



LOUISIANA RESILIENCY

Entergy Louisiana Phase 1 Resilience Plan Quarterly Report

Dated February 10, 2025




Entergy Louisiana has made significant progress on its Phase I resiliency projects, launching 84 hardening projects across the state, including both distribution and transmission initiatives. As of the end of December 2024, Entergy Louisiana and its alliance partners have completed six distribution hardening projects, upgraded approximately 4,800 poles and reinforced key infrastructure to enhance grid resilience to better withstand severe weather events. Those resilience efforts are already producing positive results for our customers. Despite Hurricane Francine impacting the region, none of the structures already hardened as part of the resiliency program sustained damage, demonstrating the effectiveness of these upgrades.

Snakefarm-Cleary Substation



Lake Charles Resiliency



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Entergy Louisiana Accelerated Resiliency Program

Quarterly Report #1

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1. Phase I Executive Summary

1.1. Period Performance Overview

Entergy Louisiana (“ELL”) has had a very successful start on the Phase I Resiliency projects. Through December 2024, ELL has initiated 84 Comprehensive Hardening projects spanning all 5 Louisiana Public Service Commission (“LPSC” or the “Commission”) Districts in Louisiana, completing the hardening of the first control house located in St. James substation and completing construction of scope defined in execution phases 1 and phase 2 on six Distribution Hardening projects¹ in December 2024.

ELL identified additional structures as candidates for hardening on five of the six completed projects during execution. These five projects were placed in-service based on the completion of the original scope in December of 2024 achieving the proposed benefits of the project, and the additional structures will be engineered and hardened in the next few months to deliver a more robust hardening of the respective circuits.


Additionally, while ELL had no completed Grid Hardening Projects at the time Hurricane Francine made landfall, several Grid Hardening Projects were underway across ten parishes with 250 structures having been hardened. ELL’s post-storm inspection revealed that of the 250 structures hardened as part of a Grid Hardening Project, no structures were damaged or destroyed.

1.2. Achievements in Reporting Period

- Kicked off 84 Comprehensive Hardening projects
 - 71 Distribution
 - 13 Transmission
- Completed original scope on six Distribution Hardening Projects (Avondale, P1014, P0165, P0171, P1004 and P0169²) which resulted in 3,200 hardened poles across 10 Parishes.
- Completed hardening of the first Transmission Substation Control House in November: St. James Substation Control House
- As of December 31, 2024:
 - ~4,800 poles have been hardened as part of ELL Phase 1 Resilience Plan
 - 14 individual projects actively in Construction
 - 56 individual projects actively in Engineering
- Aligned with LPSC’s Qualified Engineering Consultant (CSRS) on design basis for the 500kV Dead Ends which enabled a substantial reduction in the count of dead ends and overall class 5 estimate cost
 - Initial Scope: 44 Structures for \$88M
 - Revised Scope: ~22 Structures for ~\$59M

¹ ELL leveraged project attributes, including committed Start/End Dates, geographic location (Region, Network), identified circuit, asset volume, and estimated cost, to bundle projects together for execution. The approved Phase 1 \$1.9B program consisting of 2,119 individual projects have been grouped into ~160 larger project groupings to better facilitate management and execution. Project groupings are subject to change throughout execution and delivery where optimization and efficiencies are identified over time.

² P0169 completion is exclusive of scope for P0169U. See Appendix 7.1 for details on P0169U.

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1.3. Targeted Outcomes of Next Reporting Period³

On top of continuing progress on active projects, ELL anticipates placing incremental projects in service and starting new projects in the first quarter of 2025. Project in-service and start counts reflect latest program forecasts which consider current status and look-ahead trends. As such, the forecast details below are subject to change as projects evolve:

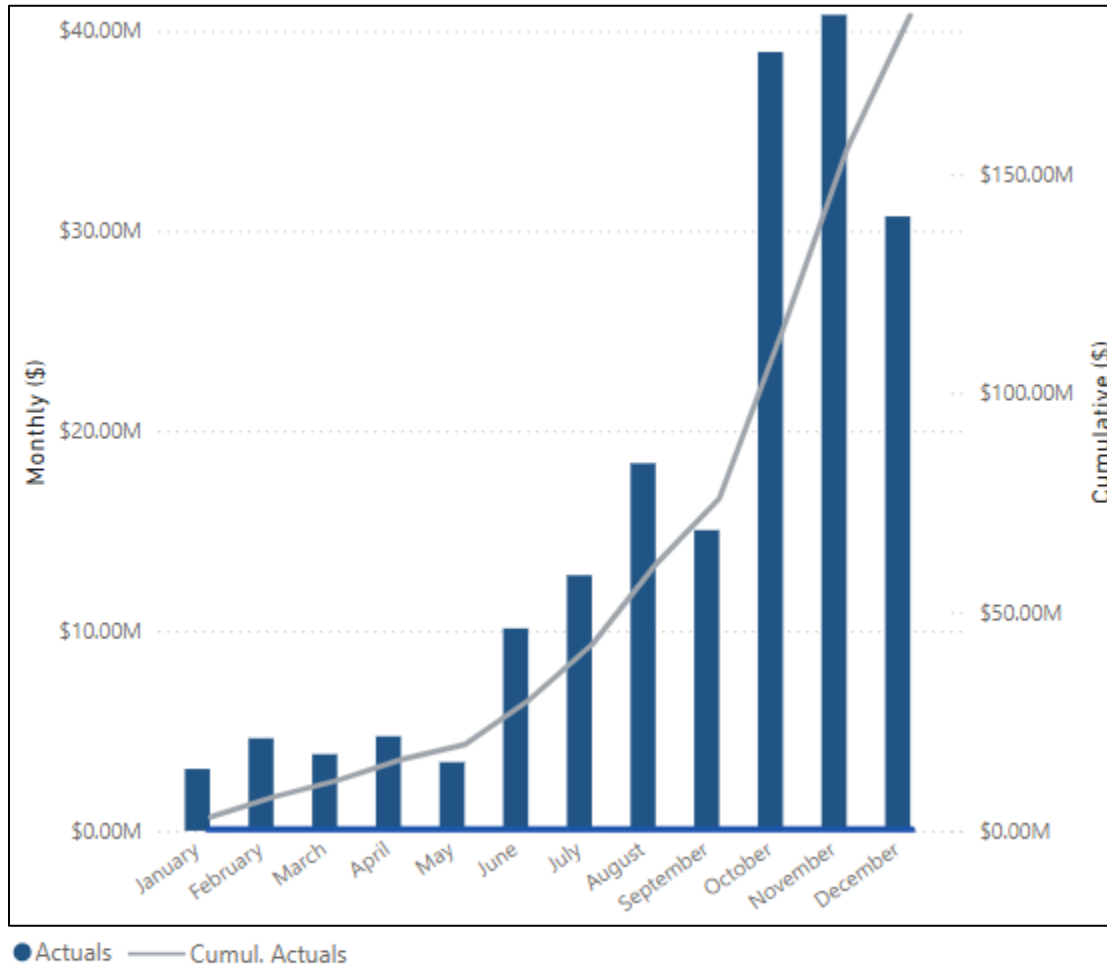
- Anticipate completion of 9 individual projects (7 Distribution, 2 Transmission)
- Anticipate start of 22 new individual projects (9 Distribution, 13 Transmission)
- Will progress into Engineering on the 500kV Dead End structures

³ Unless otherwise noted, all details within this report are updated through December 31, 2024.

2. Distribution Hardening Update

2.1. Cost Performance

ELL has expended ~\$186.5M through December of 2024 associated with the progress achieved on the 71 Distribution Hardening projects. The following illustration represents the month over month and cumulative actual spend (Actual) for work performed in 2024.

