

Equity Considerations: Washington State Ferries and Seattle City Light

2021 DOE OE Energy Storage Peer Review

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Washington State Ferries and Seattle City Light have a strategic partnership

- Shared Goals
 - Increasing Equity
 - Environment
 - People



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Objective

Use electricity generated by a renewable resource (hydropower) to power the country's largest ferry fleet by reduce the 18 million gallons of diesel fuel burned each year.

WSF Drivers include

- Governor Inslee's Executive Order (18-001)
- WA State GHG reductions goals
- WSF Long Range Plan



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Equity Impacts

Reduction of emissions broadly in the airshed but more specifically with the electrification of Colman Dock, cleaner air for the neighborhoods in the Duwamish River Valley, South Park and Georgetown.

- Vessel electrification via grant from VW Settlement Fund (\$35M)
- Reduce NOx and PM, improving health impacts in such places as dense urban communities



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Equity Impacts

- City of Seattle's Race and Social Justice Initiative – Building equity into programs, policies, initiatives, and budget decisions

Grid Challenge

- Electrical seam between the SCL secondary network area and the SCL radial area
- Availability of 25MVA for charging of two ferries in 2025-26 and beyond



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Energy Storage to the rescue!

Large utility-scale battery (10MVA) for the two-ferry charging use case.



Next Steps

- Continuing Feasibility and Value engineering in late 2021-early 2022
- Detail design in 2022, funded in part by the WA Clean Energy Fund



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WA State Ferries Long Range Plan

<https://wsdot.wa.gov/sites/default/files/2020/09/16/WSF-LongRangePlan-2040Plan.pdf>

SCL Transportation Electrification Strategic Investment Plan

<https://www.seattle.gov/documents/Departments/CityLight/TESIP.pdf>



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