and protective equipment causes or contributes to a hazardous condition. TSP reserves the right to verify all protective equipment including, but not limited to including relays, circuit breakers, at the inter-tie location. Verification by TSP may include the tripping of the tiebreaker by the protective relays.
 - In TSP’s opinion, continued parallel operation is hazardous to Generator, the TSP System or to the general public.
 - To provide TSP or TSP personnel the clearances for dead line or live line maintenance.

TSP shall notify Generator before disconnection, except for an emergency situation requiring immediate action. TSP will attempt to notify Generator before upon disconnection, but notification may not be possible in emergency situations that require immediate action.

- 10.6 Prior to In-Service Date, Generator shall specify whether automatic reclosing should be applied to the Generator’s transmission facilities in the GIF. Automatic reclosing is normally applied to transmission circuits. When TSP’s source breakers trip and isolate the Plant and GIF, Generator shall insure the Plant and GIF are disconnected from the TSP circuit prior to automatic reclosure by TSP. Automatic reclosing out-of-phase with the Plant may cause damage to Generator's equipment.

Generator is solely responsible for the protection of his equipment from automatic reclosing by TSP.

- 10.7 TSP shall specify system protection and control schemes for the Point of Interconnection. Generator shall have the right to review and comment on such schemes and TSP shall consider Generator's comments when determining such schemes. Generator will install and maintain System Protection Equipment that is compatible with TSP's System Protection Equipment. TSP will work with the Generator to coordinate the establishment of the relay settings for System Protection Equipment owned by both Generator and TSP associated with the Point of Interconnection.
 - 10.8 Documentation of all protective device settings shall be provided to TSP. The setting documentation shall also include relay type, model/catalog number, and setting range. If automatic transfer schemes or unique or special protective schemes are used, a description of their operation should be included. TSP must review and approve the settings of all protective devices and automatic control equipment which: i) serve to protect the TSP System from hazardous currents and voltages originating from the Plant; or ii) must coordinate with System Protection Equipment or control equipment located on the TSP System.
11. Inputs to Telemetry Equipment:
 - 11.1 Generator shall comply with ERCOT Requirements for telemetry and will coordinate with TSP for additional points if telemetry is deemed necessary by TSP.
 12. Supplemental Terms and Conditions:
 - 12.1 Additional Studies – If it is necessary for TSP to perform any additional generation interconnection studies associated with the Plant in accordance with ERCOT Requirements, the Parties will enter an agreement, in form and substance reasonably acceptable to the Parties, to perform those studies and Generator shall pay TSP for the studies pursuant to that agreement.
 - 12.2 Switching Procedures – Each Party will adopt formal switching procedures that govern safety related issues concerning the operation of its switches connected to these Points of Interconnection and will provide a copy of those procedures to the other Party prior to In-Service Date. Each Party will agree to comply with the aforementioned switching procedures of the other Party applicable to the Point of Interconnection and will notify the other Party in writing of any changes to its procedures relating to the Point of Interconnection.

- 12.3 Facility Connection Requirements – Generator will construct its facilities in accordance with the version of LST-FAC-001-PRO-Facility_Connection_Requirements that is in effect at the time the Generator gives its notice to proceed with design and procurement, as referenced in Exhibit “B”.
- 12.4 Generator shall submit drawings of the GIF to TSP for review. TSP will review only those portions of the drawings that affect the TSP System. Any changes required by TSP shall be made prior to final issue of drawings and TSP shall be provided with final copies of the revised drawings. TSP will review only those portions of the drawings which apply to protection, metering and monitoring of the TSP System. To aid Generator, TSP may make suggestions on other areas. TSP’s review of Generator’s drawings shall not be construed as confirming or endorsing the design or as any warranty of safety, durability, or reliability of the facility or equipment. Generator shall provide copies of the following:
- one-line and three-line diagrams indicating the following:
 - equipment names and/or numerical designations for all circuit breakers, contactors, air switches, transformers, generators, etc., associated with the generation as required by TSP to facilitate switching
 - power transformers – nameplate or designation, nominal kVA, nominal primary, secondary, tertiary voltages, vector diagram showing winding connections, tap setting and transformer impedances (transformer test report showing the positive sequence, zero sequence, test voltages and MVA base for each winding)
 - station service transformers – phase(s) connected and estimated kVA load
 - instrument transformers – voltage and current, phase connections
 - surge arresters/gas tubes/metal oxide varistors/avalanche diode/spill gaps/surge capacitors, etc. – type and ratings
 - capacitor banks – kVAR rating and reactive (static and dynamic) device operation capability
 - reactive device capability (required for wind generation only) – kVAR rating and reactive device operation capability for static and dynamic devices for each generation collection feeder
 - disconnect switches – status if normally open (N.O.), manual or motor operated including switch voltage, continuous and interrupting ratings
 - circuit breakers and/or contactors – interrupting rating, continuous rating, operating times
 - generator(s) – nameplate, test report, type, connection, kVA, voltage, current, rpm, power factor, impedances, time constants, etc.
 - Point of Interconnection and phase identification
 - fuses – manufacturer, type, size, speed, and location