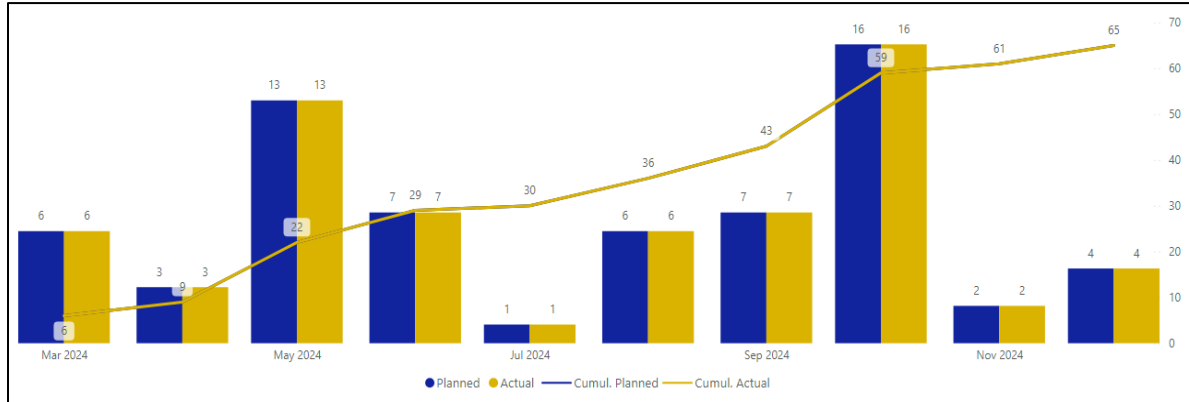


2.2. Schedule Performance

ELL initiated 71 Distribution Hardening projects in 2024 and completed hardening on 3 projects in the first year of execution.

2.2.1. Phase I (Front End Loading) Milestone Performance

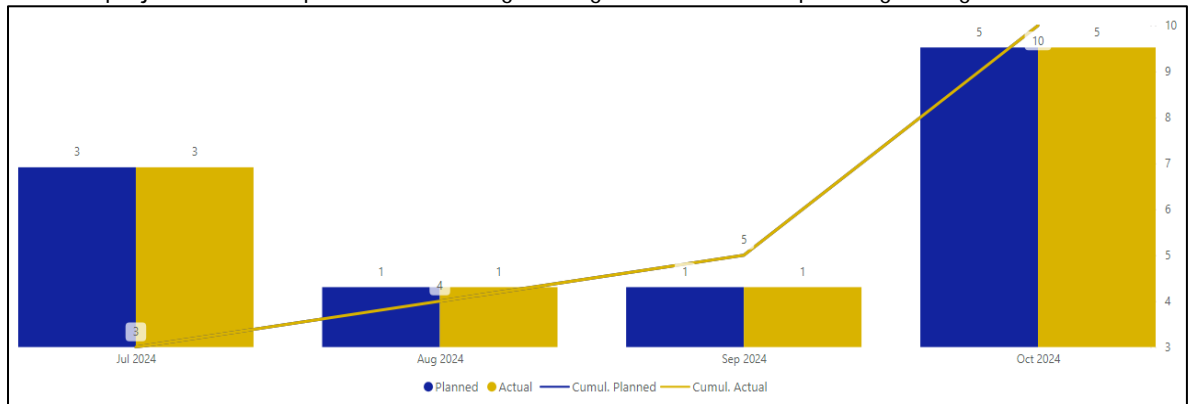
65 of the 71 Distribution Projects initiated in the first year have completed Phase 1 (FEL).



Date	Planned	Actual	Cumul. Planned	Cumul. Actual
March 2024	6	6	6	6
April 2024	3	3	9	9
May 2024	13	13	22	22
June 2024	7	7	29	29
July 2024	1	1	30	30
August 2024	6	6	36	36
September 2024	7	7	43	43
October 2024	16	16	59	59
November 2024	2	2	61	61
December 2024	4	4	65	65

