

Expanding Cruise Ship Shore Power to Port of Seattle Pier 66

Sustainability, City Light, Arts & Culture Committee

Friday, June 7, 2024



City of Seattle

Agenda

1. Shore Power Overview
2. Pier 66 Project Goals & Overview
3. MOA with Port of Seattle & City Light
4. Purpose of Ordinance



What is Shore Power?

- A shore power connection allows cruise ships to plug into cleaner, electrical power on land and turn off diesel powered engines.
- Each ship that plugs in can reduce diesel emissions by 80% and CO2 emissions at berth by 66% on average.
- 25% of cruise ships total emissions in Puget Sound can be avoided by plugging into shore power at berth.
- Currently shore power available at Pier 91 for two cruise ships (installed in 2009).
- Shore power under construction at Terminal 5 (cargo).
- Planning for Terminals 48 & 18 (cargo).



Project Goals

1. Reduce Carbon Emissions. Shore power enables cruise ships to turn off auxiliary diesel engines while at berth, resulting in overall reduction of annual emissions.

2. Promote Environmental Justice. Active reduction of emissions minimizes impacts to socially disadvantaged communities historically affected by poor environmental conditions.



1. Sep 26, 2023: Ductbank alignment, looking south on Terminal 46

2. Sep 13, 2023: Ductbank alignment looking west on Terminal 46

Photos courtesy of Mark Longridge, Port of Seattle

References: [PortofSeattle_Pier66-ShorePower_2021_UpdatedMar2023.pdf](#) ([portseattle.org](#))



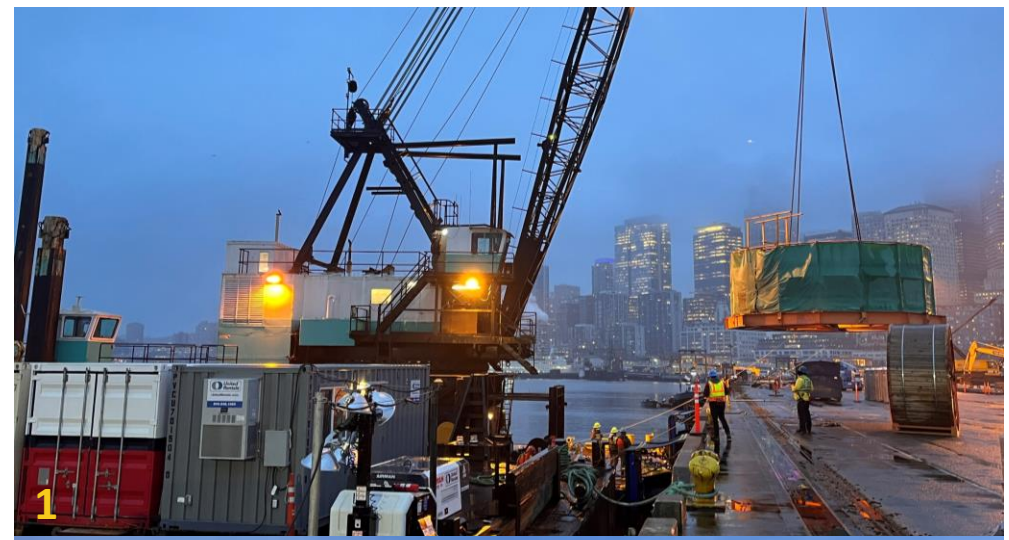
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Project Goals

3. Implement City Light's **Clean Energy Future Strategic Priority**

- Transportation Electrification Strategic Investment Plan

4. Support the **Seattle Waterfront Clean Energy Strategy (SWCES)**, a partnership between City Light, the Port of Seattle, and Northwest Seaport Alliance (NWSA).



1. Jan 8, 2024: Submarine Cable Reel load onto barge at Terminal 46.

2. Jan 15, 2024: Submarine Cable pull on Pier 66.

Photos courtesy of Mark Longridge, Port of Seattle

References: [PortofSeattle_Pier66-ShorePower_2021_UpdatedMar2023.pdf](#) ([portseattle.org](#))



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Pier 66 Shore Power Project Overview