- transmission structure geometry (phase-to-phase, phase-to-ground, and shield-to-phase), phase conductor data, shield wire data, transmission line ratings, positive and zero sequence impedances and mileage
- potential and current drawings associated with the protection and control schemes for the Plant and GIF and control drawings of the Plant and interconnection circuit breaker indicating the following:
 - terminal designation of all devices – relay coils and contacts, switches, transducers, etc.
 - relay functional designation – per latest ANSI Standard where the same functional designation shall be used on all drawings showing the relay
 - complete relay type (such as CV-2, SEL321-1, REL-301, IJS51A, etc.)
 - switch contact as referenced to the switch development if development is shown on a separate drawing
 - switch developments and escutcheons where the majority of contacts are used. Where contacts of a switch are used on a separate drawing, that drawing should be referenced adjacent to the contacts in the switch development. Any contacts not used should be referenced as spare.
 - all switch contacts shown open with each labeled to indicate the positions in which the contact will be closed with explanatory notes defining switch coordination and adjustment where misadjustment could result in equipment failure or safety hazard
 - auxiliary relay contacts as referenced to the coil location drawing if coil is shown on a separate drawing where all contacts of auxiliary relays should be shown and the appropriate device auxiliary switches (circuit breakers, contactor) as referenced to the drawing where they are used.
 - any interlocks – electromechanical, key, etc., associated with the generation or interconnection Substation
 - ranges of all timers and setting if dictated by control logic
 - all target ratings; on dual ratings note the appropriate target tap setting
 - complete internal for electromechanical protective relays where microprocessor type relays may be shown as a “black box”, with manufacturer’s instruction book number referenced and terminal connections shown
 - isolation points (states links, PK-2 and FT-1 blocks), etc. including terminal identification
 - all circuit elements and components, with device designation, rating and setting where applicable and where coil voltage is shown only if different from nominal control voltage
 - size, type, rating and designation of all fuses
 - phase sequence designation as ABC or CBA

- potential transformers – nameplate ratio, polarity marks, rating, primary and secondary connections
 - current transformers (including auxiliary CT's) – polarity marks, rating, tap ratio and connection
- 12.5 Generator may not commence parallel operation of the Plant until consent has been given by TSP. TSP reserves the right to inspect the GIF and witness testing of any equipment or devices associated with the Point of Interconnection.
- 12.6 The Plant and GIF shall not cause objectionable interference with the electric service provided to other customers of TSP nor jeopardize the security of the ERCOT power system. In order to minimize objectionable interference of the Plant and GIF, the Plant and GIF shall meet the following criteria as described in TSP's LST-FAC-001-PRO-Facility_Connection_Requirements for the below:
- Voltage,
 - Flicker,
 - Frequency,
 - Harmonics, telephone interference, carrier interference,
 - Fault and line clearing,
 - Excitation system and Automatic Voltage Regulation, and
 - Governor system.
- 12.7 The dynamic MVAR capability at the current MW generation amount shall be provided in real time. If this dynamic MVAR capability is not available in real time, a dynamic capability curve plotted as a function of MW output shall be provided. The shunt static reactive available, but not in service, shall be provided in sufficient detail to determine the amount of dynamic and static reactive reserve available.
- 12.8 Generator shall provide Voltage Support Service and Reactive Power Requirements as required by ERCOT Nodal Protocols Section 3.15.
- 12.9 Certain generators are susceptible to SSO when interconnected within electrical proximity of series capacitor banks on the transmission system. Prior to the In-Service Date, the Generator will provide complete and accurate studies which analyze the potential of SSO and will coordinate with TSP and ERCOT regarding the scope of such studies. Generator is responsible for mitigation to protect itself from SSO risks. TSP will work with Generator and their selected turbine-generator or inverter manufacturer on any system data required for such studies.
- 12.10 TSP considers the energy and power that the Plant and GIF may from time to time consume from the transmission grid through the Point of Interconnection to be a retail transaction and as such, TSP does not intend

