

Filing Receipt

Filing Date - 2024-05-09 03:03:53 PM

Control Number - 56211

Item Number - 182

SOAH DOCKET NO. 473-24-13232 PUC DOCKET NO. 56211

APPLICATION OF CENTERPOINT§BEFORE THE STATE OFFICEENERGY HOUSTON ELECTRIC, LLC§OFFOR AUTHORITY TO CHANGE RATES§ADMINISTRATIVE HEARINGS

May 9, 2024

Contact: Peggy Sorum CenterPoint Energy, Inc 1005 Congress Avenue, Suite 650 Austin, Texas 78701 Tel No: (512) 397-3077 Fax: (512) 397-3050 peggy.sorum@centerpointenergy.com

TABLE OF CONTENTS

Description	<u>Page</u>
CenterPoint Energy Houston Electric, LLC's Response to Hunt Energy Network LLC's First Set of Requests for Information	2-57
Certificate of Service	58

• Please note that the discovery responses were prepared under the direction of the sponsors.

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-01

QUESTION:

Refer to John R. Durland's direct testimony at page 65, lines 2-8. Please explain how the proposed Wholesale Distribution Service ("WDS") tariff pricing was developed based on the class cost of service study in this proceeding.

- a. Does the class cost of service study contain the data necessary to develop WDSpricing separate from Primary Service pricing?
- 1. If yes, please specifically identify where this data is located in CenterPointEnergy Houston Electric, LLC's ("CenterPoint") application.
- 2. If no, please explain what data is necessary that is not included in the class cost of service study. As part of your response, please explain if CenterPoint currently has the data necessary to develop separate pricing. If not, please explain why not.

ANSWER:

Currently, CenterPoint Houston does not have any cost history on DESR customers taking energy at the distribution level. The DESR customers are expected to use the distribution system similarly to Primary Service customers (see CenterPoint Houston's responses to Request Nos. HEN-RFI-04 and HEN-RFI01-05), and without any specific data on potential additional costs that may be needed to serve these resources, the Primary Service rates used in the WDS tariff are appropriate.

The proposed cost of service study for the Primary Service class can be found in "Schedule I and J 2023 - ERRATA.xlsx".

SPONSOR: John R. Durland

RESPONSIVE DOCUMENTS:

None

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-02

QUESTION:

Refer to John R. Durland's direct testimony at page 65, lines 2-8. Does CenterPoint plan to file an application to update its WDS rate once it has the necessary cost history data? If yes, please provide the estimated filing date. If not, please explain why not.

ANSWER:

The Company will file an update to the WDS rate either at the direction of the Commission as the result of a rulemaking in Project No. 54224 (Cost Recovery for Service to Distributed Energy Resources (DERS)) or when the Company has the appropriate cost data needed to establish a class cost of service study. The interim WDS Tariff in place will be trued-up upon adoption of a final CenterPoint Houston WDS Tariff, and CenterPoint Houston will issue refunds or surcharges as appropriate.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-03

QUESTION:

Does CenterPoint believe a direct assignment approach for WDS rates would more accurately reflect cost-causation? Please explain your response.

ANSWER:

Currently, CenterPoint Houstin does not have cost history on DESR customers that could be used to determine if a DESR causes additional costs that should be directly assigned to WDS customers.

Standard ratemaking methodology for distribution system costs are not established based solely on the specific facilities used by any single customer, they are based on the cost of the entire distribution system. DESR customers are expected to take Primary Service and thus the distribution charges assigned to WDS are expected to reflect the same costs that would be assigned to a retail customer in the Primary Service class.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-04

QUESTION:

Does CenterPoint believe WDS customers utilize CenterPoint's distribution system in the same manner as Primary Service customers? Please explain.

ANSWER:

CenterPoint Houston Primary Service customers are non-Residential customers, served at Primary Distribution Voltage levels, and taking Delivery Service directly from feeder lines of at least 12,470 volts, but less than 60,000 volts. Like Primary Service customers, DESRs (i.e., WDS customers) are non-Residential, served at Primary Distribution Voltage levels, and taking Delivery Service directly from feeder lines. Thus, generally, WDS customers use CenterPoint Houston's distribution system like Primary Service customers. However, even among Primary Service customers, which include many diverse electricity use cases (e.g., electric-vehicle chargers, data centers), the customers have varying load profiles, and each Primary Service customer does not use CenterPoint Houston's distribution system in exactly "the same manner" as every other Primary Service customer. Additionally, DESRs will use the distribution system when charging (i.e., when the DESR is a load), when discharging (i.e., when the Retail Customer is a load), and when offering ancillary services. Accordingly, DESRs could potentially use the CenterPoint Houston distribution system *more* than a standard Primary Service customer.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-05

QUESTION:

Does CenterPoint believe WDS customers impose costs on CenterPoint's distribution system in the same manner as primary service customers? Please explain.

ANSWER:

Please see CenterPoint Houston's response to Request No. HEN-RFI01-04. WDS customers impose costs on CenterPoint's distribution system in a similar manner as Primary Service customers. CenterPoint Houston Primary Service customers are non-Residential customers served at Primary Distribution Voltage levels, taking Delivery Service directly from feeder lines of at least 12,470 volts, but less than 60,000 volts. DESR's are non-Residential, served at Primary Distribution Voltage levels and take Delivery Service directly from feeder lines. Additionally, the facilities used to serve DESR's will see the same energy travel through it twice, once when charging and the DESR is a load and once when discharging and the Retail Customer is a load.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-06

QUESTION:

Please identify the number of customers that take service under the Primary Service retail rate schedule. Please identify the number of customers that take (i) single phase and (ii) three-phase service.

ANSWER:

Currently, the Company has 1,051 customers taking service under the Primary Service rate schedule. The Company's GIS system has records indicating 751 three-phase, 28 two-phase, and 77 single-phase customers. The specific configuration of the remaining 195 customers has not been compiled or entered into the Company's GIS system.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-07

QUESTION:

Does CenterPoint believe all the costs included in its class cost of service study for the Primary Service class are costs that are also caused by WDS customers? If no, please identify the costs allocated to the Primary Service class that are not caused by WDS customers. If yes, please explain.

ANSWER:

Yes. Standard ratemaking methodology for distribution system costs are not established based solely on the specific facilities used by any single customer, they are based on the cost of the entire distribution system. DESR customers are expected to take Primary service and thus the distribution charges assigned to WDS customers are expected to reflect the same costs that would be assigned to a retail customer in the Primary class. The facilities used to serve WDS customers are the same, even if the Commission determines an alternative cost allocation methodology in Project No. 54224 for DESRs.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-08

QUESTION:

Please confirm the WDS tariff is the only rate available for energy storage resources that take wholesale transmission service at distribution voltage from CenterPoint.

ANSWER:

Within the Company's Wholesale Delivery Service Tariff, the Company offers WHOLESALE TRANSMISSION SERVICE – WTS and WHOLESALE DISTRIBUTION SERVICE – WDS. DESRs that are PGCs and interconnected to the Company's Distribution System below 60,000 Volts would only be eligible for WHOLESALE DISTRIBUTION SERVICE – WDS. A DESR receiving service under this rate schedule is not subject to the WTS Rate Schedule.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-09

QUESTION:

Did CenterPoint consider multiple rates depending upon the location of the WDS customer in relation to CenterPoint's substation? If yes, please explain why more than one rate was not pursued. If no, please explain why more than one rate was not considered.

ANSWER:

No. The current WDS tariff rates were established as part of a settlement agreement in Docket No. 53606. In that docket, parties agreed to adopt the Primary Service rates subject to refund or surcharge established in Docket No. 49421 for WDS customers until the Commission rulemaking on DESRs establishes the costs applicable to DESRs.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-10

QUESTION:

Please provide a list of the costs caused by WDS customers located within 1,000 feet or less from a CenterPoint substation.

