

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VIM-1 PROJECT GENERAL INFORMATION & VIM-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 55211
Sponsors: David Mercado & Mandie Shook (VIM-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
RED-TAILED HAWK INTERCONNECTION	The Generation Owner applied to ERCOT requesting the interconnection of a new 855.44 MW solar powered generation facility. The Red-tailed Hawk Solar Facility will consist of 27 INGECON SUN 315 325TTL 650 and 104 INGECON SUN 315 360TTL 650 PV solar inverters each rated at 3.495 and 3.156 MW respectively. The New Generation Facility is expected to be connected to "Harris 345 kV substation ("Blue")", owned by CenterPoint Energy, to be looped on circuit 72, between Hillie and Bailey. * Build 345 kV Breaker and a half interconnection substation with two CenterPoint Energy positions and one position for the generator least to connect to the existing 345 kV Ckt 72 between Hillie and Bailey 345 substations. Would include cost of looping into Bailey to Hillie ckt 72.	11/17/2022	No	TCOS: 54045	Yes	NO	NO
HUNGERFORD-BRANCH SOLAR INTERCONNECTION	The Generation Owner applied to ERCOT requesting the interconnection of a new 154 MW solar powered generation facility. The proposed New Generation Facility will consist of 54 Sungrow 552150U PV solar inverters each rated at 3.15 MW. The New Generation Facility is expected to be connected to a new 138 kV substation ("CNP Sub"), owned by CenterPoint Energy, to be looped on circuit 60, between East Bernard and CANEY. * Build new 138kV CenterPoint owned Substation, "New CNP Sub" (breaker-and-half configuration) (includes generator lead) and interconnect between 138 kV East Bernard - Caney ckt 60 * Upgrade 138 kV Beasley - Orchard ckt 60 to a 525 MVA continuous rating and a 550 MVA emergency rating	4/12/2022	No	TCOS: 54045	Yes	NO	NO
RIVERSIDE SUB INTERCONNECTION	The proposed New Generation Facility will consist of two natural gas-fired generating units (units 1 and 2) each rated at 50 MW for a combined maximum capacity of 100 MW. The New Generation Facility is expected to be connected to a new CenterPoint Energy owned 138 kV substation ("New CNP Sub"). New CNP Sub will be constructed and connected between 138 kV CHAMON - PSARCO circuit 94. * Build new 138kV CenterPoint owned substation "New CNP Sub" (breaker-and-half configuration, one generator position, generator lead cost not included) * CHAMON (remove carrier equipment & wavetrap, install dual fiber, 78C) * PSARCO (remove UPLCR, 78C) * New approach spans and structures to interconnect New CNP Sub (Assuming 2-659A-CSS conductor) * Fiber optic cables between New CNP Sub and New Generation Facility and New CNP Sub and CHAMON (Assuming no additional structures will be needed to route the fiber) * Generator lead portion, (Assuming one tangent poles and one 300deg dead end pole will be needed to route the generator lead)	6/9/2023	No	TCOS: 54045	Yes	NO	NO
LONGBOW INTERCONNECTION	The proposed New Generation Facility will consist of 25 (Sungrow S83500UD) photovoltaic (PV) solar inverters, each rated at 3.6 MVA, for a combined total output of 78.145 MW. The New Generation Facility is expected to be connected to an upcoming CenterPoint Energy owned 138 kV Danbury substation through a single generator lead. Danbury will be connected as a full loop station on circuit 04, between Angleton and Liverpool. * Build new 138kV CenterPoint owned Substation "New CNP Sub" (Breaker-and-half configuration) (includes single generator lead) and interconnect between 138 kV Liverpool - PETSON ckt 04 * Angleton - upgrade line re-lying, install POTT scheme, 78C * PETSON - upgrade line re-lying, install POTT scheme, 78C * HUDSON - upgrade line re-lying on MOUSAN & Webster circuits * Webster - install POTT relay scheme on HUDSON circuit	5/23/2022	No	TCOS: 54045	Yes	NO	NO
BEACHWOOD GENERATOR INTERCONNECTION	The New Generation Facility will also include (6) Brush BDAX7 250ERU/LM6000 PC electric machine/gas turbine generators, each rated at 52 MW totaling 312 MW. The New Generation Facility is expected to be directly connected to the CenterPoint Energy owned Angleton 138 kV substation via a generator lead. * Expand 138 kV ring bus at Angleton substation and build new generator lead (0.10 miles) to New Generation Facility * Replace Terminal Equipment jumpers at Angleton substation * Replace wave trap and line switch at MOUSAN substation	9/15/2022	No	TCOS: 54045	Yes	NO	NO
GARTH - NEW 12KV SUBSTATION	Garth was installed to support the load growth and balance the load in the area and to alleviate loading from four adjacent substations	12/21/2019	No	TCOS: 50653 DCRF: 55442	Yes	N/A	N/A
Lake Houston Sub	Lake Houston was installed to both serve new load in the area and to relieve loading from three adjacent substations	3/4/2020	No	TCOS: 50653 DCRF: 55442	Yes	N/A	N/A
WORTHAM - NEW 55KV SUBSTATION	Wortham was installed to both serve new load in the area and to relieve load from four adjacent substations	6/25/2021	No	TCOS: 55217 DCRF: 55442	Yes	N/A	N/A

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V-M-1 PROJECT GENERAL INFORMATION & V-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsors: David Mercado & Mandie Shook (V-M-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
BURKE INTERCONNECTION	The Generation Owner applied to ERCOT requesting the interconnection of the New Generation Facility, comprised of fifty-four (54) 500 kW solar panels (500 kW solar units) each rated at 2.4 MVA for a combined maximum capacity of 129.6 MVA within CenterPoint Energy's service territory. * Build 138 kV Breaker and a half interconnection substation with two CenterPoint Energy positions and one position for the generator lead to connect to the existing 138 kV Ckt 02 between West Columbia and Nash Tap. Includes \$500,000 for generator lead, and the cost to loop into the new substation * W.A.Park's upgrade carrier equipment * West Columbia upgrade carrier equipment	5/25/2020	No	TCOS: 51108	Yes	NO	NO
BRAZORIA WEST SOLAR INTERCONNECTION	The Generation Owner applied to ERCOT requesting the interconnection of the New Generation Facilities consisting of a new 200 MW solar powered generation facility and a proposed 55 MW battery storage facility. The Westoria Solar Facility will consist of 80 TM2EC Solar Ware PVH-2700SR PV solar inverters each rated at 2.5 MW rated output power while the Battery storage will consist of 20 aggregated resources FREEMAQ PCS 500 V each rated at 2.5 MW output power. Together both resource represent a combined gross total of 258 MW when the battery storage is on discharging mode. The New Generation Facility is situated to be connected to a new 138 kV substation ("CNPSUB"), owned by CenterPoint Energy, to be located on 138 kV circuit 02 between Nash and West Columbia. * Build 138 kV Breaker and a half interconnection substation with two CenterPoint Energy positions and one position for the generator lead to connect to the existing 138 kV Ckt 02 between West Columbia and Burke * West Columbia substation - install POT relay scheme on Eagle West ckt 02 * Nash Single Span generator test	3/9/2022	No	TCOS: 53217	Yes	NO	NO
Baytown Area Upgrades	Recent mothball/retirements of localized 138 kV generation units on the east side of the CenterPoint Energy transmission system, such as Capital co-generation and S.F. Bertton, have resulted in changing flow patterns on the transmission system. More flow is seen on the 138 kV lines from the Baytown Area to the west on the 138 kV system, including loading concerns on several segments across the Houston Ship Channel. CenterPoint Energy performed a power flow study to determine the preferred solution to mitigate existing loading concerns and worsened potential loading concerns during contingency events on the identified circuits in the Baytown Area. Three options were determined to resolve the loading concerns and cost estimates were developed for each. The Baytown Area Upgrade study concluded that Option 1 of the proposed options proved to be the optimal solution based on operational performance, economic efficiency, and construction feasibility. Baytown Area Upgrade Option 1 consists of the following projects: * Reenergize the Alexander Island Ship Channel crossing creating new cbs from TEXAS - SR Bertton and MILLER - Baytown * Upgrade CTS and metering at EXCON on old 66 EXCON - Baytown to reach an emergency rating of at least 525 MVA * System protection upgrades or relay changes at SR Bertton, EXCON, MILLER, and Baytown due to the new configuration * Needed before peak 2013	11/16/2021	No	TCOS: 50653	Yes	N/A	N/A
Peyton Creek Wind Generator Interconnect	The New Generation Facility will consist of eighty-four (84) Acciona AVE3000 wind turbines each rated at 1.79 MW for a combined maximum capacity of 150.36 MW. The Generation Owner has requested that the New Generation Facility be connected to a new CenterPoint Energy owned 945 kV substation ("CNPSUB") located on 945 kV circuit 27, South Texas Project to Dow. * Build 945 kV Breaker and a half interconnection substation with two CenterPoint Energy positions and one position for the generator lead to connect to the existing 945 kV Ckt 27 * Connect Generator to new 945 kV CenterPoint Energy substation	10/5/2019	No	TCOS: 50653	Yes	NO	NO

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CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VH-M-1 PROJECT GENERAL INFORMATION & VH-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56241
Sponsors: David Merced & Mandie Shook (VH-M-1); Eric Easton (VH-M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
Greens Bayou Reconfiguration	Recent mothballing and retirements of localized 138 kV generation units on the east side of the CenterPoint Energy transmission system, such as Greens Bayou and S.R. Barron, have resulted in changing flow patterns on the transmission system. Greens Bayou Unit #5 was officially retired as of December 31, 2017, and the "pellet" units at Greens Bayou have historically not run often. More flow has been seen on the 138 kV lines from the west side of the Downtown area due to these retirements. Specifically, a planned maintenance outage of the 138 kV BRANUM to CHANEL dkt 70 followed by a common tower outage of the 138 kV Greens Bayou-Gable Street dkt 21 and 138 kV Hardy-Crockett dkt 91 could lead to a 130% overload of the underground 138 kV Garrett-Midtown-Polk dkt 90 line section during peak summer 2018 conditions. The Greens Bayou Reconfiguration Upgrade study concluded that Option 10 of the proposed options proved to be the optimal solution based on operational performance, economic efficiency, and construction feasibility. The Option 10 upgrades include: - Installing an 8 Ohm reactor that would join 138 kV East and West buses at Greens Bayou - Expanding the West 138 kV bus to a breaker and a half configuration - Relocating the 67-7 and 67-9 generator lead on the West 138 kV bus - Relocating circuit 94A (Humboldt) to the West 138 kV bus - Relocating circuit 95C (Greenwood/Hardy) to the West 138 kV bus	12/20/2020	No	TCOS: 50653	Yes	N/A	N/A
Limborg Substation	Limborg was installed to support the load growth and balance the load in the area and to alleviate loading from three adjacent substations	4/28/2020	No	TCOS: 51106 DCRF: 53442	Yes	N/A	N/A
Blodgett 138kV Loop Conversion	In 2017 Transmission Planning completed 'Study # 17-1 University 69 kV - 138 kV Conversion' regarding the conversion of all University 69 kV load to 138 kV. Reaching the University 138/69 kV subtransformer was studied as a feasibility. This study revealed the need to convert the remaining 69 kV load at Blodgett substation to 138 kV to allow the University 138/69 kV subtransformer to be removed from service. The proposed configuration for Blodgett substation would be to reconfigure into a loop substation with sectionalizing equipment on 138 kV dkt 27 and de-energize the 69 kV line to Garden Village, allowing it to be used for other purposes. The 48 year old 69/12 kV power transformer #2 would be replaced by a new 138/12 kV transformer. Distribution Planning has called for 138/12 kV transformer #2 to be replaced due to its age and a third 138/12 kV power transformer and three feeders to be installed at Blodgett substation as part of the loop conversion project for future distribution needs. * Convert to 138 kV and 11 kV low profile configuration * Install 3rd transformer and 3-12 kV feeders * Transmission work	3/12/2020	No	TCOS: 50653	Yes	N/A	N/A
DANISH FIELDS SOLAR INTERCONNECTION	The proposed New Generation Facility will consist of 183 (SunGlow 893600UD-WV) photovoltaic (PV) solar inverters, each rated at 5.6 MVA, for a combined total output of 619.1 MW. The New Generation Facility is expected to connect to existing CenterPoint Energy owned 345 kV Hillie substation through a single generator lead. * Build new 845 kV lead from New Generation Facility to CenterPoint Energy 345 kV Hillie Substation	3/17/2023	No	TCOS: 52396	Yes	NO	YES
Ckt.058 Line Reposition	Recommended projects include: * Upgrade substation equipment which are not part of parallel cable segments at Garrett, Midtown, and Polk to 4000 A * Reconnector 138 kV HOC - Kirby - Garrett dkt 50 with 2-959ACSS * Relocate 138 kV dkt 05 to Webster (Southwyck) at HOC to ring bus * Thermally upgrade 138 kV HOC Intermediate tap dkt 05 These projects identified in this study are needed to resolve potential loading concerns seen beginning in summer 2022.	6/8/2023	No	TCOS: 54045	Yes	N/A	N/A

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TEST YEAR ENDING 12/31/2023
DOCKET NO. 58211
Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (VI-M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the PQI
Mykawa Substation	The Transmission Planning study was initiated to investigate the potential long-term projects to address the thermal and voltage concerns observed on Ckt 05 and 91. The following concerns were observed: - The low voltages at 138 kV Ckt 06 buses, i.e., Fennell, Gulfgate, Knight and Plaza; - The thermal overload on 138 kV Ckt 91 University – COUGAR-Gulfgate tap – Portland tap segments, due to the common tower outage loss of ENCO – PHR Ckt 91 and PHR-Plaza Ckt 06, which is the key path connecting Ckt 91 with the rest of system, with the tapping loads rolled over to Ckt 91; - The low voltages at 138 kV Ckt 91 buses, i.e., Spence, S. Houston, El Colorado, ENCO, due to the loads at the end of radial line for the same common tower outage as above and - The thermal overload and low voltages on 138 kV Ckt 06 PHR – Plaza and Ckt 06 Plaza-Holmes- Garden Villas under O&P Maintenance Outage P6. The project includes: - Building a new breaker-and-a-half Mykawa substation; - Looping Ckt 06 PHR- Plaza into Mykawa; and - Looping Ckt 91 ENCO – COUGAR into Mykawa. Mykawa 35kV substation was installed to support the load growth and balance the load in the area and to alleviate loading from two adjacent substations. Mykawa 12kV substation was installed to support the load growth and balance the load in the area and to alleviate loading from two adjacent substations. The proposed New Generation Facility will consist of eight natural gas-fired simple cycle gas turbines, for a combined gross total of 854 MW. The New Generation Facility is expected to be connected to an existing 138 kV substation H.O. Clarke owned by CenterPoint Energy. - Expand HOC Ring bus to breaker-and-a-half to accommodate PESS1 & relocate Karsen Ckt 26 - Connect new PESS1 Generator feed to expanded ring at HOC - Move HOC-Karsen Ckt 26 to expanded ring at HOC	10/12/2022	No	TCOS: 52595 DCRF: 55893	Yes	N/A	N/A
Generator - PESS1 (@ HOC)	CenterPoint Energy has several transmission lines crossing the Houston Ship Channel serving a large amount of industrial load. Near the mouth of the Ship Channel, one 345kV and two 138kV transmission lines originate from Cedar Bayou (CBY) and cross the channel onto Spillman Island. To maintain the depth of the channel, mud is dredged from the base of the channel and dumped onto Spillman Island. The accumulated mud has steadily buried the base of the transmission line towers and caused degradation to the structures. Since these towers have an elevated risk of failure, restoration would be needed immediately to support the high density of industrial loads in the area. Restoration of the towers on Spillman Island will be extremely challenging and time consuming; therefore, this study was undertaken to proactively determine the restoration plan should a Spillman Island failure occur. A separate study to determine the long-term permanent solution for Spillman Island will be performed. Four immediate restoration options were evaluated to resolve the loading concerns while maintaining reliability during other contingencies. The Spillman Island Immediate Restoration Plan study concluded that Option 3 of the proposed options proved to be the optimal solution based on operational performance, economic efficiency, construction feasibility, and future upgrade considerations. This option is broken into two phases for "Preemptive Upgrades" needed before failure and "Emergency Installations" needed only after tower failure occurs. The Option 3 Preemptive Upgrades include: - Line Rebar Upgrades at Morgans Point, QUANAMA, STRANG, BAYOU, Cedar Bayou and WARVUE - Wave Trap and Switch Upgrades at STRANG, DECKER, S.H. Burton and Cedar Bayou - Install Dual Fiber Lines at CHORIN	10/30/2020	No	TCOS: 51869	Yes	NO	NO
Spillman Restoration	CenterPoint Energy Electric, LLC (CenterPoint Energy) Transmission Planning Design Criteria indicates that when a substation exceeds 97% of its rated short-circuit capability, a project to resolve the concern should be planned. Recent Transmission Planning studies have shown that the fault duty at the 138 kV W.A. Parish (WAP) and 138 kV H.O. Clarke (HOC) buses have exceeded the Transmission Planning criteria of 97% rated short-circuit capability. - Install two 5 Ohm reactors electrically located at 138 kV WAP H320 & R450 breakers. Each 5 Ohm reactor includes one breaker and one motor operated switch for isolating the reactors. Any equipment installed at WAP shall have a minimum of 4000 amperes continuous rating and 80 kA fault handling capability. - Install a 5 Ohm reactor electrically located at 138 kV HOC S530 breaker. The 5 Ohm reactor includes one breaker and one motor operated switch for isolating the reactor. Any equipment installed at HOC shall have a minimum of 4000 amperes continuous rating and a minimum of 63 kA fault handling capability. - Disconnnect 138 kV HOC capacitor bank C1 (306.67 MVar).	4/14/2022	No	TCOS: 51106	Yes	N/A	N/A
WAP FAULT DUTY-BUS SPLIT		3/22/2020	No	TCOS: 50653	Yes	N/A	N/A

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Sponsors: David Mercado & Mandie Shook (V-M-1); Eric Easton (V-M-2)

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Marick Substation	CenterPoint Energy customer Enterprise Crude Pipeline LLC ("Enterprise" or "Customer") is proposing to construct a new 4,000 A loop-up substation by July 1, 2020. The proposed NEWSUB will be located to the west of the intersection of Random School Road and Patton Road (TX40 Spur) in Rosenberg, TX. Based on the customer supplied data, the proposed new feed at NEWSUB will be 25.8 MVA at 0.97 p.f. Loop 138 kV Ckt 6042 into NEWSUB Switching, 15C Install Metering PT's, CT's, & Meters The proposed New Generation Facility will consist of 178 SunGrow 553600UD solar inverters, rated at 3.6 MVA each, for a combined gross total of at least 608.76 MW. The New Generation Facility is expected to be connected to a new CenterPoint Energy owned 345 kV substation ("CNPSUB") looped into Bailey and Jones Creek circuit 62. * G-Star Solar - build new CNP 345 kV 8W-3-1/2 switchyard * Jones Creek - upgrade line relaying on G-Star Solar ckt 62 * Bailey - upgrade line relaying on G-Star Solar ckt 62 * Loop 345 kV Bailey - Jones Creek ckt 62 into CNPSUB. Includes installation of 1-72F ADS from Bailey	3/2/2021	No	TCOS: 52896	Yes	N/A	N/A
WATERHOLE SUBSTATION	TEXGULF substation is a customer-owned breaker substation which had a single generator connected to it and is connected to South Lane City via 138 kV ckt 60 and West Columbia via 138 kV ckt 04. CenterPoint Energy received an ERCOT Notification of Suspension of Operations for this resource on Dec 1, 2020. The notification indicated that the unit had a forced outage and the resource owner decided to retire the unit immediately rather than repair. Since the resource owner also owns the 138 kV TEXGULF substation, the resource owner has decided to be disconnected from the transmission system. Removing this substation will force CenterPoint Energy to make modifications to the topology. The 138 kV CenterPoint Energy New Gulf distribution substation currently double tapped off 138 kV South Lane City - TEXGULF ckt 60 and West Columbia - TEXGULF ckt 04, will need to be converted to a sectionalizing substation when TEXGULF is removed from the transmission system.	6/1/2023	No	TCOS: 55383	Yes	NO	NO
GULFIE GENERATOR INTERCONNECTION	The proposed Recommissioned Generation Facility will consist of (1) natural gas-fired generating unit with a rating of 34.0 MW. The Recommissioned Generation Facility connects to a new CenterPoint Energy owned 138 kV Gulfie Switchyard on circuit 60 by a multi-span single generator lead. * Build new 138 kV CenterPoint Energy switchyard (Gulfie) and generator lead to TEXGULF substation (Dual fiber optic cables will be required between Gulfie Switchyard and TEXGULF substation) * Upgrade line relaying at South Lane City & San Bernard substations The proposed New Generation Facility will consist of 1105 SunGrow 563600UD-MVU solar inverters for a combined total of 351.4 MVA. The New Generation Facility is expected to be connected to a future CenterPoint Energy owned 138 kV Snug substation looped on circuit of between Liverpool and PERSOUL. [*] Build new 138 kV CenterPoint owned Substation "New CNPSUB" (breaker-and-half configuration) [includes single generator lead] and interconnect between 138 kV Liverpool - PERSOUL ckt 04 * Upgrade Ckt 04B Hudson-Moham to achieve 307 MVA Rating * Upgrade Ckt 04A Hudson-Mustang Bayou to achieve 358 MVA Rating	3/21/2023	No	TCOS: 54045	Yes	NO	NO
SNUG INTERCONNECT	[Bracketed items were not yet energized by 12/31/2023] The New Generation Facility will also include (7) Brush BDAX 7.2306RTVA-M6000 PC electric machine/gas turbine generators, each rated at 52 MW turbine rating totaling 364 MW. The New Generation Facility is expected to be connected to a new 138 kV substation ("New CNP Sub"), owned by CenterPoint Energy, to be looped on circuit 26, between Rosharon and Karsten. * Build new 138 kV CenterPoint owned Substation "New CNPSUB" (breaker-and-half configuration) [includes single generator lead] and interconnect between 138 kV Rosharon - Karsten ckt 26 * Upgrade line relaying at 138 kV Karsten Substation * Upgrade line relaying at 138 kV Angleton Substation * Upgrade 138 kV Angleton - Wismul circuit 26 to 354 MVA normal and emergency rating * Upgrade 138 kV Rosharon - New CNP Sub circuit 26 to 401 MVA normal and emergency rating	6/14/2023	No	TCOS: 54750	Yes	N/A	N/A
ARCHER SUB		3/17/2023	No	TCOS: 55383	Yes	NO	NO

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SAN BERNARD-WCOLUMBIA CRT 04 UPGRD	Transmission Planning has observed a potential loading concern in future year cases on the 138 kV West Columbia to San Bernard circuit 04. San Bernard is a new substation to be built in 2022 that connects a new solar plant looped on 138 kV circuit 04 between the West Columbia and Pledger substations. The existing conductor configuration on the towers between West Columbia and Pledger is a 2-795kACSS on the north side and bundled 2-959kACSS on the south side connected in a parallel bundled arrangement. Due to the parallel bundling, the conductor's normal rating (Rate A) is 332 MVA and the emergency rating (Rate B) is 680 MVA. San Bernard substation will have an equipment normal/emergency ratings of 556/1051 MVA and West Columbia has equipment normal/emergency ratings of 478/525 MVA. The largest potential CAP Planning Event P1 loading concern is 116% of the 478 MVA normal rating. In addition, potential loading concerns are seen for NERC Category P5 Events as high as 142.0% of the 525 MVA emergency rating. Potential short circuit issues are seen at West Columbia with a single line to ground fault at 100.57% of the existing 31.4 kA fault duty rating. * Upgrade West Columbia to a minimum normal/emergency rating of 630/840 MVA * Upgrade West Columbia fault duty rating to 68 kA	5/20/2022	No	TCOS: 55383	Yes	N/A	N/A
RABBS INTERCONNECTION	The proposed New Generation Facility will consist of eight natural gas-fired generating units for a total of 384 MW. The proposed point of interconnection ("POI") is expected to be at the CenterPoint Energy owned 945 kV substation ("Southport") located approximately 0.42 miles from the Generation Owner's site. * Connect to 945 kV Southport substation. * Expand Southport to a 6k breaker ring. * Transmission Cost includes building a generator lead of 0.42 miles with 1-959kACSS conductor and includes dual fiber connection between Southport and resource substation. Includes ROW acquisition cost.	1/4/2022	No	TCOS: 54045	Yes	NO	NO
ROUGHNECK STORAGE INTERCONNECTION	The Generation Owner applied to ERCOT requesting the interconnection of the New Generation Facility consisting of a new 50 MW battery storage facility. The Roughneck Battery storage will consist of 20 aggregated resources SINA SUNNY CENTRAL - SINA S15 2750-25 US each rated at 2.5 MW output power. Together the resource represents a combined gross total of 50 MW. The New Generation Facility is expected to be connected to the existing West Columbia 138 kV substation. * Expand West Columbia substation to accommodate Roughneck Battery Storage. Includes cost for generator lead	6/17/2021	No	TCOS: 52396	Yes	NO	NO
SRB AREA 69 KV UPGRADES	With the permanent removal of the SRB units and conversion of all customers and substations between South Channel and SRB, Transmission Planning decided to review the existing configuration with the idea of deenergizing all 69 kV between SRB and South Channel. Also, permanently joining the SRB 138 kV buses and moving HOC C32 to SRB will be tested to see the impact on the system. CenterPoint Energy Transmission Planning Department evaluated several proposed changes to SRB substation and recommends the following: * De-energize all 69 kV equipment at SRB * De-energize 416 and 23 between SRB and South Channel * Reconfigure 416 and 23 to terminate into South Channel creating a new 416/23 Deepwater - South Channel * Permanently joined the two existing SRB 138 kV buses by closing breaker P750 and adding a new breaker joining the north 138 kV buses * Move 100 MWAN HOC C32 to SRB	1/27/2022	No	TCOS: 53217	Yes	N/A	N/A
Heights Area Upgrades	CenterPoint Energy has determined the need for the addition of the second 138/69 kV autotransformer at White Oak substation and for the upgrade of CK34 Heights to White Oak to a minimum 177 MVA emergency rating. White Oak auto A2 was de-rated in May 2020 after a review of equipment and protection settings. With that de-rate, the auto shows potential loading concerns during CAP Planning Event P5. The addition of the second 138/69 kV White Oak auto, along with a 35.59 MVA load transfer from Heights and Little York substations address these White Oak A2 loading concerns. * Add 35.59 MVA autotransformer at White Oak "South" bus with minimum 138/176 MVA Continuous/emergency ratings. * Reconnect the existing cap bank at WCA2 tertiary bus to the tertiary bus of new auto. Mainline 69 kV facilities at 40 kA fault duty. Reposition C405 White Oak to San Felipe and upgrade San Felipe carrier equipment. * Upgrade substation equipment at Heights and White Oak C434 to minimum 140/181 MVA Continuous/emergency ratings * Transfer 35.6 MVA from Heights/Little York substations onto 69 kV Outback substation and 138 kV Circuit/Arline/Dahl substations	3/28/2023	No	TCOS: 52396 DCRF: 54625	Yes	N/A	N/A

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Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (M-2)

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COPPER TO JONES CREEK CKT02	With continued load growth in the area, the need for additional transmission upgrades is continually monitored. Recent strategic contingency studies have identified one potential thermal loading concern in particular: 138 kV Jones Creek - Velasco dkt 02 with a common tower configuration of 345 kV DOW - Jones Creek dkt 18 & 27 combined with either 138 kV A. Parish, Link 5, DOW 67506, or Cedar Bayou 67 (6-1 & 1-4). - Install two new 138 kV circuits into Jones Creek substation - Reconfigure Velasco for new Jones Creek dkt - Reconfigure Jones Creek dkt at COPPER, SURE30, and Velasco - Connect dkt 02 from COPPER into Jones Creek sub (0.35 mi of new conductor) and un-bundle Jones Creek - Velasco to create two circuits - Upgrade COPPER - Jones Creek to 385/488 MVA minimum (0.09 mi of conductor)	3/23/2022	No	TCOS: 51106	Yes	N/A	N/A
NASH LOOP	In preparation for the potential connection of renewable resources in the area, conversion of 69 kV dkt 45, and replacement of aging infrastructure, this study proposes to convert the remaining Nash 69 kV load to 138 kV. The proposed configuration for Nash substation would be to loop into 138 kV dkt 02 with sectionalizing equipment at Nash, replace 61-year-old 69/12 kV transformer #2 with a new 138/12 kV 50 MVA power transformer, and convert the 69 kV dkt 45 back to 138 kV. The existing 138/12 kV 10.5 MVA power transformer at Nash would move to West Columbia substation as part of the 69 kV to 138 kV load conversion and would be replaced by a new 138/12 kV 50 MVA transformer; both new power transformers will improve load serving capability at Nash. Additionally, the two existing tap sections would be reconducted with 2-959 ACS to maintain the existing dkt 02 minimum ratings of at least 250/440 MVA. - Nash includes two new 138 kV power transformers - Nash includes tap section reconductor to 2-959 ACS	10/31/2019	No	TCOS: 50653 DCRF: 5B442	Yes	N/A	N/A
BASF HOFMAN UPGRADE CKT 2	ERCOT reported to CenterPoint Energy that the 138 kV lines between LAKE JACKSON, HOFMAN, and BASF would exceed loading limits during a P3 event. The circuits in question are DT-23 (between LAKE and HOFMAN) and QD-1 (between BASF and HOFMAN). The suggested emergency rating, as prescribed by ERCOT, was 417 MVA. - Reconductor segments of BASF - HOFMAN - Lake Jackson - Substation equipment upgrades at BASF, HOFMAN, and Lake Jackson	7/1/2019	No	TCOS: 50653	Yes	N/A	N/A
RAMSEY SOLAR GENERATOR INTERCONNECTION	The proposed New Generation Facility will consist of 170, 3,021 MW PV solar inverters for a combined total of 514 MW. The New Generation Facility is expected to be connected to an existing 240 kV substation, Hillje, owned by CenterPoint Energy. - Expand Hillje to accommodate single lead at Hillje - Construct approximately 3 mile of Generator Lead from Hillje to end of customer constructed generator lead on customer's ROW - Connect Ramsey Solar to Hillje 345 kV	2/23/2020	No	TCOS: 59217	Yes	NO	NO
MYRTLE SOLAR INTERCONNECTION	CenterPoint Energy has previously completed a (FIS) Full Interconnection Study Myrtle Solar II ("Solar Generation Expansion" [2019/02/28]) for a 100 MW solar generation expansion of the planned 240 MW Myrtle Solar Generation Facility ("Solar Generation Facility" [15/01/2024]). The Solar Generation Facility will be directly connected to an Existing CenterPoint Energy owned Angleton 138 kV substation via a planned generator lead to the planned Solar Generation Facility. The proposed New Storage Facility will consist of 45 (PCS) PF350MW2 - 3.33 MW rated power storage inverters for a combined total of 150.83 MW. The New Storage Facility is expected to be connected to the same substation as the Solar Generation Facility. All analysis for the proposed New Storage Facility will include the aforementioned Solar Generation Facility with the Solar Generation Expansion. - Install new 138 kV generator position at Angleton Substation. Install generator lead to new generator facility - SCADA and Relay	12/3/2022	No	TCOS: 53217	Yes	NO	YES

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VI-M-1 PROJECT GENERAL INFORMATION & VI-M-2 NEED FOR PROJECT
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DOCKET NO. 56211
Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (VI-M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment installed on Generator's Site of the POI
OLD 300 SOLAR CENTER INTERCONNECTION	The proposed New Generation Facility will consist of 135 PV solar inverters for a maximum output of 400 MW. The New Generation Facility is expected to be connected to a new 345 KV substation ("CNPSub"), owned by CenterPoint Energy, to be located on 1100172 between Bailey and WA Parish - Option 1. * Interconnect Ckt 72 * CNP build a 345 KV breaker and 1/2 switchyard located next to 345 KV Transmission Right-of-Way * Connecting new CNP switchyard to Ckt 72, between WAP and Bailey * CNP install POTTS relay scheme on Cedar Creek (Bailey) * CNP install POTTS relay scheme on Cedar Creek (WAP)	2/7/2022	No	TCOS: 53217	Yes	NO	NO
PARKES SUBSTATION	The customer, TDWP Terminal 1 LLC, is evaluating the installation of a new 138KV loop-tapped substation in Houston TX, approximately 2.5 miles south of the CenterPoint Energy Channelview Substation - near the existing Ckt 84 between Channelview and HADEN substations. The customer plans to energize the substation initially in October 2018 with a load of 2.96MVA at 0.95 p.f. The customer is proposing that their new 138 KV substation (NEWS18) will serve a total of 26MVA at 0.95 p.f. by 2023. Extend 138 KV Ckt 84 0.25 miles to the south to connect new customer substation Relay - Switching, TSC, and One-Line creation SCADA - Install Small RTU Metering - Install metering PT's, CT's, and meters	5/2/2019	No	TCOS: 50653	Yes	N/A	N/A
Convert Alvin sub to 138 KV, double tap	For several years, CenterPoint Energy has been working to gradually phase out the aged 69 KV system, improving resiliency while maintaining the reliability of the existing transmission system. Several substations have been converted from 69 KV to 138 KV which allows aged 69 KV circuits to be retired or converted to 138 KV. The conversion of 69 KV load to 138 KV also has the advantage of allowing the removal of 138/69 KV autotransformers, some of which have been in service for over 50 years. Currently, there are three 138/69 KV autos that greater than 50 years old: H.O. Clarke (HOC) AS, Karsten A1, and Galena Park A1. CenterPoint Energy has also been working to harden transmission lines which have structures built to lower wind standards with smaller, non-standard conductor such as Ckt.53 between Marvel Corner to Algora Corner. Ckt.53 remains the longest 69 KV circuit still in service at nearly 47 miles between Karsten and Webster. - Loop Marvel Sub from Ckt.268 - Alvin Double Tap from Ckt.258/Ckt.058 - Refire Karsten Auto A1 and Webster A1 - Refire Ckt.53 Webster to Karsten to HOC	8/1/2023	No	TCOS: 52396	Yes	N/A	N/A
WALLER ADD XFMR AND FEEDER	Project was built to balance ckt load, serve new customer load and improve pf	5/17/2021	No	TCOS: 55217 DCRF: 55442	Yes	N/A	N/A
READING INSTALL 35KV TRFS AND FDRS	The Reading 35KV substation was needed to serve load growth in the area by relieving 35KV from Crab River substation, and 3.5MW from the Reading 12KV substation, address loading & voltage violations, and correct power factor.	4/29/2019	No	TCOS: 51889 DCRF: 55442	Yes	N/A	N/A
CONVERT HOC LOAD FROM 69 TO 138KV	Per Request from Substation Operations, Transmission Planning performed a study to evaluate the impact of moving the distribution load at H.O. Clarke (HOC) from 69KV to 138KV. The project is needed to address reliability concerns due to (3) aged power transformers which currently serve the area. * Connect HOC as a double tap arrangement between HOC - Garrott Ckt 80 and HOC - Jeanette Ckt 25	3/26/2019	No	TCOS: 50653 DCRF: 55442	Yes	N/A	N/A
UPGRADE Ckt 73 CLODINE	Identified as being needed by 2019/2020 in ERCOT 2015 RTP. ERCOT auto unavailability contingency of White Oak A3 * Common tower outage. Overhead to 101% in 2020. * Thermally upgrade Ckt 73 Clodine - Barber Tap	4/30/2019	No	TCOS: 50653	Yes	N/A	N/A
IMPERIAL TAP UPGRADE	Transmission Planning performed a study to identify highly loaded tap sections under contingency. The Imperial tap section of Ckt OSD was noted as one of the highest loaded tap sections in the system given projected load growth at Imperial substation and upgrade could be warranted to accommodate future load growth. In addition, the tap section includes several wood structures that would be beneficial to replace with steel or concrete structures designed to the latest wind loading requirements. * Rebuild/reconductor Imperial tap Ckt OSD with 2-559ACSS	3/11/2019	No	TCOS: 50653 DCRF: 55442	Yes	N/A	N/A
RED BLUFF SUBSTATION	Red Bluff was installed to support the industrial load growth in the area and to provide service to IEC/Magellan.	5/9/2019	No	TCOS: 50653 DCRF: 55442	Yes	N/A	N/A
GALV-WGALV REBUILD 138KV Ckt 63A	Rebuild 138KV Ckt 63 West Galveston to Galveston 26th St. Transfer existing conductor to new structures. Replace steel as part of rebuild. Frame structures vertical on the street side.	6/14/2019	No	TCOS: 50653 DCRF: 55442	Yes	N/A	N/A
GALVESTON CAUSEWAY REBUILD 138KV LINE	Replace Galveston Causeway Crossing Str #11770 and Str #11771. Transfer existing conductor and steel to new structures.	12/22/2018	No	TCOS: 50653	Yes	N/A	N/A