to be the provider of this retail service. Generator shall make necessary arrangements with the appropriate retail supplier for the energy and power that the Plant and GIF may consume from the transmission grid through the Point of Interconnection.

- 12.11 Generator shall notify TSP in writing as to which initial ERCOT Qualified Scheduling Entity the Plant will be scheduling through and any changes made thereafter.
- 12.12 Upon written request from TSP, Generator shall supply notification to TSP identifying their retail service provider.
- 12.13 Generator shall use commercially reasonable efforts to change the GIF as may be reasonably required by TSP to meet future changes in the TSP System. Generator shall be given reasonable notice by TSP prior to the date that any such required change in the GIF must be made.
- 12.14 Each Party will comply with NERC Reliability Standards applicable to its facilities identified in this Exhibit "C". Each Party shall provide to the other Party all information related to its interconnection facilities that may reasonably be required by the other Party to comply with NERC Reliability Standards applicable to its interconnection facilities, if any. "NERC Reliability Standards" means the mandatory electric reliability standards established and enforced by the North American Electric Reliability Corporation or its successor electric reliability organization.
- 12.15 Encroachment – Generator must submit a written request to TSP (using a form of request acceptable to TSP) and obtain prior written authorization from TSP prior to conducting any activities within any portion of TSP's transmission line right of way and/or substation property. Such Generator activities shall include, but are not limited to: i) constructing transmission lines, communication facilities, roads, water lines, sewer lines, gas pipelines, or any other facilities; ii) storing any equipment or materials; or iii) changing the grade, elevation, or contour of the land, for such encroachment prior to Generator installing such facilities or conducting such activities. TSP RESERVES THE RIGHT TO DELAY THE ENERGIZATION FOR THE POINT OF INTERCONNECTION UNTIL GENERATOR OBTAINS ALL REQUIRED WRITTEN AUTHORIZATIONS FROM TSP FOR SUCH ENCROACHMENTS, IF ANY. The Generator will be responsible for the cost of all modifications necessary on property or facilities owned by TSP that are affected by such encroachment. The provision of overall site plans by Generator shall not relieve Generator from the obligation to submit all encroachment requests in accordance with this subsection.

- 13. Special Operating Conditions, if any, attached:

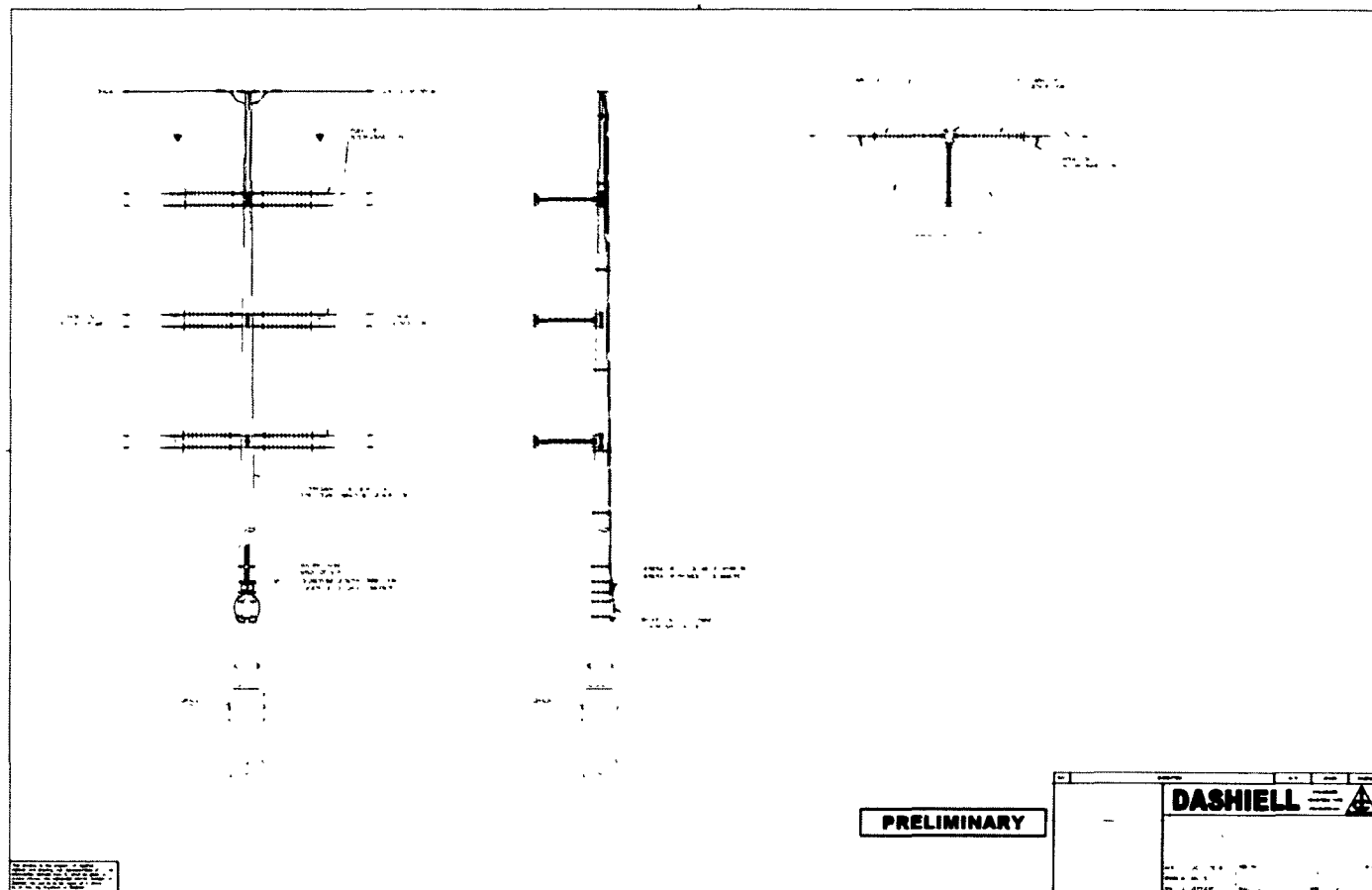
- 13.1 If Generator's main power transformer(s) is equipped with a no-load tap changer, in accordance with ERCOT Requirements, Generator will work with TSP to select the tap position on the no-load tap changer of the Generator's main power transformer(s). Generator will initiate contact with TSP to select such tap position no later than the date specified in Exhibit B. notwithstanding TSP's obligations in the remainder of this Agreement, TSP shall have no obligation to establish an electrical interconnection with the GIF until Generator and TSP have selected the tap position.

Generator shall design, construct, operate and maintain GIF with accordance with all applicable ERCOT Requirements and NERC Reliability Standards.