2.2.2. Phase 2 (Engineering & Construction Planning) Milestone Performance

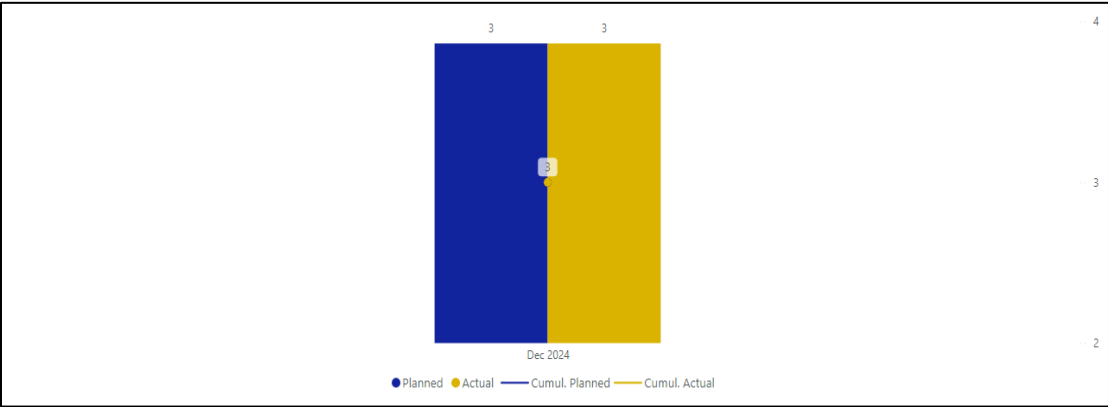
10 projects have completed detailed engineering and construction planning throughout 2024.



Date	Planned	Actual	Cumul. Planned	Cumul. Actual
July 2024	3	3	3	3
August 2024	1	1	4	4
September 2024	1	1	5	5
October 2024	5	5	10	10

2.2.3. Phase 3 (Construction In Service Dates) Milestone Performance

6 projects were placed in service in December 2024 based on the completion of original scope identified in phase 1 and 2, and 3 projects were extended to include additional structures identified to be hardened while in construction. An additional project was created for the incremental structures identified during the execution of P0169; so ELL is representing the construction completion milestones of 3 projects at this time.