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DALTON - NEW TRANSMISSION CUSTOMER	Lone Star NGL Fractionators, LLC (Customer) is proposing construction of a new full-loop substation (NEWSUB) in the Baytown area. NEWSUB is expected to be in service by April 1, 2019. The load for NEWSUB is estimated to be 35 MVA at a 0.50 power factor. * Loop NEWSUB into 138 kV Ckt 86, raise 345 kV lines, loop fiber * NEWSUB: Relay - connect fiber on both cts, T&C, SCADA - install SCADA RTU, Metering - install metering equipment * Jordan: Relay - upgrade carrier equipment * WINFRE: Relay - install 2nd floor, remove wave trap & carrier equipment, T&C	5/9/2019	No	TCOS: 50653	Yes	N/A	N/A
UPGRADE Ckt 90 NE-GREENS TAP Lockwood	July 2017 SSWG Cases show 102% of Rate A (227MVA) loading under P1 in 2019 and increasing trend for 2020. * Reconnector Ckt 90 North Belt - Grand Rd Tap and Greens Rd Tap - Lockwood Tap	6/3/2019	No	TCOS: 50653	Yes	N/A	N/A
UPGRADE Ckt 37 AND Ckt 08 BUNKER AND TECO AREA	2016 ERCOT Regional Transmission Plan Multiple thermal overloads result under the X-1-M-1 (P6.2) conditions involving the loss of the PH Robinson transformer 3A. The two most severe second-level contingencies are P7s: -the loss of PH Robinson 420151 - Plaza 427500 Multi-Section Line + H O Clarke 4271501 to Bunker 4273403 Circuit 08 -the loss of H O Clarke 4271501 - Garrett 4271501 Multi-Section Line + Klay 4273301 - Barrott 4273503 Multi-Section Line * Garrett 427699 - Microtron 427705 Circuit 80 Upgrade the following four Harris county 138-kV lines to include a minimum 2-hour emergency rating of at least 285 MVA: -Biodgett 427321 - Garrett 427699 Circuit 37 -Teco 427430 - Biodgett 427321 Circuit 37 -Grant 427110 - Teco 427430 Circuit 37 -H O Clarke 4271501 - Bunker 4273403 Circuit 08	10/10/2019	No	TCOS: 50653	Yes	N/A	N/A
LUBIZOL DP NEW TRANSMISSION CUSTOMER	The Lubrizol Corporation ("Customer") is proposing construction of a new loop-tap substation (NEWSUB) in the South Channel area. NEWSUB is expected to be in-service by March 31, 2018. There is an existing substation at the Lubrizol facility ("LUBZOL") which has 15 MVA load. The customer intends to build NEWSUB on their east property with 15 MVA load and then transfer the load at LUBZOL to NEWSUB. The total combined load for NEWSUB is estimated to be 30 MVA at a 0.95 power factor. * Connect NEWSUB (Lubzol) between 138 kV TUCKER to TIDAL circuit 05	11/21/2013	No	TCOS: 50653	Yes	N/A	N/A
UPGRADE Ckt 25 AND 73 CLODINE - OBRIEN	2016 ERCOT Regional Transmission Plan O'Brien 44512 - Clodine 44140 138-kV Line Upgrade Thermal overload results under the X-1-M-1 (P6.2) condition of the loss of the PH Robinson transformer A4 followed by the loss of the Clodine 44145 - O'Brien multi-section line. Upgrade the O'Brien 44512 - Clodine 44140 Circuit 73 138-kV line in Fort Bend and Harris counties, respectively, to include a new minimum 2-hour emergency rating of 525 MVA.	8/6/2019	No	TCOS: 50653	Yes	N/A	N/A
KATY-FREENMAN-BETKA-HOCKLEY REBUILD Ckt66	Rebuild 138kV Ckt 66-1 and 66-2 from Katy Sub to Hockley Sub. Replace all wood structures with steel lattice towers.	10/11/2019	No	TCOS: 50653	Yes	N/A	N/A
GERTIE TAP UPGRADE	Reconnector approximately 4.35 miles of 138kV Ckt 031 and 138kV Ckt 76A Gentle Taps with 2-559 ACSS and 3/8 HS Steel Static. Rebuild all wood structures at Gentle Sub.	11/3/2019	No	TCOS: 50653	Yes	N/A	N/A
PSARCO-METALSSW REBUILD Ckt 94	Rebuild Reconnector 138kV Ckt 94C Metals to PSARCO from Str 420258 to Str 427586. Install 2MVA ACB "Swansea" reconnector for reconnector. Rebuild circuit to parallel power line from Str 420258 to Str 427586. De-energize existing conductor and structures from Str 420258 to Str 427586 in place.	11/29/2019	No	TCOS: 50653	Yes	N/A	N/A
NEW 345KV Ckt SHELTON - DEEPWATER	Lyondell request to eliminate situation where 68V 345 substation outages drops all sources into Sheldon. - Reconfigure Ckt.68B 68V-DPW and Ckt.74B 68V-Sheldon to create new Ckt.74F Sheldon to DPW (By-pass 68V)	3/11/2020	No	TCOS: 51869	Yes	N/A	N/A

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590 TOWER REPLACEMENTS	The plan to guarantee circuit reliability and to harden our grid is to replace all approximately 80 S90 towers in our system over a multi-year timeframe. The S90 tower replacement will be done with single circuit 90-degree steel poles and engineered temporary poles. This unique design of varying heights for the single circuit 90-degree steel poles and engineered temporary poles is engineered to work anywhere in our grid thus avoiding custom designs at each location. This allows ordering our steel pole structures faster due to long lead times or to hold in inventory various pole heights knowing they can be used anywhere in our grid.	All facilities energized between 1/1/2019 and 12/31/2023. See VIA-M-3.1 for list of individual MCPR dates.	No	TCOS: 50659	Yes	N/A	N/A
RITTENHAUS REBUILD CKT 95B TAP	Rebuild 138KV Ckt 95B Tap to Rittenhouse Sub. Transfer existing conductor to new structures. Replace steel as part of rebuild. Frame structures vertical on the street side.	5/15/2020	No	TCOS: 51869	Yes	N/A	N/A
RITTENHAUS TAP CKT 86 REBUILD	Rebuild 138KV Ckt 86 Tap to Rittenhouse Sub. Transfer existing conductor to new structures. Replace steel as part of rebuild. Frame structures vertical on the street side.	3/20/2020	No	TCOS: 51106	Yes	N/A	N/A
TRSM PREV MAINTENANCE PRGM CAPITAL	Provide inspection, work order preparation, and construction for the preventative maintenance program	All facilities energized between 1/1/2019 and 12/31/2023. See VIA-M-3.1 for list of individual MCPR dates.	No	TCOS: 50653	Yes	N/A	N/A
BRAZOS RIVER STRUCTURE RELOCATIONS	This project covers the transmission line work involving the relocation of structure 01546 approximately 500' south due to the eroding Brazos Riverbank. This involves the 545 KV circuits, 985-1 and 985-4 between structures 01544 and 01549. Ckt 985-4 and 985-1 are located in Fort Bend County TX. The relocation is approximately 0.61 miles northwest of the intersection of TX Hwy 90 (Grand Pkwy) and US Hwy 59 (Southwest Pkwy) in Fort Bend County.	10/6/2020	No	TCOS: 51869	Yes	N/A	N/A
PSARCO-CROSBY REBUILD CKT 08G	The purpose of this project was to Rebuild H-Frame Section of 138KV Ckt 08G-1 PSARCO-CROSBY. The following study addresses the need to mitigate potential loading concerns on 69KV Dunlavy - Heights Circuit 31 under P2, P3, P6 and P7 ERCOT contingencies. The concerns relating to the overloads of 69KV Dunlavy - Heights Circuit 31 for the common tower loss of 69 KV White Oak - Heights Circuit 84 and 69 KV H. O. Clarke - Heights Circuit 34 were identified under ERCOT's Regional Transmission Plan. In 2015 ERCOT RTP in the Appendix. The post contingency rate 8 thermal concerns are seen starting in 2020 peak under Contingency P6 and starting in 2022 peak under Contingency P2, P3 and P7. * Reconductoring 69 KV Ckt 31C Dunlavy - Heights with 2-9559ACSS * Substation equipment upgrades at Dunlavy substation * Substation equipment upgrades at Heights substation	5/17/2021	No	TCOS: 50653 DCRF: 53442	Yes	N/A	N/A
UPGRADE CKT34 DUNLAVY TO HEIGHTS		3/5/2021	No	TCOS: 52296	Yes	N/A	N/A
LINE CLEARANCE CORRECTIONS	Adjust transmission facilities to remedy NERC related clearance issues	All facilities energized between 1/1/2019 and 12/31/2023. See VIA-M-3.1 for list of individual MCPR dates.	No	TCOS: 50653 DCRF: 53442	Yes	N/A	N/A
MORGAN PT-ALKANE REBUILD 138KV CK96	The purpose of this project was to rebuild 138KV Ckt 96D from Morgans Point to Alkane.	4/6/2021	No	TCOS: 53217	Yes	N/A	N/A
RESTORE CKT 18/27/60B COLORADO RIVER CROSSING	This project called to replace existing structure #00905 and structure #00908. West of the intersection of FM 521 and FM 2658 along the Colorado River in Matagorda County, Texas.	8/9/2021	No	TCOS: 51869	Yes	N/A	N/A
CBY-AIRTEK CKT87 UPGRADES	Lines are loaded over 100% for P4, P7, and P8 contingencies, beginning in 2017. 2018 PERC 715 and subsequent customer study results indicate circuit will begin to overload above 100% in 2018 for worst case loss of single element contingency Center 345 to 345 Pkrt. This loading may be sensitive to the status of 588 Mchobell Generation. Transmission Upgrades: Reconductor (3-959) CHORIN - AIRTEK - STRANG - Cedar Bayou Ckt 67 Substation Equipment Upgrades needed: * Upgrade substation equipment between SR8 & CHORIN to at least 525 MVA emergency. * Upgrade substation equipment between AIRTEK & CHORIN to at least 525 MVA emergency. * Upgrade substation equipment on CK87 between CHORIN & STRANG to at least 521 MVA continuous. * Upgrade substation equipment on CK87 between STRANG & CBY to at least 526 MVA continuous.	5/10/2021	No	TCOS: 50653	Yes	N/A	N/A

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MISSOURI CITY-ADD 3RD XFMR AND 2 FEEDERS WEST GALVESTON ADD 3RD 50MVA XFMR	Balance load on circuits, accommodate new load, correct protection and reliability violations under contingency conditions, improve power factor. To eliminate overloading under normal operating conditions and contingency, improve system protection power factor and design criteria.	5/11/2021	No	TCOS: 55217 DCRF: 55442	Yes	N/A	N/A
REBUILD CKT04 MUSTBY-HUD- MONS FOR CLEARANCE		4/29/2021	No	TCOS: 55217 DCRF: 55442	Yes	N/A	N/A
JONES CREEK NEW 12KV SUB	Rebuild structure and reconductor ckt 04 to 12KV from Angleton to Jones for new customer load (ACEND). Jones Creek was installed to support the load growth and balance the load in the area and to alleviate loading from two adjacent substations	7/6/2021	No	TCOS: 50653	Yes	N/A	N/A
San Bernard sub for Dandiger Solar	The proposed New Generation Facility will consist of 80 TMIC PVH-270008 PV solar inverters each rated at 2.5MW for a combined gross total of 200 MW. The New Generation Facility is expected to be connected to a new CenterPoint Energy owned 138 KV substation ("New CHP Sub"). New CHP Sub will be constructed and connected between 138 KV West Columbia - Pledger circuit 04. * Build new 138KV CenterPoint owned Substation "New CHP Sub" (breaker-and-half configuration) (includes generator lead) and interconnect between 138KV Pledger - West Columbia circuit 04 * Upgrade 138KV New CHP Sub - West Columbia circuit 04 to 550 MVA continuous rating and 570 MVA emergency rating * Upgrade 138KV Angleton - West Columbia circuit 04 to 255 MVA continuous rating and 315 MVA emergency rating	5/7/2021	No	TCOS: 52396 DCRF: 55442	Yes	N/A	N/A
JONTE 138KV SWITCHING STATION	CenterPoint Energy is proposing to build a new switching station in northeast Houston near the North Belt and HWY 59. The new Jonte substation is being proposed to address a CIP Planning Event P1 low voltage concern at Aldine as well as improving the reliability and operational flexibility of the transmission system. Currently, the two circuits which travel by the Jonte location are 138 KV Hardy - Crosby ckt 86 and 138 KV North Belt - Scenic Woods radial ckt 90. Ckt 86 is 34 miles long between breakers stations with 9 distribution transformers tapped off it at six different substations. The ckt 90 radial has 5 distribution transformers at 4 different substations connected to it. The new Jonte substation provides operational flexibility by terminating the existing 36-mile, 138 KV Hardy - Crosby ckt 90 into Jonte, significantly reducing the exposure of the non-breaker substations on the circuit to be outages due to disturbance to the grid. The proposed project also improves the reliability of Greens Road substation that serves the Bush Intercontinental Airport (IAH) and currently has one of its transformers tapped off radial ckt 90 out of North Belt. Greens Road serves the Bush Intercontinental Airport (IAH). Building Jonte substation eliminates the scenario where during the loss of ckt 86 the Greens Road load served by transformer T1 tapped off of the circuit is rolled to ckt 90, leaving Greens Road subject to a North Belt event causing it to drop all Greens Road load. While the tower failure contingency of outaging ckt 86 and ckt 90 will still result in the loss of Greens Road load even with Jonte built, the number of miles of common towers which could cause this event would be reduced from 9.8 miles to approximately 6 miles. * Install Jonte Substation: Loop 138KV Ckt 86 & 90 into breaker and a half sub Substation: * North Belt - upgrade line relaying * Hardy - upgrade carrier equipment * Crosby - upgrade carrier equipment	11/7/2023	No	TCOS: 55383	Yes	N/A	N/A
CKT 24 UPGRADES	Updated Internal CenterPoint Energy base cases completed in September 2020 identified a thermal loading concern on 138 KV Dunwale - Hillcroft ckt24. The most cost-effective way to address this thermal overload concern is to upgrade the circuit, no other options were considered. The upgrades for the project are as follows: * Upgrade 138 KV Dunwale - Hillcroft ckt24 to have a minimum emergency rating of 940 MVA by reconductoring with 2 959 ACS	12/1/2022	No	TCOS: 54750	Yes	N/A	N/A

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EXPLORER CORNER	CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) High Voltage Projects (HVP) requested Transmission Studies and Modeling (TSM) to review a potential project after a pipeline company requested available space to be allocated between the Explorer Corner and Channelview substation. HVP indicated that space can be made available if the currently energized 69 kV Ckt 38 were to be upgraded for use at 138 kV by replacing the existing H-frame structures with concrete poles. HVP requested TSM to review the potential project for reliability impacts, particularly any benefits that utilizing the deenergized circuit might provide. TSM identified that this tower section of Ckt. 38 could be used to lower the fault duty at the Greens Bayou 138 kV substation by adding approximately 6.5 miles of additional conductor impedance to 138 kV Greens Bayou to LVCHM Ckt 08. CenterPoint Energy's TSM studied the reconfiguration of Greens Bayou to LVCHM Ckt 08 project which includes the following: • Rebuild about 3.25 miles of the retired Explorer Corner to Channelview Ckt 38 using a double circuit arrangement and loop it into Greens Bayou to LVCHM Ckt 08. • Convert existing H-frame construction to a 138kV concrete pole arrangement using 2-959ACSS conductor.	3/22/2022	No	TCOS: 59217	Yes	N/A	N/A
BRAZOS RIVER RELOCATE STRUCTURES	This project covered the transmission line work involving the relocation of structure 17479 approximately 550' east due to the existing Brazos Riverbank. This involves the 545 kV circuits, 18C-1 and 99B-1 between structures 17477 and 17480. Ckt 18C-1 and 99B-1 are located in Fort Bend County, TX. The relocation is about 5.25 miles southwest of the intersection of TX Hwy 6 and Farmer-to-Market Rd 521 in Fort Bend County.	2/21/2022	No	TCOS: 59217	Yes	N/A	N/A
BEARLE NEW CUSTOMER SUBSTATION	North Wave Energy Partners proposition for a New Full-Loop substation was originally studied in 2016. In 2019, Next Wave Energy Partners decided to continue with a new load addition of 30 MVA at a 0.55 p.f. The planned in-service date for the new sub and load is April 01, 2021. • Connect NEVUSUB between 138 kV PHILIP to South Channel circuit 96C (includes 1.35 mi fiber) • Relay (connect fiber on both circuits, T&C) • SCADA (install SCADA RTU) • Metering (install metering equipment) • PHILIP - relay (install 2nd fiber cable, remove carrier equip & wave trap, T&C) • South Channel - T&C, switching, replace wave trap & CPODs if necessary	2/2/2022	No	TCOS: 54045	Yes	N/A	N/A
FORT BEND CITY STRUCTURE RELOCATION	To support Ft. Bend Levee Improvement Project, Relocate Brazos River Crossing Ckt 80B-1 Structure #24693 and Distribution Circuit C947.	2/7/2022	No	TCOS: 54045	Yes	N/A	N/A
Rebuild/Reconductor Guligete Sub	A grid hardening project to rebuild 1.91 circuit miles of 138kV Ckt 92A-2 from Guligete Sub to Str #10942 (with 1-959 ACSS and 1-721 ADSS).	7/11/2022	No	TCOS: 54045 DCRF: 54825	Yes	N/A	N/A
138kV Ckt 06F-2: Holmes to Str #11434	A grid hardening project to rebuild 1.108 circuit miles of 138kV Ckt 06F-2 from Holmes Sub to Str #11434 with 1-959 ACSS and 1-721 ADSS.	2/21/2022	No	TCOS: 54045	Yes	N/A	N/A
Rebuild/Reconductor La Porte Sub	A grid hardening project to rebuild 1.11 circuit miles of 138kV Ckt 99F-4 from LaPorte Sub to Str #11445 for hardening with 2-959 ACSS and 1-721 ADSS.	10/20/2022	No	TCOS: 54405 DCRF: 54825	Yes	N/A	N/A
CKT 52A DUNLAVY-HYDE PARK	For several years, CenterPoint Energy has been working to gradually phase out the aged 69 kV system improving reliability while maintaining the reliability of the existing transmission system. The plan includes creating a new 138 kV circuit from Baldaire to Downtown utilizing the existing 69 kV circuits between them. In 2023/2026, however, much of this 69 kV infrastructure must be rebuilt and/or reconducted to be converted to 138 kV 4000 Amp operation. One of the first projects planned in this area is the reconductor of 69 kV Dunlavy - Hyde Park Ckt 32 since the structures were already built to 138 kV standards in 2002. To prepare the Dunlavy - Hyde Park Ckt 32 line segment to become a part of the future 138 kV Bellaire - Hyde Park - Downtown circuit, Transmission Engineering has scheduled reconducting this line segment from L-1433ACSS to 2-959ACSS.	7/18/2022	No	TCOS: 54045 DCRF: 55993	Yes	N/A	N/A

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
V-M-1 PROJECT GENERAL INFORMATION & V-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 58211
Sponsors: David Mercado & Mandie Shook (V-M-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the PQI
COLLEGE SUB TAPS	A grid hardening project consisting of the following: • Rebuild/Reconductor 2.2 circuit miles of 138kV Ckt 94-L College Sub-Tap to Str #4332. Install 2-959 ACSS, 7M8 Static, and 1-72F ACSS using high-leakage insulators. Install conductor in a vertical configuration on the street side. • Rebuild/Reconductor 1.70 circuit miles of 138kV Ckt 05G-3 College Sub to Str #4242. Install 2-959 ACSS, 7M8 Static, and 1-72F ACSS using high-leakage insulators. Install conductor in a vertical configuration on the street side. [Bracketed items were not yet energized by 12/31/2023]	2/20/2023	No	TCOS: 55589	Yes	N/A	N/A
FOUNDATION REPLACEMENTS - ASR	Replace underpin foundations that are overhauled structurally.	All facilities energized between 1/1/2019 and 12/31/2023. See IV-M-3.1 for list of individual MCPR dates.	No	TCOS: 50653	Yes	N/A	N/A
Rebuild/Reconductor Lauder Sub Taps	A grid hardening project to rebuild 2.34 circuit miles of 138kV Ckt 90C-1 from Lauder Sub to Str #23932. With 1-959 ACSS and 1-72F ACSS.	11/11/2022	No	TCOS: 54045 DCRF: 54825	Yes	N/A	N/A
TNP TOPAZ & PHR-ATTWATER UPGRADES	ProEnergy Services, LLC has requested to interconnect the 605 MW Topaz Power Plant generation facility to TNMP's Gulleton and Bexar county transmission system. This study was performed to find transmission configuration or voltage violations attributed to or compounded by the addition of the Topaz Power Plant at 100% dispatch. CNP upgraded PHR - Attwater dkt based on the results of the study.	11/29/2021	No	TCOS: 52596	Yes	N/A	N/A
BUILD NEW RADIAL FROM ZENITH VILLAGE C	The project includes the following: • Expand Zenith 138 kV substation with a new position. • Build a new 138 kV Zenith - Village Creek radial transmission line, with the latest standard 2-959 ACSS conductor (about 2.6 miles, 898/899/899 MVA) on the vacant side of existing structures and • Reposition one Village Creek 138/24.5-kV transformer, which serves the largest load, to the new 138 kV line; and • Reconfigure Village Creek into a double tap arrangement. This project is needed to resolve potential thermal overloading and low voltage concerns on the 138 kV Flowellen - Zenith dkt 09, which were identified in the 2021 Transmission Planning Annual Assessment, performed in compliance with North American Electric Reliability Corporation ("NERC") Reliability Standard TPL-003-4 "Transmission System Planning Performance Requirements". The proposed upgrades will not only resolve the identified thermal loading and voltage concerns on 138 kV Flowellen - Zenith dkt 09 under multiple CNP Planning Events (P1, P2, P3, and P6), but also provide a higher circuit capacity to accommodate future load growth between Flowellen and Zenith substations.	10/31/2022	No	TCOS: 54750	Yes	N/A	N/A
CKT96 DEER PARK TO CA UPGRADE	Real Time Operations (RTO) approached Transmission Planning regarding an overhead seen on 138kV Cardiff to Deer Park circuit 96 when an outage is taken on 138kV Morgan's Point to Deer Park circuit 84 and the potential failure of breaker C40 at 04100. When duplicating this scenario on the study case, Transmission Planning observed a potential overload of 128% of Phase B on 138 kV Cardiff to Deer Park circuit 96. Should this scenario occur in real-time, the overloaded segment would likely either trip automatically or manually due to the magnitude of the overload. This could result in a cascading event over 100 MW of load involving seven industrial customers, causing a NERC-EDP-004 reportable event. Upgrading this single circuit segment would avoid this situation. • Reconductoring 5.81 miles of 138 kV Cardiff to Deer Park circuit 96	6/7/2023	No	TCOS: 55583	Yes	N/A	N/A
FT BEND SOLAR INTERCONNECTION	The proposed New Generation Facility will consist of 138 PV solar inverters for a maximum output of 240 MW. The New Generation Facility is expected to be connected to a new 138 kV substation ("Bessley"), owned by CenterPoint Energy, to be located on circuit 60, between Orchard and East Bernard substations. • Interconnect new CNP 0.5 miles west of Orchard substation • New 138 kV CNP sub with a breaker and 0.5 mile • 138 kV generator lead with two fiber cables for 0.5 mile (includes \$180,000 for a 75ft Right-of-Way) • Upgrade center equipment (East Bernard substation) • Upgrade 138 kV loop bus (Sally substation)	5/24/2022	No	TCOS: 50653	Yes	NO	NO

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VI-M-1 PROJECT GENERAL INFORMATION & VI-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 58211
Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRP Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
Jordan-CITIES-DALTON	The project includes: • Upgrade 138 kV Jordan to CITIES to DALTON circuit to a minimum emergency rating of at least 650 MVA • Industrial customer owning WINFRE and DALTON substations contacted CenterPoint Energy to report potential load additions at their two existing customer-owned substations in the Mt. Seneca area.	1/3/2022	No	TCOS: 54045	Yes	N/A	N/A
ENCO Substation	The customer, Exxon Mobil, with an existing facility (EXTER substation) located near Webster, TX, submitted a load data request in November 2013 initially for a 27 MVA load increase and asked if adding to their existing 69 kV substation was achievable. Transmission Planning indicated that adding any load at their facility should be accompanied by conversion to 138 kV. Preliminary analysis determined that very little load could be added at 69 kV before creating voltage concerns under various contingencies. Furthermore, CenterPoint Energy communicated plans in the 5-year capital budget to either convert or retire the 69 kV circuit to which EXTER is currently connected. The customer followed up with a revised load data request in December 2018 for evaluating the installation of a new 138 kV full loop substation to replace the existing EXTER substation for the interconnection of new load. The customer plans to energize the substation initially in January of 2021 with a load of 67 MVA at 0.95 p.f. • Interconnecting a new EXTER substation at 138 kV and loop into circuit 95 PH8 to El Dorado tap • Adding a 7.2 MVAR distribution cap bank to Spencer substation on TR2 or TR3 • Adding a 7.2 MVAR distribution cap bank to El Dorado substation on TR1	5/11/2021	No	TCOS: 51869	Yes	N/A	N/A
DUAL PILOT RELAYING	This program was to install dual-pilot protection on shorter 138kV lines terminating in multi-line substations. This project helped provide reliable service to 138kV or 35 kV customers, to major industrial facilities and improve the reliability of the 138kV transmission system. Dual Pilot 138 kV Line Relaying incorporates the use of microprocessor relays which enable additional functionality in the form of 'loss of potential' monitoring and 'switch-on-to-fault' protection. The relays contribute to overall infrastructure performance / improvement by providing faster protective relay operating times potentially reducing equipment damage.	All facilities energized between 1/1/2019 and 12/31/2023. See IV-M-3.1 for list of individual MCRP dates.	No	TCOS: 50653	Yes	N/A	N/A
BRAZOS RIVER CROSSING Relocate Str #05429	The purpose of this project was to Relocate Brazos River Crossing Str #05429 due to erosion.	1/20/2023	No	TCOS: 54750	Yes	N/A	N/A
BOGGY SUBSTATION	CenterPoint Energy customer Shell Oil ("Shell" or "Customer") proposed to construct a new 138 kV 4,000 A full-loop substation to replace their existing 2,000 A SHELL substation by February 2021. The existing SHELL substation is connected to 138 kV Circuit 85 (between DIERICK substation and AIRPRO substation). The new substation to be named BOGGY substation will be located to the west of the existing SHELL substation. BOGGY substation will be connected to two lines from Ctr. 85 and two lines from Ctr. 85 by 5/2021. Original Study #215 dated March 11, 2019, in September 2020 the customer changed the project completion schedule and requested to move completion date to 11/2022. The customer is proposing SHELL substation to remain connected to the QTY transmission system and have 25 MVA connected after the new BOGGY substation is fully connected from 5/2021 until 11/2022. • Loop 138 kV Circuit 85 & Circuit 86 into BOGGY. Estimate includes the single A055 fiber between BOGGY & TRAVIS and the single A055 fiber between BOGGY & TIDAL. Estimate assumes that CWP will get the required easement and permits to swap the circuits. • B0081 - RELAY - Connect temporary dual fiber on existing SHELL circuit, T&C, SCADA - Install SCADA RTU, METERING - Install metering equipment • SHELL - RELAY - Connect temporary dual fiber on BOGGY circuit while customer load is being moved to BOGGY sub. RELAY - Switching, SCADA - Remove SCADA equipment, METERING - Remove Metering Equipment • AIRPRO - RELAY - Upgrade line relaying • TRAVIS - RELAY - Upgrade line relaying & install fiber. METERING - Replace metering PTs with 3-winding units • TIDAL - RELAY - Upgrade line relaying & install fiber. METERING - Replace metering PTs with 3-winding units	11/3/2022	No	TCOS: 51869	Yes	N/A	N/A

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VI-M-1 PROJECT GENERAL INFORMATION & VI-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsors: David Mercado & Mandle Shook (VI-M-1); Eric Easton (VI-M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (If yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
DUNVALE TO JEANETTA CRT 05 UPGRADE	Analysis of the most recent CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) Internal Base Cases indicate new loading concerns for a CIP P1 and P2 Planning Events on 138 kV Dunvale to Jeanetta circuit, a CIP Planning Event P2 on 138 kV Dunvale to Westchase circuit, and a CIP Planning Event P2 on 138 kV Dunvale to Sharpstown, beginning in summer 2023. • Upgrade circuit 138 kV Dunvale to Jeanetta circuit to at least 485 MVA, normal rating and 650 MVA emergency rating.	5/31/2023	No	TCOS: 53588	Yes	N/A	N/A
BRITMOORE-ADD 3RD XFMR AND 2 FEED (Cum.)	Relocate 138kV Ckt 6LD L-785 AAC approach span to new distribution substation rack by installing a new concrete pole. Determine if possible to position structure to connect to the 4th transformer distribution substation rack in the future. Relocate 138kV Ckt 6LD substation lead to Sub Rack 5P #23559 by adding jumper to existing conductor from Str #21198 to Str #23559. Install substation lead with intermediate concrete pole from 138kV 24A to Sub Rack Str #25392. Third TRF added to balance circuit load and address power factor and design criteria concerns.	5/9/2021	No	TCOS: 53217 DCRF: 53442	Yes	N/A	N/A
PARKWAY: ADD 7TH & 8TH 12KV FDR	Additional feeders to serve area load and balance circuit load.	3/26/2020	No	DCRF: 53442	Yes	N/A	N/A
WHARTON SUB: ADD 7th 12KV Fdr	The 2020 Wharton DDP included the addition of an additional 12KV feeder, to correct loading and voltage violations under normal and contingency conditions, and to correct power factor.	2/10/2021	No	DCRF: 53442	Yes	N/A	N/A
HOLMES: ADD 14TH AND 12TH 12KV FEEDERS	Additional feeders to serve area load and address design criteria concerns	11/6/2020	No	DCRF: 53442	Yes	N/A	N/A
TRINITY BAY: ADD 5TH 35KV FDR	Serve new area load and address loading concerns.	10/14/2020	No	DCRF: 53442	Yes	N/A	N/A
BLODGETT - ADD 3RD XFMR AND 1 FEEDER	Address transformer firm concern and optimize feeder loading while sub was being converted to low profile	3/18/2020	No	DCRF: 53442	Yes	N/A	N/A
PLAZA-ADD 3RD XFMR AND 2 FEEDERS	Address transformer firm concern and optimize feeder loading while sub was being converted to low profile	10/28/2022	No	TCOS: 54045 DCRF: 53442	Yes	N/A	N/A
NEEDVILLE: ADD 5TH & 6TH FEEDERS	Relocate substation to expand and provide for increased area load. Address reliability and protection concerns.	6/28/2020	No	DCRF: 53442	Yes	N/A	N/A
JORDAN: ADD 5TH AND 6TH 35KV FDRS	Additional feeders to serve new load and address power factor and design criteria concerns.	3/11/2021	No	DCRF: 53442	Yes	N/A	N/A
HILLIE - CONVERT TO BRKR AND 1/2 CONFIG	Existing ring bus at Hillie could only accommodate one additional generator interconnect. With two customers requesting interconnection, converting to a breaker and half arrangement was necessary.	3/7/2020	No	TCOS: 51106	Yes	N/A	N/A
GERTIE-ADD 10TH FEEDER (Cum.)	Additional feeder to serve new load and balance circuit loads. Enhance reliability and protection.	11/5/2021	No	DCRF: 53442	Yes	N/A	N/A
SCENIC WOODS-ADD 2-35KV TRF & 2 (Cum.)	Additional transformers and circuits to serve new loads and address design criteria, pf, and reliability	12/9/2021	No	TCOS: 53217 DCRF: 53442	Yes	N/A	N/A
RED BLUFF: ADD 3RD XFMR AND 3 FEE (Cum.)	A 3rd TRF and 2 new feeders were added as part of NUS S0006 to accommodate customer's (Coffell) Terminals (Houston) (INC) new load request of 8 MVA connected load split between two points of service that will be served from RED substation.	5/18/2021	No	TCOS: 53217 DCRF: 53442	Yes	N/A	N/A
CLODINE-ADD 4TH XFMR AND 3 FEEDER (Cum.)	Added TRF to serve new load in area and add a circuit to balance load and address design criteria concerns	4/29/2021	No	TCOS: 53217 DCRF: 53442	Yes	N/A	N/A
WHITE OAK: ADD 15TH FEEDER	Added feeder to serve load growth in area and address design criteria and reliability concerns.	4/14/2021	No	DCRF: 53442	Yes	N/A	N/A
CLEAR LAKE - ADD 3RD XFMR AND 2 F (Cum.)	Added TRF and feeders to serve new load growth in area and address design criteria concerns.	5/14/2021	No	TCOS: 53217 DCRF: 53442	Yes	N/A	N/A
ALMEDA-ADD 3RD XFMR AND 3 FEEDERS	The 2020 Almeda DDP included the addition of a 3rd transformer and 3-12KV feeders to balance load on circuits, correct protection and reliability violations under normal conditions, correct power factor, and support a Substation Development Project.	3/6/2021	No	TCOS: 52396 DCRF: 53442	Yes	N/A	N/A