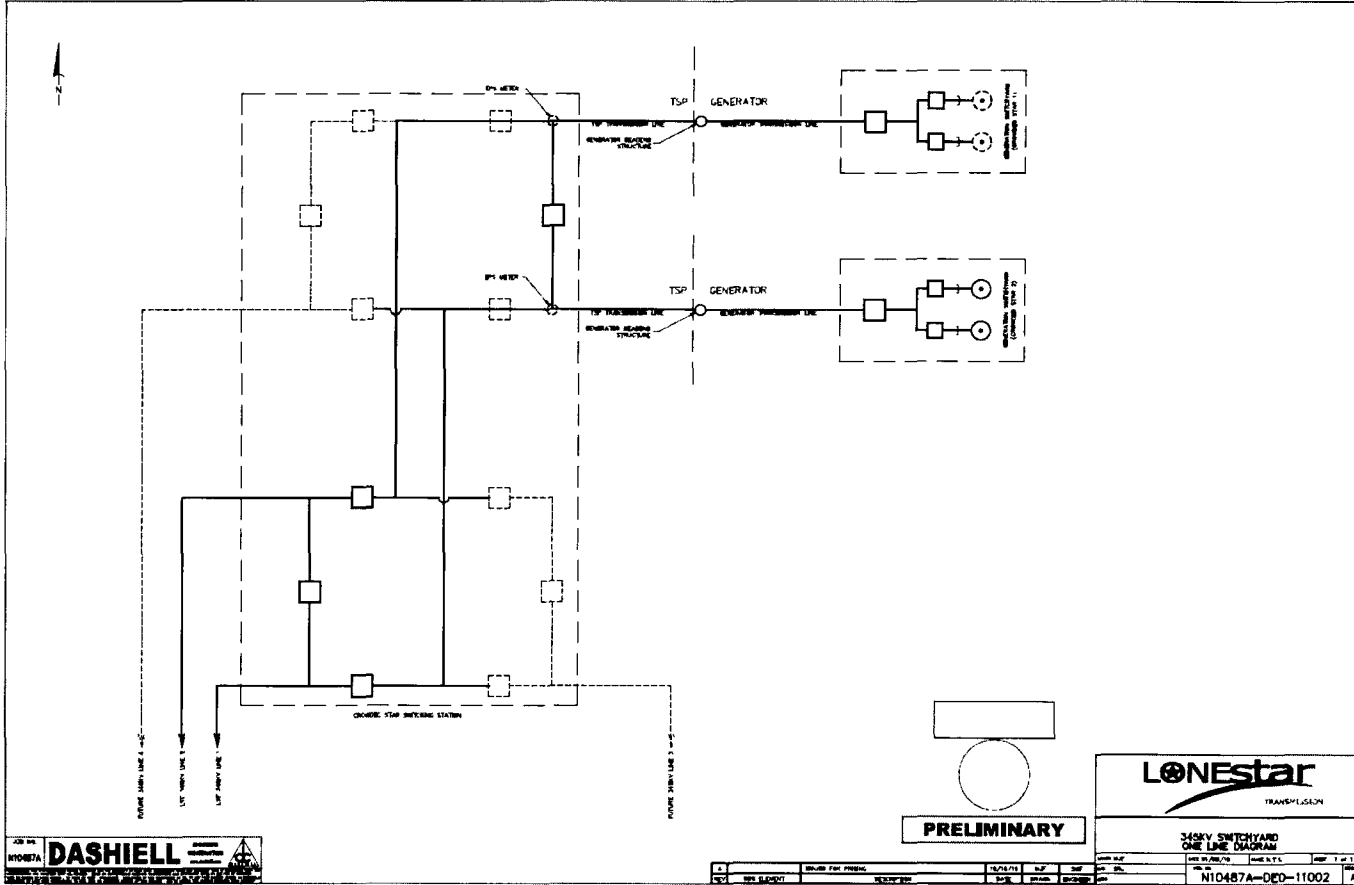
For thermal powered generation, Generator will provide TSP at least thirty (30) minutes' prior notice before coming on-line or off-line so TSP can adjust reactive resources.

14. The difference between the estimated cost of the TIF under 4.1.A (N/A) and the estimated cost of the TIF under 4.1.B (N/A) is: N/A, if applicable.