ANSWER:

CenterPoint Houston has completed 725 pre-screen studies for WDS customers since CenterPoint Houston began receiving WDS pre-screen study requests in April 2020. The scope of a typical WDS project would include building a new substation express feeder including new breaker, switches, protection, relaying, and telecommunication schemes for anti-islanding protection at distribution voltage, civil construction for an underground cable duct bank from the substation exit to the customer site, and acquiring easements for the route. See attached indicative cost estimate (+/-50% accuracy) for WDS customers located within 1,000 feet or less from a CenterPoint Energy substation. See response to HEN 1-36 for the actual or estimated costs, distance in miles from the customer location to CenterPoint Energy substation for all in-progress WDS projects.

SPONSOR:

John R. Durland

RESPONSIVE DOCUMENTS: HEN-RFI01-10.pdf

Billing Inform	nation	
Cardomini Ligal Natio	Commercial Distributed Generation	
Castomer Corporate Address	3331 Loginiana St. Houston, Tx 77002	
Kustomer filling Address (if different than above)	(satise)	
Project Manager Information		
Name	Mythile Chaganti	
Phene Number	713/045-4155	
Correspondence e-mail	Denne 24 CO2 when the essent	
	Castorner Corporate Address Castorner Corporate Address Castorner Willing Address (if different thus above) Castorner Willing Address (if different thus above) Name Project Manager I Plane Rambel	

Legend: Information in yellow provided by carbonner

	Branchas	E Mart & and instant Property Resident Property Resident M	E Bard and Baldware III an adult for	1 days and the second	T Berner 200 English Commen	Research Conceptual Statement	Continue & Burnisse Banka	I INFORT RECEIPTING THE C
	Burther	GP2 Courillmin as (Degree Desized Form at Preferred) 29.7572533 95.5678875	Traject Address III evelopide 1111 Louisiana St. Houston, Tr 72002	Generation Tape Solar/Battery	Promodell Eductivity	Proposed Charging Capality (A batters) KW	Contrad Service Date	BICOT Registration Type
Definition / Explanation	Input the project number, if there are multiple.	input GPS Coordinates for the project.	If there is no Address for the project's property, GPS coordinates will suffice.	Input Project	Input Proposed	Input Proposed Charging Capacity (if applicable).		SODG, DGR, or DESR respistered-projects require registration SODG: Settlement-Only Distributed Generation DGR: Distribution Generation Resources DESR: Distribution Energy Storage Resource For more information, see: https://www.ercot.com/services /rg/re/dgresource
Estimated Costs are Indicative estimates only and would be +/- 50% eccuracy								

	Project Information							
Woltage Level	Aerial Distance to Substation	Engrass Feed or Availability	Express Feedur Newfee	Alexie Sultatation Trenoformer Needlad	Traniformer Adultion Load Dependent:	Stew Bult stien	Transfar Trip Required	THE RELATES
Input the voltage level for the project (12/35 kV) or DV (Dual Voltage)	Input the distance from the project to the substation (miles)	within the substation to	Yes or No, depending on if a new Express Feeder is needed. For all DESRs, this is a Yes An express feeder is any feeder constructed solely to same a sincle	Yes or No, depending on if this project requires a new substation transformer A "Yes" means either a new transformer has to be installed or the existing transformer has to be upgraded for the project		Substation is required for the project A "Yes" means a new substation has to be	Yes or No, depending	TBD, depending on If 3V ₀ criteria is met and is required for the project Criteria studied
			\$800K to \$1.5M for < 0.3 miles of UG construction in a rural/urban area where existing road ROW or willing third party easements would be utilized. Typical rule of thumb estimate would be \$1200/ft for UG construction Add a complexity factor of 2 to 4 to the cost for > 0.5 miles or if the preferred route crosses any freeway, railroad, pipelines or sensitive areas If OH route would be feasible per CenterPoint Energy's planning criteria and design and construction standards, then it costs \$120/ft for an OH route	\$2 to \$4M		\$25 to \$30M		

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-11

QUESTION:

Please provide a list of the costs caused by WDS customers located more than 1,000 feet from a CenterPoint substation.

ANSWER:

Please see CenterPoint Houston's responses to Request No. HEN-RFI01-10 for an indicative cost estimate (+/- 50% accuracy) for WDS customers located greater than 1,000 feet from a CenterPoint Houston substation. See CenterPoint Houston's response to Request No. HEN-RFI01-36 for the actual or estimated costs and distance in miles from the customer location to the CenterPoint Houston substation for all in-progress WDS projects.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-12

QUESTION:

Please confirm costs associated with primary distribution plant are allocated on Non-coincidental peak ("NCP").

ANSWER:

Please see CenterPoint Houston's response to Request No. PUC-RFI01-01.

SPONSOR: John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-13

QUESTION:

Please provide the time and date that each class NCP occurred in the class cost of service study.

ANSWER:

Please see CenterPoint Houston's response to Request No. HCC-RFI05-06.

SPONSOR: John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-14

QUESTION:

Please provide the time and date that each class NCP occurred in years 2019 through 2023.

ANSWER:

Please see CenterPoint Houston's response to Request No. HCC-RFI05-06.

SPONSOR: John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-15

QUESTION:

Did CenterPoint make any adjustments to the retail Primary Service rate in this proceeding since CenterPoint's last rate case (test year ending December 31, 2018)?

ANSWER:

CenterPoint Houston is proposing to update the Primary Service rate in this proceeding. Prior to this proceeding, CenterPoint Houston did not make any adjustments to the Primary Service base rate since CenterPoint Houston's last rate case.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-16

QUESTION:

What, if any, differences are there in the charges under the retail Primary Service tariff and the WDS tariff?

ANSWER:

Please see "Schedule I and J – ERRATA", tab "IV-J-7 Proof of Revenue Summary" for the charges applicable to Retail customers and "Schedule I and J – ERRATA", tab "IV-J-7 WHOLESALE DISTRIBUTION RATE" for the charges applicable to WDS customers.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-17

QUESTION:

How does charging an energy storage resource connected at distribution voltage a Customer Charge, Metering Charge, Distribution System Charge and Wholesale Distribution Cost Recovery Factor - WDCRF charge, each of which was developed as a retail rate for delivery service to primary voltage retail customers, comport with 16 Texas Administrative Code § 25.50l(m)?

ANSWER:

The Company's charges for wholesale distribution service (i.e., for energy storage resources connected at distribution voltage) are contained in the Company's Tariff for *Wholesale* Delivery Service. In part, 16 Texas Administrative Code § 25.501(m) provides that "[w]holesale storage is not subject to *retail* tariffs, rates, and charges or fees assessed in conjunction with the *retail* purchase of electricity." 16 TAC § 25.501(m)(2) (emphasis added). The Company's charges for wholesale distribution service (as contained in the Company's Tariff for Wholesale Delivery Service) subject energy storage resources connected at distribution voltage to *wholesale* tariffs, rates, and charges or fees assessed in conjunction with the *wholesale* purchase of electricity, not "*retail* tariffs, rates, and charges or fees assessed in conjunction with the *wholesale* purchase of electricity." *Id.* (empahsis added). Additionally, the Company's current charges for *wholesale* distribution service (i.e., the Tariff for Wholesale Delivery Service) were approved for adoption on an interim basis in Docket No. 53606. *Application of CenterPoint Energy Houston Electric, LLC for Approval to Amend its Wholesale Transmission Service Tariff*, Docket No. 53606, SOAH Order No. 3 at 2 (Nov. 14, 2022). Witness Durland is not an attorney, and this response is not offered as a legal opinion.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-18

QUESTION:

Refer to John R. Durland's direct testimony at page 65, line 18 through page 66, line 5. Please state whether the WDCRF charge will be the same as the DCRF charge, and if not please explain any anticipated differences.

