Operations Project Authorization Form

Project Title: Berlin Training Substation	**Project Number: BERLINTRNSUB**
Date Prepared: 10/19/2022	**Company:** Eversource CT **Company:** Eversource WMA
Organization: Operations Services	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** Annual - General
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Yes
Estimated in service date: 12/31/2023	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☐ Distribution
Total Gross Capital Request: $1,046,335	**Authorization Type:** Full Funding

Executive Summary

Briefly describe (in a few sentences) the overall description of the project (do not include technical details)
Build a training substation in the Berlin training yard to increase hands-on skills training opportunities for Station Operations field workers & supervisors. The training substation will allow the expanded ability to do hands-on maintenance training and operations training in a controlled environment in a way that is not currently available to us today. This training area will simulate real-life experiences for work in substations without the risk of energized equipment at primary or transmission voltages.

Project Costs Summary

See APS3 and APS8 requirements and consult with Plant Accounting for capital/O&M determination. Use published loaders for benefits, materials, and invoices, maintained by the Director, Budget and Internal Reporting.
Note: Dollar values are in thousands

Capital Costs	Year 2022	Year 2023	Year 2024+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment				
Outside Services	700.000	335.975	0	1,035.975
Materials				
Removals	0	0	0	0
Risk and Contingency	0	0	0	0
Other (employee expenses, fees & payments)				
Subtotal – Direct Costs	700.000	335.975	0	1,035.975
Indirect Capital Costs				
Indirect/Overheads (including benefits)	7.000	3.360	0	10.360

Capitalized interest or AFUDC, if any				
Subtotal – Indirect Costs	7.000	3.360	0	10.360
Total Gross Capital Costs	**707.000**	**339.335**	**0**	**1,046.335**
Customer Contribution				
Total Net Capital Project Costs	**707.000**	**339.335**	**0**	**1,046.335**

Costs by Entity – 2022	CL&P Electric Distribution 11	WMA Electric Distribution 41	**Total**
Direct Capital	595.000	105.000	700.000
Indirect Capital	5.950	1.050	7.000
Removal net of salvage	0	0	0
Total Capital Project Costs by Entity	**600.950**	**106.050**	**707.000**

Costs by Entity – 2023	CL&P Electric Distribution 11	WMA Electric Distribution 41	**Total**
Direct Capital	285.579	50.396	335.975
Indirect Capital	2.856	0.504	3.360
Removal net of salvage	0	0	0
Total Capital Project Costs by Entity	**288.435**	**50.900**	**339.335**

Technical Justification:

Project Need, Objective and Justification
Existing skills training for CT and WMA station operations employees is delivered in Berlin at the substation training lab with some activities taking place in the Berlin training yard. Aside from simple to elaborate training props and training simulators, we don't have the current facilities that allows for hands-on substation maintenance training or operations training that places the employees in the on-the-job experience. By way of field training visits to in-service substations, we conduct training simulations at these substations to give exposure to competency development in the substation environment. But because the equipment is in-service, these simulations don't allow for hands-on activity. The installation of a training substation in the Berlin training yard will allow improved skills development to take place through experiences in the controlled training environment that replicates the typical work environment. This further allows the development of situational awareness and critical thinking skills that are needed when in the similar work environment. Most of all, it gives substation employees the ability to train on and practice the more critical of field work tasks, switching & tagging and personal protective grounding.

Project Scope
This project will include site preparation work of installing 8 concrete foundations for various substation

electrical equipment, conduits for control wiring and lighting, 12 concrete footings for overhead structures, and structural support systems for 2 pre-engineered buildings serving as a control house and storage. Salvaged assets will be relocated from the recently decommissioned Eggleston Street Substation and placed on the site. Electrical wiring will be installed from all foundations to the control house.

Background
The Berlin training yard in its current state allows employees from several work groups to train on and practice skills in an environment that replicates the on-the-job experiences. Station operations employees is the one group that does not have this available to them in the Berlin training yard.

Alternatives Considered:

Were alternative solutions considered/applicable? Include any cost/benefit analysis.

Alternatives were considered (please describe below)

Alternatives currently being used include training at in-service substations which only allow simulations since equipment is energized. Hands-on training at in-service substations would require permitting with the control center to take equipment out of service, system operators to deliver switching orders, and field operations personnel to execute switching orders. This level of effort would not be supported for the necessary frequency of training. Another alternative is to train on equipment in stock located at warehouses. This option is absent of the on-the-job experiences and therefore only allows training partial to the full context of the typical work.

Regulatory Approvals:

Are Regulatory body approvals needed for the project?

No

If yes, provide detailed regulatory approvals

Project Schedule

Milestone/Phase Name	Estimated Date
100% Engineering Completion	Done
Construction Start	November 2022
Testing/Commissioning	None
In Service Date	April 2023

Risks and Risk Mitigation Plans

List top risks and mitigation plans associated with this project. Include any contingency related to each risk. (Permitting/siting; environmental; outage constraints; customer/community outreach; material delivery; constructability challenges; excavation; etc.)

References

Appendix 2
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Appendices (One-Line Diagrams, Images, etc.)

Reference appendices items in the appropriate section of the PAF and list items in the same order as referenced in the PAF

If the project has future financial benefits, please use the following table to provide the yearly amounts.

Financial Benefits	Year 2023	Year 2024	Year 2025	Year 2026+
Capital				
O&M				
Other				
Total Financial Benefits				

Describe the estimated future Capital, O&M and/or Other benefits noted above:

What functional area(s) will these benefits be reflected in?_____

A representative from the respective functional area is required to be included as a project approver.