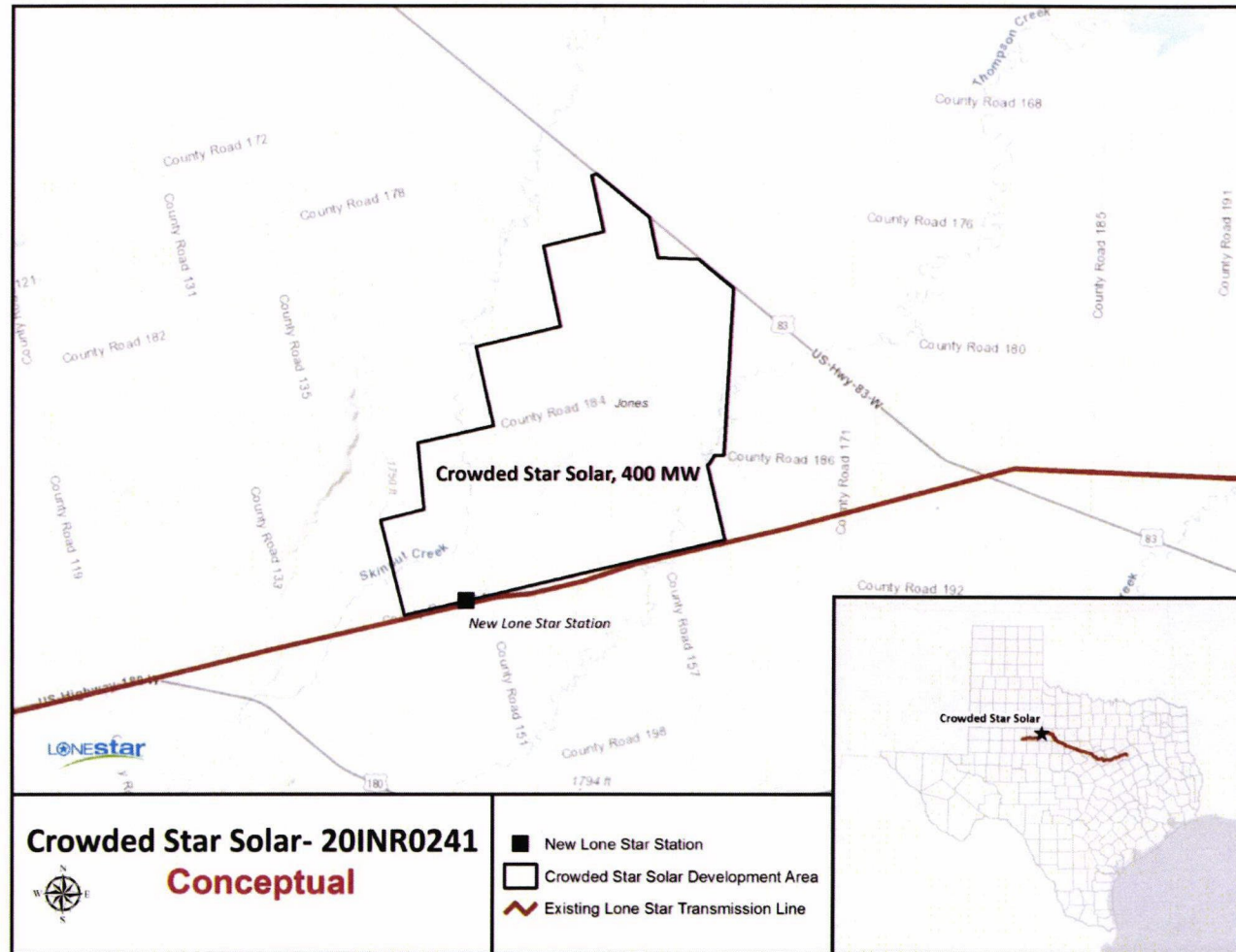
Attachment C-1
Conceptual Drawing of Point of Interconnection



Conceptual One-Line Drawing of Point of Interconnection



Attachment C-3 Project Overview Map



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Exhibit “E”
Security Arrangement Details

On or before the date that Generator issues the written Notice to Proceed, Generator shall cause to be established (the date of such establishment shall be the “Security Effective Date”), and shall at all times through the earlier of (i) five (5) business days after the date upon which TSP receives written notification from Generator that Commercial Operation has been achieved or (ii) ninety (90) days after the termination of the Agreement in accordance with its terms (the earlier of which shall be the “Final Expiration Date”), cause to be maintained in full force and effect an “Irrevocable Standby Letter of Credit” for the benefit of TSP in a commercially acceptable form consistent with this Exhibit E and otherwise acceptable to TSP and Generator, which acceptance shall not be unreasonably withheld, in the amount set forth below. “Irrevocable Standby Letter of Credit” shall mean an irrevocable, transferable letter of credit, issued by a Generator-selected and TSP-approved (which approval shall not be unreasonably withheld), major U.S. commercial bank, or a U.S. branch office of a major foreign commercial bank, with a credit rating of at least “A-” by Standard & Poor’s or “A3” by Moody’s Investor Services (“Bank”). The Irrevocable Standby Letter of Credit shall be transferable, more than one time, in whole but not in part, in favor of any party whom TSP certifies has succeeded to TSP’s right, title, and interest in and to this Agreement. Should TSP transfer such Irrevocable Standby Letter of Credit as stated above, Generator shall reimburse TSP for any costs it incurs from the Bank associated with such transfers.