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VI-M-1 PROJECT GENERAL INFORMATION & VI-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 55211
Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (VI-M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRP Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
NORTHSIDE -ADD 3RD XFMR AND 2 FEEDERS	This project was built to serve new load growth in the area and alleviate load from adjacent substations. Address design criteria and power factor concerns.	10/28/2019	No	TCOS: 51869 DCRP: 53442	Yes	N/A	N/A
SPRINGWOOD-INSTALL 2 XFERS AND 6 FEEDERS	Serve new area load and alleviate load at 4 adjacent substations. Improve PF.	5/5/2019	No	TCOS: 50653 DCRP: 55442	Yes	N/A	N/A
Convert University 69kV Load to 138kV	CenterPoint Energy's Substation Engineering department is planning on converting the load at University from 69 kV to 138 kV. The load connection is expected to be completed by summer peak of 2025. Transformer #2 (69/12 kV) at University will be replaced with a 50 MVA 138/12 kV transformer. Transformer #3 is already a dual rated transformer (138/69/12 kV). No load increases were modeled in this study other than converting the University load to 138 kV. The University 138 kV bus would serve a load of 33.25 MVA at 0.98 lagging p.f. in 2019.	3/1/2019	No	TCOS: 50653	Yes	N/A	N/A
DOW Load Increase	Industrial customer Dow Chemical Company ("Dow" or "Customer") has submitted a request for a load addition at its plant located in the Freeport Area. The current peak load at the Customer substation is 468 MW. The Customer plans to add 160 MW by 2016, 84.75 MW by 2017, 140.75 MW by 2018, and 100MW by 2019 for a total of 482 MW by summer peak 2019. * Velasco install 138 kV 120 MVAR Capacitor Bank tapped off dkt 48 to MARINE * Velasco install 138 kV 120 MVAR Capacitor Bank tapped off dkt 82 to DOW * Jones Creek install 138 kV 160 MVAR Capacitor Bank tapped off dkt 48 to CORTEZ * Jones Creek install 138 kV 40 MVAR Capacitor Bank tapped off dkt 02 to Velasco	11/13/2019	No	TCOS: 50653	Yes	N/A	N/A
W. GALV INSTALL SMVAR REACTOR	Transmission Planning investigated a relocation of the 10 MVAR reactor at STEWART due to its complicated switching scheme that puts customers and equipment in the Galveston area at risk. A study was performed to determine if the installation of 2 - 5 MVAR reactors at West Galveston would be enough to mitigate high voltage concerns in the vicinity. An additional option was studied where the STEWART 10 MVAR reactor was replaced with a 5 MVAR reactor and a 3 MVAR reactor was installed at West Galveston. * Stewart remove 10 MVAR shunt reactor and replace with 5 MVAR reactor * West Galveston install a 5 MVAR reactor	11/6/2019	No	TCOS: 50653	Yes	N/A	N/A
HEIGHTS- INSTALL CAP BANK	The 2018 Summer Assessment indicated that Height substation would experience low voltage conditions under a split bus configuration due to the failure of breaker HE-4340. At the same time, System Protection discovered during a field visit that the Harbourside cap bank violated the switching criteria for distribution of 3.5% when energized. System Protection later confirmed this voltage rise via PSS/E simulation and requested that the cap bank be not be utilized. In 2013, Transmission Planning performed the Deepwater Area 69kV Study which required several industrial customers to be converted to 138kV and increasing the Harbourside cap banks to 10.6 MVAR to relieve low voltages seen in the 69 kV for certain contingency scenarios. Once both CHANEL and MOCHEN were converted to 138 kV operation the need for the cap banks was no longer there. Real Time Operations agreed to leave the Harbourside cap banks offline until Transmission Planning developed a longer-term solution for them. Transmission Planning considered relocating the cap banks to Heights sub to relieve or mitigate the aforementioned low voltage conditions seen at the Heights. Engineering determined that there was not enough real estate at the Heights to accommodate both cap banks. Further studies also showed that the cap banks had to be dismantled from 10.6 MVAR to 7.2 MVAR in order to maintain the voltage rise within the distribution Planning criteria of 3.5%. - Re-locate one 12kV Harbourside Capacitor bank to Heights and reduce size to 7.2MVAR	10/14/2019	No	TCOS: 50653	Yes	N/A	N/A
VILLAGE CREEK CAP BANK (Cum.)	To alleviate potential local low voltage concerns during system peak conditions and for anticipated load growth, two 14.4 MVAR distribution capacitor banks will need to be installed at Village Creek substation before peak 2020.	2/4/2021	No	TCOS: 51869	Yes	N/A	N/A
Upgrade CBY 138 kV Fault Current (Cum.)	CenterPoint Energy Houston Electric, LLC (CenterPoint Energy) Transmission Planning Design Criteria indicates that when a substation exceeds 99% of its rated three-phase or single-phase-to-ground fault short circuit capability, a project to resolve the concern should be planned. Recent Transmission Planning studies have shown that the fault duty at the 138 kV Cedar Bayou West bus has exceeded the Transmission Planning criteria of 99% rated short circuit capability. The following are the recommended upgrades for Option 2: * Install a 30 Ohm bus reactor in series with CBY 2A and 2B autotransformer. * The 10 Ohm In-series bus reactor needs to have a minimum 4000 amperes continuous current carrying capability and a minimum 80 kA fault interrupting capability. * Install a disconnect switch in series with the reactor with a minimum 4000 amperes continuous current carrying capability.	3/20/2021	No	TCOS: 52396	Yes	N/A	N/A

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VI-M-1 PROJECT GENERAL INFORMATION & VI-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
JONTE -INSTALL 20MVAR CAP BANK	The Internal Base Case also did show a potential CNP P7 Planning Event voltage deviation larger than 8% at Jonte, Seent Woods, Lander, and Lodiwood. The voltage deviation concern was corrected by adding a 20 MVAR capacitor bank at Jonte substation.	7/19/2023	No		Yes	N/A	N/A
RELOCATE STR 10659	Relocate Str #10659 due to bank erosion along Green Bayou. Structure 10659 was replaced with 2 steel poles south from the bayou, Str 35831 and Str 35832.	4/12/2022	No	TCOS: 54045	Yes	N/A	N/A
TANNER-ADD XFMR/2 FEEDERS	To accommodate new load, address voltage design criteria violations under contingency conditions and address design criteria and reliability concerns. Balance load on circuit and improve power factor.	5/27/2023	No	DCRF: 54825	Yes	N/A	N/A
FAIRBANKS: ADD 10TH 35KV FEEDER	Address loading and voltage design criteria concerns. Serve new load and address power factor.	6/26/2023	No	DCRF: 55993	Yes	N/A	N/A
UPGRADE 138KV Ckt 189A-1 DAMON-W. COLUMBIA	Thermally upgrade West Columbia to Damon Ckt 89A. Upgrades needed based on potential P1 overloads identified in planning study in Summer 2022	5/11/2023	No	TCOS: 55383 DCRF: 55993	Yes	N/A	N/A
ANGLETON-ADD 2 XFMRs AND 2 FEEDERS	Support low profile conversion. Address overloading of substation transformer under normal operating conditions and contingencies. Balance load on circuits and address PF. Create a de-energized Liverpool substation.	2/4/2023	No	DCRF: 54825	Yes	N/A	N/A
THW/HARTON-ADD 10TH FEEDER	Serve new load and address loading and voltage design criteria and power factor concerns.	12/13/2023	No	DCRF: 54825	Yes	N/A	N/A
Rayford - Install 3rd transformer	Serve new load and address loading and voltage design criteria and PF concerns. At adjacent sub Springwoods Isabell 138KV breaker station with transmission rebuying and at Rothwood upgrade line relying on Springwood circuit.	12/7/2023	No	TCOS: 55383 DCRF: 55993	Yes	N/A	N/A
TWINWOOD - NEW 35KV SUBSTATION	The purpose of this project was to loop 138KV Ckt 25E-4 and 138KV Ckt 25E-5 into new Distribution substation Twinwood. The Twinwood substation was needed to serve load growth in area by relieving ~45MW from the Kay and Flewellen substations, balance load across new substation XFMRs, correct protection and reliability violations, and correct power factor.	11/27/2023	No	DCRF: 53442	Yes	N/A	N/A
DUNLAVY TAP	For several years, CenterPoint Energy has been working to gradually phase out the aged 69 KV system improving resiliency while maintaining the reliability of the existing transmission system. The plan includes creating a new 138 KV circuit from Bellaire to Downtown utilizing the existing 69 KV circuitry between them in 2025/2026. To complete the conversion project, Dunlavy substation must be converted to 138 KV, including the 3 distribution transformers at the substation. The plan is to tap the 3 transformers off three different 138 KV dets, one off the new Heights - San Felipe 135 KV circuit, one off the new Bellaire - Hyde Park 138 KV circuit, and the third off 100yr - Garrett ckt 37. Projects included: * P1088.2 Create Dunlavy transformer tap off Ckt 37A	7/17/2023	No		Yes	N/A	N/A

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TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsors: David Mercado & Mandie Shook (VI-M-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCRF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the PDI
69KV CKT 34A HEIGHTS-WHITE OAK	Improve resiliency and maintain the reliability of the existing transmission system. The comprehensive plan to eliminate 69 kV from the CenterPoint Energy transmission system is a multi-phase, multi-year effort. Several substations have been converted from 69 kV to 138 kV which allows used 69 kV circuits to be retired or converted to 138 kV. Heights substation represents the largest 69 kV load left on the transmission at approximately 100 MW. This study will analyze the impact of converting Heights substation and its full load served from 69 kV to 138 kV and retiring 69 kV infrastructure at White Oak and Heights substations on the CenterPoint Energy transmission system. Transmission Planning worked with the Transmission and Substation Engineering groups to develop a feasible plan for converting Heights to 138 kV service. As part of the Heights 138kV conversion, Eureka loop service substation will be converted to double-end service from 138 kV White Oak – San Felipe Ckt 09D and White Oak – Wirt Ckt 75E. The existing configuration at Eureka substation is with Ckt 09D loop service utilizing two sectionalizing switches. With the addition of Heights loop on Ckt 09D, the number of sectionalizing switches would exceed the allowable number of three sectionalizing switches per CenterPoint Energy Transmission System Design Criteria. Therefore, the study will assess the Eureka double-tap configuration to comply with the design criteria. Also as part of the Heights 138kV loop conversion project, portions of 69 kV Heights to HO Clarke Ckt 34B, HO Clarke to Dunlavy Ckt 40A, and deenergized Ckt 40Z will be reconfigured to create a new 69 kV HO Clarke to Dunlavy circuit. That circuit is yet to be named and is defined as Ckt 1. In this study report, White Oak 69 kV infrastructure is to be retired as part of the overall project to phase out the 69 kV aging infrastructure, which includes removal of the White Oak 69 kV bus, and removal of existing White Oak 138/69 kV autotransformers A2 and A4. The overall Heights conversion project includes the following: • Rebuild/Reconductor 2.15 circuit miles of Ckt 40Z1 from Str #14606-14661 to prepare for temporary 69 kV HOC-Dunlavy and eventual 138 kV Conversion to create 138 kV Dunlavy tap from Kirby – Garrett ckt 37A. • Reconfigure 69kV Ckt 40A-1 by removing parallel bundle at Str #14606 & 11134 and modifying jumper at Str #11134. • Reconfigure P1057-1, jumpers and approach spans as needed. Reconfigure near Bellaire Sub between Str #22309-11134, install low-tension temporary bypass near Dunlavy Sub between Str #14661-22597. • Convert Heights substation to a 138 kV loop into 138 kV White Oak – San Felipe Ckt 09D Dunlavy circuit. • Tap Dunlavy TRL off the newly created 138 kV Heights – San Felipe Ckt 09D using the existing 69 kV Heights – Dunlavy circuit. • Convert Eureka substation to a double tap configuration off Ckt 75E and Ckt 09D • Add three 7.2 MVAR distribution one bank, each one connected to Dunlavy TRL, Dunlavy TRL, and Hyde Park TRL or TRL • Create a second 69 kV HOC – Dunlavy circuit by removing the parallel bundle of Ckt 40A between Bellaire corner and Kirby corner and connecting the remaining portion of 69 kV HOC – Heights Ckt 34B between HOC and Bellaire corner and deenergized 69 kV Ckt 40Z between Kirby corner and Dunlavy This work order covers the transmission line work involved in the partial rebuild of the existing 27C-2 transmission circuit from existing structure #14455 to existing structure #14550 which are located in the proposed Hermann Dog Park. The structures are located approximately 0.07 miles east of the intersection of N Madrigal Way and Cambridge St. in Harris County. Analysis of the most recent CenterPoint Energy/Houston Electric, LLC (CenterPoint Energy) Internal Base Cases indicate new loading concerns for a CIP P4 and P6 Planning Events on 138 kV Dunlavy to Jannetta ckt 05, a CIP Planning Event P6 on 138 kV Dunlavy to Westchase ckt 24, and a CIP Planning Event P6 on 138 kV Bellaire to Shergstown, beginning in summer 2023. • Upgrade circuit 138 kV Dunlavy tap to Westchase tap ckt 24 to at least 350 MVA emergency rating.	4/20/2023	No	TCOS: 54750	Yes	N/A	N/A
138KV Ckt 37C TECO-Garrott	This work order covers the transmission line work involved in the partial rebuild of the existing 27C-2 transmission circuit from existing structure #14455 to existing structure #14550 which are located in the proposed Hermann Dog Park. The structures are located approximately 0.07 miles east of the intersection of N Madrigal Way and Cambridge St. in Harris County.	11/7/2023	No	TCOS: 55388	Yes	N/A	N/A
CKT 24 DUNVALE - WESTCHASE	Analysis of the most recent CenterPoint Energy/Houston Electric, LLC (CenterPoint Energy) Internal Base Cases indicate new loading concerns for a CIP P4 and P6 Planning Events on 138 kV Dunlavy to Jannetta ckt 05, a CIP Planning Event P6 on 138 kV Dunlavy to Westchase ckt 24, and a CIP Planning Event P6 on 138 kV Bellaire to Shergstown, beginning in summer 2023. • Upgrade circuit 138 kV Dunlavy tap to Westchase tap ckt 24 to at least 350 MVA emergency rating.	10/25/2023	No	TCOS: 55388 DCRF: 54825	Yes	N/A	N/A
MOODY-STEWART CKT 63C-4	Rebuild 3.82 Ckt Miles of 138KV Ckt 63C-4 from Scholtes Field West Underground Terminal to Stewart Sub for hardening.	6/14/2023	No	TCOS: 55388 DCRF: 54825	Yes	N/A	N/A
HOPSON SUBSTATION	The customer, TARGA Midstream Services LLC, is evaluating the installation of a new 138 kV full loop substation in Houston TX, approximately 1.0 mile south of the CenterPoint Energy's Mt. Belvieu Substation (see Figure 1). The customer plans to energize the substation initially in July 2020 with a load of 27 MVA at 0.95 p.f. The customer is proposing that their new 138 kV substation (NEWSUB) will serve a total of 81 MVA at 0.95 p.f. by 2022. Extend 138 kV ckt 86 0.1 miles to the north to connect new customer substation Relay Upgrades SCADA - Install RTU Metering - Install metering PT's, CT's, and meters	11/14/2019	No	TCOS: 50653	Yes	N/A	N/A

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VH-M-1 PROJECT GENERAL INFORMATION & VH-M-2 NEED FOR PROJECT
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsors: David Mercado & Mandie Shook (VH-M-1); Eric Easton (M-2)

Project Name	Project Description and Need	Date Energized	ERCOT Review (if yes, attach ERCOT conclusions and list other TDUs involved)	TCOS or DCSF Docket No. (if applicable)	Currently Used to Provide Service	For Generation Interconnections, Were Non-Transmission Facilities Used	For Generation Interconnections, Was TDU Equipment Installed on Generator's Side of the POI
CELWST SUBSTATION	The customer, Calnese, is evaluating the installation of a new 138KV full-loop substation with four circuit breakers near the existing customer owned Celnes Substation. The customer plans to energize the substation initially in Dec 2018 with a load of 27MVA at 0.97 p.f. * Connect new full-loop customer substation on dkt 94 between HINOKI and Bayway * Relay * SCADA * Metering	2/12/2019	No	TCOS: 50653	Yes	N/A	N/A
RIGBY SUBSTATION	Industrial customer Enterprise is planning an expansion of its plant located in Baytown, TX. The proposed load would be served by a new substation, NEWBUS_Enterprise, located northwest of CONNOR Substation. The total load addition of 152 MW @ 0.95 pf lagging is expected by July 1st, 2021. * Relay * SCADA * Metering * Crosby: Relay (upgrade carrier equipment) * CONNOR: Relay (replace line relaying & install dual fiber cables) * To loop the Crosby - Connor dkt into a proposed substation adjacent to the line	10/3/2019	No	TCOS: 50653	Yes	N/A	N/A
RUSSEL - NEW TRANSMISSION CUSTOMER	The Customer, Enarkem America, is pursuing the expansion of their operations at the existing ARITEK 138 KV substation in La Porte, TX. The Customer's existing load is connected on CenterPoint Energy's transmission circuit 87 between S.R. Bertron to Cedar Bayou substations currently serving 20 MVA load at 0.95 power factor. The Customer plans to construct a new substation adjacent to the existing ARITEK substation. The Customer's new ARITEK 138 KV substation will serve the 20 MVA load transferred from the existing substation plus an additional 58 MVA in expanded load at 0.95 power factor. * Aritek (Relay) Disconnect and Remove SCADA and Metering Equipment * Aritek (Relay) Install Relay, SCADA, Metering Equipment, F.O. Relaying * DOW: Upgrade Relay and Metering Equipment, F.O. Relaying * Morgan's Point: Upgrade Relay Equipment, F.O. Relaying * Transmission Line Connection, WFO, to Dowling & F.O. to Morgan's point	11/4/2019	No	TCOS: 50653	Yes	N/A	N/A

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
SCHEDULE VI-M-2.1 LOAD INFORMATION SUPPORTING NEED FOR CERTAIN PROJECTS
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsor: Eric Easton

Line No.	Project Name	Portion of Planning Studies that support Need for the Project	Load growth rate in area to be served by project during each of 5 calendar years immediately before project was energized	Load growth rate in area served by project during each calendar year starting with year project initially energized	Peak load projected to be served by project as forecasted by applicant and consistent with planning study	Peak load served by project during each year since project was energized	Types of load the project was planned to serve (Industrial, Commercial, Residential)	Identity of customers if project was planned to serve a limited number of customers with relatively large loads ¹
1	Lake Houston Substation	Lake Houston was installed to both serve new load in the area and to relieve loading from three adjacent substations.	-1.6% in 2017 0.6% in 2018 2.9% in 2019 0.5% in 2020 -0.3% in 2021	14.7 % in 2022 16.7% in 2023	119.5 MW in 2023	83.7 MW in 2021 95.7 MW in 2022 111.7 MW in 2023	Residential, Commercial, Small Industrial	Not Applicable
2	Garth Substation	Garth was installed to support the load growth and balance the load in the area and to alleviate loading from four adjacent substations.	4.7% in 2015 2.8% in 2016 -4.7% in 2017 -1.9% in 2018 4.8% in 2019	-6.3% in 2021 10.6% in 2022 -1.1% in 2023	57.27 MW in 2024	42.24MW in 2020 39.69MW in 2021 43.77MW in 2022 43.29MW in 2023	Residential, Commercial, Small Industrial	Not Applicable
3	Limbung Substation	Limbung was installed to support the load growth and balance the load in the area and to alleviate loading from three adjacent substations.	10.9% in 2015 1.0% in 2016 3.0% in 2017 9.2% in 2018 1.9% in 2019	31.2% in 2021 67.2% in 2022 10.6% in 2023	86.67 MW in 2025	34.09MW in 2020 44.69MW in 2021 74.73MW in 2022 82.55MW in 2023	Residential, Commercial, Small Industrial	Not Applicable
4	Red Bluff Substation	Red Bluff was installed to support the industrial load growth in the area and to provide service to Customer A.	-3.3% in 2014 13.7% in 2015 -10.5% in 2016 1.3% in 2017 3.9% in 2018	54.3% in 2020 -4.2% in 2021 23.6% in 2022 7.3% in 2023	29.05 MW in 2026	13.17MW in 2019 20.32MW in 2020 19.46MW in 2021 24.06MW in 2022 25.81MW in 2023	Industrial, some Residential	Customer A
5	Worham Substation	Worham was installed to both serve new load in the area and to relieve load from four adjacent substations.	-0.3% in 2017 1.1% in 2018 0.4% in 2019 -0.1% in 2020 -1.6% in 2021	57.8% in 2022 -4.0% in 2023	136.9 MW in 2025	79.7 MW in 2021 127.4 MW in 2022 122.2 MW in 2023	Residential, Commercial, Small Industrial	Not Applicable
6	Stone Lake Substation	Stone Lake was installed to both serve new load in the area and to relieve load from five adjacent substations.	-0.1% in 2019 2.3% in 2020 -2.6% in 2021 3.9% in 2022 4.1% in 2023	n/a	109.5 MW in 2026	54.2 MW in 2023	Residential, Commercial, Small Industrial	Not Applicable

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
SCHEDULE VI-M-2.1 LOAD INFORMATION SUPPORTING NEED FOR CERTAIN PROJECTS
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsor: Eric Easton

Line No.	Project Name	Portion of Planning Studies that support Need for the Project	Load growth rate in area to be served by project during each of 5 calendar years immediately before project was energized	Load growth rate in area served by project during each calendar year starting with year project initially energized	Peak load projected to be served by project as forecasted by applicant and consistent with planning study	Peak load served by project during each year since project was energized	Types of load the project was planned to serve (Industrial, Commercial, Residential)	Identity of customers if project was planned to serve a limited number of customers with relatively large loads ¹
7	Jones Creek	Jones Creek was installed to support the load growth and balance the load in the area and to alleviate loading from two adjacent substations	4.3% in 2016 -1.7% in 2017 6.7% in 2018 -0.9% in 2019 -5.4% in 2020	27.9% in 2022 -19.5% in 2023	11.65 MW in 2026	10.80MW in 2021 13.82MW in 2022 11.12MW in 2023	Residential, Commercial, Small Industrial	Not Applicable
8	Hidden Valley	Significant load growth in the 45 BW8 area.	-1.6% in 2016 -4.6% in 2017 4.0% in 2018 2.6% in 2019 -2.0% in 2020	6.6% in 2020 9.7% in 2021 2.7% in 2022 9.7% in 2023	28.37 MW in 2020	22.82 MW in 2019 28.19 MW in 2020 31.11 MW in 2021 33.89 MW in 2022 40.52 MW in 2024	Residential, Commercial, Small Industrial	Not Applicable
9	Reading 35kV Sub 138-34.5kV Substation	The Reading 35kV substation was needed to serve load growth in the area by relieving ~36MW from Crabb River substation, and ~6.5MW from the Reading 12kV substation, address loading & voltage concerns, and correct power factor.	13% in 2015 -2% in 2016 -8% in 2017 2% in 2018 8.5% in 2019	-6.65% in 2020 12% in 2021 16.84% in 2022 16.94% in 2023	42.2 MW in 2022	38.19 MW in 2019 35.65 MW in 2020 39.93 MW in 2021 46.66 MW in 2022 54.56 MW in 2023	Residential, Commercial, Industrial	Not Applicable
10	Scenic Woods	Construct 35 kV to serve large load and provide redundancy and load balance to other 35 kV subs in the area.	-1.5% in 2018 2.2% in 2019 -4.1% in 2020 -8.5% in 2021 5.1% in 2022	4.9% in 2023	23.93 MW in 2024	7.70 MW in 2022 8.88 MW in 2023	Residential, Commercial, Small Industrial	Not Applicable

¹ Customer names have been removed, and a unique identifier has been assigned to each customer. A key that contains the unique identifier that corresponds to each customer name is provided as confidential. See Schedule VI-M-2.1.1.

**PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
SCHEDULE VI-M-2.1.1 LOAD INFORMATION SUPPORTING NEED FOR CERTAIN PROJECTS
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsor: Eric Easton**

**Schedule VI-M-2.1.1
is CONFIDENTIAL**

**A copy of this material will be provided only after
execution of a certification to be bound by the draft
protective order set forth in Section VII of this Rate
Filing Package or a protective order issued in this
docket.**

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
SCHEDULE VI-M-2.2 LOAD GROWTH IN AREAS IN WHICH OTHER UTILITIES ARE ALSO CERTIFICATED TO SERVE
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211
Sponsor: Eric Easton

CenterPoint Houston did not have any projects undertaken to serve load outside its certificated area.

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1	PUBLIC UTILITY COMMISSION OF TEXAS									
2	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC									
3	VI-M-3.1: Project Cost Summary Information									
4	TEST YEAR ENDING 12/31/2023									
5	DOCKET NO. 56211									
6	Sponsors: David Mercado & Mandie Shook									
7										
8										
9										
10										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MOPR Entry*	(d) First MOPR Where Project Appeared	Final Updated Costs in MOPR Entry	MOPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MOPR Where Project Appeared
11		HLP/0001115/TR/0005	P1115 Bailey-Jones Creek Docket# 48823			Sep-18		Jan-21		Jun-23
12		HLP/0001115/TR/0005	P1115.2 Jones Creek Loop			Apr-18		Jan-18		Aug-20
13		HLP/0001115/TR/0005	P1115.64 Bailey Approach Spans			Feb-20		May-20		Aug-21
14		HLP/0001115/TR/0006	P1115.65 COPPER-Veloso (Structure 19401)	\$481,700,000						
15	Freeport Area Master Plan	HLP/0001115/TR/0007	P1115.7 DOW345-Jones Creek	\$995,200,000 (BUC) + \$32,340,000 (BTG)	\$497,827,898	Feb-20	\$498,255,242	Apr-20	\$550,220,592	Sep-21
16		HLP/0001115/SB/0008	PE210016 INSTALL (2) 345KV LINE POSITIONS			Nov-19		Mar-20		May-23
17		HLP/0001115/SB/0008	PE210017 INSTALL (2) 345KV LINE POSITIONS			N/A		N/A		N/A
18		HLP/0001115/SB/0008				N/A		N/A		N/A
19										
20		HLP/0001114/TR/0001	P954.3 Southwyck Substation			Jan-18		Jan-18		Oct-18
21		HLP/0001114/TR/0001	P954.4 Southwyck-Algoa Corner (Southwyck-Structure #32235)			Mar-18		May-18		Mar-20
22	Southwyck - Algoa Corner Rebuild	HLP/0001114/TR/0001	P954.5 Southwyck-Algoa Corner (Structure #32238-Algoa Corner)	\$20,080,000	\$37,339,188	Mar-18	\$64,275,000	May-18	\$49,053,008	Mar-20
23		HLP/0001114/TR/0001	P954.6 Southwyck-Algoa Corner (Structures #32235-32235)			Apr-18		May-18		Mar-20
24		HLP/0001114/TR/0001	P954.7 Algoa Corner-Friendswood Corner Partial Rebuild and Partial Reconnector of 138 KV Ckt. 08B			Dec-18		Feb-19		May-20
25										
	Angleton - MONSANTO Rebuild	HLP/0001037/TR	P1037 Angleton-PETSON-MONSANTO	\$35,900,000	\$35,333,000	Apr-18	\$32,995,000	Jul-18	\$57,519,194	May-21
26										

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1	PUBLIC UTILITY COMMISSION OF TEXAS									
2	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC									
3	VI-M-3.1: Project Cost Summary Information									
4	TEST YEAR ENDING 12/31/2023									
5	DOCKET NO. 55211									
6	Sponsors: David Mercado & Mandie Shook									
7										
8										
9										
10	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCFR Entry	(d) First MCFR Where Project Appeared	Final Updated Costs in MCFR Entry	MCFR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCFR Where Project Appeared
11										
	Angleton - West Columbia ckt 04 RB/R/C	HLP/000/0922/TR/0014	P1235.1 Angleton-West Columbia	\$38,702,000	\$41,890,746	Jul-21	\$75,946,000	Sep-21	\$102,210,905	Dec-23
55			P1235.2 Angleton-West Columbia (Structures 34141-34145 and 34052-34053)							
56		HLP/000/0922/TR/0014	P1235.3 Angleton-West Columbia (Structures 03971-03975)			Oct-21		Dec-21		Jun-23
57		HLP/000/0922/TR/0014				Aug-21		Aug-21		Jun-23
58										
59		HLP/000/0922/TR/0016	P1042.1 P.H. Robinson-Alta Loma			Jul-21		Mar-22		Dec-23
60		HLP/000/0922/TR/0016	P1042.2 La Marque-Hitchcock			Jul-21		Mar-22		Dec-23
	Algoa Corner - Laitmarque ckt 93 RB/R/C	HLP/000/0922/TR/0016	P1042.3 Alta Loma-Hitchcock	\$34,564,000	\$68,772,000	Jul-21	\$102,644,000	Sep-21	\$104,421,720	Dec-23
61										
62										
63	Flewellen - Peters ckt 25 RB/R/C	HLP/000/1413/TR	P1413.1 Flewellen-Peters (Structures 34905-35126)	\$76,191,000	\$135,710,000	Nov-21	\$150,824,000	Jan-22	\$111,566,666	Dec-23
64		HLP/000/1413/TR	P1413.2 Flewellen-Peters (Structures 35331-35170)			Nov-21		Feb-22		Oct-23
65										
66	THW - W/O ckt 29 Conversion	HLP/000/0499/TR	P1391.1/P1392.2 T.H. Wharton-Little York White Oak			Sep-21		Nov-21		Dec-23
67		HLP/000/0499/TR	P1391.3 T.H. Wharton Substation Conversion	\$79,900,000	\$43,127,033	Nov-22	\$89,490,000	Jan-23	\$42,419,981	Dec-23
68		HLP/000/0499/TR	P1391.4 Little York Substation Conversion			Nov-22		Nov-22		Dec-23
69		HLP/000/0499/TR	P1391.5 White Oak Substation Conversion			N/A		N/A		N/A
70										

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1		2		3		4	5	6	7	8	9	10
PUBLIC UTILITY COMMISSION OF TEXAS		CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC		VI-M-3.1: Project Cost Summary Information		TEST YEAR ENDING 12/31/2023		DOCKET NO. 58211		Sponsors: David Mercado & Mandie Shook		
Projects Submitted to ERCOT RP#		WBS#		(a) Project Name (with CON Docket No., if Any)		(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry*	(d) First MCPR Where Project Appeared	(e) Final Updated Costs in MCPR Entry	(f) MCPR Where Cost Updated	(g) Final Total Project Costs	(h) Last MCPR Where Project Appeared
11	GREENS BAYOU - CLINTON 138 kV Conversion	HLP/000/0914/0005	P1063.1 TEXWAL-Greens Bayou Plant	P1063.2 TEXWAL-Wallisville	P1063.3 Wallisville-Castan-Clinton	\$88,500,000	\$45,270,454	Dec-21	\$87,749,000	May-22	\$72,263,087	Feb-24
								Feb-23		Feb-23		Feb-24
								Jul-22		Nov-22		Feb-24
								N/A		N/A		N/A
74	STONE LAKE - NEW 38KV SUBSTATION	HLP/000/1306/0001	P1306.1 Stone Lake Loop 138KV Old 68B Near St. #18868 (4/2022-12/2022)	P1481.1 Hockley-Tomball		\$14,552,000	\$3,933,000	Feb-22	\$7,052,000	Apr-22	\$5,315,240	Nov-23
75								Nov-21		Jan-22		Dec-23
76												
77												
78	OUTLASS SOLAR INTERCONNECTION	HLP/000/1491/0001	P1491.1 Whaley Sub: Loop 345KV Old 72C Near St. #28367	P1491.2 Rowland Sub: 345KV Generator Lead (Outlass Solar)		\$15,200,000	\$9,254,300	Apr-22	\$8,286,000	Aug-22	\$8,763,781	Nov-23
79								Jun-22		Aug-22		Nov-23
80												
81												
82	FIGHTING JAYS INTERCONNECTION	HLP/000/1492/0001	P1492 Wolf Substation			\$16,800,000	\$5,791,000	Aug-21	\$5,791,000	Aug-21	\$6,071,782	Dec-23
83												
84												
85												
86	RED-TAILED HAWK SUBRANCH SOLAR INTERCONNECTION	HLP/000/1493/0001	P1493 Blue Substation			\$18,760,000	\$2,638,000	Jan-22	\$2,814,000	Mar-22	\$4,073,764	Nov-23
87												
88												
89												
90	HUNGERFORD-SBRANCH SOLAR INTERCONNECTION	HLP/000/1497/0001	P1497 Hungerford Substation			\$9,892,000	\$767,000	Aug-21	\$906,000	Oct-21	\$947,270	Nov-23
91												
92												
93												
94	RIVERSIDE SUB INTERCONNECTION	HLP/000/1498/0001	P1498 Riverside Loop			\$10,298,000	\$1,774,000	Oct-21	\$4,011,000	Jan-22	\$8,321,525	Sep-23
95												
96												
97												

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1 PUBLIC UTILITY COMMISSION OF TEXAS 2 CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC 3 VI-M-3.1: Project Cost Summary Information 4 TEST YEAR ENDING 12/31/2023 5 DOCKET NO. 56211 6 Sponsors: David Mercado & Mandie Shook 7 8 9 10										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared	
11										
90	LONGBOW INTERCONNECTION	P1501.1 Danbury Substation	\$15,437,000	\$2,801,000	Jan-22	\$3,391,000	Mar-22	\$5,897,888	Jun-23	
91										
92	BEACHWOOD GENERATOR INTERCONNECTION	P1518 Beachwood Sub: 138KV Generator Lead (Mark One) (2/2022-2/2022)	\$3,237,000	\$1,444,386	N/A	\$1,444,386	N/A	\$947,484	N/A	
93										
94	HLP/007/256/TR	P1241.1 Garth Substation			Apr-19		Jun-19		Jun-20	
95										
96	GARTH - NEW 12KV SUBSTATION	P1241.2 Crosby-Mott Belieu	\$27,280,000	\$3,112,349	Feb-19	\$3,182,000	Feb-19	\$3,453,351	Jun-20	
97										
98	Lake Houston Sub	P1250 Lake Houston Substation		\$1,038,000	Apr-19	\$1,476,000	Jun-19	\$1,103,818	Jun-20	
99										
100	WORTHAM - NEW 38KV SUBSTATION	P1308 Wortham Substation		\$942,000	Oct-20	\$942,000	Oct-20	\$1,127,065	Mar-22	
101										
102	BURKE INTERCONNECTION	P1359.1 WAGYU Substation		\$986,000	Nov-19	\$986,000	Nov-19	\$2,024,861	Aug-20	
103										
104	BRAZORIA WEST SOLAR INTERCONNECTION	P1454 Eagle Nest Substation		\$7,704,000	Apr-21	\$7,704,000	Apr-21	\$7,965,550	May-23	
105										
106		P1216.2 Restor SanJacBayErosion @ Sir #14727			Jun-19		Jun-19		Sep-22	
107		P1216.4 RCThermally Upgrade 138KV C487E TX-CB			Oct-19		Apr-20		Jan-23	

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	Projects Submitted to ERCOT RFS	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry*	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared
11	Baytown Area Upgrades	HLP/001/216/TR0001	P1216.50 ThermUpdate 138KV Ckt21F Diabrock-Morant		\$5,137,476		\$7,348,000	N/A	\$10,794,223	Dec-19
108										
109	Peyton Creek Wind Generator Interconnected	HLP/001/1262/TR	P1262 REFUGEE Substation		\$4,426,000	Mar-19	\$4,359,000	May-19	\$5,589,160	Apr-20
110										
111										
112	Greens Bayou Reconfiguration	HLP/001/335/TR	P1335.1 P1338 Relocate 138KV Ckt 94A/95C at GBY		\$2,851,782	N/A	\$2,851,782	N/A	\$3,265,230	N/A
113		HLP/001/338/TR	P1338.2 P1338 Greens Bayou 69KV Ckt 17A-Cons			N/A		N/A		N/A
114										
115	Limburg Substation	HLP/001/1345/TR	P1350 Limburg Substation		\$1,157,000	Dec-19	\$1,157,000	Dec-19	\$824,989	Oct-20
116										
117	Blodgett 138KV Loop Conversion	HLP/001/335/TR	P1265.10 Blodgett Sub Loop 138KV Ckt 37C		\$2,291,149	N/A	\$2,291,149	N/A	\$1,666,752	N/A
118										
119	DANISH FIELDS SOLAR INTERCONNECTION	HLP/001/450/TR	P1450.1 Hillje Subr Danish Fields Generator Lead		\$4,728,323	N/A	\$4,728,323	N/A	\$3,112,392	N/A
120										
121		HLP/001/518/TR/0002	P1426.3 H.O. Clarke-Garrett			Jul-21		Sep-21		Dec-23
122	Ckt.05B Line Reposition	HLP/001/518/TR/0003	P1426.4 H.O. Clarke Approach Spans (Structures 35970-35977)		\$18,275,713	Apr-22	\$25,933,000	Jun-22	\$28,430,464	Dec-23
123										