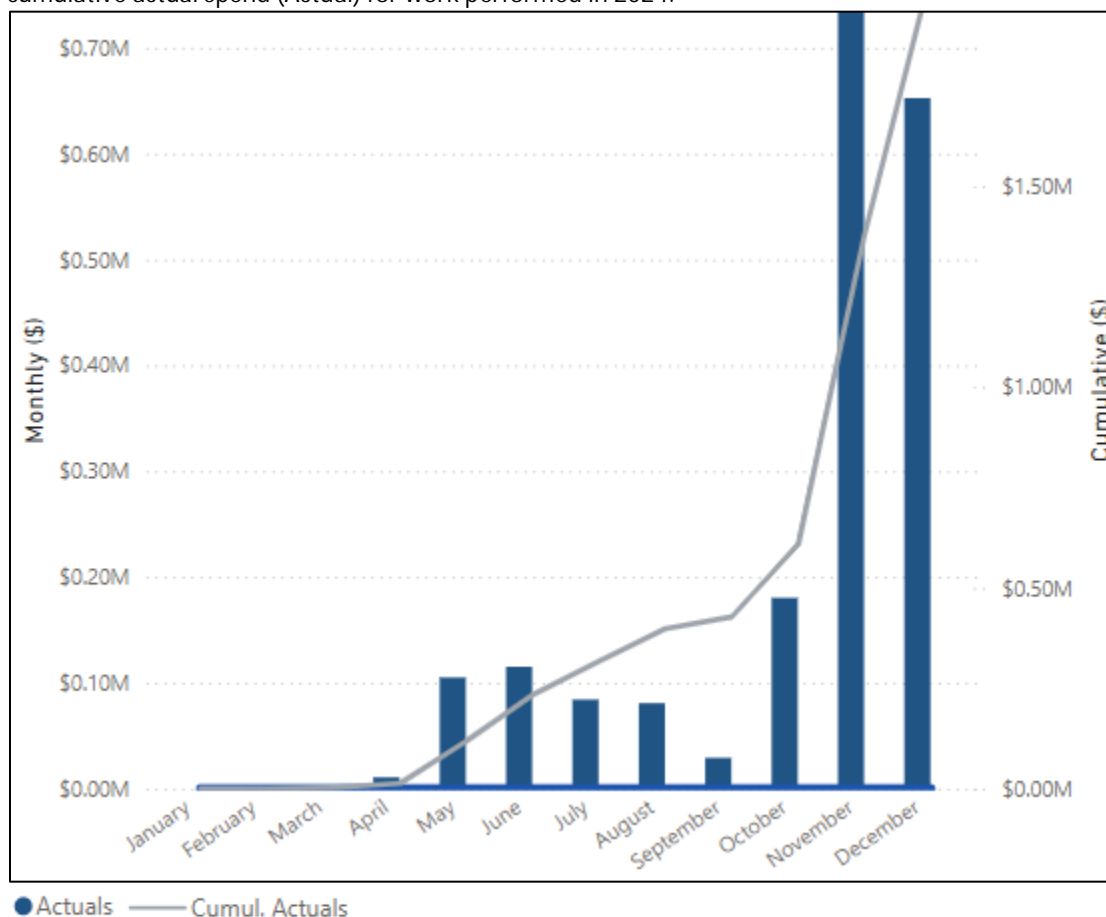


Date	Planned	Actual	Cumul. Planned	Cumul. Actual
December 2024	3	3	3	3

3. Transmission Hardening and 500kV Dead Ends Updates

3.1. Cost Performance

ELL has expended ~\$2M through December of 2024 associated with the progress achieved on 13 Transmission Hardening projects. The following illustration represents the month over month and cumulative actual spend (Actual) for work performed in 2024.



3.2. Schedule Performance

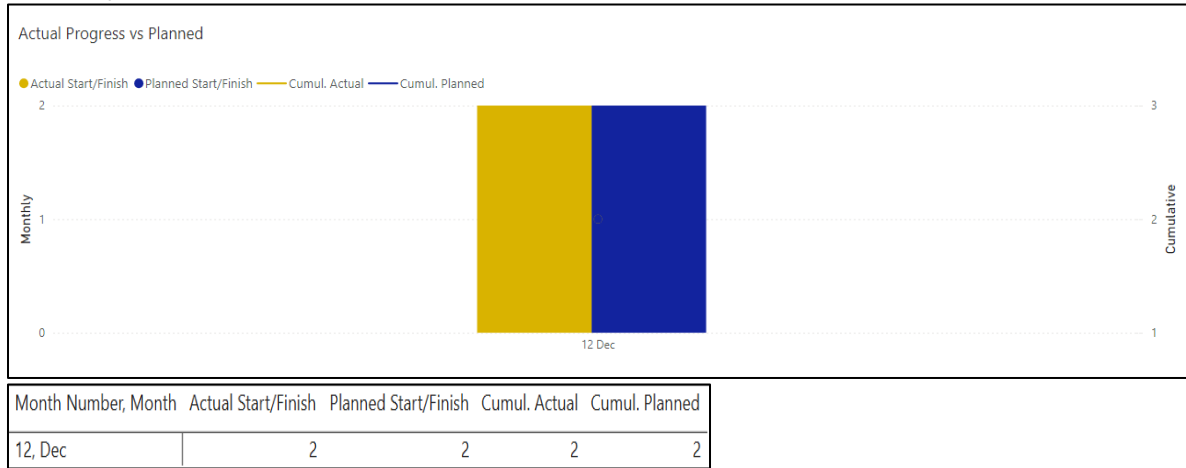
ELL initiated 13 Transmission Hardening projects and has completed the control house hardening at one substation⁴.

For the 500kV Dead End scope, ELL has aligned with the LPSC's qualified engineering consultant on a scope refinement based on the engineering design basis provided which resulted in a reduction in the total number of poles to be installed while delivering on the benefits for a more resilient infrastructure. Updates to this component's scope and schedule will be reflected in the next quarterly report.