ANSWER:

Once the first DESR begins taking load and a DCRF filing is made, the WDCRF Tariff will be updated to include a rate for DESRs, until then the Company is proposing that the WDCRF charge stay at zero. Implementing a WDCRF charge in the first DCRF filing after the first DESR customer begins taking service ensures that incremental capital and the load growth adjustment to the Company's DCRF revenue requirement attributable to DESR's is appropriately captured. The proposed charge in the WDCRF will be the same as the Primary Class in the DCRF Tariff until there is a determination of costs attributable to DESR's in Project No. 54224 Cost Recovery for Service to Distributed Energy Resources (DERs).

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-19

QUESTION:

For each wholesale and retail class for which certain distribution costs are allocated on NCP, provide the Hourly Class Loads (kW) shown by 15-minute intervals for the Test Year.

ANSWER:

Please refer to CenterPoint Houston's Rate Filing Package, Schedule I and J 2023.xlsx; Tab IV-J-4a; LOAD RESEARCH DATA.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-20

QUESTION:

Please list all FERC accounts that have costs included in the proposed rates for the Customer Charge, Metering Charge, Distribution System Charge or Wholesale Distribution Cost Recovery Factor - WDCRF charge included in the WDS tariff. Please provide a separate list for each different charge.

ANSWER:

CenterPoint Houston's current WDS tariff rates were established pursuant to an unopposed motion to adopt proposed interim rates in Docket No. 53606 (Application of CenterPoint Energy Houston Electric, LLC for Approval to Amend its Wholesale Transmission Service Tariff). In that docket, parties agreed or were unopposed to the interim application of the Primary Service rates (subject to refund or surcharge) established in the settlement agreement in Docket No. 49421 for WDS customers until the Commission rulemaking on DESRs establishes the costs applicable to DESRs. CenterPoint Houston is currently not proposing a rate for the WDCRF.

Please refer to the Docket No. 49421, "49421 - Model of CEHE's CCOSS - Final Order", II-I-DIST, II-I-MET, and II-I-TDCS for the types of distribution line costs, by FERC Account, allocated to specific rate classes in Docket No. 49421.

Please refer to CenterPoint Houston's Rate Filing Package, "Schedule I & J 2023 - ERRATA", II-I-DIST, II-I-MET, and II-I-TDCS for the types of distribution line costs, by FERC Account, allocated to specific rate classes in Docket No. 56211.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-21

QUESTION:

With regard to energy storage resources interconnected at distribution voltage ("DESRs") in CenterPoint's service territory:

- a. How many DESRs are in operation in CenterPoint's service territory?
- b. What are the commercial operation date(s) associated with the DESRs provided inresponse to subpart (a)?
- c. In addition to the DESRs provided in response to subpart (a), how many DESRshave signed Interconnection Agreements with CenterPoint.
- d. How many DESRs have requested screening studies from CenterPoint?

ANSWER:

- a. As of the date of this response, there are not any DESRs in operation on CenterPoint Houston's system.
- b. Not applicable.
- c. As of the date of this response, CenterPoint Houston has executed interconnection agreements with twenty-two (22) DESR projects.
- d. As of the date of this response, CenterPoint Houston has received 725 pre-screen study requests for potential DESR projects.

SPONSOR:

David Mercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-22

QUESTION:

Please provide any data CenterPoint has collected regarding the charging and discharging of DESRs.

ANSWER:

There are not any DESRs currently in operation on CenterPoint Houston's system. As a result CenterPoint Houston has not collected data regarding real-time charging and discharging of DESRs connected to our system. However, CenterPoint Houston's application for DESR projects requires developers to provide charging and discharging capacity in kW for the project including the minimum and maximum state of charge in percentage and the time delay in seconds for charging and discharging. See the attached CenterPoint Houston's application for DESR projects.

SPONSOR:

David Mercado

RESPONSIVE DOCUMENTS: HEN-RFI01-22 CNP DER Applic Package-Rev7.1-Final (SODG).pdf

DER Application Cover Letter

If you desire to interconnect and operate a Distributed Energy Resource ("DER") in parallel with the distribution system of CenterPoint Energy Houston Electric, LLC ("CenterPoint Energy"), please complete and sign (1) CenterPoint Energy's "Application for Interconnection and Parallel Operations of Distributed Energy Resource" (the "DER Application") and (2) CenterPoint Energy's "System Impact Study Discretionary Services Agreement" (the "Study Agreement" and together with the DER Application, the "DER Application Package").

To operate any DER device that is connected to the CenterPoint Energy system, you are first required to complete an application. This can be done through our web portal located at address: <u>https://plus.anbetrack.com/cnp-dg</u>.

If the premises on which the DER will operate does not have an established electrical service, a paper-based DER Application Package will be required. Please send an email to <u>Commercial DG@CenterPointEnergy.com</u> to initiate the interconnection process by requesting a DER Application Package.

CenterPoint Energy will review the customer-submitted DER Application Package for completeness after receipt and, if found to be complete, will commence the System Impact Study after receiving the applicable study fee. The study fee schedule for System Impact Study is noted in the 'Pre-Interconnection Study Fee' in the 'Tariff.

A System Impact Study report, along with the estimated costs for CenterPoint Energy to interconnect the DER with the company's distribution system (Construction Estimate Package), will be sent to the customer for review. Design and construction work per the System Impact Study will begin after the customer signs and returns Construction Estimate Package and provides the construction estimate fees to the company along with an e-mail indicating Notice to Proceed.

Once construction is completed there are (2) possible options depending on the system size:

- 1st Typically not required for residential or small commercial projects (sized 50 kW AC or less), CNP may require photos for visual inspection/review (if there are outstanding questions, etc.). It is our understanding that the installer/designer adheres to all applicable Standards, Specifications, and Code requirements for the project and has a licensed master electrician overseeing the project installation.
- 2nd Vor large commercial projects (sized over 100kW AC), CNP requires the Customer to demonstrate the protective functions through a third-party testing agency (hired by the Customer) to prove compliance with the CenterPoint Energy's Distributed Generation Specification and Public Utility Commission of Vexas rules, 25,211 and 25,212. CenterPoint Energy may witness the testing and commissioning procedure.

After successful testing and commissioning, CenterPoint Energy will send the Interconnection Agreement (IA). Once the interconnection agreement is fully executed, CenterPoint Energy will send a Permission to Operate (PTO) letter via email to the Customer, completing the interconnection process.

To be commercially operable in the ERCOT market, ERCOT requires additional technical information for modeling, testing for commissioning. Refer to <u>ERCOT Resource Integration</u> webpage for details.

PUCT substantive rules web site is included here. https://www.puc.texas.gov/industry/electric/business/dg/Dg.aspx

6.1.2.4 DISTRIBUTED GENERATION SERVICE - RATE DGS

Company shall interconnect distributed generation pursuant to Public Utility Commission of Texas Substantive Rules 25.211 and 25.212.

A customer seeking interconnection and parallel operation of distributed generation with Company must complete and submit the Application for Interconnection and Parallel Operation of Distributed Generation and enter into an Agreement for Interconnection and Parallel Operation of Distributed Generation. The form of the application is set out in Section 6.3.2 of this Tariff. The form of the agreement is set out in Section 6.3.3 of this Tariff.

PRE-INTERCONNECTION STUDY FEE SCHEDULE

Pre-certified distributed generation units that are up to 500 kw that export not more than 15% of the total load on a single radial feeder and contribute not more than 25% of the maximum potential short circuit current on a radial feeder are exempt from any pre-interconnection study fees. For all other DG applications, the study fees in the following table will apply.