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Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MOPR Entry	(d) First MOPR Where Project Appeared	Final Updated Costs in MOPR Entry	MOPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MOPR Where Project Appeared
11				\$1,606,000	Oct-21	\$3,336,000	Jan-22	\$2,448,252	Sep-23
	Mykawa Substation	P1424.4 Mykawa Substation							
124									
125									
126	Generator - PES1 (@ HOPSON)	P1426.1 PES1 HOC; Generator Lead		\$1,471,964	N/A	\$924,000	N/A	\$1,274,038	N/A
127		P1426.2 PES1 HOC; Reio CR05A & 26A App. Spans					Oct-20		Dec-23
128									
129	Spillman Restoration	P1414.1 Cedar Bayou Plant Approach Span		\$2,148,000	Apr-21	\$2,981,000	Apr-21	\$1,974,644	Jun-23
130		P1414.2 Morgans Point Reconfiguration			Jan-21		Jan-21		May-23
131									
	WAP FAULT DUTY- BUS SPLIT	P1015 W.A. Parish Approach Spans		\$987,000	Sep-18	\$987,000	Sep-18	\$1,116,324	Jan-21
132									
133									
134	Marick Substation	P1030 MARICK Substation		\$1,280,000	Jul-20	\$1,204,000	Sep-20	\$1,032,367	Oct-21
135									
	HOPSON SUBSTATION	P1017 HOPSON Substation		\$987,000	19-Jun	\$987,000	19-Jun	\$1,772,174	20-Dec
136									
137									
	CELWST SUBSTATION	P1009 CELWST Substation		\$402,000	18-Jun	\$402,000	18-Jun	\$948,512	19-Nov
138									
139									
	RIGBY SUBSTATION	P1345 RIGBY Substation		\$854,825	19-Feb	\$829,000	19-Feb	\$1,258,136	20-Aug
140									
141	RUSSEL - NEW TRANSMISSION CUSTOMER	P1001 Service to New Braskern RUSSEL Substation		\$761,000	18-Mar	\$761,000	20-Mar	\$1,834,778	20-Jul
142									
143	WATERHOLE SUBSTATION	P1571.1 Waterhole Substation		\$4,363,978	Jul-22	\$3,694,000	Jan-23	\$3,668,435	Jan-24
144									
145									

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11	HLP/001/509/TR	P1509.1 New Gulf Approach Spans			Sep-22		May-23			Jan-24
	HLP/001/577/TR	P1577.2 Guiltie Sub: Loop 138kV Ckt 80			Jul-22		Mar-23			Jan-24
				\$4,352,205		\$5,945,497		\$5,120,781		
146	GULFTIE GENERATOR INTERCONNECTION	P1509.3 Install 138kV Generator Lead: Guiltie-TXGULF								
148	SNUG INTERCONNECT	P1570.1 Snug Sub: Loop Ckt 04 near Str #32957 (Cottonwood)			Sep-23		Sep-23			Jan-24
		P1570.2 Upgrade Ckt 04B: Hudson-Monsan		\$5,468,000	Oct-22	\$5,468,000	Oct-22	\$5,495,246		Jan-24
		P1570.3 Upgrade Ckt 04A: Hudson-Mustang Bayou			Oct-22					Jan-24
153	ARCHER SUB	P1567.1 Archer Sub: Loop Ckt 26S-3 near Str #28857			Aug-22		Oct-22			Nov-23
		P1567.2 Archer Sub: 138kV Generator Lead to Brodman Sub		\$5,317,993		\$6,505,000		\$6,066,828		
		P1567.3 Upgrade 138kV Ckt 26: Archer-Rosharon	\$16,478,000		Aug-22			Apr-23		Dec-23
158	RABBS INTERCONNECTION	P1600.1 RABBS Substation		\$4,521,808	May-21	\$6,125,000	Oct-21	\$3,697,855		Dec-22
160	ROUGHNECK STORAGE INTERCONNECTION	P1485 NORTCO Substation		\$1,377,000	Feb-21	\$1,377,000	Feb-21	\$913,780		Dec-22
162	SRB AREA 69 KV UPGRADES	P1419.1 SRB Area 69kV Upgrades		\$150,819		\$150,819		\$91,087		
164	COPPER TO JONES CREEK CKT02	P1337.1 Install Conductor: Jones Creek-Str #31519			May-20		May-20			Jun-23
		P1337.2 JCK Sub: Relocate Switchable Cap Bank Leads			N/A		N/A			N/A
		P1337.3 Velasco Sub: Relocate Ckt 59 Sub Lead		\$1,920,547	N/A		\$1,920,547	N/A	\$4,331,064	N/A
166	HLP/001/1337/TR/0001	P1337.4 Jones Creek Approach Spans			Jan-21		Jan-21			Jun-23
		P1337.5 Install Fiber Copper-Str #31519			N/A		N/A			N/A
170	NASH LOOP	P1278 Nash Loop		\$6,472,000	Nov-18	\$7,546,000	Feb-19	\$9,878,823		Mar-20

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11	BASE HOFMAN UPGRADE CKT 2	HLP/00/1246/TR	P1246 COPPER-BASE -HOFMAN- Lake Jackson		\$4,281,000	Jul-18	\$4,281,000	Jul-18	\$7,133,182	Apr-20		
172												
173	RAMSEY SOLAR GENERATOR	HLP/00/1480/TR/0001	P1480.1 Hillje Sub; Relocate 345KV Ckt 72D Approach Span		\$150,807		\$150,807		\$57,742			
174	INTERCONNECTION											
175	MYRTLE SOLAR	HLP/00/1445/TR	P1445.1 MYRTLE Sub; Generator Lead		\$319,771	N/A	\$319,771	N/A	\$279,006	N/A		
176	INTERCONNECTION											
177	OLD 300 SOLAR CENTER	HLP/00/1453/TR	P1453 Cedar Creek Sub; Loop 345KV Ckt 72C-1 Near Str #28412		\$2,444,000	Dec-20	\$4,060,000	Mar-21	\$5,019,592	Dec-22		
178	INTERCONNECTION											
179	PARKES SUBSTATION	HLP/00/0055/TR/0134	P1012 PARKES Substation		\$2,775,000	Dec-18	\$1,416,000	Feb-19	\$1,345,890	Feb-20		
180												
181			P913.1 Alvin-Alpaca Corner			Feb-21		Oct-21		Dec-23		
182		HLP/00/0996/TR/0001	P913.2 Alvin Sub; Convert to 138KV Ckt 26B			Nov-20		Jan-21		Jan-22		
183			P913.4 Karsten-Manvel-Alvin Conversion			Mar-23		Mar-23		Dec-23		
184		HLP/00/0996/TR/0001	P920.1 Manvel-Karsten (Manvel-Structure 28223, Structure 28217, Karsten)		\$16,139,450	Feb-21	\$36,856,000	Apr-21	\$21,220,750	Dec-23		
185	Convert Alvin sub to 138 KV, double tap		P920.2 Partial Rebuild of 345 KV Ckts. 15C and 55S			Jan-21		Apr-21		May-23		
186		HLP/00/0996/TR	P920.5 Partial Rebuild and Partial Reconnector of 69 KV Ckt. 53D			Jun-21		Jun-21		May-23		
187												
188	WALLER ADD XFMR AND FEEDER	HLP/00/1162/TR	P1162 Waller Substation		\$297,000	Jun-18	\$287,000	Jun-18	\$316,977	Oct-21		
189												
190	READING INSTALL 35KV TRFS AND FERS	HLP/00/1225/TR	P1225 Reading Approach Spans		\$477,183	Dec-18	\$548,763	Apr-19	\$565,037	Sep-19		
191												
192												
193	CONVERT HOC LOAD FROM 69 TO 138KV	HLP/00/1112/TR	P914.1 H.O. Clarke Conversion		\$695,000	Aug-18	\$695,000	Aug-18	\$1,740,540	Oct-19		
194												
195	UPGRADE CKT 73 CLODINE	HLP/00/1125/TR	P1125 Clodine-Barker		\$627,000	Oct-18	\$627,000	Oct-18	\$197,693	Nov-19		
196												

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11	IMPERIAL TAP UPGRADE	HLP/00/0927/00002	P987 Imperial Tap		\$7,518,142	Jun-18	\$10,825,951	Sep-18	\$10,407,451	Dec-18
197										
198	RED BLUFF SUBSTATION	HLP/00/1152/TR	P1152 Red Bluff Substation		\$3,973,902	Jun-18	\$2,748,000	Sep-18	\$4,231,775	Dec-19
199										
200	GALVESTON CAUSEWAY REBUILD 138KV CKT 63A	HLP/00/0922/TR/0005	P925 West Galveston-Galveston 28th Street		\$6,309,472	Aug-18	\$6,309,000	Aug-18	\$5,625,885	Dec-19
201										
202	GALVESTON CAUSEWAY REBUILD 138KV LINE	HLP/00/1080/TR	P930 Galveston Causeway Crossing		\$10,203,073	Dec-17	\$11,770,000	Apr-18	\$9,130,673	Jan-20
203										
204	DALTON - NEW TRANSMISSION CUSTOMER	HLP/00/0055/TR/0132	P1132 DALTON Substation		\$2,295,190	Jan-18	\$2,443,000	Mar-18	\$2,470,627	Jan-20
205										
206	UPGRADE CKT 90 NB-GREENS TAP- Lockwood	HLP/00/1126/TR	P1126 North Belt-Greens Tap-Lockwood		\$4,655,000	Jun-13	\$10,411,000	Sep-18	\$9,227,450	Jan-20
207										
208	UPGRADE CKT 37 AND CKT 08	HLP/00/1119/TR	P1119.2 Giant-TECO P1119.1 Knight-H.O. Clarke		\$6,011,000	Feb-18 Nov-17	\$6,011,000	Feb-18 Nov-17	\$5,365,019	Feb-20 Dec-19
209										
210	LUBIZOL DP NEW TRANSMISSION CUSTOMER	HLP/00/0055/TR/0121	P981 PATRIK Substation		\$1,171,546	Nov-17	\$1,215,000	Jan-18	\$924,543	Mar-20
211										
212	UPGRADE CKT 25 AND 73 CLODINE - OBRIEN	HLP/00/1118/TR	P1118 Clodine-Obrien		\$3,850,000	Jul-13	\$2,850,000	Jul-18	\$10,057,952	May-20
213										
214										
215										

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PUBLIC UTILITY COMMISSION OF TEXAS			CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC			VI-M-3.1: Project Cost Summary Information			TEST YEAR ENDING 12/31/2023			DOCKET NO. 56211			Sponsors: David Mercado & Mandie Shook														
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KATY-FREEMAN-BETKA-HOCKLEY REBUILD CKT66			HLP/0001146/TR			P1146.1 Katy-Freeman (Freeman-Structure #58377)						\$18,140,720			Sep-18			\$19,131,000			Sep-18			\$20,511,757			Apr-20		
			HLP/0001146/TR			P1146 Freeman-Hockley									Jul-18						Jul-18						Mar-20		
GERTIE TAP UPGRADE			HLP/0000927/TR/0003			P988 Gertie Tap						\$5,585,000			Jul-18			\$5,585,000			Jul-18			\$5,585,816			May-20		
PSARCO-METALSSW REBUILD CKT 94			HLP/0001149/TR			P956.1 Metals Switch-PSARCO (Structure #17585)									Jul-19						Oct-19						May-20		
			HLP/0001149/TR			P956 Metals Switch-PSARCO						\$2,388,000			Oct-18			\$3,063,000			Jul-19			\$4,459,386			May-20		
NEW 24KV CKT SHELTON DEEPWATER			HLP/0001409/TR			P1408 Deepwater-Sheldon						\$323,000			Dec-19			\$323,000			Dec-19			\$304,222			Jul-20		
P25 Chambers-King (Structure #1328)			HLP/0000054/TR/0025			P25.10 Cedar Bayou-Center (Structure 03021)									Sep-19						Nov-19						Aug-20		
			HLP/0000054/TR/0025			P25.11 Cedar Bayou-Center (Structure 03025)									Oct-21						Mar-22						Dec-23		
			HLP/0000054/TR/0025			P25.13 Cedar Bayou-Kenny (Structure 03015)									Oct-21						Mar-22						Dec-23		
			HLP/0000054/TR/0025			P25.14 Cedar Bayou-Center (Structure 03015)									Oct-21						Mar-22						Dec-23		
			HLP/0000054/TR/0025			P25.31P25.30 South Texas-W.A. Parish (Structure 00703)									Oct-21						Mar-22						Dec-23		
			HLP/0000054/TR/0025			P25.33 Dow345-Oasis (Structure 35706)									May-21						Nov-22						Dec-23		
			HLP/0000054/TR/0025			P25.34 Dow345-Oasis (Structure 35706)									Jun-22						Apr-23						Dec-23		
			HLP/0000054/TR/0025			P25.35 Dow345-Oasis (Structure 35706)									Jun-22						Oct-22						Dec-23		
			HLP/0000054/TR/0025			P25.36 Dow345-Oasis (Structure 35706)									May-21						Oct-22						Dec-23		
			HLP/0000054/TR/0025			P25.37 Dow345-Oasis (Structure 35706)									Jun-22						Oct-22						Dec-23		
			HLP/0000054/TR/0025			P25.38 Dow345-Oasis (Structure 35706)									Jun-22						Oct-22						Nov-23		
			HLP/0000054/TR/0025			P25.39 O'Brien-W.A. Parish (Structure 01583)									May-21						Oct-21						Sep-23		
			HLP/0000054/TR/0025			P25.4 Bellaire-W.A. Parish (Structure 00852)									Apr-21						Jan-23						Sep-23		
			HLP/0000054/TR/0025			P25.40 O'Brien-W.A. Parish (Structure 01582)									May-21						Dec-21						Jun-23		

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11	S90 TOWER REPLACEMENTS	HLP/00/0054/TR/0025	P25.41 T.H. Wharton-Zenith (Structure 18846)		\$126,910,680	May-21		Oct-21		Jun-23
		HLP/00/0054/TR/0025	P25.42 T.H. Wharton-Zenith (Structure 18847)			May-21		Oct-21		Jun-23
		HLP/00/0054/TR/0025	P25.43 Str 14226 S90 Tower Replacement (Structure 26056)			Sep-22		Sep-22		Dec-23
		HLP/00/0054/TR/0025	P25.5 Bellair-Smitheers (Structure 26056)			Aug-21		Oct-21	\$94,251,823	Mar-23
		HLP/00/0054/TR/0025	P25.57 Addicks-T.H. Wharton (Structure 01240)			May-22		Oct-21		Dec-23
		HLP/00/0054/TR/0025	P25.58 Addicks-T.H. Wharton (Structure 01250)			May-22		Oct-22		Dec-23
		HLP/00/0054/TR/0025	P25.59 Str 01417 S90 Tower Replacement			Aug-22		Jan-23		Dec-23
		HLP/00/0054/TR/0025	P25.6 South Texas-W.A. Parish (Structure 19039)			May-21		Oct-21		Dec-22
		HLP/00/0054/TR/0025	P25.60 Addicks-White Oak (Structure 01449)			May-21		Oct-21		Dec-22
		HLP/00/0054/TR/0025	P25.61 Str 01418 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
		HLP/00/0054/TR/0025	P25.62 Str 01400 S90 Tower Replacement			Aug-22		Jun-23		Dec-23
		HLP/00/0054/TR/0025	P25.63 Str 01438 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
		HLP/00/0054/TR/0025	P25.64 Str 01431 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
		HLP/00/0054/TR/0025	P25.65 Str 01430 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
		HLP/00/0054/TR/0025	P25.66 Addicks-White Oak (Structure 01452)			May-21		Oct-21		May-23
		HLP/00/0054/TR/0025	P25.67 Str 01437 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
		HLP/00/0054/TR/0025	P25.68 Str 01402 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
		HLP/00/0054/TR/0025	P25.69 Str 01407 S90 Tower Replacement			Aug-22		Aug-22		Dec-23
12	RITTENHAUS REBUILD CKT 95B TAP	HLP/00/0054/TR/0025	P25.7 South Texas-W.A. Parish (Structure 00846)			May-21		Dec-22		Dec-23
		HLP/00/0054/TR/0025	P25.70 Str 35721 S90 Tower Replacement			Aug-21		Aug-21		Dec-23
		HLP/00/0054/TR/0025	P25.71 Zenith-O'Brien (Structure 01585)			May-21		Jun-22		Dec-23
		HLP/00/0054/TR/0025	P25.72 Zenith-O'Brien (Structure 01584)			May-21		Jun-22		Dec-23
		HLP/00/0054/TR/0025	P25.73 Jordan-North Belt (Structure 02730)			Sep-21		Jun-22		Dec-23
		HLP/00/0054/TR/0025	P25.76 Str 14226 S90 Tower Replacement			Sep-21		Sep-21		Dec-23
		HLP/00/0054/TR/0025	P25.8 South Texas-W.A. Parish (Structure 00717)			Sep-22		Sep-22		Dec-23
		HLP/00/0054/TR/0025	P25.9 South Texas-W.A. Parish (Structure 00651)			Oct-21		Dec-21		Jun-23
		HLP/00/0054/TR/0025				May-21		Mar-22		May-23
		HLP/00/0054/TR/0025	P25.1 Rittenhouse Tap (Bony-North Belt)			Jul-19		Mar-20	\$4,435,026	Oct-20
258										
259										

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry*	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared
11									
		RITTENHAUS TAP CKT 86 REBUILD		\$2,285,000	Jul-19	\$3,950,000	Aug-19	\$3,872,499	Oct-20
270									
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Projects Submitted to ERCOT RPS	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MOPR Entry	(d) First MOPR Where Project Appeared	Final Updated Costs in MOPR Entry	MOPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MOPR Where Project Appeared
11	HLP/00/1055/TR	P869.2 T.H. Wharton-STRAIT			Apr-16		Apr-16		Apr-16
294	HLP/00/1055/TR	P869.2 T.H. Wharton-Willow			Jul-21		Jul-21		Jul-21
295	HLP/00/1055/TR	P869.2 Plaza-Telephone			Jul-21		Jul-21		Jul-21
296	HLP/00/1055/TR	P869.5 South Lane City-Texas Gulf Coast			Jul-21		Jul-21		Jul-21
297	HLP/00/1055/TR	P869.5 T.H. Wharton-CANRON (Structures)			Jul-21		Jul-21		Jul-21
298	HLP/00/1055/TR	P869.6 T.H. Wharton-CLARKSON (Structures)			Apr-22		Apr-22		Oct-23
299	HLP/00/1055/TR	P869.7 Oster-Greens Bayou-Clinton (Structures 10401-10402)		\$3,469,508	Jul-22	\$1,570,000	Nov-22	\$23,218,068	Dec-23
300	HLP/00/1055/TR	P869.8 53E H.O. Clarke to Karsten-Hframe			Aug-22		Dec-22		Dec-23
301	HLP/00/1055/TR	P869.9 Fawcett-Nelson Road			Oct-22		Oct-22		Dec-23
302	HLP/00/1055/TR	P869.10 Fawcett-Nelson Road			Mar-23		Jun-23		Dec-23
303	HLP/00/1055/TR	P1469							
304	MORGAN PT-ALKANE REBUILD	P857.2 Morgans Point-Sandy Point		\$4,502,000	Dec-18	\$4,502,000	Dec-18	\$10,854,190	Sep-21
305									
306	RESTORE CKT 18/27/608	P1400.1 Partial Rebuild and Partial Reconnector of 345 KV Cks. 16A and 27C		\$7,983,757	Mar-20	\$9,150,000	Jan-21	\$13,717,566	May-23
307	COLORADO RIVER CROSSING	P1400.2 Colorado River Crossing (Structures 27117-27119)			Aug-20		Jan-21		Sep-21
308									
309	CBY-AIRTEK CKT87	P1180.4 Cedar Bayou-WALKER		\$12,077,307	Oct-20	\$7,452,000	Mar-21	\$9,281,907	Sep-21
310	UPGRADES	P1180.2 Ship Channel-AIRTEK			Dec-17		Feb-18		Dec-18
311									
312	MISSOURI CITY-ADD 3RD XFMR AND 2 FEEDERS	P1288 Missouri City Approach Span		\$387,000	Oct-20	\$459,000	Jan-21	\$591,088	Oct-21
313									
314	WEST GALVESTON ADD 3RD 50MVA XFMR	P1444 West Galveston Approach Span		\$1,413,218	Oct-20	\$2,155,000	Jan-21	\$1,465,570	Nov-21
315									
316	REBUILD CKT04	P1346 Clear Creek Crossing			Jul-19		Sep-19		Dec-21
317	MUSTEY-HUD-	P863.1 AMOCO -MOUSAIT		\$28,887,775	Jul-16	\$35,262,000	Apr-18	\$24,797,918	Apr-19
318	MONS FOR	P863 AMOCO -Algoa Corridor			Nov-15		Nov-15		Nov-19
319									

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	Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MOPR Entry*	(d) First MOPR Where Project Appeared	Final Updated Costs in MOPR Entry	MOPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MOPR Where Project Appeared
11										
	JONES CREEK NEW 12KV SUB	HLP/00/1344/TR	P1344 Jones Creek Tap		\$2,384,000	May-20	\$3,268,000	Feb-21	\$3,545,457	Dec-21
320										
321										
	San Bernard Sub for Danciger Solar	HLP/00/1482/TR/0001	P1482 San Bernard Substation		\$1,381,434	Oct-21	\$1,748,000	Mar-22	\$1,526,543	Nov-23
322										
323										
	JONTE 138KV SWITCHING STATION	HLP/00/1483/TR	P1483.1 Jonite Sub: Loop 138KV Ckt 88E-2 & 90C-1 near Str 13895		\$4,679,324	Nov-22	\$4,679,000	Nov-22	\$3,673,858	Jan-24
324										
325										
	CKT 24 UPGRADES	HLP/00/1503/TR	P1503 Upgrade 138KV Ckt 24B Str 17240 - 17228		\$5,598,000	Dec-21	\$6,237,000	Feb-22	\$5,857,322	Nov-23
326										
327										
	EXPLORER CORNER	HLP/00/1447/TR	P1002.1 EXPLOR Corner-Channel/View	\$10,000,000	\$6,315,000	Jun-21	\$6,315,000	Jun-21	\$16,657,184	Oct-23
328										
329										
	BRAZOS RIVER RELOCATE STRUCTURES	HLP/00/0054/TR/0024	P1018.1 Brazos River Crossing (Structures 1747E-17481)		\$8,569,000	Feb-21	\$11,740,000	Apr-21	\$14,656,415	Jan-23
330										
		HLP/00/0054/TR/0024	P1018.2 Brazos River Crossing (Structures 18983-18988)			May-21		Aug-21		Jan-23
331										
332										

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	Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CGN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared
11										
333	BEARLE NEW CUSTOMER SUBSTATION	HLP/00/0055/TR/0145	P1031 BEARLE Substation	\$1,337,000	\$619,000	Sep-21	\$2,266,000	Dec-21	\$1,560,241	Feb-23
334										
335	FORT BEND CITY STRUCTURE RELOCATION	HLP/00/00922/TR/0013	P1033 Brazos River Crossing (Structures 6449-6453)		\$6,321,657	Sep-21	\$7,738,000	Dec-21	\$6,216,126	Dec-22
336										
337	Rebuild/Reconductor Gulfigate Sub Taps	HLP/00/00922/TR/0019	P1044.1 Gulfigate Tap (North) (Structures 10942-14419)		\$32,867,190	Jul-21	\$30,654,000	Sep-21	\$25,761,902	Jun-23
338										
339										
340	138KV Ckt 06F-2: Holmes to Str #11434	HLP/00/00922/TR/0020	P1045 Holmes-Plaza	\$11,379,000	\$8,125,000	Aug-21	\$11,379,000	Oct-21	\$9,342,065	Dec-22
341										
342										
343	REBUILD/RECONDUCTOR LA PORTE SUB TAPS	HLP/00/00922/TR/0021	P1048.1 Rebuild LaPorte-Sandy Point: Ckt 96F for Hardening P1048.2 La Porte-SYLVAN			Jan-22 May-21		Jan-24 Sep-21		Jan-24 Dec-22
344										
345										
346	CKT 32A DUNLAVY, HYDE PARK	HLP/00/00914/TR/0010	P1069.1 Dunlavy-Hyde Park	\$1,470,000	\$3,386,000	Dec-21	\$4,915,000	Mar-22	\$5,936,045	Dec-23
347										

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10	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CGN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry*	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared
11			P1072.1 REIRC 138KY Ckt 84L-1: College Sub to Str #14333			Aug-22		Aug-22		Jan-24
12		HLP/00/0622/TR/0036			\$13,825,000	May-22	\$18,811,000	Sep-22	\$16,816,510	Dec-23
13	COLLEGE SUB TAPS	HLP/00/0622/TR/0036	P1072.2 College-College Corner (Structures 35963-35972)							
14			P875.2 North Belt-Kings-Jordan			Apr-19		Aug-19		Jul-20
15		HLP/00/0601/JTR	P875.3 Janshin-A.V.A. Parish			Apr-19		Oct-19		May-20
16		HLP/00/0601/JTR	P875.4 W.A. Parish-Vestchase (Structure 22891)			Apr-21		Sep-21		Dec-22
17	FOUNDATION REPLACEMENTS - ASR		P875.5 Tomball-Singleton-Roans Prairie (Structure 35165)		\$16,690,000	Oct-21	\$20,892,000	Dec-21	\$20,483,307	Jun-23
18		HLP/00/0601/JTR	P875.6 Tomball-Singleton-Roans Prairie (Structures 35126-35129)			Oct-21		Dec-21		Jun-23
19		HLP/00/0601/JTR	P875.7 Tomball-Singleton-Roans Prairie (Structures 35130-35131)			Oct-21		Jan-22		Jun-23
20			P923.1 Lauder-North Belt (Structures 18145-32301 and 23501-25538)			Nov-21		Mar-22		Dec-23
21	Rebuild/Reconductor Lauder Sub Taps	HLP/00/0922/TR/0018			\$25,061,000	Jul-21	\$48,342,000	Sep-21	\$36,395,322	Sep-23
22			P923.2 Lauder-Lauder Corner (Structures 25539-23332)							
23	TNP TOPAZ & PHR- ATTWATER UPGRADES	HLP/00/01468/JTR	P1468 P.H. Robinson - TNMP Freeway Park	\$2,300,000	\$2,439,000	Feb-21	\$7,420,000	Apr-21	\$4,518,717	Dec-22
24	BUILD NEW RADIAL FROM ZENITH - VILLAGE C	HLP/00/01472/JTR	P1472.1 Zenith-Village Creek	\$7,750,000	\$7,210,070	Jul-22	\$8,144,000	Oct-22	\$6,200,169	Dec-23

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	Projects Submitted to ERCOT RPG	WEBS#	(a) Project Name (with CGN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MPCR Entry*	(d) First MPCR Where Project Appeared	Final Updated Costs in MPCR Entry	MPCR Where Cost Updated	(e) Final Total Project Costs	(f) Last MPCR Where Project Appeared
11										
	CKT66 DEER PARK TO CA UPGRADE	HLP/00/1428/IR	P1428.1 Morgans Point-Cardiff	\$4,190,000	\$6,017,000	Jul-22	\$9,563,000	Jan-23	\$15,026,197	Dec-23
365										
366										
	FT BEND SOLAR INTERCONNECTION	HLP/00/1385/IR	P1385 Beasley Substation	\$11,067,000	\$4,720,000	May-21	\$4,844,000	Jul-21	\$6,361,351	Nov-23
367										
368										
	Jordan-CITIES-DALTON	HLP/00/1448/IR	P1448 Partial Rebuild and Partial Re-conductor of 138 kV Ckt. 86		\$1,809,000	Aug-20	\$5,003,000	Jan-21	\$4,799,918	Dec-22
369										
370										
	ENCO Substation	HLP/00/0055/IR/0143	P1028.1 138 kV Services to ENCO Substation within one mile of Ckt. 91A; Partial Rebuild of 69 kV Ckt. 55B; Partial Rebuild of 138 kV Ckts. 01B, 06K, 63D and 91A		\$2,167,247	Jun-20	\$3,346,247	Sep-20	\$3,326,979	Oct-22
371										
		HLP/00/1452/IR/0001	P1452.1 Upgrade 138kV Ckt 91A Cougar-Gulfigate Tap			N/A		N/A		N/A
372										
373										
	DUAL PILOT RELAYING	HLP/00/0799/IR	P799.4 CROWN Jefferson (Structures 36614-36617)		\$1,379,023	Jul-22	\$4,809,000	Oct-22	\$3,648,679	Dec-23
374										
375										

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Projects Submitted to ERCOT RPQ	WBS#	(a) Project Name (with CON Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry*	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared	
11										
	BRAZOS RIVER CROSSING Relocate Str #05426	P1078.1 Brazos River Crossing (Structures 35387-35370)		\$4,573,000	Aug-22	\$5,956,000	Oct-22	\$8,778,530	Dec-23	
376										
377	BOGGY SUBSTATION	P1347 BOGGY Substation		\$4,514,000	Jan-20	\$4,761,000	Mar-20	\$3,035,540	Dec-23	
378										
379	DUNVALE TO JEANETTE CRT OS UPGRADE	P1558.1 Jeanette-Structure 28665		\$2,895,742	Nov-22	\$2,886,000	Nov-22	\$2,060,408	Dec-23	
380										
381	BRITMOORE - ADD 3RD XFMR AND 2 FEEDERS	P1285 BRITMOORE SUB: ADD 3RD TRANSFORM		\$203,465		\$457,196		\$143,265		
382										
383	CLEAR LAKE - ADD 3RD XFMR AND 2 F (Cum.)	P1451 CLEAR LAKE SUB: ADD 3RD XFMR		\$305,199		\$305,199		\$101,235		
384										
385	ALMEDA-ADD 3RD XFMR AND 3 FEEDERS	P1025 Almeda: Add 3rd Transformer		\$327,688		\$327,686		\$346,715		
386										
387	NORTHSIDE - ADD 3RD XFMR AND 2 FEEDERS	P1252 Northside Sub Install 3rd Transf		\$461,723	N/A	\$461,723	N/A	\$224,542	N/A	
388										
389	SPRINGWOOD- INSTALL 2 XFERS AND 6 FEEDERS	P1249 Springwoods Sub: Install 2-100MVA		\$370,675	N/A	\$370,675	N/A	\$152,441	N/A	
390										
391	Convert University 88KV Load to 138KV	P916 Line 914 68KV Conversion at Univer		\$316,564		\$316,564		\$341,516		
392										
393	DOW Load Increase	P1357.6 3rd VELASCO SUB GAP BANK CKT59G		\$115,079		\$115,079		\$102,807		
394										
395										

PUBLIC UTILITY COMMISSION OF TEXAS CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC VI-M-3.1: Project Cost Summary Information TEST YEAR ENDING 12/31/2023 DOCKET NO. 55211 Sponsors: David Mercado & Mandie Shook									
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Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPR Entry	(d) First MCPR Where Project Appeared	Final Updated Costs in MCPR Entry	MCPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPR Where Project Appeared
11									
RELOCATE STR 10659	HLP/00/0922/IR/0035	P1060 Greens Bayou Erosion; Relocate Str #10659		\$453,000	Jan-22	\$1,994,000	Mar-22	\$704,340	Jan-23
396									
397									
TWINWOOD - NEW 35KV SUBSTATION	HLP/00/0914/IR/0009	P1417.1 Twinwood Substation	\$14,370,000	\$219,107	Oct-22	\$1,255,000	Oct-22	\$494,507	Jan-24
398									
399									
DUNLAVY TAP	HLP/00/0914/IR/0009	P1068.2 Create 138KV Ckt 37A Tap Kirby - Dunlavy		\$1,212,893	May-23	\$1,215,000	May-23	\$1,752,005	Jan-24
400									
401									
402									
403									
404									
405									
406									
68KV Ckt 34A HEIGHTS-WHITE OAK	HLP/00/0914/IR/0012	P1057.1 H.O. Clarke-Dunlavy P1057.2 Create 68KV Ckt HOC - Dunlavy P1057.3 Raise 34KV Ckt 72B near Eureka Sub to Prop 138KV Heights Sub P1057.4 Convert Heights Sub: Loop 138KV Ckt 06D	\$17,034,000	\$12,125,000	Apr-22 Sep-22 FUTURE PROJECT FUTURE PROJECT	\$15,615,000	Nov-22 Jan-24	\$14,844,074	Jan-24
407									
408									
138KV Ckt 37C TECO-GARROTT	HLP/00/0922/IR/0032	P1067 TECO-Blodgett		\$15,805,000	Oct-22	\$23,423,000	Jan-23	\$24,288,077	Jan-24
409									
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11	CKT 24 DUNVALE - WESTCHASE	HLP/00/1553/IR	P-1553.1 Upgrade 138KV CKT 24B-1: Str #17304-17240	\$6,160,000	\$11,207,939	Nov-22	\$12,095,000	Jan-23	\$12,853,900	Jan-24
411										
412										
413										
	MOODY-STEWART CKT 63C-4	HLP/00/0622/TR/0008	P1016.1 Stewart-Moody (Structures 34764-34765)	\$6,568,353	\$14,971,000	Nov-21	\$34,236,000	Jan-22	\$26,665,553	Jan-24
414										
415										
			PE190001 Install 3rd 800MVA Auto Transformer (BP)		N/A	N/A	N/A	N/A		N/A
416		HLP/00/1115/SB/0002	PE190012 Loop 348KV STP/DOW CKT #27		N/A	N/A	N/A	N/A	\$44,125,759	N/A
417		HLP/00/1115/SB/0005	ING Jones Creek (BP)		N/A	N/A	N/A	N/A		N/A
418		HLP/00/1115/SB/0003	PE190013 4th 138KV, 120MVAR Cap Bank and (2) Automatic Cap Banks		N/A	N/A	N/A	N/A		N/A
			PE180030 SOUTHWYCK - RECONFIGURE & UPGRADE 138KV CKT #65 LOOP BUS (BP)		N/A	N/A	N/A	N/A		N/A
419		HLP/00/1114/SB/0001	PE160151 HOC - Upgrade Line Relaying & Carrier on 138KV CKT #26 to Karsten		N/A	N/A	N/A	N/A	\$1,374,414	N/A
420		HLP/00/1114/SB/0001	Carrier on 138KV CKT #26 to HOC & Repl RTU		N/A	N/A	N/A	N/A		N/A
421			PE190056 BIG CREEK - BUILD NEW 138/12KV SUBSTATION (BP)		N/A	N/A	N/A	N/A		N/A
422		HLP/00/0997/SB/0004	PE190042 DAMON - CONVERT TO 138KV OPERATION (BP)		N/A	N/A	N/A	N/A		N/A
423		HLP/00/0997/SB/0007	PE190043 West Columbia - Convert to 138KV Operation		N/A	N/A	N/A	N/A		N/A
424		HLP/00/1349/SB	PE200020 NEEDVILLE - BUILD NEW 138/12KV SUBSTATION		N/A	N/A	N/A	N/A	\$34,457,968	N/A
425		HLP/00/0997/SB/0003	PE200021 FORT BEND - CONVERT CKT #45 TO 138KV OPERATION		N/A	N/A	N/A	N/A		N/A
426		HLP/00/0997/SB/0005	PE200022 WEST COLUMBIA - CONVERT CKT #45 TO 138KV OPERATION		N/A	N/A	N/A	N/A		N/A
427		HLP/00/0997/SB/0009	PE200023 WAP - REPLACE CARRIER EQUIPMENT CKT #02 TO WT COL		N/A	N/A	N/A	N/A		N/A
428		HLP/00/0997/SB/0001	PE200024 TEXWES - DISCONNECT CUSTOMER SUB & CONV TO DISTRIBUTION SERVICE		N/A	N/A	N/A	N/A		N/A
429		HLP/00/0997/SB/0006								