3.2.1. Phase 1 (Front End Loading) Milestone Performance

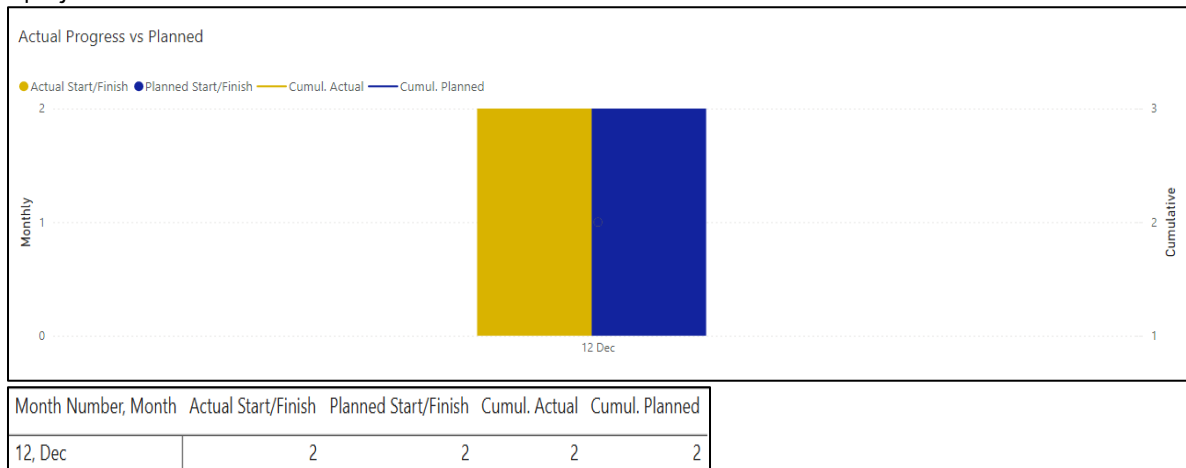
⁴ See Appendix 7.2 for detailed breakdown of Transmission project details.

4 projects completed Phase 1 in December 2024. Note the 2 milestones depicted represent 4 projects.




3.2.2. Phase 2 (Engineering) Milestone Performance

4 projects completed Phase 1 in December 2024. Note the 2 milestones depicted represent 4 projects.



3.2.3. Phase 3 (Construction In Service Dates) Milestone Performance

ELL had completed the hardening of one substation control house (St. James) in November of 2024, but there were no project level completions through December to represent.

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4. Materials Update

4.1. Distribution Hardening Materials

ELL has issued 38 Purchase Orders (POs) for ~39,000 poles estimated at ~\$97M to support the set of projects forecasted to be constructed and placed in service between 2024 and 2025. To date, ~11,000 poles have been received, leaving ~28,000 poles to be delivered in accordance with requested delivery dates.

4.2. Transmission Hardening Materials

ELL has issued 13 Purchase Orders (POs) for 22 Structures estimates at ~\$770k to support the T-line Hardening projects forecasted to be constructed and placed in service between 2025. To date, 15 structures have been received, leaving 7 structures to be delivered in accordance with requested delivery dates.

5. Business Issues from External Factors

5.1. Impacts on Construction

ELL does not have any external factors affecting construction timelines to report currently.

5.2. Impacts to Pricing

As expected, ELL is experiencing changes in costs on the Comprehensive Hardening projects as compared to the initial class 5 estimates reflected in the filing for Phase 1. Notwithstanding the evolution of scope on every project which impose variations on cost estimates, the pricing changes applicable across the full scope of Phase I are primarily attributed to the timing of the initial class 5 estimate and incremental cost components identified as projects mature in definition.

From a timing perspective, it is critical to note the Class 5 estimates filed were developed in 2021 using data from completed Entergy projects at that time and applying standard industry rates for materials. Inflationary rate fluctuations and other economic changes seen in the ~3-year span between the establishment of the initial estimates and the approval to commence execution on projects in Phase 1 have altered pricing rates on direct costs (materials, labor, taxes) and indirect costs incurred on each project.

Incremental components identified when progressing through a project's execution lifecycle which were not represented in the initial estimates include contracting strategies (Alliance Partners), additional scoping analysis to optimize execution and scope certainty, cost of work increases driven by technical requirements (see section 6.1 Changes in OH-UG Conversions), and equipment and materials used in construction.

Mitigation to Pricing Changes: ELL continues to deploy multiple initiatives geared specifically towards mitigating impacts driven by pricing adjustments and ensure said changes will not detract its ability to deliver on all commitments for the Accelerated Resiliency program.