Non-Exporting	0 to 10 kW	10+ to 500 kW	500+ to 2000 kW	2000+ to 10,000 kW
Pre-certified, not on network	\$0	\$0	\$3,273	\$3,520
Non pre-certified, not on network	\$312	\$581	\$3,947	\$4,194
Pre-certified, on network	\$ 2 72	\$1,075	\$6,269	\$6,516
Non pre-certified, on network	\$525	\$1,150	\$6,943	\$7,190

Exporting	0 to 10 kW	10+ to 500 kW	500+ to 2000 kW	2000+ to 10,000 kW
Pre-certified, not on network	\$75	\$57 0	\$3,520	\$3,767
Non pre-certified, not on network	\$312	\$792	\$4,194	\$4,441
Pre-certified, on network	\$272	\$1,286	\$7,175	\$7,422
Non pre-certified, on network	\$495	\$1,645	\$7,849	\$8,096

System Impact Study Discretionary Services Agreement

 This System Impact Study Discretionary Services Agreement ("Agreement") is made and entered into this date,
 [
 L
 by and between CenterPoint Energy Houston Electric, LLC ("Company"), and

 [______] ("Customer"), hereinafter referred to collectively as the "Parties."
 [
 [

Customer has submitted, and Company has received, a completed DER Application dated [insert date of the Application] to interconnect the DER described in the DER Application with Company's distribution system. Before Company can commence design and construction work for the interconnection, Company must conduct a System Impact Study (as defined below), at Customer's cost.

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

After receipt of the study fee from Customer, Company agrees to conduct various studies to determine the technical and design requirements for interconnecting Customer's DER, as described in the Customer's DER Application, to Company's distribution system, including a steady-state power flow and voltage drop analysis, equipment rating analysis, short-circuit analysis, flicker analysis, rapid voltage change analysis, transfer trip and ground fault overvoltage protection analysis, and any additional transmission sensitivity analysis (collectively, the "System Impact Study"). The Company's performance of these studies and analyses for Customer constitutes the provision of discretionary services under the Company's tariff on file with the Public Utility Commission of Texas ("PUCT").

The System Impact Study will be performed in accordance with Electric Reliability Council of Texas protocol requirements, applicable rules of the PUCT, applicable IEEE standards, and the Company's own specifications and distribution planning design criteria.

The amount of the study fee is \$xx (determined by the tariff study fee schedule) to be paid by the Customer as a non-refundable payment for the Company to perform the System Impact Study. Company will invoice Customer for the study fee after Customer's execution and delivery of this Agreement and will commence the System Impact Study after receipt of Customer's study fee payment.

This Agreement becomes effective upon execution and payment of the study fee and will thereafter continue in effect until the discretionary services described above have been completed.

A Construction Cost Estimate Package, according to established CenterPoint Energy's internal design and construction standards, with the total estimated cost for the interconnection option studied will also be provided to Customer at the time that the System Impact Study is completed.

Termination of this Agreement does not relieve Company or Customer of any obligation accrued or accruing prior to termination. Unless otherwise stated by the Company in writing, the non-refundable discretionary service charge above is valid for one generation interconnection application study and construction cost estimate.

This Agreement shall not be binding upon Company unless and until it is signed by an authorized representative of the Company. This Agreement does not obligate Company to provide, or entitle Customer to receive, any service not expressly provided for herein.

Any modifications to the technical information and/or the site location of an approved interconnection application must be submitted to CenterPoint Energy for re-study at additional cost.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized representatives.

CenterPoint Energy Houston Electric, LLC

mythili chaganti BY:

PRINTED NAME: Mythili Chaganti TITLE: Manager, Distributed Energy DATE:_____

BY:	
PRINTED NAME: TITLE:	
DATE:	28
	28

APPLICATION FOR INTERCONNECTION AND PARALLEL OPERATION OF DISTRIBUTED ENERGY RESOURCE

Customers seeking to interconnect on-site DER with the Company's Delivery System must complete and file with the Company the following Application for Interconnection and Parallel Operation of Distributed Energy Resources (DER).

Return Completed Application to:

Commercial_DG@centerpointenergy.com

CenterPoint Energy Houston Electric, LLC

Attention: Mythili Chaganti | Manager, Distributed Generation

Will this interconnection/application be registered with Ercot? More information here	Choose one
---	------------

Customer Information:

Customer's Name:	
Customer ESI ID:	
Business Address:	
Customer's Designated Representative:	
Customer Email Address:	
Telephone Number:	
Service Point Address (GPS coordinates):	
Information Prepared and Submitted By: (Name and Address)	
Signature:	

Date:

Generator Information:

Number of Units	
Inverter:	
Synchronous:	
Induction:	
Battery (Integrated):	
Manufacturer:	
Type (Synchronous, Induction, or Inverter):	Choose one
Fuel Source (Solar, Natural Gas, Wind, etc.):	Choose one
AC Kilowatt Rating (95° F at location):	
AC Kilovolt-Ampere Rating (95° F at location)	
Inverter:	
Synchronous:	
Induction:	
Battery (Integrated):	
Power Factor (PF):	
Voltage Rating (primary service metering) (kV)	Choose one:
Number of Phases:	Choose one

Do you plan to export power? (YES/NO)	Choose one
If Yes, maximum amount exported in kW at PCC:	
Do you wish CenterPoint Energy Houston Electric, LLC to report excess generation to your REP? (YES/NO)	Choose one
Pre-Certification Label or Type Number (e.g., UL-1741 Utility Interactive or IEEE 1547.1) (Check Box):	
Expected Energization and Start-up Date: (Drop-down Calendar or enter manually)	
Normal operation of interconnection (examples: provide power to meet base load, demand management, standby, back-up, sell excess, other (please describe):	
One-line diagram attached (YES/NO):	Choose one
For systems not using pre-certified inverters (e.g., inverters certified to UL- 1741 or IEEE 1547.1), does CenterPoint Energy Houston Electric, LLC have the generator specifications from the generator manufacturer? (YES/NO)	Choose one
If not, please explain: (Note: For pre-certified equipment the answer is Yes. Otherwise, applicant must provide the generator specifications if they are available.	
Layout Sketch showing lockable, "visible" disconnect device is attached (YES/NO):	Choose one
Has the customer specified conductor information and lengths on the One-line diagram? (YES/NO):	Choose one

Authorized Release of Information List

By signing this Application in the space provided below, Customer authorizes CenterPoint Energy Houston Electric, LLC to release Customer's proprietary information to the extent necessary to process this Application to the following persons:

	Name	Phone Number	Email Address
Project Manager			
Electrical Contractor			
Consultant			
Other			

(CenterPoint Energy Houston Electric, LLC)	(Customer Portion)
By: CenterPoint Energy Houston Electric, LLC	By:
Printed Name: Mythili Chaganti	Printed Name:
Title: Manager, Distributed Generation	Title:
Date:	Date:

Customer Signature:

If there are any questions, please call us at 713-945-4155 To submit applications via email, please use Commercial_DG@centerpointenergy.com

commercum nonficenterportinumgy.com

Application Addendum

Fase provide the following information for the generating facility:

ESI ID (if applicable, found on electric bill):

(For Solar (PV)	Only)
Panel Wattage (Watts):	
Number of Panels / PV Arrays:	
Inverter Capacity (kW):	
Inverter Peak Efficiency Rating (%):	
Generation Capacity (DC kW Rating):	
Solar Generation Maximum Outputs (kW AC):	
(Check if applicable) Maximum Request Export at PCC:	

(For Synchronous & Induc	tion Generators)
Generation Maximum Output (PF):	
Generation Maximum Output (kW AC):	
(Check if applicable) Maximum Request Export at PCC:	

(For Battery with Integrated Inverter	or building biology of biology
Inverter Capacity (kW):	
Inverter Peak Efficiency Rating (%):	
Generation Capacity (DC kW Rating):	
Generation Maximum Output (kW AC):	

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-23

QUESTION:

How does CenterPoint determine the "15-minute period of maximum use" in the WDS tariff?