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430		HLP/00/1408/SB/0002	PE200100 DEEPWATER - RECONNECT 138KV SWITCHYARD & INSTALL 800 MVA AUTO TRF		N/A	N/A	N/A	N/A		N/A
431		HLP/00/1408/SB/0001	PE200101 DEEPWATER - UPGRADE 138KV YARD FAULT DUTY TO 80KA (SP)		N/A	N/A	N/A	N/A	\$11,206,276	N/A
432		HLP/00/1408/SB/0002	PE200133 LYDELL - INSTALL 2ND FIBER OPTIC CABLE ON CKT #70 TO DEEPWATER		N/A	N/A	N/A	N/A		N/A
433		HLP/00/1416/SB/0003	PE210023 JORDAN - INSTALL 3RD 800MVA AUTO TRF / PE210033 JORDAN - LOOP 545KV CKT #87 TO CHAMBERS/KING		N/A	N/A	N/A	N/A		N/A
434		HLP/00/1416/SB/0001	PE210030 JORDAN - UPGRADE 138KV YARD TO 80KA		N/A	N/A	N/A	N/A		N/A
435		HLP/00/1416/SB/0002	PE210031 CHAMBERS - UPGRADE CARRIER ON CKT #87 TO JORDAN (WAS KING)		N/A	N/A	N/A	N/A	\$21,731,515	N/A
436		HLP/00/1416/SB/0002	PE210032 KING - UPGRADE CARRIER ON CKT #87 TO JORDAN (WAS CHAMBERS)		N/A	N/A	N/A	N/A		N/A
437		HLP/00/0055/SB/0142	PE220008 PLACID - INSTALL SCADA SET AT NEW CUSTOMER SUB		N/A	N/A	N/A	N/A		N/A
438		HLP/00/0055/SB/0142	PE220009 RIGBY - INSTALL DUAL FIBER OPTIC CABLES ON CKT #88 TO PLACID		N/A	N/A	N/A	N/A		N/A

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439		HLP/001/426/SB/0001	PE220012 JORDAN - INSTALL NEW LINE POSITION FOR 138KV CKT TO WINFRE		N/A	N/A	N/A	N/A		N/A
440		HLP/001/425/SB/0001	PE220013 MONT BELVIEU - INSTALL LINE POSITION FOR NEW 138KV CKT TO LANGSTON		N/A	N/A	N/A	N/A		N/A
441		HLP/001/425/SB/0001	PE220014 DALTON - UPGRADE LINE RELAYING ON MONT BELVIEU CKT (WAS WINFRE)		N/A	N/A	N/A	N/A		N/A
442		HLP/001/425/SB/0001	PE220015 WINFRE - UPGRADE LINE RELAYING ON EAGLE CKT (WAS LANGSTON)		N/A	N/A	N/A	N/A		N/A
443		HLP/001/425/SB/0001	PE220016 WINFRE - UPGRADE LINE RELAYING ON JORDAN CKT (WAS DALTON)		N/A	N/A	N/A	N/A		N/A
444		HLP/001/425/SB/0001	PE220017 LANGSTON - UPGRADE LINE RELAYING ON CHEVRON CKT (WAS WINFRE)		N/A	N/A	N/A	N/A	\$6,147,756	N/A
445		HLP/001/425/SB/0001	PE220018 EAGLE - UPGRADE LINE RELAYING ON WINFRE CKT (WAS CHEVRON)		N/A	N/A	N/A	N/A		N/A
446		HLP/001/425/SB/0001	PE220019 CHEV - UPGRADE LINE RELAYING ON LANGSTON CKT (WAS EAGLE)		N/A	N/A	N/A	N/A		N/A
447		HLP/001/425/SB/0001	PE220020 CHEV - UPGRADE CBY CKT85 TO MIN 669MVA EMER RATING		N/A	N/A	N/A	N/A		N/A
448		HLP/001/425/SB/0001	PE220022 CEDAR BAYOU PLANT - UPGRADE CHEVRON CKT85 TO MIN 669MVA EMER RATING		N/A	N/A	N/A	N/A		N/A
449		HLP/001/425/SB/0001	PE220023 WARWICK - UPGRADE LINE RELAYING ON CKT TO MONT BELVIEU		N/A	N/A	N/A	N/A		N/A
450		HLP/001/412/SB/0003	PE220021 WALLIS - UPGRADE 138KV CKT85 LOOP BUS TO 4000A (BP)		N/A	N/A	N/A	N/A		N/A
451		HLP/001/412/SB/0001	PE220023 EAST BERNARD - UPGRADE 138KV CKT85 TO GEBHRT TO 4000A		N/A	N/A	N/A	N/A		N/A
452		HLP/001/399/SB	PE220054 SEALY - UPGRADE 138KV CKT85 LOOP BUS TO 4000A		N/A	N/A	N/A	N/A	\$1,882,716	N/A
453		HLP/001/399/SB	PE220055 PETERS - UPGRADE 138KV CKT85 TO GEBHRT TO 4000A		N/A	N/A	N/A	N/A		N/A
454		HLP/001/235/SB	PE220027 ANGLETON - UPGRADE CKT04 TO WEST COLUMBIA TO 369MVA (BP)		N/A	N/A	N/A	N/A		N/A
455		HLP/001/235/SB	PE220028 WEST COLUMBIA - UPGRADE CKT04 TO WEST COLUMBIA TO 369MVA (BP)		N/A	N/A	N/A	N/A		N/A
456		HLP/001/0622/SB/0014	PE220087 ANGLETON - UPGRADE CKT 04 TO WEST COLUMBIA TO 4000A CONTINUOUS RATING		N/A	N/A	N/A	N/A	\$1,906,843	N/A
457		HLP/001/235/SB/0001	PE220098 WEST COLUMBIA - UPGRADE CKT 04 TO ANGLETON TO 4000A CONTINUOUS RATING		N/A	N/A	N/A	N/A		N/A
458		HLP/001/0622/SB/0016	PE230005 HITCHOCK - UPGRADE 138KV CKT 85 LOOP TO 4000A		N/A	N/A	N/A	N/A	\$543,217	N/A

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10	10									
11	11									
459		HLP/001/413/SB	PE220008 Flewellen - UPGRADE 138KV PETERS CKT 25 TO 400A CONTINUOUS RATING		N/A	N/A	N/A	N/A	\$1,201,037	N/A
460		HLP/001/413/SB/0001	PE220009 Peters - UPGRADE 138KV FLEWELLEN CKT25 TO 400A CONTINUOUS RATING		N/A	N/A	N/A	N/A		N/A
461		HLP/001/413/SB/0004	PE220024 THW - CKT28A1: UPGRADE THW EQ		N/A	N/A	N/A	N/A		N/A
462		HLP/001/413/SB/0005	PE220025 LITTLE YORK - CKT28A1: UPGRADE LITTLE YORK EQ		N/A	N/A	N/A	N/A		N/A
463		HLP/001/413/SB/0006	PE220026 WHITE OAK - CKT28A2: UPGRADE WHITE OAK EQ		N/A	N/A	N/A	N/A	\$6,288,151	N/A
464		HLP/001/413/SB/0004	PE220027 Bammel - UPGRADE CARRIER ON THW CKT 81		N/A	N/A	N/A	N/A		N/A
465		HLP/001/128/SB	PE220230 GTPSJM - EXTEND 138KV TRANSMISSION SERVICE TO NEW CUSTOMER-OWNED SPER STONE		N/A	N/A	N/A	N/A		N/A
466		HLP/001/128/SB/0004	PE220311 CLINTON - 138KV BREAKER STATION		N/A	N/A	N/A	N/A		N/A
467		HLP/001/128/SB/0001	PE220312 GALENA PARK - MOVE DISTRIBUTION LOAD TO 138KV & REMOVE 69/138KV SWITCHYAR FACILITIES		N/A	N/A	N/A	N/A	\$19,865,818	N/A
468		HLP/001/128/SB/0002	PE220313 GREENE BAYOU - RECONFIGURE 69KV SWITCHYARD & UPGRADE CARRIER ON 69KV CLINTON CKT		N/A	N/A	N/A	N/A		N/A
469		HLP/001/128/SB	PE220314 NINTH - UPGRADE RELAYING ON 138KV CLINTON CKT		N/A	N/A	N/A	N/A		N/A
470		HLP/001/128/SB	PE220315 ANBUSH - UPGRADE RELAYING ON 138KV CLINTON CKT		N/A	N/A	N/A	N/A		N/A
471		HLP/001/1306/SB	PE220048 STONE LAKE - BUILD NEW 138/35KV SUBSTATION & (2) 14.4 MVAR CAP BANKS		N/A	N/A	N/A	N/A	\$21,653,042	N/A
472		HLP/001/1306/SB	PE220049 HOCKLEY - UPGRADE CKT 66 TO TOMBALL		N/A	N/A	N/A	N/A		N/A
473		HLP/001/491/SB	PE220078 BUILD NEW 345KV SWITCHYARD TO CONNECT NEW GENERATOR		N/A	N/A	N/A	N/A	\$13,180,252	N/A
474		HLP/001/492/SB	PE220025 WOLF BUILD NEW 345KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
475		HLP/001/492/SB	PE220026 HILLIE INSTALL POTT SCHEME ON 345KV CKT #54 TO WOLF		N/A	N/A	N/A	N/A	\$13,792,269	N/A
476		HLP/001/492/SB	PE220027 WAP INSTALL POTT SCHEME ON 345KV CKT #54 TO WOLF		N/A	N/A	N/A	N/A		N/A
477		HLP/001/493/SB	PE220028 BLUE - BUILD NEW 345KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
478		HLP/001/493/SB	PE220029 BAILEY - INSTALL POTT SCHEME ON 345KV CKT #72 TO BLUE		N/A	N/A	N/A	N/A	\$16,388,060	N/A
479		HLP/001/493/SB	PE220030 HILLIE - INSTALL POTT SCHEME ON 345KV CKT #72 TO BLUE		N/A	N/A	N/A	N/A		N/A

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480		HLP/001/497/SB	PE220031 HUNGERFORD - BUILD NEW 138KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
481		HLP/001/497/SB	PE220032 DYANN - UPGRADE LINE RELAYING ON CKT 60 TO HUNGERFORD		N/A	N/A	N/A	N/A		N/A
482		HLP/001/497/SB	PE220033 DYANN - UPGRADE LINE RELAYING ON CKT 60 TO SOUTH LANE CITY		N/A	N/A	N/A	N/A	\$10,509,804	N/A
483		HLP/001/497/SB	PE220034 EAST BERNARD - UPGRADE LINE RELAYING ON CKT 60 TO HUNGERFORD		N/A	N/A	N/A	N/A		N/A
484		HLP/001/497/SB	PE220035 ORCHARD - UPGRADE LOOP BUS TO 525/530 MVA		N/A	N/A	N/A	N/A		N/A
485		HLP/001/497/SB	PE220036 SOUTH LANE CITY - UPGRADE LINE RELAYING ON CKT 60 TO DYANN		N/A	N/A	N/A	N/A		N/A
486		HLP/001/496/SB	PE220050 RIVERSIDE - BUILD NEW 138KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
487		HLP/001/496/SB	PE220051 CHAMON - INSTALL DUAL FIBER ON CKT #94 TO RIVERSIDE		N/A	N/A	N/A	N/A	\$8,560,069	N/A
488		HLP/001/498/SB	PE220052 PSARCO - INSTALL DUAL FIBER ON CKT #94 TO RIVERSIDE		N/A	N/A	N/A	N/A		N/A
489		HLP/001/501/SB	PE220069 DANBURY - BUILD NEW 138KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
490		HLP/001/501/SB	PE220070 ANGLETON - UPGRADE LINE RELAYING ON CKT 04 TO DANBURY		N/A	N/A	N/A	N/A		N/A
491		HLP/001/501/SB	PE220071 PETSON - UPGRADE LINE RELAYING ON CKT 04 TO DANBURY		N/A	N/A	N/A	N/A		N/A
492		HLP/001/501/SB	PE220073 MONSANTO - CONVERT 2ND DCB RELAY SCHEME TO POTT		N/A	N/A	N/A	N/A	\$9,666,838	N/A
493		HLP/001/501/SB	PE220075 HUDSON - UPGRADE LINE RELAYING ON 138KV CKT TO WEBSTER		N/A	N/A	N/A	N/A		N/A
494		HLP/001/501/SB	PE220078 WEBSTER - INSTALL POTT RELAY SCHEME ON 138KV CKT TO HUDSON		N/A	N/A	N/A	N/A		N/A
495		HLP/001/501/SB	PE220012 LIVERPOOL - ROUTE FIBER INTO CONTROL CUBICLE		N/A	N/A	N/A	N/A		N/A

PUBLIC UTILITY COMMISSION OF TEXAS CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC VI-M-3.1: Project Cost Summary Information TEST YEAR ENDING 12/31/2023 DOCKET NO. 56211 Sponsors: David Mercado & Mandie Shook											
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496	HLP/001/1516/SB	PE220103 ANGLETON-INSTALL LINE POSITION FOR NEW GENERATOR (MARK ONE)		N/A	N/A	N/A	N/A		N/A		
497	HLP/001/1516/SB	PE220104 ANGLETON-UPGRADE 138 KV CKT 26 TO KARSTEN TO MIN 384 MVA EMERGENCY		N/A	N/A	N/A	N/A	\$2,671,423	N/A		
498	HLP/001/1516/SB	PE220105 MONSIEUR-UPGRADE 138 KV CKT 04 TO PETSON TO MIN 250 MVA EMERGENCY RATING		N/A	N/A	N/A	N/A		N/A		
499	HLP/001/1516/SB	PE220106 HOC-UPGRADE 138 KV SOUTHWESTERN BUS TO MIN 775 MVA CONTINUOUS		N/A	N/A	N/A	N/A		N/A		
500	HLP/001/1266/SB	PE190053 GARTH - BUILD NEW 138/12KV SUBSTATION (AP)		N/A	N/A	N/A	N/A		N/A		
501	HLP/001/1266/SB	PE190058 HANEY - MODIFY 138KV SECTIONALIZING SCHEME (AP)		N/A	N/A	N/A	N/A	\$13,766,556	N/A		
502	HLP/001/1266/SB	PE190287 BAYTOWN - INSTALL DER TRANSFER TRIP		N/A	N/A	N/A	N/A		N/A		
503	HLP/001/1250/SB	PE190052 LAKE HOUSTON BUILD NEW 138/35KV SUBSTATION (AP)		N/A	N/A	N/A	N/A	\$12,553,059	N/A		
504	HLP/001/1250/SB	PE190061 KINGWOOD - MODIFY 138KV SECTIONALIZING SCHEME (AP)		N/A	N/A	N/A	N/A		N/A		
505	HLP/001/1308/SB	PE210085 WORTHAM BUILD NEW 138/35KV SUBSTATION		N/A	N/A	N/A	N/A	\$7,968,126	N/A		
506	HLP/001/1369/SB	PE200037 BURKE - BUILD NEW 138KV SWITCHYARD		N/A	N/A	N/A	N/A	\$6,622,806	N/A		
507	HLP/001/1454/SB	PE210086 EAGLE NEST BUILD NEW 138KV SWITCHYARD TO CONNECT NEW GENERATOR		N/A	N/A	N/A	N/A		N/A		
508	HLP/001/1454/SB	PE210071 BURKE INSTALL POTT RELAY SCHEME ON CKT 02 TO EAGLE NEST		N/A	N/A	N/A	N/A	\$9,486,978	N/A		
509	HLP/001/1454/SB	PE210072 WEST COLUMBIA INSTALL POTT RELAY SCHEME ON CKT 02 TO EAGLE NEST		N/A	N/A	N/A	N/A		N/A		
510	HLP/001/1216/SB/0003	PE190147 MILLER Upgrade Relaying on CKT #65 to Baytown (BP)		N/A	N/A	N/A	N/A	\$1,004,993	N/A		
511	HLP/001/1216/SB/0003	PE190148 BAYTOWN Upgrade Relaying on CKT #67 to MILLER (BP)		N/A	N/A	N/A	N/A		N/A		
512	HLP/001/1262/SB	PE190084 REFUGEE - BUILD NEW 345KV SWITCHYARD (AP)		N/A	N/A	N/A	N/A	\$15,641,545	N/A		
513	HLP/001/1338/SB	PE190162 GREENS BAYOU RECONFIGURE 138KV YARD (AP)		N/A	N/A	N/A	N/A		N/A		
514	HLP/001/1338/SB	PE190153 ANBUSH UPGRADE RELAYING ON 138KV CKT #08 TO GRY (AP)		N/A	N/A	N/A	N/A		N/A		
515	HLP/001/1338/SB	PE190121 WHITE OAK REPLACE LINE PANEL ON 138KV CKT #03 TO GREENS BAYOU (AP)		N/A	N/A	N/A	N/A	\$10,075,039	N/A		
516	HLP/001/1338/SB	PE190224 HARDY UPGRADE CARRIER EQUIPMENT ON CKT #65 TO GREENS BAYOU (AP)		N/A	N/A	N/A	N/A		N/A		

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517		HLP/001/1345/SB	PE200040 LIMBURG Limburg Substation (SUB) Build new 138KV		N/A	N/A	N/A	N/A	\$11,505,152	N/A
518		HLP/001/1345/SB	PE200041 SOUTHWYOK UPGRADE 138KV LINE SECTIONALIZING SCHEME		N/A	N/A	N/A	N/A		N/A
519		HLP/001/1335/SB	PE190048 BLODGETT CONVERT TO 138KV OPERATION (AP)		N/A	N/A	N/A	N/A	\$9,540,474	N/A
520		HLP/001/450/SB	PE210046 HILLJUE - Install 345 KV Line Position for New Generator (Danish Fields Solar)		N/A	N/A	N/A	N/A	\$3,355,022	N/A
521		HLP/001/519/SB/0003	PE220101 HOC RELOCATE 138 KV CKT 05 TO WEBSTER		N/A	N/A	N/A	N/A		N/A
522		HLP/001/519/SB/0003	PE220102 WEBSTER UPGRADE LINE RELAYING ON CKT 05 TO HOC		N/A	N/A	N/A	N/A	\$1,887,745	N/A
523		HLP/001/424/SB/0001	PE210050 PEARLAND INSTALL 138 KV, 40 MVAR CAP BANK		N/A	N/A	N/A	N/A		N/A
524		HLP/001/424/SB/0001	PE220042 MYKAWA BUILD NEW 138KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
525		HLP/001/424/SB/0001	PE220043 COLUGAR UPGRADE CARRIER EQUIPMENT ON CKT TO MYKAWA		N/A	N/A	N/A	N/A		N/A
526		HLP/001/424/SB/0001	PE220045 PRR UPGRADE CARRIER EQUIPMENT ON CKT TO MYKAWA		N/A	N/A	N/A	N/A	\$31,326,763	N/A
527		HLP/001/424/SB/0001	PE220046 PLAZA UPGRADE CARRIER EQUIPMENT ON CKT TO MYKAWA		N/A	N/A	N/A	N/A		N/A
528		HLP/001/001/7/SB	PE220018 MYKAWA BUILD NEW DUAL VOLTAGE DISTRIBUTION SUB 38KV & 12KV		N/A	N/A	N/A	N/A		N/A
529		HLP/001/426/SB/0001	PE200288 HOC INSTALL LINE POS FOR NEW GENERATOR (PES1) & UPG CKT 90 TO GARROTT		N/A	N/A	N/A	N/A	\$1,788,979	N/A

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3	VI-M-3.1: Project Cost Summary Information									
4	TEST YEAR ENDING 12/31/2023									
5	DOCKET NO. 58211									
6	Sponsors: David Mercado & Mandie Shook									
7										
8										
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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
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530		HLP/001/1414/SB/0002	PE200203 STRANG UPGRADE RELAYING AND CARRIER ON CKT87 TO CEDAR BAYOU		N/A	N/A	N/A	N/A		N/A
531		HLP/001/1414/SB/0002	PE200210 CEDAR BAYOU PLANT UPGRADE RELAYING AND CARRIER ON CKT87 TO STRANG		N/A	N/A	N/A	N/A		N/A
532		HLP/001/1414/SB/0005	PE200211 QUANUM UPGRADE RELAYING AND CARRIER ON CKT86 TO CEDAR BAYOU		N/A	N/A	N/A	N/A		N/A
533		HLP/001/1414/SB/0005	PE200212 CEDAR BAYOU PLANT UPGRADE RELAYING AND CARRIER ON CKT85 TO QUANUM		N/A	N/A	N/A	N/A		N/A
534		HLP/001/1414/SB/0001	PE200213 BAYOU UPGRADE RELAYING AND CARRIER ON CKT79 TO MORGANS POINT		N/A	N/A	N/A	N/A		N/A
535		HLP/001/1414/SB/0006	PE200214 MORGANS POINT UPGRADE RELAYING AND CARRIER ON CKT79 TO BAYOU, PRE-INSTALL DUAL FIBER CABLES		N/A	N/A	N/A	N/A	\$4,165,161	N/A
536		HLP/001/1414/SB/0010	PE200215 CHORIN INSTALL DUAL FIBER ON CKT87 TO SRB		N/A	N/A	N/A	N/A		N/A
537		HLP/001/1414/SB/0004	PE200216 SRB UPGRADE WAVE TRAP ON CKT87 TO CHORIN		N/A	N/A	N/A	N/A		N/A
538		HLP/001/1414/SB/0007	PE200217 CEDAR BAYOU PLANT UPGRADE RELAYING AND CARRIER ON CKT84 TO HOPSON		N/A	N/A	N/A	N/A		N/A
539		HLP/001/1414/SB/0007	PE200218 HOPSON UPGRADE RELAYING AND CARRIER ON CKT84 TO CEDAR BAYOU		N/A	N/A	N/A	N/A		N/A
540		HLP/001/1414/SB/0009	PE200219 DECKER UPGRADE CKT83 TO CEDAR BAYOU TO 48MVA		N/A	N/A	N/A	N/A		N/A
541		HLP/001/130/SB/00025	PE190047 HOC - Install 138KV Series Reactor (SR)		N/A	N/A	N/A	N/A		N/A
542		HLP/001/130/SB/00037 or HLP/001/130/SB/00036	PE190048 WAP - Install 138KV Series Reactor (SR)		N/A	N/A	N/A	N/A		N/A
543		HLP/001/130/SB/00037	PE190074 BRITMOORE - UPGRADE CARRIER EQUIPMENT ON 138KV CKT #09 TO WAP (SR)		N/A	N/A	N/A	N/A	\$10,093,443	N/A
544		HLP/001/130/SB/00037	PE190075 FORT BEND - REMOVE CARRIER EQUIPMENT ON 138KV CKT #09 TO WAP (SR)		N/A	N/A	N/A	N/A		N/A
545		HLP/001/157/1/SB	PE220236 WATERHOLE BUILD NEW CNP 346KV BKR-3-1/2 INTERCONNECTION SWITCHYARD		N/A	N/A	N/A	N/A		N/A
546		HLP/001/157/1/SB	PE220237 BAILEY UPGRADE LINE RELAYING ON CKT82 TO WATERHOLE		N/A	N/A	N/A	N/A	\$537,976	N/A
547		HLP/001/157/1/SB	PE220238 JONES CREEK UPGRADE LINE RELAYING ON CKT82 TO WATERHOLE		N/A	N/A	N/A	N/A		N/A
548		HLP/001/157/1/SB	PE220319 GULFTE BUILD NEW CNP 138KV BKR-3-1/2 INTERCONNECTION SWITCHYARD		N/A	N/A	N/A	N/A	\$11,680,352	N/A

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548		HLP/00/1570/SB	PE220223 MANSAN UPGRADE HUDSON CKT04 TO MINIMUM 507.5071MVA		N/A	N/A	N/A	N/A		N/A
550		HLP/00/1570/SB	PE220224 MUSTANG BAYOU UPGRADE 138KV LOOP BUS TO MINIMUM 558/558MVA		N/A	N/A	N/A	N/A	\$757,292	N/A
551		HLP/00/1570/SB	PE220226 LIVERPOOL UPGRADE 138KV LOOP BUS TO MINIMUM 517/517MVA		N/A	N/A	N/A	N/A		N/A
552		HLP/00/1567/SB	PE220218 ARCHER BUILD NEW CNP 138KV BKR-3-1/2 INTERCONNECTION SWITCHYARD		N/A	N/A	N/A	N/A		N/A
553		HLP/00/1567/SB	PE220219 KARSTEN UPGRADE LINE RELAYING ON CKT26 TO ARCHER		N/A	N/A	N/A	N/A	\$10,540,992	N/A
554		HLP/00/1567/SB	PE220220 ANGLETON UPGRADE LINE RELAYING ON CKT26 TO ARCHER MIN 354/354MVA		N/A	N/A	N/A	N/A		N/A
555		HLP/00/1512/SB	PE220057 WEST COLUMBIA UPGRADE 138KV YARD FAULT DUTY TO 59KA		N/A	N/A	N/A	N/A	\$1,138,470	N/A
556		HLP/00/1500/SB	PE220053 SMITHERS - BUILD 346KV LINE POSITION FOR NEW GENERATOR		N/A	N/A	N/A	N/A	\$5,332,249	N/A
557		HLP/00/1485/SB	PE210062 WEST COLUMBIA Expand 138 KV Ring Bus to Connect New Generator		N/A	N/A	N/A	N/A	\$2,549,015	N/A
558		HLP/00/1419/SB/0001	PE210034 SRB REMOVE 69KV FACILITIES & ADD 139KV BUS TIE BKR		N/A	N/A	N/A	N/A		N/A
559		HLP/00/1419/SB/0003	PE210035 SRB INSTALL 100MVAR CAP BANK		N/A	N/A	N/A	N/A		N/A
560		HLP/00/1419/SB/0003	PE210036 HOC REMOVE & RELOCATE 138KV 100MVAR CAP BANK		N/A	N/A	N/A	N/A		N/A
561		HLP/00/1419/SB/0002	PE210037 SOUTH CHANNEL RECONFIGURE 69KV SRB CKT-23 AS DEEPWATER CKT-23		N/A	N/A	N/A	N/A	\$3,870,050	N/A
562		HLP/00/1419/SB/0002	PE210038 DEEPWATER RECONFIGURE 69KV SRB CKT AS SOUTH CHANNEL CKT		N/A	N/A	N/A	N/A		N/A

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5	5		DOCKET NO. 55211							
6	6		Sponsors: David Mercado & Mandie Shook							
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11	11									
563		HLP/001/1233/SB/0001	PE210077 WHITE OAK INSTALL 2ND 138/69 KV AUTO.		N/A	N/A	N/A	N/A		N/A
564		HLP/001/1233/SB/0002	PE210078 WHITE OAK UPGRADE 69 KV CKT 34 TO HEIGHTS TO MIN 192/192 MVA		N/A	N/A	N/A	N/A		N/A
565		HLP/001/1233/SB/0002	PE210079 HEIGHTS UPGRADE 69 KV CKT 34 TO WHITE OAK TO MIN 192/192 MVA		N/A	N/A	N/A	N/A	\$10,006,527	N/A
566		HLP/001/1233/SB/0001	PE210080 SAN FELIPE UPGRADE CARRIER EQUIP ON 138 KV CKT 09 TO WHITE OAK		N/A	N/A	N/A	N/A		N/A
567		HLP/001/1233/SB	PE210088 DEHL - INSTALL 11TH & 12TH 12KV FEEDERS		N/A	N/A	N/A	N/A		N/A
568		HLP/001/1460/SB	PE220099 AIRLINE - INSTALL 12TH 12KV FEEDER		N/A	N/A	N/A	N/A		N/A
569		HLP/001/1184/SB	PE220095 CROCKETT - INSTALL 3RD TRANSFORMER & 3-12 KV FEEDERS		N/A	N/A	N/A	N/A		N/A
570		HLP/001/1337/SB	PE210020 Jones Creek - Install new 138kv positions		N/A	N/A	N/A	N/A	\$10,999,746	N/A
571		HLP/001/1337/SB	PE210021 Velasco - Reconfigure for new Jones Creek ckt		N/A	N/A	N/A	N/A		N/A
572		HLP/001/1305/SB/0044	PE200088 JONES CREEK - RECONFIGURE 138KV SWITCHYARD		N/A	N/A	N/A	N/A		N/A
573		HLP/001/1279/SB	PE180217 NASH - CONVERT TO 138KV OPERATION (AP)		N/A	N/A	N/A	N/A	\$6,866,504	N/A
574		HLP/001/1249/SB	PE170066 HOFMAN - REPLACE LINE PANEL ON CKT #02 TO BASF & REPL RTU (AP)		N/A	N/A	N/A	N/A		N/A
575		HLP/001/1246/SB	PE170067 BASF - REPLACE LINE PANEL & JUMPERS ON CKT #02 TO HOFMAN & REPL RT (AP)		N/A	N/A	N/A	N/A	\$911,741	N/A
576		HLP/001/1246/SB	PE180214 LAKE HOUSTON - UPGRADE CKT #02 LOOP BUS		N/A	N/A	N/A	N/A		N/A
577		HLP/001/1480/SB/0001	PE210056 Hill - BUILD NEW 345KV LINE POSITION FOR NEW GENERATOR		N/A	N/A	N/A	N/A	\$2,352,739	N/A
578		HLP/001/1449/SB	PE210059 Angleton - Inpad Line Position for New Generator (MARTLE)		N/A	N/A	N/A	N/A	\$2,155,740	N/A
579		HLP/001/1459/SB	PE210067 Cedar Creek - BUILD NEW 345KV SWITCHYARD TO CONNECT NEW GENERATOR		N/A	N/A	N/A	N/A		N/A
580		HLP/001/1453/SB	PE210069 Bailey - INSTALL POTT RELAY SCHEME ON CKT 72 TO CEDAR CREEK		N/A	N/A	N/A	N/A	\$16,139,770	N/A
581		HLP/001/1453/SB	PE210070 WAP - INSTALL POTT RELAY SCHEME ON CKT 72 TO CEDAR CREEK		N/A	N/A	N/A	N/A		N/A

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592		HLP/00/0996/8B	PE210232 ALTA LOMA - INSTALL 8TH 12KV FEEDER		N/A	N/A	N/A	N/A		N/A
593		HLP/00/0996/8B	PE210233 MUSTANG BAYOU - INSTALL 3RD & 4TH 12KV FEEDERS		N/A	N/A	N/A	N/A		N/A
594		HLP/00/0996/8B	PE210234 WEBSTER - UPGRADE MANVEL 69KV LINE RELAYING FOR ALVIN BYPASS		N/A	N/A	N/A	N/A		N/A
595		HLP/00/0996/8B	PE230002 ALVIN - CONVERT TO 138KV OPERATION & INSTALL 2ND TRF		N/A	N/A	N/A	N/A		N/A
596		HLP/00/0996/8B	PE230003 MANVEL - CONVERT TO 138KV OPERATION		N/A	N/A	N/A	N/A		N/A
597		HLP/00/0996/8B	PE230016 HOC - DISCONNECT 69KV CKT #5 TO KARSTEN		N/A	N/A	N/A	N/A		N/A
598		HLP/00/0996/8B	PE230019 WEBSTER - REMOVE 69KV FACILITIES (INCLUDING AUTO)		N/A	N/A	N/A	N/A		N/A
599		HLP/00/0996/8B	PE230021 KARSTEN - REMOVE 69KV FACILITIES & REVISE LINE RELAYING ON 138KV CKTS TO ANGLETON		N/A	N/A	N/A	N/A		N/A
600		HLP/00/162/8B	PE210063 WALLER INSTALL 2ND TRF AND 35KV FEEDER		N/A	N/A	N/A	N/A	\$2,387,619	N/A
601		HLP/00/1226/8B	PE190051 READING - Install (2) 100 MVA TRF's & (3) 35KV Feeders (BP)		N/A	N/A	N/A	N/A	\$7,797,242	N/A
602		HLP/00/1112/8B	PE150234 HOC - CONVERT TRFS #1, #2, & #3 TO 138KV OPERATION		N/A	N/A	N/A	N/A	\$13,911,121	N/A
603		HLP/00/0996/8B	PE180144 HOC - REPLACE CONVENTIONAL SUB WITH BKR & HALF		N/A	N/A	N/A	N/A		N/A
604		HLP/00/152/8B	PE180410 RED BLUFF BUILD NEW 138/12KV SUBSTATION		N/A	N/A	N/A	N/A	\$13,077,763	N/A
605		HLP/00/117/8B	PE180135 DUNLAVY - UPGRADE 69KV CKT #31 TO HEIGHTS (BP)		N/A	N/A	N/A	N/A		N/A
606		HLP/00/117/8B	PE180136 HEIGHTS - UPGRADE 69KV CKT #31 TO DUNLAVY		N/A	N/A	N/A	N/A	\$413,980	N/A
607		HLP/00/152/8B	PE220211 HEIGHTS - UPGRADE DUNLAVY CKT31		N/A	N/A	N/A	N/A		N/A
608		HLP/00/118/8B	PE180044 CEDAR BAYOU PLANT UPGRADE 138KV CKT #67 TO STRANG		N/A	N/A	N/A	N/A		N/A
609		HLP/00/190/8B	PE180036 CHORIN UPGRADE 138KV CKT #67 TO SPB INCREASE AMPACITY (REPLACE AITEK WITH RUSSEL SUB)		N/A	N/A	N/A	N/A		N/A
610		HLP/00/190/8B	PE180034 SPB UPGRADE 138KV CKT #67 TO CHORIN INCREASE AMPACITY		N/A	N/A	N/A	N/A	\$2,873,376	N/A
611		HLP/00/190/8B	PE180046 CHORIN UPGRADE 138KV CKT #67 TO STRANG INCREASE AMPACITY (BP)		N/A	N/A	N/A	N/A		N/A
612		HLP/00/190/8B	PE170068 STRANG UPGRADE AMPACITY OF CUSTOMER SUBSTATION		N/A	N/A	N/A	N/A		N/A