Mitigations include:

- Value Engineering and Scope Optimization Exercise: a structured approach to evaluate multiple elements of a specific project at different stages of its lifecycle to identify opportunities to improve project value, lower total project cost, and mitigate project risk
- Unit-rate pricing contract strategy: a contracting approach which leverages fixed-unit rates for projects of analogous scope and materials deployed to increase competition across qualified

contractors, improve estimate accuracy, achieve cost and schedule efficiencies, and alleviate cost disparities

- Block design implementation: a series of predefined engineering design specifications and templates tailored to the Distribution Hardening projects leveraged to minimize design variations, improve consistency, and achieve efficiencies in cost and schedule
- Scope optimization: an approach to drive efficiencies on scope control and schedule certainty through a compliment of actions between incremental fielding analysis at the start of each Hardening project and value engineering

6. Hardening Project Insights

6.1. Trends

Consistent with the changes noted for pricing, Entergy is experiencing variances on project scope as compared to the initial quantities of structures to be hardened, miles of copper conductor to be replaced, and Overhead to Underground Conversions (OH-UG). The changes explained here are outputs of the Scope Optimization and Scrub Initiative mitigations deployed to absorb impacts from pricing changes and demonstrate the prudence performed on every project for delivering on commitments for all stakeholders.

The evolution of each active project's scope is captured in the details within the T & D Hardening Project details file in the appendix.

Pole Counts: Changes in the number of poles to be hardened between initial counts and counts refined through project delivery can be caused by different reasons, including:

- Structures initially identified as candidates to be hardened are determined to meet requisite wind-loading and pole loading analysis (PLA) requirements are removed from scope.
- Structures on circuits within the approved project list that were not initially identified as candidates to be hardened but have since been determined to require hardening are added to scope.
- Structures initially within approved scope are identified as owned by another entity (joint use company) are removed from scope or purchased by Entergy and hardened, dependent upon the agreement with said owning entity.

Changes in OH-UG Conversions⁵: Scope variances on some projects initially selected to include OH-UG Conversions are primarily influenced by cost-benefit and design requirement adherence.

- Higher wind zone locations (150MPH) impose a cost multiplier determined to be nearly 3x more expensive since the OH hardening costs are higher. In the lower wind zones (125-140), the cost is nearly 5x more expensive.
- UG conversion estimates do not include any scope other than converting the primary from OH to UG (no – secondary, service, meter loop replacement, roof repair, etc.) and the additional loop service potentially required to ensure there is a second feed on laterals in the event of a fault.

⁵Note: Entergy is working to identify other projects within the approved Phase 1 list that prove to be better suited to perform OH-UG conversions (i.e. financially prudent, compliant with technical requirements, achieves targeted benefits) to offset the descope performed on those initially modeled to execute said work.

7. Appendices

7.1. Appendix A: Breakout from Initial Project Groupings (P0160A, P0168U, P0169U)


Entergy stays consistent with project groupings as identified in initial filing as much as possible. In specific cases, however, the company has elected to carve subsets of scope out from initial groupings to enhance execution and to expedite benefits realization. Three new project groupings have been explicitly broken out from the initial filing thus far; they are as follows:

- P0160A – Originally grouped into Primavera project P0160, the following three Subsystem IDs, all in East Baton Rouge Parish, were split into Project ID P0160A: Fuse Switch-34984606-658BS, Fuse Switch-70415432-658BS, & Fuse Switch-70415560-658BS. These project segments include the Hundred Oaks area of Baton Rouge, which is an established neighborhood with protected live oak trees lining the streets. To limit impacts to the protected oaks, the Entergy team proposed altering the Distribution Line configuration from overhead to underground. This shift in project execution requires extensive design work and alternate construction methods which would unnecessarily impact the overhead installation portions of P0160; as a result, P0160A was split out to follow its own separate schedule to mitigate delays on the larger P0160 project. P0160A is still on target to be in service by the end of 2025 as committed in the Phase 1 filing.
- P0168U, P0169U – After completion of project-specific scoping on the Subsystem IDs included in P0168 and P0169, the Entergy team determined some poles originally thought to pass the wind loading criteria, in fact, did not. These poles were initially overlooked due to their structural integrity, i.e., the poles passed Pole Load Analysis fed with LiDAR-based data but were found to have structural shortcomings, such as woodpecker holes or other physical deterioration. As a result, a follow-up field assessment was completed to identify all similar poles; this follow-up identified ~400 poles in P0168's established areas and another ~150 poles in P0169's footprint. Because these initial project scopes have already moved into the Construction Phase, Entergy elected to create separate projects to house the poles associated with these follow-up assessments.