- a. Is the 15-minute period of maximum use limited to when a WDS customer ischarging (as opposed to discharging)?
- b. Is the 15-minute period of maximum use limited to after commercial operation of the resource? Or could it be achieved during the testing phase?

ANSWER:

- a. When the DESR is using the CenterPoint Houston distribution system to discharge, the load is attributed to the retail end use customer, not the DESR. When the DESR is using the CenterPoint Houston distribution system as a load to charge, the load is attributable to the DESR.
- b. DESR testing that occurs after the electrical service(s) and meter(s) are energized and inservice would be captured and billed.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-24

QUESTION:

Please provide a copy of the interconnection agreement referenced in the WDS tariff.

ANSWER:

Please see pages 240-251 of Exhibit JRD - 09 (Bates Nos. 2966-2977) to the Direct Testimony of John R. Durland.

SPONSOR: John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-25

QUESTION:

Please explain in detail how CenterPoint will calculate the Contribution in Aid of Construction ("CIAC") required of WDS customers, including but not limited to components, cost adders, standard allowances, franchise fees, prorated portion of facilities that jointly serve other customers, and tax liability.

ANSWER:

CenterPoint Energy Houston's construction estimates used to determine CIAC for DESR projects incorporate project-specific scope and factors including appropriate overheads, tax gross-up, and contingencies. The project-specific scope would include engineering labor and construction labor, material costs for substation upgrades, distribution upgrades, siting and land rights-of-way easement acquisition, and telecommunication upgrades. Currently, CenterPoint Houston does not have a standard allowance that applies to DESR projects.

If two or more ongoing interconnection projects are co-located and jointly share facilities, the cost of such shared facilities would be split by the customers in the interconnection queue actively pursuing those shared facility projects.

SPONSOR: David Mercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-26

QUESTION:

Does CenterPoint provide a detailed invoice with each of the items listed in response to RFI No. HEN 1-25? If not, why not? Would CenterPoint be willing to provide such a detailed invoice if requested?

ANSWER:

Yes, CenterPoint Houston provides project-specific detailed cost estimate for substation upgrades, distribution upgrades, siting and land rights-of-way easement costs, and telecommunication upgrades. See the attached estimate template.

SPONSOR:

David Mercado

RESPONSIVE DOCUMENTS:

HEN RFI 01-26_CNP DG-DESR-Interconnection Construction Estimate Template-Rev3-Final (002).pdf

CenterPoint Energy Distributed Generation Resource Interconnection Cost Estimate Letter Agreement

Date:	April 25, 2024
Customer:	Business Name Business Address City, State Zip
Interconnection Point:	Account Holder Location: Service address, GIS coordinates, etc. City, State Zip

A "Construction Estimate" is provided by CenterPoint Energy (CNP) upon the request of the Distributed Energy Resource (DER) project stakeholders. The Construction Estimate reflects estimated costs incorporating as many project-specific factors as possible, including appropriate overheads for the CenterPoint Energy resources. The 'Construction Estimate' is produced before any engineering design has begun. CenterPoint Energy engineering team will proceed to design, and construction per the scope in the system impact study after receiving full payment of the costs included in the 'Construction Estimate' document. The estimated interconnection costs are broken down into five categories, Substation Upgrades, Revenue & Primary Metering, Distribution, Siting & Rights-of-Way (SROW), and Telecom. The total CenterPoint Energy ("CNP") estimated costs are as follows:

[Ę	STIN	ATE							
-	Substation Upgrades		Reven	ùe & Primařý Meteri	nig	SROW		Distribu	tion & MUC	i	Telecom		Total _{Iel}		Télecom Type
\$		-	\$		-	\$ -		\$	-	\$		-	\$	-	Fiber Optic (*)
\$		-	\$		-	\$ -		\$	-	\$		-	\$	-	900 MHz Radio (b)
Notor															

(a), (b) Estimate for either Telecom Type Fiber Optic (a) or 900 MHz Radio (b) is included, respectively. (Please choose one or the other.)

(c) The estimate has been rounded to the nearest \$1K and includes overhead and contingency costs.

The estimate includes building an express distribution feeder and its associated electrical equipment like breakers, switches, surge arresters, microprocessor transfer trip relay, SEL radio, antenna, antenna pole, wiring, and any associated mounting equipment. The attached detailed construction estimates provide additional details regarding the required equipment, design, construction labor, and installation. Upon receipt of the upfront payment, CenterPoint Energy will conduct a path loss study to determine the height of the antenna pole required.

Once CNP obtains the customer's signature and a check for the total estimated amount, the total lead time in months to complete the project is provided below:

Please indicate your acceptance by signing the Interconnection Agreement (IA) along with your payment of S $_$

Your acceptance and remittance shall constitute CNP's authority to proceed with its portion of this project. A check made out to CenterPoint Energy can be sent to CenterPoint Energy, 3000-A Harrisburg Blvd. Houston, TX. 77003. <u>ATTENTION: Jose R. Trujillo</u>

Activity	Lead Time in Months
Substation Upgrades	10 to 12 Months
Revenue & Primary Metering	1 to 2 Months
Distribution/MUG	1 to 2 Months
SROW	1 to 2 Months
Telecom	1 to 2 Months
Commissioning	1 to 2 Months
Total Project Duration (d)	15 to 20 Months

Notes:

(d) Includes design, material procurement, and construction activities for each of the groups

This interconnection cost estimate will be incorporated into the interconnection agreement to be executed between 'Account Holder', and CenterPoint Energy Houston Electric, LLC.

Revision History: (This section would document the description and justification of requested change to the scope, estimate or schedule. It will be reviewed by the preparer and will document whether the change has been approved or denied and the reason for the decision.)

Revision	Description	Result
0	Initial Estimate	Valid for 30-calendar days from the Date of Issue

Detailed Cost Estimates Distributed Generation Interconnection Substation Upgrades Estimate

Date:	April 25, 2024
Customer:	Business Name
	Business Address
	City, State Zip
Interconnection Point:	Account Holder
	Location: Service address, GIS coordinates, etc
	City, State Zip

Installed at CNP Facility

		Responsibility for:		
ltem	Details	Procurement	Installation	
Substation Upgrades				
Civil & Electrical	Build a new express distribution feeder and its associated electrical equipment like breakers, switches, surge arresters including civil and foundation work	CNP*	CNP	
Transfer Trip Equipment	This includes all necessary substation equipment and transfer trip (TT) relays and communication equipment for the preferred radio option, provided an acceptable signal exists between the CNP substation and the customer's facility.	CNP*	CNP	
Substation and Transfer Trip Panel Fabrication	Contract panel fabrication for new substation and transfer trip panels.	CNP*	CNP	
V0 Protection	3V0 protection is/is not required for this project	CNP*	CNP	
ontract Engineering (Substation)	Design and drafting	CNP*	CNP	
ontract Construction (Substation)	Construction at CNP facilities including complete wiring	CNP*	CNP	
esting and Checkout	Testing and checkout to verify scheme	CNP*	CNP	
ngineering Support	Commissioning & Witness Testing will be comprised of (3) days	CNP*	CNP	
	Day (1) Establish communication between customer relay & substation relay	CNP*	CNP	
	Day (2) Test the Transfer Trip Logic	CNP*	CNP	
	Day (3) Witness Testing related to PUC Regulation and CNP Specification	CNP*	CNP	

CNP Transfer Trip Total:

Installed at Customer's Facility

		Responsi	bility for:
ltern	Details	Procurement	Installation
Protection			
Transfer Trip Relay	Transfer trip relay for customer s site. Relay model is customer s preference. CNP will use SEL Mirrored Bit. SEL 2440 will be required if customer's relay is not capable of Mirrored Bit communication	Customer	Customer
SEL 2440	Needed if transfer trip relay is not capable of Mirrored Bit communication	Customer	Customer
Pole for Antenna	To be used for transfer trip and Telecom/Metering. The pole requirements will be determined by CNP path loss study. Path loss study will be performed when this estimate is accepted and payment has been received	Customer	Customer
Radio Antenna		Customer	Customer
SEL 3031 Radio		Customer	Customer
Mounting and wiring of transfer trip relay equipment	Cabinet and wiring for equipment at customer's site	Customer	Customer

Notes:

*CNP - Denotes equipment procured by CNP, but paid for in advance by the customer as part of this estimate
 All costs include overhead and tax gross-up

Customer Responsibilities:

- Provide monopole or lattice tower for transfer trip
- Purchase and install transfer trip equipment at project site

CNP Responsibilities:

- Perform path loss study and provide pole requirements following estimate acceptance and payment
 Procure and install equipment at CNP's substation
- Test and commission the transfer trip system

Ş

Detailed Cost Estimates Distributed Generation Interconnection Revenue & Primary Metering Estimate

Date:	April 25, 2024		
Customer:	Business Name		
	Business Address		
	City, State Zip		
Interconnection Point:	Account Holder		
	Location: Service address, GIS coordinates, etc		
	City, State Zip		
Installed by CNP			
		Responsi	bility for:
Item	Details	Procurement	Installation
Metering			
Meter Equipment	ERCOT Polled Settlement (EPS) Meter	CNP	CNP
Meter Installation	Install EPS Meter	CNP	CNP

CNP Revenue Meter Total:

Notes: 1) *CNP - Denotes equipment procured by CNP, but paid for in advance by the customer as part of this estimate 2) All costs include overhead and tax gross-up

Customer Responsibilities:

CNP Responsibilities:

• Turn-up the meter data circuit and/or the dial -up telephone line(s) (if required)

\$

-

Detailed Cost Estimates Distributed Generation Interconnection SROW Estimate

Date:	April 25, 2024
Customer:	Business Name
	Business Address
	City, State Zip
Interconnection Point:	Account Holder
	Location: Service address, GIS coordinates, etc
	City, State Zip

CNP ROW Requirements

		Responsi	bility for:
ltem	Details	Procurement	Installation
ROW Requirements			
Abstracting	Per Tract	CNP*	CNP
Surveying & Mapping	Per Tract	CNP*	CNP
Surveying (staking only)	Per Tract	CNP*	CNP
Acquisitons & Document Preparation	Per Tract	CNP*	CNP
Permits & Fees	Per Permit	CNP*	CNP
LONOs	Per Letter Of No Objection (LONO)	CNP*	CNP
Project Management & Admin	Per Tract	CNP*	CNP
Close Out	Per Tract	CNP*	CNP

CNP ROW Requiren	nents Total:		\$
ROW Customer Req	quirements		
		Responsi	bility for:
ltem	Details	Procurement	Installation

ROW Customer Requirements:	Т	BD by Customer
	Customer	Customer
Appraisal Fees	Customer	Customer
property owners		
with underlying fee owners & adjacenet		
Facilitate easement acquisiton & costs	Customer	Customer
Legal Fees (as necessary)	CNP*	customer

ROW Customer Requirements:

Notes:

1) *CNP - Denotes equipment procured by CNP, but paid for in advance by the customer as part of this estimate 2) All costs include overhead and tax gross-up

Customer Responsibilities:

· Customer is responsible for facilitating the procurement of all necessary ROW easements by delivering easement document(s) produced by CNP SROW to landowner(s) for execution

· Customer is responsible for facilitating the procurement of all necessary Transmission ROW with appropriate TSP

CNP Responsibilities:

Detailed Cost Estimates Distributed Generation Interconnection Distribution & MUG Estimate

Date:	April 25, 2024
Customer:	Business Name
	Business Address
	City, State Zip
Interconnection Point:	Account Holder
	Location: Service address, GIS coordinates, etc
	City, State Zip

Installed at CNP Facility

		Responsibility for:	
ltem	Details	Procurement	Installation
Distribution Feeder			
Substation Getaway	Substation getaways are unique to each location. The first distribution section originating from a substation feeder shall utilize underground construction upto ½ mile for 12 kV & 1.5 miles for 35 kV from the substation	CNP*	CNP
Conduit	Conduit for underground cable (include the type and xx ft of conduit)	CNP*	CNP
Cable	Underground cable (include the type and xx ft of UG cable)	CNP*	CNP
Conductor	Feeder conductor (Include the type and xx ft of OH conductor)	CNP*	CNP

CNP Distribution Feeder Total: \$ -

		Responsibility for:	
ltem	Details	Procurement	Installation
Distribution Feeder			
		Customer	Customer
Customer Facility	Total:	т	BD by Custome

Notes:

- 1) *CNP Denotes equipment procured by CNP, but paid for in advance by the customer as part of this estimate
- 2) All costs include overhead and tax gross-up

Customer Responsibilities:

- · Provide easement into property location specified by CNP
- · Purchase and install necessary equipment at Project Site
- · Work with CNP/TSP to purchase easement within transmission ROW (If required)

CNP Responsibilities:

- · Procure and install equipment along CNP's Distribution System
- Test and commission the distribution equipment

Detailed Cost Estimates Distributed Generation Interconnection Telecom Fiber Estimate

Date:	April 25, 2024
Customer:	Business Name
	Business Address
	City, State Zip
Interconnection Point:	Account Holder
	Location: Service address, GIS coordinates, etc
	City, State Zip

Installed at Customer's Facility

Installed by CNP

		Responsibility for:	
ltem	Details	Procurement	Installation
Telecom			
Material	Quantity and Description		
Fiber Cable	72ct Fiber Optics Cable w/Innerduct (Include xx ft of cable)	CNP	CNP
Pull Hole	Pull Hole, Fiber Optic Cable, Innerduct, 36" 4ea.	CNP	CNP
Conduit	Conduit, Metal, Cable, 100ft	CNP	CNP
Fiber Panel	Fiber Panel, 1RU, Rack Mounted, 1ea.	CNP	CNP
Fiber Cassette	Fiber Panel Cassette, 24Port, Duplex	CNP	CNP
Fiber Enclosure	Fiber Junction Box, 36x36x12, Outdoor	CNP	CNP
Fiber Enclosure	Fiber Junction Box, 12x12x12, Outdoor	CNP	CNP
Sign	Sign, Buried Fiber Cable, 10ea.	CNP	CNP
Labor			
Inspection, Permiting, and In	stallation	CNP*	CNP

Installed by Customer			
Serial connection	Customer to provide serial cable connection through conduit (specified below) between SEL-2440 and customer IED	Customer	Customer
Metal Conduit (minimum 1")	Conduit between customer IED and SEL-2440	Customer	Customer

Notes:

1) *CNP - Denotes equipment procured by CNP, but paid for in advance by the customer as part of this estimate

2) All costs include overhead and tax gross-up

Customer Responsibilities:

- · Providing monopole or lattice tower as required for transfer trip
- Providing space for telecomm equipment within 20 feet of the monopole or lattice tower
- Installation of a 120v 15amp AC dedicated circuit to the H-Frame location
- Installation of a minimum 1" metal conduit with aggregate sweeping bends (no elbows) of equal to or less than 180 degrees for the
- fiber pull between the TN Box and the Meters; with the junction box at 180 degrees
- Pull fiber cable between telecomm equipment and meters

