

Item #: 6B

Date: 7/18/23

Adoption of New Greenhouse Gas Targets to Achieve Net Zero Scope 1 and 2 Emissions by 2040

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Port of Tacoma Regular Commission Meeting

July 18, 2023



Action Requested

Request adoption of **Resolution 2023-12-PT** to update the Port of Tacoma's Greenhouse Gas Targets, incorporating new targets to achieve Net Zero Scope 1 and 2 Greenhouse Gas Emissions by 2040.

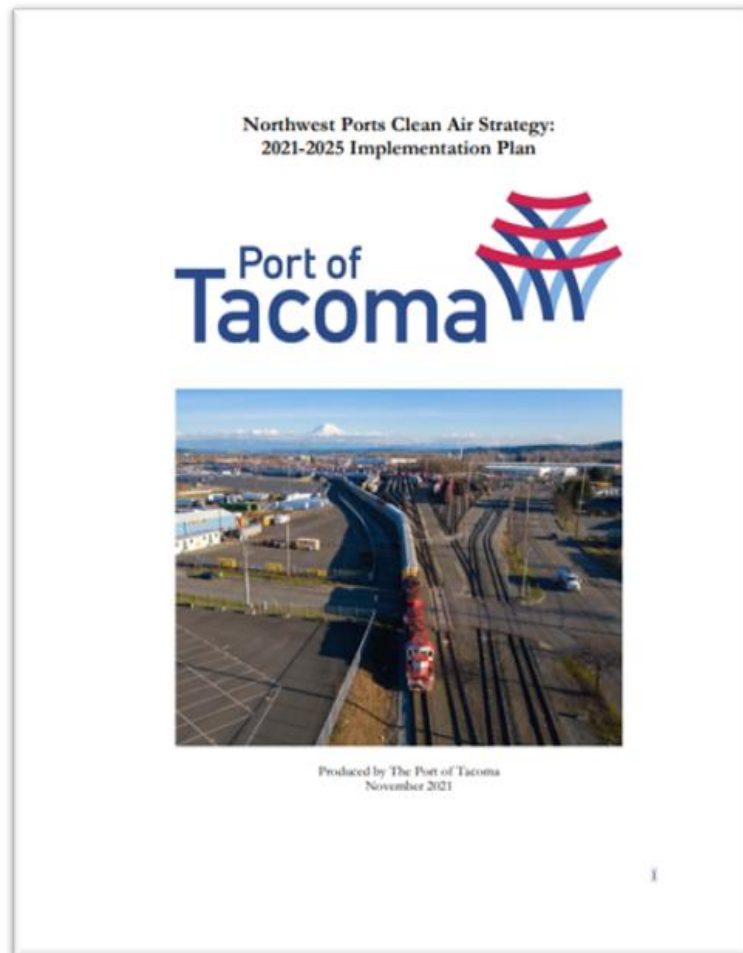
Year	Existing Targets	New Targets
2030	50% (Scope 1, 2, and 3)	50% (Scope 1, 2, and 3)
2040	70% (Scope 1, 2, and 3)	Net Zero (Scope 1 and 2) 70% (Scope 3)
2050	100% (Scope 1, 2, and 3)	Net Zero (Scope 3)

Why Prioritize Scope 1 and 2 Emissions?

- Demonstrate Leadership
- Take action where we have direct control

- Scope 1 and 2 make up about 3% of the Port's emissions; need to be working hard on scope 3 in parallel

Background – Existing GHG Policies



Resolution 2017-04-PT

A Resolution of the Port of Tacoma Commission

WHEREAS, the Port of Tacoma (Port) is the economic engine of Pierce County, the Puget Sound Region and the state, generating over 29,000 direct and indirect family-wage jobs and \$223 million in state and local taxes annually, and

WHEREAS, the Port values the environment, our neighbors, and intends to grow responsibly to ensure a sustainable future, and

WHEREAS, the Port is committed to integrated economic, environmental, and social decision-making and

WHEREAS, the Port provides best in class environmental stewardship and has returned more than 420 acres of property to productive use after legacy contamination cleanup, restored more than 100 acres of critical habitat for fish and other wildlife, and pioneered low-impact development technologies to treat industrial stormwater runoff and

WHEREAS, today the transportation industry is highly reliant on fossil fuels, the Port will continue to support energy efficiency, innovation, alternative fuel sources and renewable energy to advance the movement of commerce, and