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11		PE210050 MISSOURI CITY INSTALL 3RD TIE AND (2) 12KV FEEDERS		N/A	N/A	N/A	N/A	\$3,860,741	N/A
603	HLP/001/289/SB	PE210028 WEST GALVESTON - ADD 3RD 12KV 50MVA TRANSFORMER		N/A	N/A	N/A	N/A	\$3,439,111	N/A
604	HLP/001/144/SB	PE200260 SPARES-PURCH 3040/50 MVA POWER TRF		N/A	N/A	N/A	N/A		N/A
605	HLP/001/144/SS	PE190002 JONES CREEK BUILD NEW 138/12KV SUBSTATION (AP)		N/A	N/A	N/A	N/A	\$13,813,539	N/A
606	HLP/001/134/SB	PE220037 SAN BERNARD BUILD NEW 138KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
607	HLP/001/1482/SB/0001	PE220038 SOUTH LANE CITY INSTALL POTTY SCHEME ON 138KV CKT TO SAN BERNARD		N/A	N/A	N/A	N/A		N/A
608	HLP/001/1482/SB/0001	PE220041 WEST COLUMBIA UPGRADE RELAY SCHEME ON CKT 04 TO SAN BERNARD		N/A	N/A	N/A	N/A	\$5,854,491	N/A
609	HLP/001/1482/SB/0001	PE220058 WEST COLUMBIA UPGRADE 138KV CKT04 TO SAN BERNARD TO MIN 610/540 MVA RATTN		N/A	N/A	N/A	N/A		N/A
610	HLP/001/1483/SB/0001	PE220085 JONTE - BUILD NEW 138KV BKR & 1/2 SWITCHYARD		N/A	N/A	N/A	N/A		N/A
611	HLP/001/1483/SB/0001	PE220056 NORTH BELT - UPGRADE LINE RELAYING ON CKT TO JONTE		N/A	N/A	N/A	N/A	\$9,895,728	N/A
612	HLP/001/1483/SB/0001	PE220067 HARDY - UPGRADE CARRIER ON CKT TO JONTE		N/A	N/A	N/A	N/A		N/A
613	HLP/001/1483/SB/0001	PE220083 CROSBY - UPGRADE CARRIER ON CKT TO JONTE		N/A	N/A	N/A	N/A		N/A
614	HLP/001/1483/SB/0001	PE200387 PHR - UPGRADE RELAYING ON CKT 02 & CKT 03 TO ATTWATER (TNMP) (PHASE 1)		N/A	N/A	N/A	N/A		N/A
615	HLP/001/1489/SB/0001	PE210175 PHR - UPGRADE 138KV CKT 02 TO TOPAZ (TNMP)		N/A	N/A	N/A	N/A	\$488,790	N/A
616	HLP/001/1489/SB/0001	PE210176 PHR - UPGRADE 138KV CKT 03 TO TOPAZ (TNMP)		N/A	N/A	N/A	N/A		N/A
617	HLP/001/1468/SB/0002	PE210179 PHR - UPGRADE RELAYING ON CKT 02 & CKT 03 TO ATTWATER (TNMP) (PHASE 2)		N/A	N/A	N/A	N/A		N/A
618	HLP/001/1472/SB/0001	PE220028 ZENITH - EXPAND 138KV YARD TO INSTALL RADIAL CKT		N/A	N/A	N/A	N/A	\$4,446,005	N/A
619	HLP/001/1472/SB/0002	PE220029 VILLAGE CREEK - CONVERT FROM LOOP TO DOUBLE TAP CONFIGURATION		N/A	N/A	N/A	N/A		N/A
620	HLP/001/1395/SB	PE200042 BEASLY - BUILD NEW 138KV SWITCHYARD		N/A	N/A	N/A	N/A		N/A
621	HLP/001/1395/SS	PE200043 EAST BERNARD - UPGRADE CARRIER ON CKT #60		N/A	N/A	N/A	N/A	\$11,253,948	N/A
622	HLP/001/1395/SS	PE200044 SEALY - UPGRADE 138KV LOOP BUS TO 250MVA		N/A	N/A	N/A	N/A		N/A
623	HLP/001/1395/SB								

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	Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(b) Estimated Costs at the Time of ERCOT Review (if Any)	(c) Estimated Costs in First MCPPR Entry*	(d) First MCPPR Where Project Appeared	Final Updated Costs in MCPPR Entry	MCPPR Where Cost Updated	(e) Final Total Project Costs	(f) Last MCPPR Where Project Appeared
11										
624		HLP/000/00055/SB/0143	PE200256 ENCO - Install SCADA set at New Customer Sub		N/A	N/A	N/A	N/A		N/A
625		HLP/000/00086/SB/0115	PE200257 EL DORADO - INSTALL 12KV 7.2 MVAR CAP BANK		N/A	N/A	N/A	N/A	\$1,085,242	N/A
626		HLP/000/00095/SB/0114	PE200258 SPENCER - Install 12KV 7.2 MVAR CAP BANK		N/A	N/A	N/A	N/A		N/A
627		HLP/000/00095/SB/0115	PE200261 HARRISBURG - REMOVE AND RELOCATE 12KV 10.8MVAR CAPACITOR BANK (CB2)		N/A	N/A	N/A	N/A		N/A
628		HLP/000/00798/SB	PE180017 SURFSI - REPLACE LINE PANEL ON CKT #59 TO JONES CREEK (TRANSFER TRIP)		N/A	N/A	N/A	N/A		N/A
629		HLP/000/00798/SB	PE190010 CELNEO - REPLACE LINE PANEL ON CKT #55 TO LOMAX		N/A	N/A	N/A	N/A		N/A
630		HLP/000/00798/SB	PE180009 JONES CREEK - INSTALL FIBER ON CKT #46 TO CORTEZ		N/A	N/A	N/A	N/A		N/A
631		HLP/000/00799/SB	PE180011 LOMAX - REPLACE LINE PANEL ON CKT #35 TO CELNEO - REPLACE METERING P'S CKT #35		N/A	N/A	N/A	N/A	\$1,462,055	N/A
632		HLP/000/00798/SB	PE190021 MARINE - ADD DUAL PILOT TO CORTEZ		N/A	N/A	N/A	N/A		N/A
633		HLP/000/00798/SB	PE180007 SURFSI - REPLACE LINE PANEL ON CKT #59 TO VELASCO		N/A	N/A	N/A	N/A		N/A
634		HLP/000/00799/SB	PE190008 VELASCO - ADD FIBER (DUAL PILOT) TO CKT #48 TO MARINE		N/A	N/A	N/A	N/A		N/A
635		HLP/000/00055/SB/0140	PE200047 SOUTH CHANNEL - UPGRADE LINE RELAYING		N/A	N/A	N/A	N/A	\$1,266,114	N/A
636		HLP/000/00055/SB/0140	PE200048 PAIR - UPGRADE LINE RELAYING / INSTALL FIBER		N/A	N/A	N/A	N/A		N/A
637		HLP/000/00055/SB/0140	PE200049 AIRPROG - UPGRADE LINE RELAYING		N/A	N/A	N/A	N/A		N/A
638		HLP/000/1289/SB	PE210055 BRITMOORE - INSTALL 3RD TRF AND (2) 12KV FEEDERS		N/A	N/A	N/A	N/A	\$3,605,380	N/A
639		HLP/000/1127/SB	PE190033 ZENITH - Area Auto TRF INCR. FAULT DUTY		N/A	N/A	N/A	N/A		N/A
640		HLP/000/1127/SB	PE180013 ZENITH - Install 3rd 345/138/23KV Auto TRF & Increase Fault Duty		N/A	N/A	N/A	N/A	\$3,118,155	N/A
641		HLP/000/1259/SB	PE190053 PARKWAY - INSTALL 7TH & 8TH 12KV FEEDERS (BP)		N/A	N/A	N/A	N/A	\$448,446	N/A
642		HLP/000/0059/SB	PE200055 WHARTON - INSTALL 7TH 12KV FEEDER (BP)		N/A	N/A	N/A	N/A	\$414,235	N/A
643		HLP/000/1041/SB	PE200097 HOLMES - INSTALL 11TH & 12TH 12KV FEEDERS (AP)		N/A	N/A	N/A	N/A	\$463,883	N/A
644		HLP/000/1060/SB	PE200080 TRINITY BAY - INSTALL 5TH 35KV FEEDER (BP)		N/A	N/A	N/A	N/A	\$727,215	N/A
645		HLP/000/1253/SB	PE190050 BLOODGETT - INSTALL 3RD TRF & (3) 12KV FEEDERS (AP)		N/A	N/A	N/A	N/A	\$2,055,731	N/A
646		HLP/000/1289/SB	PE200074 PLAZA - INSTALL 3RD TRF AND (2) 35KV FEEDERS, EXTEND 198KV RING (AP)		N/A	N/A	N/A	N/A	\$8,487,436	N/A
647		HLP/000/1357/SB	PE200076 NEEDVILLE - INSTALL 5TH & 6TH 12KV FEEDERS (BP)		N/A	N/A	N/A	N/A	\$463,134	N/A

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548		HLP/001/102/SB	PE200069 JORDAN - INSTALL 5TH & 6TH 35KV FEEDERS (BP)		N/A	N/A	N/A	N/A	\$557,727	N/A
549		HLP/001/137/SB	PE200103 HILLIE - CONVERT 345KV SWITCHYARD TO BKE AND A HALF (BP)		N/A	N/A	N/A	N/A		N/A
550		HLP/001/137/SB	PE200109 STP - UPGRADE CARRIER ON HILLIE CIRCUITS		N/A	N/A	N/A	N/A	\$2,894,312	N/A
551		HLP/001/137/SB	PE200110 WAP - UPGRADE CARRIER ON HILLIE CIRCUITS		N/A	N/A	N/A	N/A		N/A
552		HLP/001/166/SB	PE210057 GERTIE - ADD 10TH FEEDER		N/A	N/A	N/A	N/A	\$285,425	N/A
553		HLP/001/1312/SB	PE210062 SCENIC WOODS - INSTALL 35KV FACILITIES		N/A	N/A	N/A	N/A	\$6,459,358	N/A
554		HLP/001/136/SB	PE210051 RED BLUFF - INSTALL 3RD TRF AND (2) 12KV FEEDERS		N/A	N/A	N/A	N/A	\$3,401,627	N/A
555		HLP/001/1407/SB	PE210056 CLODINE - INSTALL 4TH TRF AND (2) 12KV FEEDERS		N/A	N/A	N/A	N/A	\$4,368,012	N/A
556		HLP/001/1368/SB	PE200099 WHITE OAK - Install 16th 12KV Feeder (BP)		N/A	N/A	N/A	N/A	\$284,413	N/A
557		HLP/001/1451/SB	PE210053 CLEAR LAKE - Instl 3rd TRF & 2 12KV Fdr		N/A	N/A	N/A	N/A	\$4,042,381	N/A
558		HLP/001/1284/SB	PE200073 ALMEDA - Install 3rd trf & 3-12kv fdr		N/A	N/A	N/A	N/A	\$1,697,024	N/A
559		HLP/001/1252/SB	PE160045 Northside - INSTL 3rd TRF & 2-12KV FDRS		N/A	N/A	N/A	N/A	\$5,574,260	N/A
560		HLP/001/1249/SB	PE160046 SPRINGWOOD - Instl 2 TRFs & 6 FDRS IFDN		N/A	N/A	N/A	N/A	\$6,534,803	N/A
561		HLP/001/123/SB	PE150235 UNIVERSITY - Convert Dist 69KV to 138KV		N/A	N/A	N/A	N/A	\$3,864,932	N/A
562		HLP/000/0095/SB/0067	PE190003 JONES CREEK - Install 3rd 138KV 120mvar Cap Bank		N/A	N/A	N/A	N/A		N/A
563		HLP/000/0095/SB/0067	PE190010 JONES CREEK - Install 2nd 138KV 160mvar Cap Bank		N/A	N/A	N/A	N/A	\$6,625,235	N/A
564		HLP/000/0095/SB/0067	PE180032 VELASCO - Install 2nd 138KV 120MVAR CB		N/A	N/A	N/A	N/A		N/A
565		HLP/000/0095/SB/0104	PE190004 VELASCO - Install 3rd 138KV Cap Bank		N/A	N/A	N/A	N/A		N/A
566		HLP/000/0095/SB/0108	PE190044 WEST GALVESTON - Inst. 1 12KV 5MVAR Reactor		N/A	N/A	N/A	N/A	\$837,190	N/A
567		HLP/000/0095/SB/0110	PE190065 STEWART - Replace 10mvar 3500V WBL 5MVAR reactor		N/A	N/A	N/A	N/A		N/A
568		HLP/000/0095/SB/0111	PE190135 HARRISBURG - Remove&relocate 12KV CapBank at TRF #1		N/A	N/A	N/A	N/A	\$351,056	N/A
569		HLP/000/0095/SB/0111	PE190136 HEIGHTS - Install 12KV Cap Bank		N/A	N/A	N/A	N/A		N/A
570		HLP/000/0095/SB/0112	PE200184 VILLAGE CREEK - Install(2) 14.4 MVAR Cap		N/A	N/A	N/A	N/A	\$732,747	N/A
571		HLP/000/130/SB/0039	PE210019 CEDAR BAYOU PLANT - Install 138KV Series Reactor		N/A	N/A	N/A	N/A	\$2,240,195	N/A
572		HLP/000/0095/SB/0117	PE220328 JONTE - INSTALL 138KV 20MVAR CAP BANK		N/A	N/A	N/A	N/A	\$1,175,191	N/A
573		HLP/001/1179/SB	PE220327 TANNER - INSTALL 3RD 100MVA TRANSFORMER & 2-35KV FEEDERS PLUS 4 CKTS		N/A	N/A	N/A	N/A	\$6,396,728	N/A

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674		HLP/00/1519/SB	PE230044 FAIRBANKS - INSTALL 10TH 35KV FEEDER		N/A	N/A	N/A	N/A	\$347,805	N/A
675		HLP/00/1509/SB	PE220087 ANGLETON - UPGRADE TRANSFORMERS & CONVERT TO LOW PROFILE		N/A	N/A	N/A	N/A	\$11,829,780	N/A
676		HLP/00/1507/SB	PE220093 THW - INSTALL 10TH 35KV FEEDER		N/A	N/A	N/A	N/A	\$349,512	N/A
677		HLP/00/1579/SB	PE230043 SPRINGWOOD - INSTALL 138KV BKR STATION		N/A	N/A	N/A	N/A		N/A
678		HLP/00/1578/SB	PE230046 ROTHWOOD - UPGRADE LINE RELAYING ON SPRINGWOOD CKTS		N/A	N/A	N/A	N/A	\$8,039,262	N/A
679		HLP/00/1417/SB	PE220095 TWINWOOD - BUILD NEW 35KV SUBSTATION		N/A	N/A	N/A	N/A		N/A
680		HLP/00/1417/SB	PE230341 TWINWOOD - INSTALL 138/35KV MOBILE SUBSTATION		N/A	N/A	N/A	N/A	\$21,273,047	N/A

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11	HLP/00/11/5/7R/0005	P1115.3 Bailey-Jones Creek; Docket# 48823				
12	HLP/00/11/5/7R/0005	P1115.2 Jones Creek Loop				
13	HLP/00/11/5/7R/0005	P1115.64 Bailey Approach Spans				
14	HLP/00/11/5/7R/0008	P1115.65 COPPER-Velasco (Structure 19401)				
15	HLP/00/11/5/7R/0008	P1115.7 DOW/345-Jones Creek	11%	10%	Labor variance due to: (1) customers needing emergency outages, which lasted two days, prevented the contractor from working, and led to increased labor costs; (2) a landowner's refusing to release an easement to CNEP, which required redesign of FAA lighting, use of additional mats, and new access road; and (3) high winds causing multiple installation and removal delays, resulting in increased labor and equipment rental costs.	
16	HLP/00/11/5/7R/0007	PE210016 INSTALL (2) 345KV LINE POSITIONS				
17	HLP/00/11/5/6B/0006	PE210017 INSTALL (2) 345KV LINE POSITIONS				
18	HLP/00/11/5/6B/0006					
19	HLP/00/11/4/7R/0001	PE54.3 Southwyck Substation				
20	HLP/00/11/4/7R/0001	PE54.4 Southwyck-Algoa Corner (Southwyck-Structure #32235)				
21	HLP/00/11/4/7R/0001	PE54.5 Southwyck-Algoa Corner (Structure #32235-Algoa Corner)	31%	-24%	The MOPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates that could have a cumulative impact above 10% as well as to provide estimates for additional cost categories. Variance percentage of final total costs vs. final estimate filed in MOPR is -24%.	
22	HLP/00/11/4/7R/0001	PE54.6 Southwyck-Algoa Corner (Structures #32235-32236)				
23	HLP/00/11/4/7R/0001	PE54.7 Algoa Corner-Friendswood Corner Partial Rebuild and Partial Reconnector of 138 KV Ckt. USB				
24	HLP/00/11/4/7R/0001					
25	HLP/00/11/4/7R/0001					
26	Angleton - MONSAN Rebuild	P1037 Angleton-PETTSION-MONSAN	83%	74%	Labor costs were higher than the original estimate because of 13 unexpected rainout days which required multiple crew reassignments. In addition, there were unanticipated delays in obtaining road permits from TXDOT. The County unexpectedly denied CenterPoint Houston's use of a county road, which required CenterPoint Houston to obtain a TXDOT permit and caused additional delays. As equipment had been rented for this project prior to the delays, each unexpected rainout day and the TXDOT permit delay increased equipment rental costs.	
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11	HLP/00/0987/1R/0001	P997.1 Fort Bend-Rosenberg						Labor costs and equipment rental costs were higher than estimated due to Fort Bend County's unexpected decision to widen a road that the existing line paralleled, which required CenterPoint Houston to relocate a portion of the line from south side of the road to the north. This created a number of issues.
28								*As the road widening decision was made after the rebuild had begun, approximately half of the newly installed wires needed to be removed and restring. Increasing labor costs. *CenterPoint was forced to obtain new ROW on the north side of the road. As this was a rebuild, CenterPoint had not anticipated acquiring new ROW. *The newly affected landowners would not willingly sell the required ROW forcing CenterPoint Houston to use the Condemnation process, which is time consuming. Because the line could not be out of service for an extended period of time, CenterPoint Houston was required to build a temporary line on the south side of the road.
29								
30	HLP/00/0987/1R/0001	P997.4 West Columbia Approach Span						
31	HLP/00/0987/1R/0001	P997.5 Big Creek Loop						
32	HLP/00/0987/1R/0001	P997.6 Needville Substation						
33								
34	HLP/00/1408/1R/0002	P1409.1 Deepwater Substation Auto Lead						
35	HLP/00/1408/1R/0002	P1409.2 Install Fiber Deepwater-Lytle						
36	HLP/00/1408/1R/0002	P1409.3 Reconfigure/Renew Deepwater Sub						
37								
38	HLP/00/0055/1R/0142	P1028 PLACID Substation						
39	HLP/00/1415/1R/0002	P1415 Jordan-BENDER-CONNER						
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45		HLP/00/1425/TR/0001	P1425.3 CHEVON/LNG/STN-EAGLE			
46		HLP/00/1425/TR/0001	P1425.3 Jordan-WINFE-EAGLE-Mont Belvieu			
47						
	Mt Belvieu Reliability Upgrades					
		HLP/00/1425/TR/0001	P1425.4 HOPSON-Cedar Bayou Plant	208%	47%	(1) Multiple instances of severe weather required CenterPoint to re-energize the line in order to provide reliable transmission service to CenterPoint's Retail customers. The re-energizations themselves required significant labor, and the resulting delays further increased labor and equipment rental costs. (2) Severe weather downed several trees and damaged completed work. This resulting in increased labor, material, and equipment costs. (3) For reliability reasons, CenterPoint had to authorize the use of significant overtime so as to minimize the impact of the above delays so that power would be returned on schedule as requested.
48						
49		HLP/00/1425/TR/0001	P1425.5 CHEV-Cedar Bayou Plant			
50						
51		HLP/00/1412/TR	P1395.1 GEBHRT-Wallis			
52		HLP/00/1412/TR	P1395.2 GEBHRT-Sealy			
	Wallis - Peters ckt 65 Rebuild					
		HLP/00/0922/TR/0012	P1395.3 Sealy-Peters	17%	1%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates related to an increase in contract engineering and consulting costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is 1%.
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11	Angleton - West Columbia ckt 04 RB/R	HLP/00/0922/TR/0014	P1285.1 Angleton-West Columbia	144%	35%	After the project was engineered and designed, a governmental entity announced it planned to build a lake over a portion of the planned route. CenterPoint was required to lengthen the route so as to go around the planned lake and to acquire an additional ROW (as a rebuild, the plan had initially been to use CenterPoint Houston's existing ROW). This unexpected routing change resulted in increased labor, equipment and ROW expenses. Project costs were further increased by: (1) the need to design and install a 16.5 mile temporary bypass, (2) severe weather and flooding (up to five feet of water in portions of the Right of Way area), and (3) a need to accelerate the construction of the project requiring crews to work overtime and weekends, increasing labor costs.
55						
56		HLP/00/0922/TR/0014	P1235.2 Angleton-West Columbia (Structures 34141-34145 and 34052-34053)			
57		HLP/00/0922/TR/0014	P1235.3 Angleton-West Columbia (Structures 03871-03876)			
58						
59		HLP/00/0922/TR/0016	P1042.1 P.H. Robinson-Alta Loma			
60		HLP/00/0922/TR/0016	P1042.2 La Marque-Hitchcock			
	Alcoa Corner - LaMarque ckt 03 RB/R	HLP/00/0922/TR/0016	P1042.3 Alta Loma-Hitchcock	50%	2%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PLC guidelines, project estimates were updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates that have a cumulative impact above 10% as well as to provide estimates for additional cost categories. Variance percentage of final total costs vs. final estimate filed in MCPR is 2%
61						
62						
63	Flewellen - Peters ckt 25 RB/R	HLP/00/1413/TR	P1413.1 Flewellen-Peters (Structures 34905-35126)	-18%	-28%	
64		HLP/00/1413/TR	P1413.2 Flewellen-Peters (Structures 35331-35170)			
65						
66	THW - WO ckt 29 Conversion	HLP/00/0456/TR	P1391.1 P1392.2 T.H. Wharton-Little York White Oak			
67		HLP/00/0456/TR	P1391.3 T.H. Wharton Substation Conversion	-2%	-4%	
68		HLP/00/0456/TR	P1391.4 Little York Substation Conversion			
69		HLP/00/0456/TR	P1391.5 White Oak Substation Conversion			
70						

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3	VI-A-3.1: Project Cost Summary Information							
4	TEST YEAR ENDING 12/31/2023							
5	DOCKET NO. 56211							
6	Sponsors: David Mercado & Mandie Shook							
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
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11								
71	P1063.1 TEXVAL-Greets Bayou Plant				The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is 7%.			
72	P1063.2 TEXVAL-Wallisville							
73	P1063.3 WALLISVILLE-Castell-Clinton							
74								
75	Greets Bayou - Clinton 135 kV Conversion				67%	7%		
76								
77								
78	STONE LAKE - NEW 35KV SUBSTATION							
79								
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	Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	Percent difference between Column G and (e) [% diff bwn actual & final estimate]	Variance Explanation
11	LONGBOW INTERCONNECTION	HLP/00/1501/TR	P1501.1 Danbury Substation	127%	74%	Unexpected rainy weather caused delays and required the use of more mats were needed than initially estimated. The delays and additional mats increased labor and equipment costs.
90						
91	BEACHWOOD GENERATOR INTERCONNECTION	HLP/00/1516/TR	P1516 Beachwood Sub: 138kV Generator Lead (Mark One) (2/2022-2/2022)	-34%	-34%	
92						
93		HLP/00/1266/TR	P1241.1 Garth Substation			
94	GARTH - NEW 12KV SUBSTATION	HLP/00/1266/TR	P1241.2 Crosby-Mont Belvieu	10%	8%	The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is 8%
95						
96	Lake Houston Sub	HLP/00/1250/TR	P1250 Lake Houston Substation	6%	-25%	
97						
98						
	WORTHAM - NEW 35KV SUBSTATION	HLP/00/1308/TR	P1308 Wortham Substation	20%	20%	During construction, the job scope changed because work was added to the work order. The new work required adding a tangent pole between the 3-pole to the substation rack to role the project phases. To finish the project on schedule there was a temporary post insulator jumper configuration installed on the 3-pole. This was needed to allow time for a new tangent pole to be fabricated and installed. These changes resulted in increased labor and construction costs as well as renting additional equipment.
99						
100	BURKE INTERCONNECTION	HLP/00/1389/TR	P1388 Burke Substation			
101						
		HLP/00/1389/TR	P1388.1 WAGYU Substation	126%	128%	Unanticipated ERCOT outage constraints resulted in multiple mobilization and demobilizations, increasing labor costs. Due to time lost from the outage constraints, reliability considerations required the crews to work overtime, increasing labor costs.
102						
103	BRAZORIA WEST SOLAR INTERCONNECTION	HLP/00/1454/TR	P1454 Eagle Nest Substation	3%	3%	
104						
105		HLP/00/1216/TR/0001	P1216.2 Restor SanJacintoBayErosion @ Sir #14727			
106			P1216.4 RC/Thermally Upgrade 138kV Cud87E TX-CB			The initial estimate did not reflect that CenterPoint's existing easement crossing Exxon's property only permitted maintenance. To complete the project, CenterPoint had to obtain additional rights from Exxon. It took nearly a year of negotiations to
107		HLP/00/1216/TR/0001				

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11	Baytown Area Upgrades	HLP/001/1216/TR/0001	P1216.50 ThermUpdate 138KV Ckt21F Diabolo-Moment	76%	47%	Obtain access to perform soil boring and to install the requisite foundations, which resulted in increased labor costs from additional mobilization and demobilization. In order to avoid condemnation, CenterPoint had to revise design drawings, foundation locations, and test bore locations. After construction began, Exxon was slow to approve proposed drawings and took months before getting a response. This stall resulted in increased labor costs due to mats that remained in place for the duration of the project. Labor cost variance primarily due to additional mats cost. Unanticipated outage constraints resulted in multiple mobilizations and demobilization, increasing labor costs. These delays also increased equipment rental costs.
108						
109	Peyton Creek Wind Generator Interconnect	HLP/001/1262/TR	P1262 REFUGE Substation	27%	28%	Unanticipated rainy weather required the use of mats to access the ROW, increasing labor and equipment costs.
110						
111						
112	Greens Bayou Reconfiguration	HLP/001/1338/TR	P1338.1 P1338 Relocate 138KV Ckt 94A/95C at GBY	14%	14%	Unanticipated rainy weather resulted in multiple mobilizations and demobilizations, increasing labor and equipment rental costs.
113		HLP/001/1338/TR	P1338.2 P1338 Greens Bayou 69KV Ckt 17A-Cons			
114						
115	Limburg Substation	HLP/001/1345/TR	P1350 Limburg Substation	-25%	-25%	
116						
117	Blodgett 138KV Loop Conversion	HLP/001/1355/TR	P1260.10 Blodgett Sub Loop 138KV Ckt 37C	-27%	-27%	
118						
119	DANISH FIELDS SOLAR INTERCONNECTION	HLP/001/1450/TR	P1450.1 Hillie Sub: Danish Field Generator Lead	-34%	-34%	
120						
121	Ckt.65B Line Reposition	HLP/001/1518/TR/0002	P1425.3 H.O. Clarke-Garrett	56%	-2%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates related to materials and contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -2%.
122		HLP/001/1518/TR/0003	P1425.4 H.O. Clarke Approach Spans (Structures 33970-35977)			
123						

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11	Mykawa Substation	HLP/00/1424/TR/0001	P1424.4 Mykawa Substation	53%	-27%	The MOPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect differences in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MOPR is -27%.		
124								
125	Generator - PES1 (@ HOC)	HLP/00/1428/TR/0001	P1428.1 PES1 HOC; Generator Lead	-13%	38%			
127		HLP/00/1428/TR/0001	P1428.2 PES1 HOC; Relo OK05A & 26A App. Spans					
128	Spillman Restoration	HLP/00/1414/TR	P1414.1 Cedar Bayou Plant Approach Span	-8%	-34%			
130		HLP/00/1414/TR	P1414.2 Morgan Point Reconfiguration					
131	WAP FAULT DUTY- BUS SPLIT	HLP/00/00130/TR/00036	P1015 W.A. Parish Approach Spans	13%	13%	While working on the project, 2 additional poles were noticed to need replacement due to strength issues. Variance was due to the increased labor and equipment cost associated with the replacement of the poles.		
132								
133	Marick Substation	HLP/00/0055/TR/0144	P1030 MARICK Substation	-19%	-14%			
134								
135	HOPSON SUBSTATION	HLP/00/0055/TR/0136	P1017 HOPSON Substation	\$985,474.13	80%	Variance primarily due to unforeseen severe weather which caused: (1) three days of delay; (2) the need for additional mats; (3) temporary work to repair bypass from weather decay		
137	CELWST SUBSTATION	HLP/00/0055/TR/0133	P1009 CELWST Substation	61%	61%	Variance due to difficulty with the railroad access. Unrelated work was ongoing and crews had to wait three days for railroad to be cleared. Severe unsafe weather led to additional delays and crew mobilizations.		
138								
139	RIGBY SUBSTATION	HLP/00/0055/TR/0137	P1345 RIGBY Substation	41%	36%	Variance primarily due to flooding from Tropical Storm Imelda. Additional crew mobilizations and demobilizations as well as mats needed.		
140	RUSSEL - NEW TRANSMISSION CUSTOMER	HLP/00/0055/TR/0119	P1001 Service to New Braskem RUSSEL Substation	141%	141%	Variance due to (1) increase in guard services after a shifter in place protocol enacted while on the jobsite, (2) Weather delays and mats needed to access the right of way.		
142								
143	WATERHOLE SUBSTATION	HLP/00/1571/TR	P1571.1 Waterhole Substation	-16%	-1%			
144								
145								

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11								
146			P1509.1 New Gulf Approach Spans					
147			P1509.2 Gulfie Sub: Loop 138KV Ckt 60					
			P1509.3 Install 138KV Generator Lead: Gulfie-TXGLF	18%	-14%		The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, as well as to provide estimates for additional cost categories. Variance percentage of final total costs vs. final estimate filed in MCPFR is -14%	
148								
149			P1570.1 8mg Sub: Loop Ckt 04 near Sir					
150			P1570.2 Upgrade Ckt 04S: Hudson-Monahan	0%	0%			
151			P1570.3 Upgrade Ckt 04A: Hudson-Monahan					
152			Bavou					
153								
154			P1567.1 Archer Sub: Loop Ckt 28B-3 near Sir					
155			P1567.2 Archer Sub: 138KV Generator Lead to Brooman Sub	4%	-7%			
156			P1567.3 Upgrade 138KV Ckt 26: Archer-Rosharon					
157								
158			P1300.1 RABBS Substation	-18%	-40%			
159								
160			P1485 NORTCO Substation	-34%	-34%			
161								
162			P1419.1 SRB Area 69KV Upgrades	-40%	-40%			
163								
164			P1337.1 Initial Conductor: Jones Creek-Sir					
165			P1337.2 JCK Sub: Relocate Switchable Cap Bank Leads	126%	126%			
166			P1337.3 Velasco Sub: Relocate Ckt 59 Sub Lead					
167			P1337.4 Jones Creek Approach Spans					
168			P1337.5 Install Fiber: Copper-Sir #31519					
169								
170			P1276 Nash Loop	34%	15%			
171								

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11	BASF HOFMAN UPGRADE CKT 2	HLP/00/1246/1R	P1246 COPPER-BASF_HOFMAN-Lake Jackson	67%	67%	In order to avoid condemnation, CenterPoint had to agree to a landowner's demands related to matting, soil removal and disposal, greatly increasing the costs of the project. The landowner also caused unanticipated delays in obtaining a railroad crossing permit. These problems resulted in increased labor and equipment rental costs.
172						
173	RAMSEY SOLAR GENERATOR	HLP/00/1480/1R/0001	P1480.1 Hillje Sub: Relocate 345KV CKT 72D Approach Span	-62%	-62%	
174	INTERCONNECTION					
175	MYRTLE SOLAR	HLP/00/1445/1R	P1445.1 MYRTLE Sub: Generator Lead	-13%	-13%	
176	INTERCONNECTION					
177						
178	OLD 300 SOLAR CENTER INTERCONNECTION	HLP/00/1453/1R	P1453 Cedar Creek Sub: Loop 345KV Ckt 72C-1 Near Str #28412	105%	24%	Tower manufacturer delivered tower late, causing CenterPoint to miss the planned outage window. The resulting outage constraints increased labor and equipment costs as they required multiple mobilizations and demobilizations.
179	PARKES SUBSTATION	HLP/00/0065/1R/0134	P1012 PARKES Substation	-51%	-5%	
180						
181						
182		HLP/00/0086/1R/0001	P913.1 Alvin-Alcoa Corner			The MOPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction teams input prior to 30 days before construction, which included increased installation and material costs. Variance percentage of final total costs vs. final estimate filed in MOPR is -34%.
183		HLP/00/0086/1R/0001	P913.2 Alvin Sub: Convert to 138KV Ckt 26B			
184		HLP/00/0086/1R/0001	P913.4 Karsten-Marietta-Alvin Conversion			
185	Convert Alvin sub to 138 KV, double tap	HLP/00/0086/1R/0001	P920.1 Marietta-Karsten (Marietta-Structure 28223, Structure 28217-Karsten)	31%	-42%	
186		HLP/00/0086/1R	P920.2 Partial Rebuild of 345 KV Ckts, 16C and 95B			
187		HLP/00/0086/1R/0001	P920.5 Partial Rebuild and Partial Reconnector of 69 KV Ckt. 53D			
188	WALLER ADD XFMR AND FEEDER	HLP/00/1162/1R	P1162 Waller Substation	7%	7%	
189						
190	READING INSTALL 35KV TRFS AND FDRS	HLP/00/1228/1R	P1228 Reading Approach Spans	-25%	-35%	
191						
192	CONVERT HOC LOAD FROM 69 TO 138KV	HLP/00/1115/1R	P914.1 H.O. Clarke Conversion	94%	94%	Severe weather and flooding required the use of more mats than originally anticipated. Extra labor and equipment costs were incurred because of the mud around the project, requiring additional mats and the mobilization and demobilization of equipment.
193						
194	UPGRADE CKT 73 CLODINE	HLP/00/1125/1R	P1125 Clodine-Barber	-65%	-65%	
195						
196						

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11						
	IMPERIAL TAP UPGRADE	HLP/00/0927/TR/0002		38%	-4%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which included increased labor and transportation & engineering costs. Variance percentage of final total costs vs. final estimate filed in MCPR is -4%
197						
198	RED BLUFF SUBSTATION	HLP/00/1162/TR		6%	54%	
199						
200	GALVESTON CAUSEWAY REBUILD 138KV	HLP/00/0922/TR/0005		-11%	-11%	
201						
202	GALVESTON CAUSEWAY REBUILD 138KV LINE	P930 Galveston Causeway Crossing		-11%	-22%	
203						
204	DALTON - NEW TRANSMISSION CUSTOMER	HLP/00/0055/TR/0132		8%	1%	
205						
206	UPGRADE CKT 30 NB-GREENS TAP-LOCKWOOD	P1125 North Belt-Greens Tap-Lockwood		77%	-21%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which included increased labor and transportation & engineering costs. Variance percentage of final total costs vs. final estimate filed in MCPR is -3%
207						
208	UPGRADE CKT 37 AND CKT 08	HLP/00/1119/TR		-11%	-11%	
209		P1119.2 Grant-TECO				
210		P1119.1 Knight-H.O. Clarke				
211	LUBIZOL DP NEW TRANSMISSION CUSTOMER	HLP/00/0055/TR/0121		-21%	-24%	
212						
213	UPGRADE CKT 25 AND 73 CLADDINE - O'BRIEN	P1118 Claddine-O'Brien		162%	162%	Unforeseen severe weather resulted in (1) 11 days of weather delays increasing labor and equipment rental costs and (2) the use of more mats than originally anticipated increasing labor and equipment rental costs. There was also damage to equipment. A rental truck boom broke down and took 3 days to repair as mechanic was on a different job site. (3) Outages were delayed because of ongoing work at Memorial and Wood Creek substations that were scheduled for completion but were delayed.
214						
215						