7.2. Appendix B: Transmission Project Details

Internal optimization performed for execution, in some cases, led to the grouping of Transmission Hardening Projects with others, which impacts the number of project milestones shown in Transmission Schedule charts in Section 3. Project-specific details on progression of scope, cost, and schedule evolution can be found in the detailed spreadsheet, along with insights on the project groupings. Furthermore, the table below in Appendix B maps the rollup of specific project sites to individual Primavera Project Numbers (as identified in the ELL Resilience Phase 1 filing) and to the internal Entergy Funding Project (FP) identifier.

1898 Project #	Funding Project	Program Name	Subsystem ID
P0001	F1PPU51603	Substation Control Houses	BEHRMAN_LA-Control House Hardening GRETNA_LA-Control House Hardening FOURCHON_LA-Control House Hardening GOLDEN MEADOW_LA-Control House Hardening LEEVILLE_LA-Control House Hardening TERREBONNE_LA-Control House Hardening
P0002	F1PPU51602	Substation Control Houses	ADDIS_LA-Control House Hardening
	F1PPU51603	Substation Control Houses	AMITE_LA-Control House Hardening BAGATELLE_LA-Control House Hardening
P0003	F1PPU51602	Substation Control Houses	CHAMPAGNE_LA-Control House Hardening HARELSON_LA-Control House Hardening SCOTT_LA-Control House Hardening TIGER_LA-Control House Hardening WILBERT_LA-Control House Hardening
	F1PPU51603	Substation Control Houses	HAMMOND_LA-Control House Hardening SNAKEFARM_LA-Control House Hardening SORRENTO_LA-Control House Hardening-115kV SORRENTO_LA-Control House Hardening-230kV SOUTHPORT_LA-Control House Hardening
	F1PPU51604	Substation Control Houses	COTEAU_LA-Control House Hardening EVERGREEN_LA-Control House Hardening RACELAND_LA-Control House Hardening ST. JAMES_LA-Control House Hardening VALENTINE_LA-Control House Hardening
P0007	F1PPU51609	Substation Flooding	RACELAND_LA-Substation Storm Surge Mitigation
P0008	F1PPU51605	Substation Flooding	HOUMA_LA-Substation Storm Surge Mitigation
P0009	F1PPU51606	Substation Flooding	TERREBONNE_LA-Substation Storm Surge Mitigation
P0010	F1PPU51607	Substation Flooding	THIBODAUX_LA-Substation Storm Surge Mitigation
P0011	F1PPU51608	Substation Flooding	VALENTINE_LA-Substation Storm Surge Mitigation
P0029	F1PPU76108	Transmission Rebuild	ADDIS-PLAQUEMINE-115 kV DEVIL SWAMP-ALSEN-69 kV DEVIN-WILBERT-138 kV ELLEM-GEISMAR-138 kV SHARPTAP-HARELSON-69 kV STARHILL-STARHILL-138 kV
P0061	F1PPU76114	Transmission Rebuild	PECAN GROVE CO-VINCENT-230 kV VINCENT-GRAYWOOD-230kV
P0062	F1PPU76108	Transmission Rebuild	BOURBEAUX COTAP-BOURBEAUX CO-69 kV
P0120	F1PPU76109	Transmission Rebuild	CLEARY-SNAKEFARM-115 kV COTEAU-HOUMA-115 kV COTEAU-RACELAND-115 kV
P1010	F1PPU51614	Substation Control Houses	JENNINGS_LA-Control House Hardening SOLAC_LA-Control House Hardening
P1011	F1PPU76108	Transmission Rebuild	CECELIA-SEMERE-138 kV HIGHLAND [LA]-TIGER-69 kV

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7.3. Appendix C: Project-Specific Report

Consistent with Order No. U-36625, this Appendix contains Highly Sensitive Protected Materials and excluded from the Public Filing