WHEREAS, the Port has demonstrated leadership in reducing air emissions through the Northwest Ports Clean Air Strategy since 2008 and is on track with goals to reduce diesel particulate matter (DPM) emissions, to decrease immediate and long-term health effects on adjacent communities, and to reduce greenhouse gas emissions, and

WHEREAS, the Port previously undertook SEPA environmental review on the Northwest Ports Clean Air Strategy, and

WHEREAS, the Port has demonstrated leadership through the use of cleaner fuels, installation of shorepower, and use of on-dock rail and

NOW, THEREFORE, be it resolved that:

The Port adopts greenhouse gas reduction targets in keeping with the Paris Accords and in alignment with the global reductions necessary for keeping warming to within 2-degrees Celsius by 2050. The Port will reduce greenhouse gas emissions within the Puget Sound airshed as follows:

- By 2030:
 - 50% below 2005 levels (scope 1, 2 & 3 emissions)
- By 2050:
 - Carbon Neutral (scope 1 & 2 emissions)
 - 80% below 2005 levels (scope 3 emissions)

To accomplish these goals, the Port will advance initiatives specific to the operations it controls and work to influence other stakeholders whose emissions fall beyond the Port's

NWPCAS vision: "Phase out seaport related emissions by 2050"

Background: Scope 1 and 2 Assets



These are home port assets that we expect to be operated by the PoT directly into the future, excluding assets that directly serve NWSA lines of business.

Scope 1 Asset	Description	Annual Fuel Use (Therms or gal)	Annual GHG Emissions (tons)
Facilities			
Maintenance Building	Natural gas service	27,632 Therms	162
Port Rec Center	Natural gas service	3,208 Therms	19
Fleet (Vehicles and Equipment)			
Maintenance (Fac + Equip) Fleet	Pickup Trucks: 34 SUVs: 5 Vans: 15 Forklifts: 12 Other: 59	38,788 gal	444
Security/Fab Center Fleet	Patrol Vehicles: 11 Other: 1	11,125 gal	131
Admin + Engineering Fleet	Pickup Trucks: 4 SUVs: 8 Vans: 1 Cars: 1 Other: 2	1,752 gal	21

Scope 2 Includes electrical usage at:

- Admin. Building
- Maintenance Building
- Port Rec Center
- Fabulich Center
- Other miscellaneous electrical meters

* NIM and EB1 fleets and facilities are considered part of the NWSA's scope 1 and 2

Implementation of Net Zero Target



- Purchase zero tailpipe emission vehicles.
- Replace natural gas with electricity in scope 1 buildings/facilities. No natural gas in new construction.
- Purchase renewable fuels (like renewable diesel or renewable natural gas, RNG) for any assets that could not be replaced with zero tailpipe emission technologies.
- Purchase offset credits for any remaining net GHG emissions that could not be eliminated via other measures.

Tracking Progress & Public Accountability:

- Use the international GHG Protocol accounting/reporting standard
- Regular emission inventories (at least every 5 years)
- Third party verification of GHG inventory results

*Key Assumption: Clean Energy Transformation Act means grid electricity will be 100% renewable by 2045

Financial Implications

The rough order of magnitude estimated cost of the net zero scope 1 and 2 target, for the existing emission profile, is **\$8.9M - \$17.8M** [-25%/+50% range reflects high degree of uncertainty].

- Accelerating target means making the investments over 17 years rather than 27 years.

Vehicle Incremental Cost	Infrastructure Cost	Renewable Fuel Incremental Cost (Per 10 years)
\$1.4M - \$2.7M	\$6.8M - \$13.7M	\$0.9M - \$1.4M

Assumptions:

- Existing assets are replaced/upgraded/use renewable fuels 1:1, i.e. future fleets and facilities are equivalent to existing.
- Pickups, SUVs, vans, cars, and forklifts will reach end of useful life and need replacement before the target date; incremental vehicle cost of implementing a net zero policy is estimated as just the “EV premium”, not total vehicle cost, estimated at \$20k per vehicle
- Other equipment and heavier vehicles would use renewable fuels (electrification feasibility TBD)
- Charger infrastructure costs is assumed same unit cost as Admin Building project ~\$100k per charger and each electric vehicle gets its own charger
- Renewable fuel premiums are taken from PoS purchase data; \$1.36/gal for renewable diesel and 2.2x for RNG

Other Additional Financial Implications/Risks

- Increased risk of stranded assets; fleets may need to be replaced more quickly than necessitated by operational needs.
- An expansion of the scope 1 and 2 portfolio (i.e. fleet growth or new buildings) will mean more assets that will need to meet the goal.

Questions & Discussion

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