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11	KATH-FREEMAN	HLP/001148/7R	P1148.1 Kath-Freeman (Freeman-Structure #08677)	7%	7%			
216	BETTY-HOCKLEY	HLP/001148/7R	P1148.1 Kath-Freeman (Freeman-Structure #08677)	7%	7%			
217	REBUILD CKT 65	HLP/001148/7R	P1148.1 Kath-Freeman (Freeman-Structure #08677)	7%	7%			
218	GERTIE TAP UPGRADE	HLP/0010927/7R/0003	P988 Gertie Tap	19%	19%	The manufacturer delivered rafter beams that did not meet the required specifications. For reliability reasons, it was not performed to delay the project, so CenterPoint decided to adjust the improperly sized rafter beams rather than to wait for replacements. This unanticipated work increased labor costs.		
219								
220								
221	PSARCO-METALSSW REBUILD CKT 94	HLP/001149/7R	P958.1 Metals Switch-PSARCO (Structure #17555)	88%	47%	(1) Unanticipated severe weather resulted in four rafter days and required the use of more mats than originally anticipated. Increasing labor and equipment costs. (2) A structure was found to be missing deadend material, all material necessary for 2 deadends was ordered to repair and replace damage.		
222								
223	NEW 348KV CKT SHELTON - DEEPWATER	HLP/001149/7R	P1408 Deepwater-Sheldon	-37%	-37%			
224								
225		HLP/00100054/7R/0025	P25.10 Cedar Bayou-Center (Structure #32235)					
226		HLP/00100054/7R/0025	P25.10 Cedar Bayou-Center (Structure #32235)					
227		HLP/00100054/7R/0025	P25.11 Cedar Bayou-Center (Structure #32235)					
228		HLP/00100054/7R/0025	P25.13 Cedar Bayou-KENNY (Structure #32235)					
229		HLP/00100054/7R/0025	P25.14 Cedar Bayou-Center (Structure #32235)					
230		HLP/00100054/7R/0025	P25.14 Cedar Bayou-Center (Structure #32235)					
231		HLP/00100054/7R/0025	P25.14 Cedar Bayou-Center (Structure #32235)					
232		HLP/00100054/7R/0025	P25.33 Downside-Oasis (Structure #32235)					
233		HLP/00100054/7R/0025	P25.34 Downside-Oasis (Structure #32235)					
234		HLP/00100054/7R/0025	P25.35 Downside-Oasis (Structure #32235)					
235		HLP/00100054/7R/0025	P25.36 Downside-Oasis (Structure #32235)					
236		HLP/00100054/7R/0025	P25.37 Downside-Oasis (Structure #32235)					
237		HLP/00100054/7R/0025	P25.38 Downside-Oasis (Structure #32235)					
238		HLP/00100054/7R/0025	P25.39 O'Brien-W.A. Parish (Structure #32235)					
239		HLP/00100054/7R/0025	P25.40 O'Brien-W.A. Parish (Structure #32235)					
240		HLP/00100054/7R/0025	P25.40 O'Brien-W.A. Parish (Structure #32235)					

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11							
241	HLP/00/0054/7R/0025	P25.41 T.H. Wharton-Zenith (Structure 18846)					
242	HLP/00/0054/7R/0025	P25.42 T.H. Wharton-Zenith (Structure 18847)					
243	HLP/00/0054/7R/0025	P25.43 Str 14225 S80 Tower Replacement					
244	HLP/00/0054/7R/0025	P25.5 Addicks-Summers (Structure 26056)					
245	HLP/00/0054/7R/0025	P25.57 Addicks-T.H. Wharton (Structure 01240)	-26%	-27%			
246	HLP/00/0054/7R/0025	P25.58 Addicks-T.H. Wharton (Structure 01250)					
247	HLP/00/0054/7R/0025	P25.59 Str 01417 S80 Tower Replacement					
248	HLP/00/0054/7R/0025	P25.6 South Texas-W.A. Parish (Structure 19035)					
249	HLP/00/0054/7R/0025	P25.60 Addicks-White Oak (Structure 01449)					
250	HLP/00/0054/7R/0025	P25.61 Str 01418 S80 Tower Replacement					
251	HLP/00/0054/7R/0025	P25.62 Str 01400 S80 Tower Replacement					
252	HLP/00/0054/7R/0025	P25.63 Str 01438 S80 Tower Replacement					
253	HLP/00/0054/7R/0025	P25.64 Str 01431 S80 Tower Replacement					
254	HLP/00/0054/7R/0025	P25.65 Str 01430 S80 Tower Replacement					
255	HLP/00/0054/7R/0025	P25.66 Addicks-White Oak (Structure 01452)					
256	HLP/00/0054/7R/0025	P25.67 Str 01437 S80 Tower Replacement					
257	HLP/00/0054/7R/0025	P25.68 Str 01402 S80 Tower Replacement					
258	HLP/00/0054/7R/0025	P25.69 Str 01407 S80 Tower Replacement					
259	HLP/00/0054/7R/0025	P25.7 South Texas-W.A. Parish (Structure 00646)					
260	HLP/00/0054/7R/0025	P25.70 Str 01521 S80 Tower Replacement					
261	HLP/00/0054/7R/0025	P25.71 Zenith-O'Brien (Structure 01595)					
262	HLP/00/0054/7R/0025	P25.72 Zenith-O'Brien (Structure 01594)					
263	HLP/00/0054/7R/0025	P25.75 Jordan-North Belt (Structure 02730)					
264	HLP/00/0054/7R/0025	P25.76 Str 14225 S80 Tower Replacement					
265	HLP/00/0054/7R/0025	P25.8 South Texas-W.A. Parish (Structure 00717)					
266	HLP/00/0054/7R/0025	P25.9 South Texas-W.A. Parish (Structure 00651)					
267							
RITTENHAUS REBUILD CRT 988 TAP		HLP/00/1148/7R	P24.1 Rittenhouse Tap (Berry-North Belt)	55%	-25%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates that have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -20%.	
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PUBLIC UTILITY COMMISSION OF TEXAS									
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC									
VI-M-3.1: Project Cost Summary Information									
TEST YEAR ENDING 12/31/2023									
DOCKET NO. 58211									
Sponsors: David Mercado & Mandie Shook									
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Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation				
11			69%	-2%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates that have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is 4%.				
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272		P2019.3 Alvin-Webster Plant							
273		HLP/00/0054/ITR/0001							
274		P2018 W.A. Parish-Jannella							
275		HLP/00/0054/ITR/0001							
276		P2018.1 W.A. Parish-Brimore							
277		HLP/00/0054/ITR/0001							
278		P2018.2 Bellairs-Brimore							
279		P2020 H.O. Clarke-W.A. Parish							
280		HLP/00/0054/ITR/0001							
281		P2020.5 Routine maintenance of 69 KV Ckt. 432							
282		HLP/00/0054/ITR/0001							
283		TRSM PREV MAINTENANCE PRGM-CAPITAL							
284		HLP/00/0054/ITR/0001							
285		HLP/00/0054/ITR/0001							
286		P2019.2 P.H. Robinson-La Vantage 462							
287		HLP/00/0054/ITR/0001							
288		P2019 W.A. Parish-West Columbia							
289		HLP/00/0054/ITR/0001							
290		P2017.1 East Brimmo-Peters							
291		HLP/00/0054/ITR/0001							
292		P2017.2 Dunlavy-Hockey							
293		HLP/00/0054/ITR/0001							
294		P2018.1 Prewallen-Peters							
295		HLP/00/0054/ITR/0001							
296		P2022 Cedar Bayou-Kenny							
297		HLP/00/1393/ITR							
298		P1393 Brazos River Crossing (Structures 01545-01548)							
299		HLP/00/1150/ITR							
300		P1150.3 Crosby-PSARCO							
301		HLP/00/1150/ITR							
302		P1150.4 Highland-Highlands Corner							
303		HLP/00/1150/ITR							
304		P1117 Dunlavy-Heights							
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PUBLIC UTILITY COMMISSION OF TEXAS						
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC						
V-H-M-3.1: Project Cost Summary Information						
TEST YEAR ENDING 12/31/2023						
DOCKET NO. 56211						
Sponsors: David Mercado & Mandle Shook						
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Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation	
11						
	HLP/00/1055/TR	P868.2 Anulion-STRAIT				
294	HLP/00/1055/TR	P868.2 T.H. Wharton-Willow				
295	HLP/00/1055/TR	P868.4 Plaza-Telephone				
296	HLP/00/1055/TR	P868.5 South Lane City-Texas Gulf Cogen				
297	HLP/00/1055/TR	P868.6 T.H. Wharton-CAMIRON (Structures 21509-21544)	174%	101%	(1) After construction began, TxDOT began a road project and requested an alteration that required the use of a temporary pole. Additional labor was needed to install a bypass in order to install the temporary pole. This work also required additional mats for equipment to access the location of installation. (2) Labor costs increased between the time of the initial estimate and the start of the project. (3) Unanticipated severe weather resulted in rain outs, the use of more mats than originally anticipated, and the regrading of an access road, all of which increased labor and equipment rental costs. (4) For reliability reasons, CenterPoint had to authorize the use of overtime so as to minimize the impact of the weather related delays.	
298	HLP/00/1055/TR	P868.7 Oates-Greens Bayou-Clinton (Structures 10401-10402)				
299	HLP/00/1055/TR	P868.8 53E H.O. Clarke to Karsten-HFrame Replacement & Int. Str.				
300	HLP/00/1055/TR	P868.9 Flewellen-Mason Road				
301	HLP/00/1055/TR	P868.10 Fannin-Grant (Structures 11486-11489)				
302						
303						
MORGAN PT- ALKANE REBUILD 138KV CK96	HLP/00/0922/TR/0006	P857.2 Morgans Point-Sandy Point	141%	141%	(1) As a result of the Winter Freeze in 2021, the project was delayed by 2 weeks and additional costs were incurred because workers had to temporarily energize the line in preparation for the storm. (2) A new railyard was added after the project was initially estimated. The railway was in operation continuously and the owner was not willing to shutdown the railway so that crews could have access. As a result, crews had to work at night, increasing labor costs. There were about 13 train related delays. Special precautions were taken to transport mats and rentals over tracks, adding to expense.	
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RESTORE CKT 18/27/606 COLORADO RIVER CROSSING	HLP/00/1400/TR	P1400.1 Partial Rebuild and Partial Reconnector of 345 kv Cks. 18A and 27C	72%	50%	Outages needed to be shortened due to peak approaching which required temporary structures to be put in place and requiring alternate work shifts at premium labor costs to energize on time. Additional temporary easement for west side of river was required with contract reseeded when complete.	
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CBY-AIRTEK CK787 UPGRADES	HLP/00/1190/TR	P1190.4 Cedar Bayou-WALKER	-23%	25%		
	HLP/00/1190/TR	P1190.2 Ship Channel-AIRTEK				
MISSOURI CITY- ADD 3RD XFMR AND 2 FEEDERS	HLP/00/1288/TR	P1288 Missouri City Approach Span	59%	29%	Severe weather and flooding resulted in delays and required the use of more mats than initially estimated, increasing labor and equipment costs.	
312						
313						
WEST GALVESTON XFMR	HLP/00/1444/TR	P1444 West Galveston Approach Span	4%	-32%		
314						
315						
REBUILD CKT04 MUSTBY-HUD- MONS FOR	HLP/00/1144/TR	P1349 Clear Creek Crossing	-14%	-30%		
316						
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Projects Submitted to ERCOT RFG		WBS#	(a) Project Name (with CON Docket No., if Any)	(g) Percent difference between (c) and (e) [% off bwn initial & final estimate]	(12) Percent difference between Column G and (e) [% off bwn actual and final estimate]	(13) Variance Explanation		
11	JONES CREEK NEW 12KV SUB	HLP/001/1344/7R	P1344 Jones Creek Tap	49%	9%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to materials that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is 9%. There was a cost increase in the materials that varied from initial estimates.		
320								
321								
	San Bernard Sub for Danciger Solar	HLP/001/1462/7R/0001	P1462 San Bernard Substation	18%	-7%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates that have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -7%.		
322								
323	JONTE 138KV SWITCHING STATION	HLP/001/1489/7R	P1483.1 Jonte Sub Loop 138KV Ckt 89E-2 & 90C-1 near Str 13895	-21%	-21%			
324								
325								
326	CKT 24 UPGRADES	HLP/001/1503/7R	P1503 Upgrade 138KV Ckt 24B Str 17240 - 17228	5%	-6%			
327								
	EXPLORER CORNER	HLP/001/1447/7R	P1002.1 EXPLOR Corner-ChannelView	184%	164%	Unforeseen severe weather caused 2 days of delay, resulting in additional mobilizations and demobilizations of crews, increasing labor expenses. For reliability reasons, the circuit needed to be energized by the end of the year, which required temporary structures. This increased labor, material, and equipment costs. It also required the use of more material than anticipated, further increasing labor and equipment costs.		
328						The initial estimate was updated to account for final structure weights and class.		
329								
330	BRAZOS RIVER RELOCATE STRUCTURES	HLP/001/0054/7R/0024	P1018.1 Brazos River Crossing (Structures 17476-17481)	71%	25%	Heavy rains caused a private road failure, affecting 1.25 miles along the river. CenterPoint had to repair the stretch of road to move its trucks through. Additional mats were required for repairs or reinforcement of structures which required additional guard services. After the initial cost estimate, CenterPoint determined that the project required bid diversities, required additional 7958ACSR conductor to splice the existing line, and changed the final structure weights.		
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1	PUBLIC UTILITY COMMISSION OF TEXAS												
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11	Projects Submitted to ERCOT RPS	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	(h) Percent difference between (c) and (e) [% diff bwn actual and final estimate]	Variance Explanation							
	BEARLE NEW CUSTOMER SUBSTATION	HLP/00/0055/TR/0145	P-1031 BEARLE Substation	93%	-31%	The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is -28%							
333	PORT BEND CITY STRUCTURE RELOCATION	HLP/00/0922/TR/0013	P1033 Brazos River Crossing (Structures 6449-6453)	-2%	-20%								
334	Rebuild/Reconductor Gulfgate Sub Taps	HLP/00/0922/TR/0019	P1044.1 Gulfgate Tap (North) (Structures 10942-14419) P1044.2 Gulfgate Tap (South) (Structures 14353-14419)	-22%	-14%								
335	138KV Ckt 05F-2; Holmes to Sir #11434	HLP/00/0922/TR/0020	P1045 Holmes-Plaza	55%	-18%	The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is -18%							
340	REBUILD/RECONDUCTOR LA PORTE SUB TAPS	HLP/00/0922/TR/0021	P1046.1 Rebuild LaPorte-Sandy Point Ckt 56F for Hardening P1046.2 La Porte-SYLVAN P1046.3 SYLVAN-Morgans Point (Structure 12302)	88%	-6%	The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to materials costs, contract labor and transportation costs, and engineering costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is -5%							
341	CKT 32A DUNLAVY-HYDE PARK	HLP/00/0914/TR/0010	P1059.1 Dunlavy-Hyde Park	105%	44%	(1) Severe weather caused multiple mobilizations and demobilizations of crews and required the use of additional mats, increasing labor and equipment rental costs (2) To improve work site efficiency, the wire boat was left on the job site over night, rather than transported to and from the laydown yard. This led to additional security costs. (3) Customer property requested work to ended early on 2 separate days, resulting in delays that increased labor costs.							
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Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CGN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	(h) Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation			
11								
348	HLP/00/0922/TR/0006	P1072.1 BBRC-138kV Dist. 94L-11 College Sub to Str #14333			The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is -11%.			
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351	HLP/00/0901/JTR	P875.2 North Belt-King-Jordan			The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple fluctuations in estimates that have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is 0%.			
352	HLP/00/0901/JTR	P875.3 Leeland-W.A. Parish						
353	HLP/00/0901/JTR	P875.4 W.A. Parish-Westchase (Structure 22891)						
354	HLP/00/0901/JTR	P875.5 Tomball-Singleton-Roane Prairie (Structure 35163)		23%				
355	HLP/00/0901/JTR	P875.6 Tomball-Singleton-Roane Prairie (Structure 35128-35129)						
356	HLP/00/0901/JTR	P875.7 Tomball-Singleton-Roane Prairie (Structure 35130-35131)						
357								
358	HLP/00/0922/TR/0018	P923.1 Lauder-North Belt (Structures 13145-32201 and 23301-25538)			The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in labor cost estimates that have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is -25%.			
359				45%				
360	HLP/00/0922/TR/0018	P923.2 Lauder-Lauder Corner (Structures 25539-23392)						
361								
362								
363	HLP/00/1468/JTR	P1468 P.H. Robinson - TNNP Freeway Park		85%	The MCPFR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPFR is -39%.			
364								
365	HLP/00/1472/JTR	P1472.1 Zenith-Village Creek		-14%				
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11	CKT96 DEER PARK TO CA UPGRADE	HLP/00/1428/IR	P1428.1 Morgans Point-Cardiff	150%	57%	Variance due to anticipated work required by pipeline company: 1) the pipeline company requested additional offset; 2) routing modification resulted in two of the concrete poles no longer being needed and two temporary poles to remain as permanent; (3) bypass had to be re-engineered, requiring four extra temporary poles, add guy wires, and pull extra wire off structures; 4) and Pipeline companies also requested double layer of mats.		
365								
366								
367	FT BEND SOLAR INTERCONNECTION	HLP/00/1365/IR	P1395 Beasy Substation	35%	31%	(1) It took longer to acquire a railroad crossing permit than anticipated for reasons beyond CentalPoint's control. This delay led resulted in additional mobilizations and demobilizations. (2) Additionally, the final approved Right of Way required additional mats than initially planned, which all culminated in increased costs.		
368								
369	Jordan-CITIES-DALTON	HLP/00/1448/IR	P1448 Partial Rebuild and Partial Reconnector of 138 KV Ckt. 881	165%	-4%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -4%		
370								
371	ENCO Substation	HLP/00/0055/IR/0143	P1028.1 138 KV Service to ENCO Substation within one mile of Ckt. 91A; Partial Rebuild of 69 KV Ckt. 53B; Partial Rebuild of 138 KV Cts. 01B, 06K, 63D and 91A	54%	-1%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to contract labor and transportation costs and contract engineering and consulting costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -1%		
372		HLP/00/1452/IR/0001	P1452.1 Upgrade 138KV Ckt 91A Coughan-Gulgate Tap					
373								
374	DUAL PILOT RELAYING	HLP/00/00798/IR	P798.4 CROWN Jefferson (Structures 38614-38617)	185%	-24%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, as well as to provide estimates for additional cost categories. Variance percentage of final total costs vs. final estimate filed in MCPR is -24%		
375								

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Sponsors: David Mercado & Mandie Shook									
A	B	C	K	L	M				
(1)	(2)	(3)	(11)	(12)	(13)				
Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation				
11									
	BRAZOS RIVER CROSSING Relocate Str #05429	P1078.1 Brazos River Crossing (Structures 35367-35370)	92%	47%	(1) Material and labor costs significantly increased between the initial estimate and the beginning of construction. (2) The 9554CCSC7 conductor that was originally estimated was not available, requiring the use of more expensive 9734CCSC7 conductor. (3) Unanticipated outage scheduling issues resulted in 4 day delay, causing additional mobilization and de-mobilization of crews. This increased labor and equipment rental costs. (4) When crews arrived on site, it was discovered that static arms were bent beyond use. The project was delayed 5 weeks, through holidays, for replacement static arms and pole caps to be installed.				
376									
377	BOGGY SUBSTATION	P1347 BOGGY Substation	-33%	-35%					
378									
379	DUNVALE TO JEANETTE CKT 05 UPGRADE	P1558.1 Jeanette-Structure 26665	-29%	-28%					
380									
381	BRITMOORE - ADD 3RD XFMR AND 2 FEEDERS	P1285 BRITMOORE SUB: ADD 3RD TRANSFORM	-30%	-49%					
382									
383	CLEAR LAKE - ADD 3RD XFMR AND 2 F (Cum.)	P1451 CLEAR LAKE SUB: ADD 3RD XFMR	-67%	-67%					
384									
385	ALMEDA-ADD 3RD XFMR AND 3 FEEDERS	P1025 Almeda: Add 3rd Transformer	6%	6%					
386									
387	NORTHSIDE -ADD 3RD XFMR AND 2 FEEDERS	P1252 Northside Sub Install 3rd Transf	-51%	-51%					
388									
389	SPRINGWOOD-INSTALL 2 XFERS AND 6 FEEDERS	P1249 Springwoods Sub: Install 2-100MVA	-59%	-59%					
390									
391	Convent University 69kV Load to 138kV	P616 Line 91H 69kV Conversion at Univer	8%	8%					
392									
393	DOW Load Increase	P1137.6 3rd VELASCO SUB CAP BANK (CKT58G	-11%	-11%					
394									
395									

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VM-3.1: Project Cost Summary Information						
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DOCKET NO. 55211						
Sponsors: David Mercado & Mandie Shook						
(1)	(2)	(3)	(11)	(12)	(13)	
Projects Submitted to ERCOT RFS	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation	
RELOCATE STR 10659	HLP/00/0922/TR/0035	P1050 Greens Bayou Erosion: Relocate Str #10659	55%	-65%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -65%	
TWINWOOD - NEW 35KV SUBSTATION	HLP/00/1417/TR	P1417.1 Twinwood Substation	94%	-66%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to material costs, contract labor and transportation costs, and engineering and consulting costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is -66%	
DUNLAVY TAP	HLP/00/0914/TR/0009	P1059.2 Create 138KV Ckt 37A Tap Kirby - Dunlavy	45%	45%	Additional labor expenses were incurred when towers arrived incorrectly drilled from the manufacturer. Instead of delaying the project to wait on the manufacturer to replace the towers, labor crews made the necessary corrections on site.	
	HLP/00/0914/TR/0009	P1059.3 Create 138KV Ckt 09D Tap Heights - Dunlavy				
	HLP/00/0914/TR/0009	P1059.4 Create 59KV HOC-Hyde Park				
68KV CKT 34A HEIGHTS-WHITE OAK	HLP/00/0914/TR/0012	P1057.1 H.O. Clarke-Dunlavy P1057.2 Create 59KV Ckt HOC - Dunlavy P1057.3 Reuse 245KV Ckt 725 near Eureka Sub to Prep 138KV Heights Sub	22%	-6%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect multiple situations in estimates that have a cumulative impact above 10% as well as to provide accurate estimates for additional items as soon as they were possible to identify. Variance percentage of final total costs vs. final estimate filed in MCPR is -5%	
138KV CKT 37C TECO-GARROTT	HLP/00/0922/TR/0032	P1057 TECO-Bloodgett	53%	4%	The MCPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to costs of materials that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MCPR is 4%	

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5	DOCKET NO. 56211					
6	Sponsors: David Mercado & Mandie Shock					
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	(1)	(2)	(3)	(11)	(12)	(13)
	Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CCN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation
11	CKT 24 DUNVALE - WESTCHASE	HLP/001/553/TR	P1553.1 Upgrade 138kV Ckt 24B-1: Str #17304-17240	15%	6%	The MOPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which as in this case, may reflect fluctuations in cost which have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MOPR is 6%
411						
412						
413	MOODY-STEWART CKT 630-4	HLP/000/0622/TR/0008	P1016.1 Stewart-Moody (Structures 34764-34785)	73%	-22%	The MOPR filing process entails having as complete of an estimate, as available, to move forward with initial filing, but allowing flexibility for refinement within one month of construction starting. While working within PUC guidelines, project estimate was updated with construction team's input prior to 30 days before construction, which may reflect a difference in estimates related to cost of materials and contract labor and transportation costs that could have a cumulative impact above 10%. Variance percentage of final total costs vs. final estimate filed in MOPR is -22%
414						
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416		HLP/000/1115/SB/0002	PE190001 Install 3rd 800MVA Auto Transformer (BP)	N/A	N/A	
417		HLP/000/1115/SB/0005	PE190012 Loop 345KV STP/DOW CKT #27 Into Jones Creek (BP)	N/A	N/A	
418		HLP/000/1115/SB/0003	PE190013 4th 138KV, 1200MVAR Cap Bank and (2) Automatic Cap Banks	N/A	N/A	
419		HLP/000/1114/SB/0001	PE180030 SOUTHWYCK - RECONFIGURE & UPGRADE 138KV CKT #65 LOOP BUS (BP)	N/A	N/A	
420		HLP/000/1114/SB/0001	PE180151 HOC - Upgrade Line Relaying & Carrier on 138KV CKT #26 to Karsten	N/A	N/A	
421		HLP/000/1114/SB/0001	PE180152 KARSTEN - Upgr Line Relaying & Carrier on 138KV CKT #26 to HOC & Repl RTU	N/A	N/A	
422		HLP/000/0997/SB/0004	PE190056 BIG CREEK - BUILD NEW 138/12KV SUBSTATION (BP)	N/A	N/A	
423		HLP/000/0997/SB/0007	PE190042 DAMON - CONVERT TO 138KV OPERATION (BP)	N/A	N/A	
424		HLP/000/1349/SB	PE180043 West Columbia - Convert to 138KV Operation	N/A	N/A	
425		HLP/000/0997/SB/0003	PE200020 NEEDVILLE - BUILD NEW 138/12KV SUBSTATION	N/A	N/A	
426		HLP/000/0997/SB/0005	PE200021 FORT BEND - CONVERT CKT #45 TO 138KV OPERATION	N/A	N/A	
427		HLP/000/0997/SB/0009	PE200022 WEST COLUMBIA - CONVERT CKT #45 TO 138KV OPERATION	N/A	N/A	
428		HLP/000/0997/SB/0001	PE200023 WAP - REPLACE CARRIER EQUIPMENT CKT #62 TO W. COL	N/A	N/A	
429		HLP/000/0997/SB/0005	PE200024 TEXWES - DISCONNECT CUSTOMER SUB & CONV TO DISTRIBUTION SERVICE	N/A	N/A	

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4	TEST YEAR ENDING 12/31/2023					
5	DOCKET NO. 58211					
6	Sponsors: David Mercado & Mandie Shook					
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	(1)	(2)	(3)	(11)	(12)	(13)
	Projects Submitted to ERCOT RPG	WBS#	(a) Project Name (with CON Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff from initial & final estimate]	(h) Percent difference between Column G and (e) [% diff from actual and final estimate]	Variance Explanation
11			PE2200100 DEERWATER - RECONNECT 138KV SWITCHYARD & INSTALL 800 MVA AUTO TRF	N/A	N/A	
430		HLP/00/1408/SB/0002	PE2200101 DEERWATER - UPGRADE 138KV YARD FAULT DUTY TO 80KA (AP)	N/A	N/A	
431		HLP/00/1408/SB/0001	PE2200133 LYDELL - INSTALL 2ND FIBER OPTIC CABLE ON CKT #70 TO DEERWATER	N/A	N/A	
432		HLP/00/1408/SB/0002	PE210023 JORDAN - INSTALL 3RD 800MVA AUTO TRF / PE210033 JORDAN - LOOP 345KV CKT #67 TO CHAMBERS/KING	N/A	N/A	
433		HLP/00/1415/SB/0003	PE210030 JORDAN - UPGRADE 138KV YARD TO 80KA	N/A	N/A	
434		HLP/00/1416/SB/0001	PE210031 CHAMBERS - UPGRADE CARRIER ON CKT #97 TO JORDAN (WAS KING)	N/A	N/A	
435		HLP/00/1416/SB/0002	PE210032 KING - UPGRADE CARRIER ON CKT #97 TO JORDAN (WAS CHAMBERS)	N/A	N/A	
436		HLP/00/1416/SB/0002	PE220008 PLACID - INSTALL SCADA SET AT NEW CUSTOMER SUB	N/A	N/A	
437		HLP/00/0005/SB/0142	PE220009 RIGSBY - INSTALL DUAL FIBER OPTIC CABLES ON CKT #88 TO PLACID	N/A	N/A	
438		HLP/00/0005/SB/0142		N/A	N/A	

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	4	TEST YEAR ENDING 12/31/2023				
	5	DOCKET NO. 56211				
	6	Sponsors: David Mercate & Mandie Shook				
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	Projects Submitted to ERCOT RPG	WES#	(a) Project Name (with CON Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff btwn initial & final estimate]	(h) Percent difference between Column G and (e) [% diff btwn actual and final estimate]	Variance Explanation
439		HLP/001/425/SB/0001	PE220012 JORDAN - INSTALL NEW LINE POSITION FOR 138KV CKT TO WINFRE	N/A	N/A	
440		HLP/001/425/SB/0001	PE220013 MONT BELVIEU - INSTALL LINE POSITION FOR NEW 138KV CKT TO LANGSTON	N/A	N/A	
441		HLP/001/425/SB/0001	PE220014 DALTON - UPGRADE LINE RELAYING ON MONT BELVIEU CKT (WAS WINFRE)	N/A	N/A	
442		HLP/001/425/SB/0001	PE220015 WINFRE - UPGRADE LINE RELAYING ON EAGLE CKT (WAS LANGSTON)	N/A	N/A	
443		HLP/001/425/SB/0001	PE220016 WINFRE - UPGRADE LINE RELAYING ON JORDAN CKT (WAS DALTON)	N/A	N/A	
444		HLP/001/425/SB/0001	PE220017 LANGSTON - UPGRADE LINE RELAYING ON CHEVRON CKT (WAS WINFRE)	N/A	N/A	
445		HLP/001/425/SB/0001	PE220018 EAGLE - UPGRADE LINE RELAYING ON WINFRE CKT (WAS CHEVRON)	N/A	N/A	
446		HLP/001/425/SB/0001	PE220019 CHEV - UPGRADE LINE RELAYING ON LANGSTON CKT (WAS EAGLE)	N/A	N/A	
447		HLP/001/425/SB/0001	PE220020 CHEV - UPGRADE CBY CKT86 TO MIN 669MVA EMER RATING	N/A	N/A	
448		HLP/001/425/SB/0001	PE220022 CEDAR BAYOU PLANT - UPGRADE CHEVRON CKT86 TO MIN 669MVA EMER RATING	N/A	N/A	
449		HLP/001/425/SB/0001	PE220023 WARVUE - UPGRADE LINE RELAYING ON CKT TO MONT BELVIEU	N/A	N/A	
450		HLP/001/412/SB/0003	PE220021 WALLIS - UPGRADE 138KV CKT85 LOOP BUS TO 4000A (AP)	N/A	N/A	
451		HLP/001/412/SB/0001	138KV CKT85 TO GEBHRT TO 4000A	N/A	N/A	
452		HLP/001/399/SB	PE220054 SEALY - UPGRADE 138KV CKT85 LOOP BUS TO 4000A	N/A	N/A	
453		HLP/001/399/SB	PE220055 PETERS - UPGRADE 138KV CKT85 TO GEBHRT TO 4000A	N/A	N/A	
454		HLP/001/235/SB	PE220037 ANGLETON - UPGRADE CKT04 TO WEST COLUMBIA TO 369MVA (BP)	N/A	N/A	
455		HLP/001/235/SB	PE220038 WEST COLUMBIA - UPGRADE CKT04 TO WEST COLUMBIA TO 369MVA (BP)	N/A	N/A	
456		HLP/001/092/SB/0014	PE220097 ANGLETON - UPGRADE CKT 04 TO WEST COLUMBIA TO 4000A CONTINUOUS RATING	N/A	N/A	
457		HLP/001/235/SB/0001	PE220098 WEST COLUMBIA - UPGRADE CKT 04 TO ANGLETON TO 4000A CONTINUOUS RATING	N/A	N/A	
458		HLP/001/092/SB/0016	PE220005 HITCHCOCK - UPGRADE 138KV CKT 93 LOOP TO 4000A	N/A	N/A	

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	Projects Submitted to ERCOT RP6	WBS#	(a) Project Name (with CEN Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	(h) Percent difference between (c) and (e) [% diff bwn actual & final estimate]	Variance Explanation
1	PUBLIC UTILITY COMMISSION OF TEXAS					
2	CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC					
3	VI-M-3.1: Project Cost Summary Information					
4	TEST YEAR ENDING 12/31/2023					
5	DOCKET NO. 56211					
6	Sponsors: David Mercado & Mandie Shook					
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459		HLP/001/13/SB	PE230008 Elevell - UPGRADE 138KV PETERS CKT 25 TO 400A CONTINUOUS RATING	N/A	N/A	
460		HLP/001/14/SB/0001	PE230009 Peters - UPGRADE 138KV FLEWELLEN CKT25 TO 400A CONTINUOUS RATING	N/A	N/A	
461		HLP/001/04/SB/0004	PE230024 THW - CKT28A1: UPGRADE THW EQ	N/A	N/A	
462		HLP/001/04/SB/0005	PE230035 LITTLE YORK - CKT29A1: UPGRADE LITTLE YORK EQ	N/A	N/A	
463		HLP/001/04/SB/0006	PE230028 WHITE OAK - CKT28A2: UPGRADE WHITE OAK EQ	N/A	N/A	
464		HLP/001/04/SB/0004	PE230027 BAMEL - UPGRADE CARRIER ON THW CKT 31	N/A	N/A	
465		HLP/001/12/SB	PE230230 GYPSUM - EXTEND 138KV TRANSMISSION SERVICE TO NEW CUSTOMER-OWNED SPER STONE	N/A	N/A	
466		HLP/001/12/SB/0004	PE230311 CLINTON - 138KV BREAKER STATION	N/A	N/A	
467		HLP/001/12/SB/0001	PE230312 GALENA PARK - MOVE DISTRIBUTION LOAD TO 138KV & REMOVE 69/138KV SWITCHYAR FACILITIES	N/A	N/A	
468		HLP/001/12/SB/0002	PE230313 GREENS BAYOU - RECONFIGURE 69KV SWITCHYARD & UPGRADE CARRIER ON 69KV CLINTON CKT	N/A	N/A	
469		HLP/001/12/SB	PE230314 NINTH - UPGRADE RELAYING ON 138KV CLINTON CKT	N/A	N/A	
470		HLP/001/12/SB	PE230315 ANBUSH - UPGRADE RELAYING ON 138KV CLINTON CKT	N/A	N/A	
471		HLP/001/30/SB	PE230048 STONE LAKE - BUILD NEW 138/35KV SUBSTATION & (2) 14.4 MVAR CAP BANKS	N/A	N/A	
472		HLP/001/30/SB	PE230049 HOCKLEY - UPGRADE CKT 66 TO TOMBALL	N/A	N/A	
473		HLP/001/49/SB	PE230078 BUILD NEW 345KV SWITCHYARD TO CONNECT NEW GENERATOR	N/A	N/A	
474		HLP/001/49/SB	PE230025 WOLF BUILD NEW 345KV BKR & 1/2 SWITCHYARD	N/A	N/A	
475		HLP/001/49/SB	PE230026 HILLIE INSTALL POTT SCHEME ON 345KV CKT #54 TO WOLF	N/A	N/A	
476		HLP/001/49/SB	PE230027 WAP INSTALL POTT SCHEME ON 345KV CKT #54 TO WOLF	N/A	N/A	
477		HLP/001/49/SB	PE230028 BLUE - BUILD NEW 345KV BKR & 1/2 SWITCHYARD	N/A	N/A	
478		HLP/001/49/SB	PE230029 BAILEY - INSTALL POTT SCHEME ON 345KV CKT #72 TO BLUE	N/A	N/A	
479		HLP/001/49/SB	PE230030 HILLIE - INSTALL POTT SCHEME ON 345KV CKT #72 TO BLUE	N/A	N/A	