CNP Responsibilities:

- Provide fiber cable for connection between telecomm equipment and meters
- Provide and install the telecomm enclosure
- Provide and install telecomm equipment
- Provide and install the fiber splice boxes

Detailed Cost Estimates Distributed Generation Interconnection Telecom Radio Estimate

Date:	April 25, 2024
Customer:	Business Name
	Business Address
	City, State Zip
Interconnection Point:	Account Holder
	Location: Service address, GIS coordinates, etc
	City, State Zip

Installed at Customer's Facility

Installed by CNP

		Responsi	bility for:
Item	Details	Procurement	Installation
Telecom			
Material			
Monopole	Not required - Telecom equipment to be mounted on TT pole	CNP*	CNP
Lattice Tower	Not required - Telecom equipment to be mounted on TT pole	CNP*	CNP
900 MHz Antenna	Yagi, Antenna 1ea. W/ Mounting Kit	CNP*	CNP
Lightning Arrester, Polyphaser	Surge Protection, 1ea. Polyphaser W/Grounding	CNP*	CNP
N-Male/Female1/2" Coax Connectors	Zea. Main Line Connectors	CNP*	CNP
loisting Grip	1ea. Main Line Hoisting Grip	CNP*	CNP
1/2-in coax cable	Cable, Coax, 75ft, Main Feed Line	CNP*	CNP
LMR-400 Coax Jumper	Bea. Top Feedline Jumper	CNP*	CNP
LMR400 Cable -LMR-400-FR	15ft, Inside Shelter Jumper	CNP*	CNP
1/2 Snap Ins (stackable) - SSH-12	3ea. Bags of 10, Main Line Attachment Hardware	CNP*	CNP
1/2 Ground Kit	Bea. Coax Ground Kits	CNP*	CNP
LMR400 Connector (Straight) - EZ-400- NMH-PL-X	1ea. Inside Shelter Jumper Connector	CNP*	CNP
.MR400 Connector (90'') - EZ-400-NMH- RA-X	1ea. Inside Shelter Jumper Connector	CNP*	CNP
Entryport Boot - SEC-312	Iea. Shelter Enrty Port Boot for 1/2 Coax	CNP*	CNP
Relay Rack	les	CNP*	CNP
Power Distribution Panel	les	CNP*	CNP
Fiber Jumpers (Duplex ST - LC)	5T - LC Fiber Duplex Jumpers to connect Telecom fiber to Substation SEL equipment, 2ea.	CNP*	CNP
Labor			
Monopole Installation	Not required - Telecom equipment to be mounted on TT pole	CNP*	CNP
Lattcie Tower Installation	Not required - Telecom equipment to be mounted on TT pole	CNP*	CNP
Coax Installation	75ft 1/2-in Coax, LMR400 Cable, Jumpers, Grounding Kits	CNP*	CNP
Antenna Installation	lea Yagi Antenna, Pipe Mounts, Mounting Kit, Polyphaser	CNP*	CNP
Relay Rack	lea	CNP*	CNP
Power Distribution Panel	lea	CNP*	CNP

Installed by Customer			
Serial connection	Customer to provide serial cable connection through conduit (specified below) between SEL-2440 and customer IED	Customer	Customer
Metal Conduit (minimum 1*)	Conduit between customer IED and SEL-2440	Customer	Customer

Notes:

1) *CNP - Denotes equipment procured by CNP, but paid for in advance by the customer as part of this estimate

2) All costs include overhead and gross-up

Customer Responsibilities:

· Providing monopole or lattice tower as required for transfer trip

Installation of a minimum 1" metal conduit with aggregate sweeping bends (no elbows) of equal to or less than 180 degrees for the serial cable pull between the customer IED and the SEL-2440 used for transfer trip; with the junction box at 180 degrees

· Pull serial cable between the customer IED and the SEL-2440 used for transfer trip

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-27

QUESTION:

Does CenterPoint true-up its CIAC estimates upon completion of the facilities, upgrades, extensions, and modifications necessary to provide the requested service?

ANSWER:

Yes, CenterPoint Houston trues-up the estimated construction cost post energization and issuance of permission to operate for DER, DGR, and DESR projects.

SPONSOR:

David Mercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-28

QUESTION:

Does CenterPoint use third-party contractors to design, procure, and/or construct distribution facilities needed to interconnect DESRs that will be owned and operated by CenterPoint?

ANSWER:

Yes, CenterPoint Houston leverages third-party engineering, procurement, and construction firms for DESR projects.

SPONSOR:

David Mercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-29

QUESTION:

For calendar years 2019 through 2023, for each CenterPoint Houston substation in ERCOT serving distribution customers, provide the Hourly Loads (kW) of the substation shown by 15-minute intervals. If CenterPoint does not have the Hourly Loads by 15-minute intervalsby substation, provide all substation load data by intervals that CenterPoint does have.

ANSWER:

Please see attached files.

The attachments are confidential and are being provided pursuant to the Protective Order issued in Docket No. 56211.

SPONSOR:

David Mercado/Eric Easton

RESPONSIVE DOCUMENTS:

HEN-01-29 CNP_Sub_Load_Jan_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Feb_2019_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Mar 2019 GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Apr_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load May 2019 GMT (Confidential) xlsx HEN-01-29 CNP Sub Load Jun 2019 GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jul_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Aug_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Sep_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Oct_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Nov_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Dec_2019_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jan_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Feb_2020_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Mar 2020 GMT (Confidential) xlsx HEN-01-29 CNP_Sub_Load_Apr_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_May_2020_GMT (Confidential) xlsx HEN-01-29 CNP_Sub_Load_Jun_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jul_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_dul_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Aug_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Sep_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Oct_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Nov_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Dec_2020_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jan_2021_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Feb 2021 GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Mar 2021 GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Apr 2021 GMT (Confidential) xlsx HEN-01-29 CNP_Sub_Load_May_2021_GMT (Confidential) xlsx HEN-01-29 CNP_Sub_Load_Jun_2021_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jul_2021_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Aug_2021_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Sep_2021_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Oct_2021_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Nov_2021_GMT (Confidential).xlsx

HEN-01-29 CNP_Sub_Load_Dec_2021_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jan_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Feb_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Mar_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Apr_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_May_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jun_2022_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Jul 2022 GMT (Confidential) xlsx HEN-01-29 CNP_Sub_Load_Aug_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Sep_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Oct_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Nov_2022_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Dec_2022_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Jan 2023 GMT (Confidential) xlsx HEN-01-29 CNP_Sub_Load_Feb_2023_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Mar_2023_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Apr_2023_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Apr_2023_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Jun_2023_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Jul 2023 GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Aug 2023 GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Sep_2023_GMT (Confidential).xlsx HEN-01-29 CNP_Sub_Load_Oct_2023_GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Nov 2023 GMT (Confidential).xlsx HEN-01-29 CNP Sub Load Dec 2023 GMT (Confidential).xlsx

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-30

QUESTION:

Please identify which substations included in your response to RFI No. HEN 1-29 have DESRs interconnected.

ANSWER:

Not Applicable. As of the date of this response, CenterPoint Houston does not interconnect to any DESRs that are in operation.

SPONSOR:

David Mercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-31

QUESTION:

Please confirm the WDS tariff proposed in this proceeding is the same tariff proposed in Docket No. 53606 and describe any changes from the tariff proposed in Docket No. 53606 and this proceeding.

ANSWER:

Confirmed. The Wholesale Distribution Service tariff (section 4.2 of the Wholesale Delivery Service Tariff) proposed in this proceeding does not have any changes from the tariff adopted in Docket No. 53606.

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-32

QUESTION:

Please confirm CenterPoint is seeking final implementation and approval of the WDS tariff in this proceeding.