If, at any time during the Term of this Agreement, the Bank suffers a credit rating reduction to less than “A-” by Standard & Poor’s or “A3” by Moody’s Investor Service, Generator shall replace that Irrevocable Standby Letter of Credit with another Irrevocable Standby Letter of Credit of the same amount and with the same beneficiary from another TSP-approved bank of Generator’s choice within fifteen (15) business days of the date of such event. In the event of a failure to provide a substitute Irrevocable Standby Letter of Credit within the time period specified above, TSP may draw upon the Irrevocable Standby Letter of Credit to secure a cash deposit as security under this Agreement.

The Irrevocable Standby Letter of Credit may consist of one or more consecutive terms (each, a “Term”), the first of which shall be effective on or before the Security Effective Date and the last of which shall expire no earlier than the Final Expiration Date; provided, that, the Irrevocable Standby Letter of Credit shall automatically renew from Term to Term without amendment such that there shall be no interruption of surety provided by the Irrevocable Standby Letter of Credit from the Security Effective Date through the Final Expiration Date.

To the extent that the Bank has the unilateral right not to renew the Irrevocable Standby Letter of Credit for a successive Term, the Bank shall give notice to TSP and Generator in writing by certified mail, return receipt requested, or via a courier service, of the exercise of its right not to renew the Irrevocable Standby Letter of Credit for a successive term (an “Expiring Term”) not less than ninety (90) days prior to the expiration date of any Expiring Term. Generator hereby agrees that in the event that the Bank gives such notice and Generator does not provide TSP with a substitute Irrevocable Standby Letter of Credit in substantially the same form as the expiring Irrevocable Standby Letter of Credit at least forty-five (45) days prior to the expiration date of

any Expiring Term, TSP shall have the right to retain as security the full amount (as specified in the Irrevocable Standby Letter of Credit) of the expiring Irrevocable Standby Letter of Credit. The substitute Irrevocable Standby Letter of Credit shall meet the requirements of this Exhibit E and be otherwise acceptable to TSP and Generator, which acceptance shall not be unreasonably withheld. In the event of a failure to provide a substitute Irrevocable Standby Letter of Credit within the time period specified above, TSP may draw upon the Irrevocable Standby Letter of Credit to secure a cash deposit as security under this Agreement.

In the event that an Irrevocable Standby Letter of Credit is set to expire on a date prior to the Final Expiration Date and Generator has not provided to TSP a substitute Irrevocable Standby Letter of Credit at least forty-five (45) days in advance of such expiration, TSP shall have the right to retain as security the full amount (as specified in the Irrevocable Standby Letter of Credit) of the expiring Irrevocable Standby Letter of Credit. The substitute Irrevocable Standby Letter of Credit shall meet the requirements of this Exhibit E and be otherwise acceptable to TSP and Generator, which acceptance shall not be unreasonably withheld. In the event of a failure to provide a substitute Irrevocable Standby Letter of Credit within the time period specified above, TSP may draw upon the Irrevocable Standby Letter of Credit to secure a cash deposit as security under this Agreement.

Except to the extent that the Bank has the unilateral right not to renew the Irrevocable Standby Letter of Credit for a successive Term, the Irrevocable Standby Letter of Credit to be issued in connection herewith shall have no provision for termination by the Bank or Generator.

Within five (5) business days after the Final Expiration Date, TSP shall (i) mark the Irrevocable Standby Letter of Credit, if any, then held by TSP as "CANCELLED" and shall return the cancelled Irrevocable Standby Letter of Credit to the Bank with instructions to cancel the Irrevocable Standby Letter of Credit, and shall send to Generator a copy of such cancelled Irrevocable Standby Letter of Credit and instructions for cancellation, and (ii) return all cash deposit(s), if any, then held by TSP to Generator.

As of the Security Effective Date, Generator shall provide security to the TSP, in the form of an Irrevocable Standby Letter of Credit per the milestones set forth in the Crowded Star (Phase 1) Interconnection Agreement, dated December 17, 2019, or any subsequent IA amendments modifying the security requirements. Per Exhibit "A" Section 8.3, TSP shall release the remainder portion of the letter of credit, and any renewed letters of credit thereafter, for the station modifications within (5) business days after TSP has received the notice from the Generator that the Plant's Phase 2 has achieved Commercial Operation, and TSP has verified the same. In no event shall the amount of combined letter of credit be less than the scheduled amounts per the milestones set forth in the Crowded Star (Phase 1) Interconnection Agreement, dated December 17, 2019.