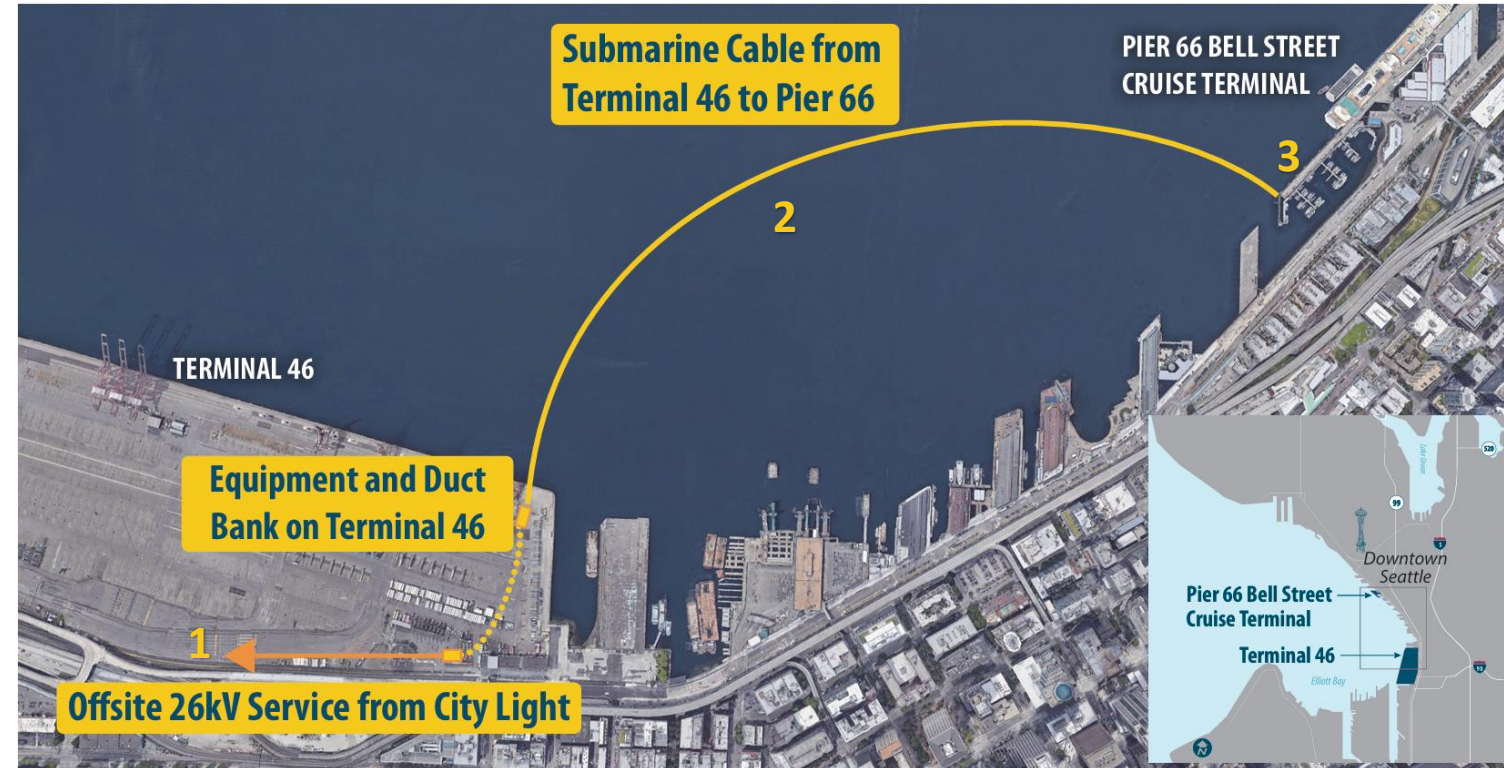
Part of City Light's Maritime Transportation Electrification Program (MARTEP)

Segments:

1. Underground Ductbank on Terminal 46 for Service and System Extension
2. Submersible Cable from Terminal 46 to Pier 66
3. Pier 66 Shore Power Infrastructure

Design: 2019 – 2023

Construction: Aug 2023 to Q3 2024



From: [PortofSeattle_Pier66-ShorePower_2021_UpdatedMar2023.pdf](#) ([portseattle.org](#))

Memorandum of Agreement (MOA)

Total Port Budget is \$44M,

City Light's Cost Share is \$3.6M,
including:

- Over 2,600 linear feet of ductbank for system expansion
- Funded by City Light Maritime Transportation Electrification Program (MARTEP)
- Ductbank capacity for future MARTEP services for Washington State Ferries, King County Marine Division, Kitsap Transit, and the Port of Seattle