ANSWER:

Deny. CenterPoint Houston is seeking approval to include the existing interim WDS tariff approved as part of the agreement to abate and set interim rates in Docket No. 53606 in the updated retail and wholesale tariff book.

The current interim rates were established as part of a settlement agreement in Docket No. 53606. In that docket, parties agreed to adopt the Primary Service rates (subject to refund or surcharge) established in Docket No. 49421 for WDS customers until the Commission rulemaking on DESRs establishes the costs applicable to DESRs. The Commissioners agreed during the May 12, 2022 Open Meeting to develop the rule "in parallel" with individual tariff amendment proceedings so as not to delay the interconnection of much-needed DESRs. Public Utility Commission of Texas Open Meeting at 1:25:08, 1:19:10-1:37:03 (May 12, 2022), https://www.adminmonitor.com/tx/puct/open_meeting/20220512/.

nttps://www.adminmonitor.com/tx/puci/open_meeting/2

SPONSOR:

John R. Durland

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-33

QUESTION:

Does CenterPoint charge a CIAC for retail customers receiving service on the Secondary Service, Primary Service or Transmission Rate? If yes,

- a. Does CenterPoint provide an interconnection or facilities extension allowance to such retail customers? If so, how is that allowance calculated?
- b. Does CenterPoint provide line item invoices that break out various cost items?
- c. Does CenterPoint true up the CIAC invoices with actual costs once the customer's facilities is interconnected?

ANSWER:

Part (a)

Secondary Service - Yes, CenterPoint Houston provides an extension allowance calculated as stated in Section 6.1.2.2, Subsection 2.2 of our Tariff for Retail Delivery Service filed with the Texas PUC (Construction Services Policy and Charges--Facility Extensions to Permanent Retail Customer Electrical Installations--Standard Allowance for Overhead Facility Extensions).

Primary Service - Yes, CenterPoint Houston provides an extension allowance calculated as stated in Section 6.1.2.2, Subsection 2.2 of our Tariff for Retail Delivery Service filed with the Texas PUC (Construction Services Policy and Charges--Facility Extensions to Permanent Retail Customer Electrical Installations--Standard Allowance for Overhead Facility Extensions).

Transmission Rate - No. Consistent with Section 6.1.2.2, Subsection 2.3 of our Tariff for Retail Delivery Service filed with the Texas PUC (Construction Services Policy and Charges--Facility Extensions to Permanent Retail Customer Electrical Installations--Transmission Voltage Facility Extensions), CenterPoint Houston does not provide an interconnection or facilities extension allowance when extending transmission facilities to a retail customer.

Part (b)

Secondary Service - Yes, CenterPoint Houston provides a break out of requested service costs and standard service costs.

Primary Service - Yes, CenterPoint Houston provides a break out of requested service costs and standard service costs.

Transmisison Rate - Yes, upon request by a prospective transmission retail customer, CenterPoint Houston provides a breakdown of the estimated CIAC requirement.

Part (c)

Secondary Service - No, consistent with Section 6.1.2.2, Section 1 of our Tariff for Retail Delivery Service filed with the Texas PUC (Construction Services Policy and Charges--Introduction).

Primary Service - No, consistent with Section 6.1.2.2, Section 1 of our Tariff for Retail Delivery Service filed with the Texas PUC (Construction Services Policy and Charges--Introduction).

Transmission Rate - Yes, consistent with Section 6.3.1.2 (Facilities Extension Agreement for Transmission Voltage Facilities (Retail Customer-Owned Substation), Paragraph 5(a) (Payment for Construction Services).

SPONSOR:

David Mercado/Randy Pryor/Deryl Tumlinson

RESPONSIVE DOCUMENTS:

None

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-34

QUESTION:

Has CenterPoint analyzed the capital costs it incurs associated with interconnecting and service to energy storage facilities at the distribution system level? If so, please provide the results of such analyses, and associated work papers, to the extent such analyses were concluded. To the extent analyses are in draft form, please provide the most current draft.

ANSWER:

No. As of the date of this response, CenterPoint Houston does not have any operational DESRs that are interconnected at the distribution level.

SPONSOR: David Mercado

David Miercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-35

QUESTION:

Has CenterPoint analyzed the O&M costs it incurs associated with serving energy storage facilities at the distribution system level? If so, please provide the results of such analyses, and associated work papers, to the extent such analyses were concluded. To the extent analyses are in draft form, please provide the most current draft.

ANSWER:

No. As of the date of this response, CenterPoint Houston does not have any operational DESRs that are interconnected at the distribution level.

SPONSOR: David Mercado

HUNT ENERGY NETWORK LLC REQUEST NO.: HEN-RFI01-36

QUESTION:

Please provide a list of the pending interconnection requests for DESR facilities on a no-name basis that CenterPoint has received to date for which the WDS Tariff would be applicable with the following information for each:

- a. The nameplate capacity of the DESR;
- b. The approximate distance of each DESR facility from the AEP substation to which it will be interconnected;
- c. The amount of CIAC paid or required to be paid by each customer;
- d. Whether the DESR is a stand alone facility or co-located with other retail load or other generation resources; and
- e. The expected date of commercial operation for each DESR.

ANSWER:

As of the date of this response, CenterPoint Houston has fifty-three (53) DESR projects in various stages of a project life cycle. See attached list of projects. The list includes DG Number, which is a unique project identifier in CenterPoint Houston's tracking system, the date CenterPoint Houston received an application and entered it in the tracker, and the type of registration as noted in the application. It also includes the project status of each application. There are five major project statuses in the life-cycle of a DESR project.

- 1. Application Incomplete a formal application has been submitted but there is data missing to initiate a technical study and hence the application is incomplete. There are four (4) projects in this stage. After two years of no progress, the project would be removed from the tracker.
- Impact Study In-Progress a complete application has been submitted, and CenterPoint Houston has received the impact study fees, and initiated the detailed technical study. There are five (5) projects in this stage.
- Interconnection Agreement Negotiation CenterPoint Houston has completed the technical study and provided a construction estimate to the developers and their investors. There are twenty-two (22) projects in this stage.
- Agreement Signed Both the parties executed an interconnection agreement and CenterPoint Houston is awaiting receiving the construction estimate payment. There are ten (10) projects in this stage.
- 5. Distribution Facilities Construction CenterPoint Houston has received the construction estimate payment in full and kicked-off design, procurement, and construction of the facilities. There are twelve (12) projects in this stage.

Please note the following in the Attachment:

- a. Name plate capacity of the DESR is reported in kW AC.
- b. Distance of the proposed DESR facility from the interconnecting CenterPoint Houston substation is reported in miles.
- c. CIAC paid or estimated is reported in \$\$ of the year the estimate is provided.
- d. CenterPoint Houston does not co-locate DESR projects with a retail load customer. However, CenterPoint Houston builds two or more DESR projects on the same express feeder enabling co-locating. The majority (49/53) of CenterPoint Houston area DESRs are stand-alone facilities. The remaining four are co-located on two different express feeders; two each on an express feeder.
- e. The expected date of commercial operation is our best estimate based on the stage of the

project life-cycle.

The attachment is highly sensitive protected material and is being provided pursuant to the Protective Order issued in Docket No. 56211.

SPONSOR:

David Mercado

RESPONSIVE DOCUMENTS:

HEN RFI 01-36_Active DESR Projects Tracker (Highly Sensitive Protected Material)

CERTIFICATE OF SERVICE

I certify that on May 9, 2024, this document was filed with the Public Utility Commission of Texas in Docket No. 56211, and a true and correct copy of it was served by electronic mail on all parties of record in this proceeding in accordance with the Second Order Suspending Rules issued in Project No. 50664.

Mith Bunt