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480	HLP/001/1497/SB	PE220031 HUNGERFORD - BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A		
481	HLP/001/1497/SB	PE220032 DYANN - UPGRADE LINE RELAYING ON CKT 60 TO HUNGERFORD	N/A	N/A		
482	HLP/001/1497/SB	PE220033 DYANN - UPGRADE LINE RELAYING ON CKT 60 TO SOUTH LANE CITY	N/A	N/A		
483	HLP/001/1497/SB	PE220034 EAST BERNARD - UPGRADE LINE RELAYING ON CKT 60 TO HUNGERFORD	N/A	N/A		
484	HLP/001/1497/SB	PE220035 ORCHARD - UPGRADE LOOP BUS TO 625/550 MVA	N/A	N/A		
485	HLP/001/1497/SB	PE220036 SOUTH LANE CITY - UPGRADE LINE RELAYING ON CKT 60 TO DYANN	N/A	N/A		
486	HLP/001/1498/SB	PE220050 RIVERSIDE - BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A		
487	HLP/001/1498/SB	PE220051 CHAMION - INSTALL DUAL FIBER ON CKT #94 TO RIVERSIDE	N/A	N/A		
488	HLP/001/1498/SB	PE220052 FSARCO - INSTALL DUAL FIBER ON CKT #94 TO RIVERSIDE	N/A	N/A		
489	HLP/001/1501/SB	PE220059 DANBURY - BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A		
490	HLP/001/1501/SB	PE220070 ANGLETON - UPGRADE LINE RELAYING ON CKT 04 TO DANBURY	N/A	N/A		
491	HLP/001/1501/SB	PE220071 PETSON - UPGRADE LINE RELAYING ON CKT 04 TO DANBURY	N/A	N/A		
492	HLP/001/1501/SB	PE220073 MONSAN - CONVERT 2ND DCB RELAY SCHEME TO POTT	N/A	N/A		
493	HLP/001/1501/SB	PE220075 HUDSON - UPGRADE LINE RELAYING ON 138KV CKT TO WEBSTER	N/A	N/A		
494	HLP/001/1501/SB	PE220076 WEBSTER - INSTALL POTT RELAY SCHEME ON 138KV CKT TO HUDSON	N/A	N/A		
495	HLP/001/1501/SB	PE220212 LIVERPOOL - ROUTE FIBER INTO CONTROL BUILDING	N/A	N/A		

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496		HLP/001/1516/SB	PE220103 ANGLETON INSTALL LINE POSITION FOR NEW GENERATOR (MARK ONE)	N/A	N/A	
497		HLP/001/1516/SB	PE220104 ANGLETON UPGRADE 138 KV CKT 26 TO KARSTEN TO MIN 384 MVA EMERGENCY	N/A	N/A	
498		HLP/001/1516/SB	PE220105 MONSIEUR UPGRADE 138 KV CKT 04 TO PETERSON TO MIN 250 MVA EMERGENCY RATING	N/A	N/A	
499		HLP/001/1516/SB	PE220106 HOC UPGRADE 138 KV SOUTH WESTERN BUS TO MIN 775 MVA CONTINUOUS	N/A	N/A	
500		HLP/001/265/SB	PE190063 GARTH - BUILD NEW 13812KV SUBSTATION (AP)	N/A	N/A	
501		HLP/001/265/SB	PE190066 HANEY - MODIFY 138KV SECTIONALIZING SCHEME (AP)	N/A	N/A	
502		HLP/001/265/SB	PE190287 BAYTOWN - INSTALL DER TRANSFER TRIP	N/A	N/A	
503		HLP/001/250/SB	PE190052 LAKE HOUSTON BUILD NEW 138/35KV SUBSTATION (AP)	N/A	N/A	
504		HLP/001/250/SB	PE190081 KINGWOOD - MODIFY 138KV SECTIONALIZING SCHEME (AP)	N/A	N/A	
505		HLP/001/308/SB	PE210065 WORTHAM BUILD NEW 138/35KV SUBSTATION	N/A	N/A	
506		HLP/001/389/SB	PE200037 BURKE - BUILD NEW 138KV SWITCHYARD	N/A	N/A	
507		HLP/001/454/SB	PE210068 EAGLE NEST BUILD NEW 138KV SWITCHYARD TO CONNECT NEW GENERATOR	N/A	N/A	
508		HLP/001/454/SB	PE210071 BURKE INSTALL POTT RELAY SCHEME ON CKT 02 TO EAGLE NEST	N/A	N/A	
509		HLP/001/454/SB	PE210072 WEST COLUMBIA INSTALL POTT RELAY SCHEME ON CKT 02 TO EAGLE NEST	N/A	N/A	
510		HLP/001/216/SB/0003	PE180147 MILLER Upgrade Relaying on CKT #63 to BAYTOWN (BP)	N/A	N/A	
511		HLP/001/216/SB/0003	PE180148 BAYTOWN Upgrade Relaying on CKT #67 to MILLER (BP)	N/A	N/A	
512		HLP/001/262/SB	PE190034 REFUGE - BUILD NEW 345KV SWITCHYARD (AP)	N/A	N/A	
513		HLP/001/339/SB	PE19052 GREENS BAYOU RECONFIGURE 138KV YARD (AP)	N/A	N/A	
514		HLP/001/339/SB	PE190153 ANBUSH UPGRADE RELAYING ON 138KV CKT #03 TO GBY (AP)	N/A	N/A	
515		HLP/001/339/SB	PE190121 WHITE OAK REPLANE PANEL ON 138KV CKT #03 TO GREENS BAYOU (AP)	N/A	N/A	
516		HLP/001/339/SB	PE190224 HARDY UPGRADE CARRIER EQUIPMENT ON CKT #04 TO GREENS BAYOU (AP)	N/A	N/A	

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11						
517		HLP/001/1345/SB	PE200040 LINBURG Limburg Substation (SUB) Build new 138KV	N/A	N/A	
518		HLP/001/1345/SB	PE200041 SOUTHWYCK UPGRADE 138KV LINE SECTIONALIZING SCHEME	N/A	N/A	
519		HLP/001/1335/SB	PE190049 BLODGETT CONVERT TO 138KV OPERATION (AP)	N/A	N/A	
520		HLP/001/1450/SB	PE210048 HILLIE - Install 345 KV Line Position for New Generator (Danish Fields Solar)	N/A	N/A	
521		HLP/001/1519/SB/0003	PE220101 HOC RELOCATE 138 KV CKT 05 TO WEBSTER	N/A	N/A	
522		HLP/001/1519/SB/0003	PE220102 WEBSTER UPGRADE LINE RELAYING ON CKT 05 TO HOC	N/A	N/A	
523		HLP/001/1424/SB/0001	PE210050 PEABODY INSTALL 138 KV, 40 MVAR CAP BANK	N/A	N/A	
524		HLP/001/1424/SB/0001	PE220042 MYKAWA BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A	
525		HLP/001/1424/SB/0001	PE220043 COUGAR UPGRADE CARRIER EQUIPMENT ON CKT TO MYKAWA	N/A	N/A	
526		HLP/001/1424/SB/0001	PE220045 PHR UPGRADE CARRIER EQUIPMENT ON CKT TO MYKAWA	N/A	N/A	
527		HLP/001/1424/SB/0001	PE220048 PLAZA UPGRADE CARRIER EQUIPMENT ON CKT TO MYKAWA	N/A	N/A	
528		HLP/001/0017/SB	PE220318 MYKAWA BUILD NEW DUAL VOLTAGE DISTRIBUTION SUB 39KV & 12KV	N/A	N/A	
529		HLP/001/1426/SB/0001	PE200289 HOC INSTALL LINE POS.FOR NEW GENERATOR (PES1) & UPG.CKT 90 TO GARROTT	N/A	N/A	

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11		PE200208 STRANG UPGRADE RELAYING AND CARRIER ON CKT87 TO CEDAR BAYOU	N/A	N/A		
530		PE200210 CEDAR BAYOU PLANT UPGRADE RELAYING AND CARRIER ON CKT87 TO STRANG	N/A	N/A		
531		PE200211 QUANUM UPGRADE RELAYING AND CARRIER ON CKT86 TO CEDAR BAYOU	N/A	N/A		
532		PE200212 CEDAR BAYOU PLANT UPGRADE RELAYING AND CARRIER ON CKT85 TO QUANUM	N/A	N/A		
533		PE200213 BAYOU UPGRADE RELAYING AND CARRIER ON CKT79 TO MORGANS POINT	N/A	N/A		
534		PE200214 MORGANS POINT UPGRADE RELAYING AND CARRIER ON CKT79 TO BAYOU, PRE-INSTALL DUAL FIBER CABLES	N/A	N/A		
535		PE200215 CHORIN INSTALL DUAL FIBER ON CKT87 TO SRB	N/A	N/A		
536		PE200216 SRB UPGRADE WAVE TRAP ON CKT87 TO CHORIN	N/A	N/A		
537		PE200217 CEDAR BAYOU PLANT UPGRADE RELAYING AND CARRIER ON CKT84 TO HOPSON	N/A	N/A		
538		PE200218 HOPSON UPGRADE RELAYING AND CARRIER ON CKT84 TO CEDAR BAYOU	N/A	N/A		
539		PE200219 DECKER UPGRADE CKT83 TO CEDAR BAYOU TO 489NVA	N/A	N/A		
540		PE100047 HOO - Install 138KV Series	N/A	N/A		
541		PE100048 WAP - Install 138KV Series	N/A	N/A		
542		PE200074 BRITMOORE - UPGRADE CARRIER EQUIPMENT ON 138KV CKT #09 TO WAP (BP)	N/A	N/A		
543		PE190075 FORT BEND - REMOVE CARRIER EQUIPMENT ON 138KV CKT #09 TO WAP (BP)	N/A	N/A		
544		PE220236 WATERHOLE BUILD NEW CNP 345KV BKR-3-1/2 INTERCONNECTION SWITCHYARD	N/A	N/A		
545		PE220237 BAILEY UPGRADE LINE RELAYING ON CKT82 TO WATERHOLE	N/A	N/A		
546		PE220238 JONES CREEK UPGRADE LINE RELAYING ON CKT82 TO WATERHOLE	N/A	N/A		
547		PE220319 GULFTIE BUILD NEW CNP 138KV BKR-3-1/2 INTERCONNECTION SWITCHYARD	N/A	N/A		
548						

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563	HLP/00/1233/SB/0001	PE210077 WHITE OAK INSTALL 2ND 138/69 KV AUTO	N/A	N/A		
564	HLP/00/1233/SB/0002	PE210078 WHITE OAK UPGRADE 69 KV CKT 34 TO HEIGHTS TO MIN 192/192 MVA	N/A	N/A		
565	HLP/00/1233/SB/0002	PE210079 HEIGHTS UPGRADE 69 KV CKT 34 TO WHITE OAK TO MIN 192/192 MVA	N/A	N/A		
566	HLP/00/1233/SB/0001	PE210080 SAN FELIPE UPGRADE CARRIER EQUIP ON 138 KV CKT 09 TO WHITE OAK	N/A	N/A		
567	HLP/00/1325/SB	PE210255 DEHL - INSTALL 11TH & 12TH 13KV FEEDERS	N/A	N/A		
568	HLP/00/1460/SB	PE220089 AIRLINE - INSTALL 12TH 12KV FEEDER	N/A	N/A		
569	HLP/00/1184/SB	PE220085 CROCKETT - INSTALL 3RD TRANSFORMER & 3-12 KV FEEDERS	N/A	N/A		
570	HLP/00/1337/SB	PE210020 Jones Creek - Install new 138kv positions	N/A	N/A		
571	HLP/00/1337/SB	PE210021 Velasco - Reconfigure for new Jones Creek ckt	N/A	N/A		
572	HLP/00/0130/SB/0044	PE200098 JONES CREEK - RECONFIGURE 138KV SWITCHYARD	N/A	N/A		
573	HLP/00/1278/SB	PE180217 NASH - CONVERT TO 138KV OPERATION (AP)	N/A	N/A		
574	HLP/00/1246/SB	PE170066 HOFMAN - REPLACE LINE PANEL ON CKT #02 TO BASF & REPL RTU (AP)	N/A	N/A		
575	HLP/00/1246/SB	PE170067 BASF - REPLACE LINE PANEL & JUMPERS ON CKT #02 TO HOFMAN & REPL RT (AP)	N/A	N/A		
576	HLP/00/1246/SB	PE180214 LAKE HOUSTON - UPGRADE CKT #02 LOOP BUS	N/A	N/A		
577	HLP/00/1480/SB/0001	PE210098 Hillie - BUILD NEW 345KV LINE POSITION FOR NEW GENERATOR	N/A	N/A		
578	HLP/00/1445/SB	PE210039 Appleton - Install Line Position for New Generator (MYRTLE)	N/A	N/A		
579	HLP/00/1463/SB	PE210067 Cedar Creek - BUILD NEW 345KV SWITCHYARD TO CONNECT NEW GENERATOR	N/A	N/A		
580	HLP/00/1463/SB	PE210069 Bailey - INSTALL POTT RELAY SCHEME ON CKT 12 TO CEDAR CREEK	N/A	N/A		
581	HLP/00/1463/SB	PE210070 WAF - INSTALL POTT RELAY SCHEME ON CKT 72 TO CEDAR CREEK	N/A	N/A		

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11			PE210232 ALTA LOMA - INSTALL 8TH 12KV FEEDER	N/A	N/A	
592		HLP/00/0996/SB	PE210233 MUSTANG BAYOU - INSTALL 3RD & 4TH 12KV FEEDERS	N/A	N/A	
593		HLP/00/0996/SB	PE210234 WEBSTER - UPGRADE MANVEL 69KV LINE RELAYING FOR ALVIN BYPASS	N/A	N/A	
594		HLP/00/0996/SB	PE230002 ALVIN - CONVERT TO 138KV OPERATION & INSTALL 2ND TRF	N/A	N/A	
595		HLP/00/0996/SB	PE230003 MANVEL - CONVERT TO 138KV OPERATION	N/A	N/A	
596		HLP/00/0996/SB	PE230018 HOC - DISCONNECT 69KV CKT #3 TO KARSTEN	N/A	N/A	
597		HLP/00/0996/SB	PE230019 WEBSTER - REMOVE 69KV FACILITIES (INCLUDING AUTO)	N/A	N/A	
598		HLP/00/0996/SB	PE230021 KARSTEN - REMOVE 69KV FACILITIES & REVISE LINE RELAYING ON 138KV CKTS TO ANGLETON	N/A	N/A	
599		HLP/00/1162/SB	PE210063 WALLER INSTALL 2ND TRF AND 35KV FEEDER	N/A	N/A	
590		HLP/00/1226/SB	PE190051 READING - Install (2) 100 MVA TRF's & (3) 35KV Feeders (BP)	N/A	N/A	
591		HLP/00/112/SB	PE150234 HOC - CONVERT TRFS #1, #2, & #3 TO 138KV OPERATION	N/A	N/A	
592		HLP/00/0938/SB	PE180144 HOC - REPLACE CONVENTIONAL SUB WITH BKR & HALF	N/A	N/A	
593		HLP/00/1152/SB	PE160410 RED BLUFF BUILD NEW 138/12KV SUBSTATION	N/A	N/A	
594		HLP/00/1152/SB	PE180135 DUNLAVY - UPGRADE 69KV CKT #81 TO HEIGHTS (BP)	N/A	N/A	
595		HLP/00/117/SB	PE180136 HEIGHTS - UPGRADE 69KV CKT #81 TO DUNLAVY	N/A	N/A	
596		HLP/00/117/SB	PE220211 HEIGHTS - UPGRADE DUNLAVY CKT #1	N/A	N/A	
597		HLP/00/152/SB	PE180044 CEDAR BAYOU PLANT UPGRADE 138KV CKT #87 TO STRANG	N/A	N/A	
598		HLP/00/1190/SB	PE180036 CHORIN UPGRADE 138KV CKT #87 TO SRG, INCREASE AMPACITY (REPLACE ALTEK WITH RUSSEL SUB)	N/A	N/A	
599		HLP/00/1190/SB	PE180034 SRG UPGRADE 138KV CKT #87 TO CHORIN, INCREASE AMPACITY	N/A	N/A	
600		HLP/00/1190/SB	PE180043 CHORIN UPGRADE 138KV CKT #87 TO STRANG, INCREASE AMPACITY (BP)	N/A	N/A	
601		HLP/00/1190/SB	PE170088 STRANG UPGRADE AMPACITY OF CUSTOMER SUBSTATION	N/A	N/A	
602		HLP/00/1190/SB				

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603			HLP0001269/SB	PE210050 MISSOURI CITY INSTALL 3RD TRF AND 02 12KV FEEDERS	N/A	N/A
604			HLP0001444/SB	PE210026 WEST GALVESTON - ADD 3RD 12KV 50MVA TRANSFORMER	N/A	N/A
605			HLP0001444/SB	PE200260 SPARES-PURCH 30/40/50 MVA POWER TRF	N/A	N/A
606			HLP0001344/SB	PE190002 JONES CREEK BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A
607			HLP0001482/SB/0001	PE220037 SAN BERNARD BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A
608			HLP0001482/SB/0001	PE220068 SOUTH LANE CITY INSTALL PORT SCHEME ON 138KV CKT TO SAN BERNARD	N/A	N/A
609			HLP0001482/SB/0001	PE220041 WEST COLUMBIA UPGRADE RELAY SCHEME ON CKT 04 TO SAN BERNARD	N/A	N/A
610			HLP0001482/SB/0001	PE220058 WEST COLUMBIA UPGRADE 138KV CKT04 TO SAN BERNARD TO MIN 610/0540 MVA RATING	N/A	N/A
611			HLP0001483/SB/0001	PE220066 JONTE - BUILD NEW 138KV BKR & 1/2 SWITCHYARD	N/A	N/A
612			HLP0001483/SB/0001	PE220066 NORTH BELT - UPGRADE LINE RELAYING ON CKT TO JONTE	N/A	N/A
613			HLP0001483/SB/0001	PE220087 HARDY - UPGRADE CARRIER ON CKT TO JONTE	N/A	N/A
614			HLP0001483/SB/0001	PE220088 CROSBY - UPGRADE CARRIER ON CKT TO JONTE	N/A	N/A
615			HLP0001486/SB/0001	PE200387 PHR - UPGRADE RELAYING ON CKT 02 & CKT 03 TO ATTWATER (TNMP) (PHASE 1)	N/A	N/A
616			HLP0001486/SB/0001	PE210175 PHR - UPGRADE 138KV CKT 02 TO JOFAZ (TNMP)	N/A	N/A
617			HLP0001486/SB/0002	PE210176 PHR - UPGRADE 138KV CKT 03 TO JOFAZ (TNMP)	N/A	N/A
618			HLP0001486/SB/0001	PE210170 PHR - UPGRADE RELAYING ON CKT 02 & CKT 03 TO ATTWATER (TNMP) (PHASE 2)	N/A	N/A
619			HLP0001472/SB/0001	PE230026 ZENITH - EXPAND 138KV YARD TO INSTALL RADIAL CKT	N/A	N/A
620			HLP0001472/SB/0002	PE230029 VILLAGE CREEK - CONVERT FROM LOOP TO DOUBLE TAP CONFIGURATION	N/A	N/A
621			HLP0001356/SB	PE200042 BEASLY - BUILD NEW 138KV SWITCHYARD	N/A	N/A
622			HLP0001355/SB	PE200043 EAST BERNARD - UPGRADE CARRIER ON CKT #60	N/A	N/A
623			HLP0001356/SB	PE200044 SEALY - UPGRADE 138KV LOOP BUS TO 250MVA	N/A	N/A

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1. PUBLIC UTILITY COMMISSION OF TEXAS 2. CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC 3. VM-3.1: Project Cost Summary Information 4. TEST YEAR ENDING 12/31/2023 5. DOCKET NO. 55211 6. Sponsors: David Mercado & Mandie Shook 7. 8. 9. 10.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Projects Submitted to ERCOT RFG	WBS#	(a) Project Name (with CON Docket No., if Any)	(b) Percent difference between (c) and (e) [% diff btwn initial & final estimate]	(c) Percent difference between (c) and (e) [% diff btwn actual and final estimate]	(d) Variance Explanation	
11						
624	HLP/000/005/0143	PE200258 ENCO - Install SCADA set at New Customer Sub	N/A	N/A		
625	HLP/000/005/0115	PE200257 EL DORADO - INSTALL 12KV 7.2 MVAR CAP BANK	N/A	N/A		
626	HLP/000/005/0114	PE200258 SPENCER - Install 12KV 7.2MVAR Cap Bank	N/A	N/A		
627	HLP/000/005/0115	PE200261 HARRISBURG - REMOVE AND RELOCATE 12KV 10.8MVAR CAPACITOR BANK (CB2)	N/A	N/A		
628	HLP/000/005/0115	PE180017 SURFSI - REPLACE LINE PANEL ON CKT #59 TO JONES CREEK (TRANSEER TRIP)	N/A	N/A		
629	HLP/000/005/0115	PE180010 CELINEC - REPLACE LINE PANEL ON CKT #55 TO LOMAX	N/A	N/A		
630	HLP/000/005/0115	PE180009 JONES CREEK - INSTALL FIBER ON CKT #48 TO CORTIZ	N/A	N/A		
631	HLP/000/005/0115	PE180011 LOMAX - REPLACE LINE PANEL ON CKT #35 TO CELINEC-REPLACE METERING P'S CKT #35	N/A	N/A		
632	HLP/000/005/0115	PE190021 MARINE - ADD DUAL PILOT TO CORTIZ	N/A	N/A		
633	HLP/000/005/0115	PE180007 SURFSI - REPLACE LINE PANEL ON CKT #59 TO VELASCO	N/A	N/A		
634	HLP/000/005/0115	PE180008 VELASCO - ADD FIBER (DUAL PILOT) TO CKT #48 TO MARINE	N/A	N/A		
635	HLP/000/005/0115	PE200047 SOUTH CHANNEL - UPGRADE LINE RELAYING	N/A	N/A		
636	HLP/000/005/0115	PE200048 PAIR - UPGRADE LINE RELAYING / INSTALL FIBER	N/A	N/A		
637	HLP/000/005/0115	PE200049 AIRPRO - UPGRADE LINE RELAYING	N/A	N/A		
638	HLP/000/005/0115	PE210056 BRITMOORE - INSTALL 3RD TRF AND (2) 12KV FEEDERS	N/A	N/A		
639	HLP/000/005/0115	PE190032 ZENITH - Area Auto TRF INCR. FAULT DUTY	N/A	N/A		
640	HLP/000/005/0115	PE180013 ZENITH - Install 3rd 345/139/23KV Auto TRF & Increase Fault Duty	N/A	N/A		
641	HLP/000/005/0115	PE190053 PARKWAY - INSTALL 7TH & 8TH 12KV FEEDERS (BP)	N/A	N/A		
642	HLP/000/005/0115	PE200054 WARTON - INSTALL 7TH 12KV FEEDER (BP)	N/A	N/A		
643	HLP/000/005/0115	PE200057 HOLMES - INSTALL 11TH & 12TH 12KV FEEDERS (AP)	N/A	N/A		
644	HLP/000/005/0115	PE200080 TRINITY BAY - INSTALL 5TH 35KV FEEDER (BP)	N/A	N/A		
645	HLP/000/005/0115	PE190050 BLODGETT - INSTALL 3RD TRF & (3) 12KV FEEDERS (AP)	N/A	N/A		
646	HLP/000/005/0115	PE200074 PLAZA - INSTALL 3RD TRF AND (2) 35KV FEEDERS, EXTEND 138KV RING (AP)	N/A	N/A		
647	HLP/000/005/0115	PE200076 NEEDVILLE - INSTALL 5TH & 6TH 12KV FEEDERS (BP)	N/A	N/A		

A		B	C	K	L	M
1		PUBLIC UTILITY COMMISSION OF TEXAS				
2		CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC				
3		VI-M-3.1: Project Cost Summary Information				
4		TEST YEAR ENDING 12/31/2023				
5		DOCKET NO. 56211				
6		Sponsors: David Mercado & Mandie Shook				
7						
8						
9						
10						
(1)		(2)	(3)	(11)	(12)	(13)
Projects Submitted to ERCOT RFG		WBS#	(a) Project Name (with CON Docket No., if Any)	(g) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	(g) Percent difference between (c) and (e) [% diff bwn actual and final estimate]	Variance Explanation
11						
648		HLP/00/1402/SB	PE200038 JORDAN - INSTALL 5TH & 6TH 35KV FEEDERS (BP)	N/A	N/A	
649		HLP/00/1437/SB	PE200103 HILLIE - CONVERT 345KV SWITCHYARD TO BKR AND A HALF (BP)	N/A	N/A	
650		HLP/00/1437/SB	PE200109 STP - UPGRADE CARRIER ON HILLIE CIRCUITS	N/A	N/A	
651		HLP/00/1437/SB	PE200110 WAP - UPGRADE CARRIER ON HILLIE CIRCUITS	N/A	N/A	
652		HLP/00/1437/SB	PE200107 BERTIE - ADD 10TH FEEDER	N/A	N/A	
653		HLP/00/1437/SB	PE200082 SCENIC WOODS - INSTALL 35KV FACILITIES	N/A	N/A	
654		HLP/00/1437/SB	PE200081 RED BLUFF - INSTALL 9RD TRF AND (2) 12KV FEEDERS	N/A	N/A	
655		HLP/00/1407/SB	PE200036 CLODINE - INSTALL 4TH TRF AND (2) 12KV FEEDERS	N/A	N/A	
656		HLP/00/1388/SB	PE200039 WHITE OAK - Install 15th 12KV Feeder (AP)	N/A	N/A	
657		HLP/00/1451/SB	PE210053 CLEAR LAKE - Install 3rd TRF & 2 12KV Feeder	N/A	N/A	
658		HLP/00/1284/SB	PE200073 ALMEDA - Install 3rd trf & 3-12kv fdris	N/A	N/A	
659		HLP/00/1282/SB	PE190045 Northside - INSTL 3rd TRF & 2-12KV FDRS	N/A	N/A	
660		HLP/00/1249/SB	PE190046 SPRINGWOOD - Instl 2 TRFs & 8 FDRS IFDN	N/A	N/A	
661		HLP/00/1129/SB	PE150235 UNIVERSITY - Convert Dist 59KV to 138KV	N/A	N/A	
662		HLP/00/0095/SB/0087	PE190003 JONES CREEK - Install 3rd 138KV 120mvar Cap Bank	N/A	N/A	
663		HLP/00/0095/SB/0087	PE180010 JONES CREEK - Install 2nd 138KV 160mvar Cap Bank	N/A	N/A	
664		HLP/00/0095/SB/0087	PE180032 VELASCO - Install 2nd 138KV 120MVAR CB	N/A	N/A	
665		HLP/00/0095/SB/0104	PE190004 VELASCO - Install 3rd 138KV Cap Bank	N/A	N/A	
666		HLP/00/0095/SB/0109	PE190044 WEST GALVESTON - Inst. 1 12KV 5MVAR Reactor	N/A	N/A	
667		HLP/00/0095/SB/0110	PE190055 STEWART - Replace 10mvar 38500V 3000 38500V	N/A	N/A	
668		HLP/00/0095/SB/0111	PE190185 HARRISBURG - Remove & Relocate 12KV Cap Bank	N/A	N/A	
669		HLP/00/0095/SB/0111	PE180106 HEIGHTS - Install 12KV Cap Bank at TRF #1	N/A	N/A	
670		HLP/00/0095/SB/0112	PE200184 VILLAGE CREEK - Install (2) 14.4 MVAR Cap	N/A	N/A	
671		HLP/00/0013/SB/0039	PE210019 CEDAR BAYOU PLANT - Install 138KV Series Reactor	N/A	N/A	
672		HLP/00/0095/SB/0117	PE220328 JONTE - INSTALL 138KV 20MVAR CAP BANK	N/A	N/A	
673		HLP/00/1179/SB	PE220337 TANNER - INSTALL 3RD 100MVA TRANSFORMER & 2-35KV FEEDERS PLUS 4 CKTS	N/A	N/A	

	A	B	C	K	L	M
1	PUBLIC UTILITY COMMISSION OF TEXAS					
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3	VI-M-3.1: Project Cost Summary Information					
4	TEST YEAR ENDING 12/31/2023					
5	DOCKET NO. 58211					
6	Sponsors: David Mercado & Mandie Shook					
7						
8						
9						
10	(1)	(2)	(3)	(1)	(2)	(3)
	Projects Submitted to ERCOT RPG	WBS#	(4) Project Name (with CCN Docket No., if Any)	(5) Percent difference between (c) and (e) [% diff bwn initial & final estimate]	(6) Percent difference between Column G and (e) [% diff bwn actual and final estimate]	Variance Explanation
11						
1574		HLP0071574/SB	PE230044 FAIRBANKS - INSTALL 10TH 35KV FEEDER	N/A	N/A	
1575		HLP0071575/SB	PE220087 ANGLETON - UPGRADE TRANSFORMERS & CONVERT TO LOW PROFILE	N/A	N/A	
1576		HLP0071576/SB	PE220093 THW - INSTALL 10TH 35KV FEEDER	N/A	N/A	
1577		HLP0071577/SB	PE230043 SPRINGWOOD - INSTALL 138KV BKR STATION	N/A	N/A	
1578		HLP0071578/SB	PE230045 ROTHWOOD - UPGRADE LINE RELAYING ON SPRINGWOOD OKTS	N/A	N/A	
1579		HLP0071477/SB	PE220095 THW - BUILD NEW 35KV SUBSTATION	N/A	N/A	
1580		HLP0071478/SB	PE230041 THW - INSTALL 138KV 35KV MOBILE SUBSTATION	N/A	N/A	

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VI-M-3.2 CONTRIBUTION IN AID OF CONSTRUCTION (CIAC)

TEST YEAR ENDING 12/31/2023

DOCKET NO. 56211

Sponsors: David Mercado & Mandie Shook

Project Name	Total Project Costs	Project Costs Directly Charged to Customers	Project Costs Requested to be Included in Rate Base	Relevant Tariff Provision
P1009 CELWST Substation	\$648,512	\$648,512	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1132 DALTON Substation	\$2,470,627	\$2,470,627	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1012 PARKES Substation	\$1,345,880	\$1,345,880	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P991 PATRIK Substation	\$924,543	\$924,543	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1001 Service to New Braskem RUSSEL Substation	\$1,834,778	\$1,834,778	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1345 RIGBY Substation	\$1,259,136	\$1,259,136	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1017 HOPSON Substation	\$1,772,174	\$1,772,174	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2

PUBLIC UTILITY COMMISSION OF TEXAS
CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
VI-M-3.2 CONTRIBUTION IN AID OF CONSTRUCTION (CIAC)
TEST YEAR ENDING 12/31/2023
DOCKET NO. 56211

Sponsors: David Mercado & Mandie Shook

Project Name	Total Project Costs	Project Costs Directly Charged to Customers	Project Costs Requested to be Included in Rate Base	Relevant Tariff Provision
P1030 MARICK Substation	\$1,032,367	\$1,032,367	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1029.1 138 kV Service to ENCO Substation P1452.1 Upgrade 138kV Ckt 91A Cougar-Gulfgate Tap	\$3,326,976	\$3,182,257	\$144,719	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1031 BEARLE Substation	\$2,143,484	\$2,143,484	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1028 PLACID Substation P1415 Jordan-BENDER-CONNER P1416 Jordan Loop	\$16,010,647	\$2,582,613	\$13,428,034	Tariff for Retail Delivery Service Chapter 6.3.1.2
P1347 BOGGY Substation	\$3,035,540	\$3,035,540	\$0	Tariff for Retail Delivery Service Chapter 6.3.1.2

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SECTION VII: STATEMENT OF CONFIDENTIALITY

CenterPoint Energy Houston Electric, LLC (“CenterPoint Houston” or the “Company”) has designated as Protected Material or Highly Sensitive Protected Material certain documents in its Statement of Intent and Application for Authority to Change Rates. The Company considers the information identified below to be competitively-sensitive commercial or financial information that is confidential and exempted from disclosure under the Public Information Act. Tex. Gov’t Code §§ 552.101 and 552.110. Additionally, some of the information identified below is confidential under Tex. Util. Code § 32.10(c). This Statement of Confidentiality sets forth the reasons why each document is designated confidential.

I. DESCRIPTION OF CONFIDENTIAL MATERIAL

A. Testimony Exhibits & Other Documents Referenced in Testimony

i. Workpapers to the Direct Testimony of Jason M. Ryan

The following workpaper is designated as Protected Material because it is proprietary and contains confidential third-party information:

WP JMR-02 Pct Equity Analysis (CONFIDENTIAL).xlsx

ii. Exhibits to the Direct Testimony of Kristie L. Colvin

The following exhibits are designated as Protected Material because they contain competitively-sensitive commercial or financial information: Exhibit KLC-07 (Workers’ Compensation Reserve Study) and Exhibit KLC-08 (Auto and General Insurance Reserve Study).

iii. Workpapers to the Direct Testimony of Myles F. Reynolds

Engagement letters, billing rates listing, and guidelines shared between the Company and outside counsel and consultants that are referenced in the Direct Testimony of Myles F. Reynolds

are designated as Protected Material because they contain information that is competitively sensitive.

iv. Exhibits and Workpapers to the Direct Testimony of Bertha R. Villatoro

The following exhibits are designated as Protected Material because they contain confidential and proprietary third-party material: Exhibit BRV-2 Willis Towers Watson 2023 General Rate Case Study, Exhibit BRV-3 2023 Compensation Surveys, Exhibit BRV-4 2022-2023 WorldatWork Salary Budget Survey, Exhibit BRV-7 Meridian Compensation Partners Incentive Plan Analysis, Exhibit BRV-9 Willis Towers Watson Benefits Data Source, and Exhibit BRV-10 AON Utility Benchmarking Reports.

Workpaper BRV-5 IBEW 66, Workpaper BRV-6 Local 12, and Workpaper BRV-7 IBEW 66 Package Proposal contain contracts that are designated as Protected Material because they contain confidential third-party contractual information, competitively-sensitive financial information, or confidential employee information.

The following exhibits are designated as Protected Material because they contain competitively-sensitive business operations information, commercial information, or financial information, or confidential employee information: Exhibit BRV-8 2020-2023 Long-term Incentive Plan Goals.

v. Exhibits to the Testimony of Jacqueline M. Richert

The following exhibits are designated as Protected Material because they are proprietary and contain confidential third-party information:

Exhibit JRichert-1 (CONF) *Moody's Investors Service, CenterPoint Energy Houston Electric, LLC; Update following downgrade to Baa1 (Mar. 6, 2020) (Confidential)*

Exhibit JRichert-3 (CONF) *S&P Global Ratings Research, Taxes Under The Inflation Reduction Act May Increase The Amount Non-Financial Corporates Pay, With Limited Credit*