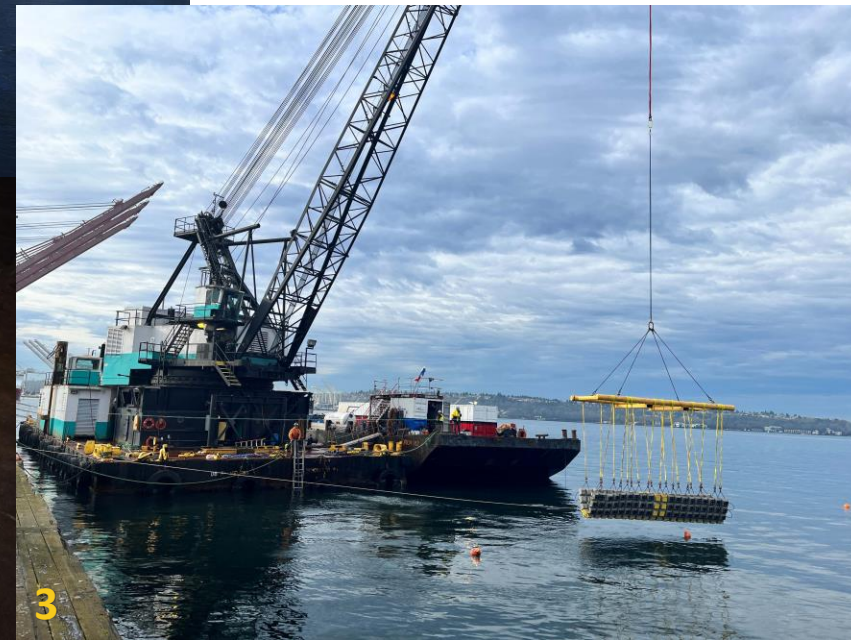


1. Jan 15, 2024: Submarine Cable lay

2. Nov 30, 2023: Vault Set on Terminal 46

3. Jan 28, 2024: Articulated Concrete Mat placement near Terminal 46

Photos courtesy of Mark Longridge, Port of Seattle



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Ordinance Authorizes City Light to:

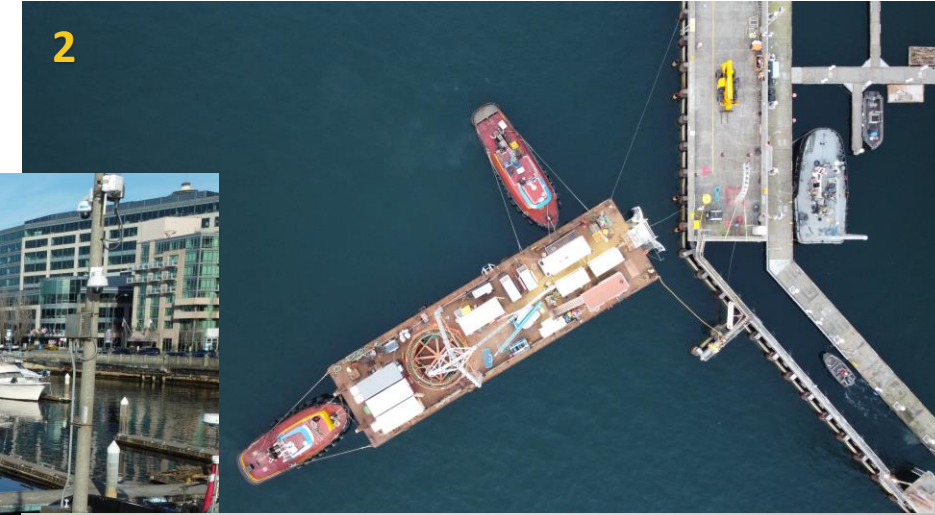
- Execute and deliver two (2) year MOA with the Port of Seattle
- Execute a thirty (30) year Operations Agreement between City Light and the Port of Seattle (forthcoming)



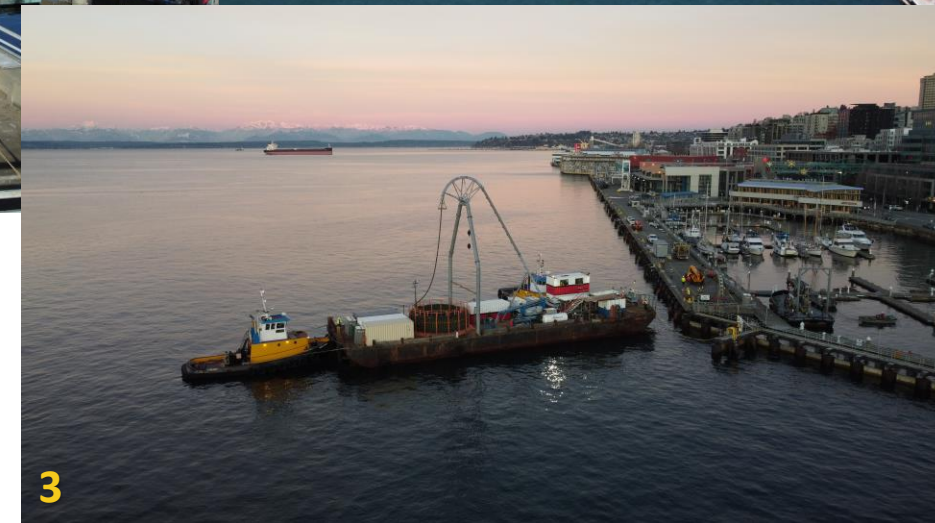
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1. Jan 15, 2024: Submarine Cable pulling rig on Pier 66
2 and 3. Jan 15, 2024: Submarine Cable lay at Pier 66

Photos courtesy of Mark Longridge, Port of Seattle



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