

**Motion 22-09
May 11, 2022**

Motion 22-09 That the Tacoma Public Utilities Policy Statement for Green Electrolytic Hydrogen as submitted and on file with the Clerk of the Board for the Public Utility Board meeting of May 11, 2022, is accepted and approved.

Policy Statement of Tacoma Public Utilities -- Green Electrolytic Hydrogen

The Tacoma Public Utilities Board (Board) and Tacoma Power are taking action to support the development of the region's market for green electrolytic hydrogen (GEH). A strong regional GEH market will benefit Tacoma Power ratepayers by increasing retail load and by supporting the goals of Tacoma Public Utilities (TPU) and the City of Tacoma (COT) concerning decarbonization, equity, and economic development. The actions of the Board and Tacoma Power are intended to attract producers to the Tacoma area and demonstrate multiple uses, such as, using GEH as a clean fuel to decarbonize heavy-duty transportation and as a source of electricity to stabilize the electric grid. Technology, markets, and opportunities associated with green hydrogen are emerging, cutting edge, and rapidly evolving, and this policy statement recognizes that flexibility will be needed to ensure Tacoma Power is well-positioned to support the growth of a regional GEH market.

Tacoma Power has been serving customers with reliable, affordable, renewable, and nearly carbon-free electricity since 1912. The utility takes pride in balancing its obligation to provide customers with reliable, competitively priced service with its commitment to respect and preserve the natural environment. Tacoma Power is committed to managing environmental impacts by fostering practices of protection, stewardship, conservation and innovation.

Tacoma as a Green Electrolytic Hydrogen Hub

As we transition to a clean energy future, Tacoma Power's service area is uniquely positioned to be a premier location for GEH investment, innovation and use. Tacoma has an active seaport that is located along the I-5 corridor and is committed to emissions reductions. The Port of Tacoma is part of the Northwest Seaport Alliance, a marine cargo operating partnership between the Ports of Seattle and Tacoma. The Northwest Seaport Alliance represents the fourth-largest global container gateway in North America. Tacoma and the surrounding region also have an existing industrial base that could use clean hydrogen as a replacement fuel. These industries include a municipally owned short line railroad and Joint Base Lewis McChord, the fourth largest military base in the US.

While electric battery vehicles are a proven and important part of electrifying our light-to medium-duty transportation systems, GEH is likely to emerge as the primary pathway to decarbonize the parts of the economy that are more difficult to electrify, such as heavy transportation, aviation, maritime, and industrial operations.

Tacoma Power Electrofuel Rate and Demonstration Projects

The GEH market is nascent and requires public investment to attract producers and to induce customer demand. To attract producers, Tacoma Power is offering incentives in the form of a first-of-its-kind electrofuels tariff, a special utility rate that recognizes the operational interruptibility in electrolysis and offers low-cost, very low-carbon electricity for clean fuels production. Tacoma Power has also successfully advocated for state tax exemptions for GEH production facilities.

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Aligned with and supports SD-1, SD-9 & SD-11

To create demand and to expand technological advancement, Tacoma Power is collaborating with national labs, innovation clusters, and private industry to pursue several grant opportunities, to fund a liquid hydrogen carrier demonstration project. The partnership has been awarded a \$1.5M grant to construct a mobile, trailer-mounted power generation unit that uses GEH to provide 20kW of power to refrigerated containers at the Port of Tacoma – displacing pollution emitting diesel generators. Tacoma Power and partners (Toyota, Sacre Davey Engineering, OCOchem, PNNL) are seeking an additional \$14 million in federal funds from a Phase 2 EDA grant to expand the project to provide power to ships at berth, displacing diesel emissions from auxiliary engines while in port.

Equity and Inclusion (Strategic Directive-1 “SD-1”)

SD-1 affirms the Board’s commitment to achieving equity and inclusion in the delivery of its services to its customers and supports COT [Resolution 39019](#), Equity and Empowerment Initiative Framework. The Washington State Department of Health’s [Environmental Health Disparities Map](#) classifies the Port of Tacoma footprint as a category 10/highest ranked area of concern for diesel pollution and overall health disparities. Tacoma Power’s proposed mobile demonstration project for GEH, discussed above, will result in the direct reduction of diesel combustion emissions in the Port of Tacoma and the adjacent I-5 Corridor, which are near tribal, low-income, and vulnerable communities that are disproportionately burdened. This GEH project will also help spur the development of a local clean fuels industry, with further potential to reduce emissions in port adjacent communities.

Decarbonization (Strategic Directive -11 “SD-11”)

TPU strives to be a leader in the decarbonization of the electric utility system and transportation sector, and to promote Tacoma Power’s renewable and nearly carbon-free generation portfolio as a driver of economic development and a competitive advantage for existing customers. In addition, SD-11 supports the COT’s [Resolution 40509](#) declaring a climate emergency in Tacoma and its [2030 Climate Action Plan](#).

Economic Development (Strategic Directive-9)

GEH production also creates an opportunity to build a new green economic cluster and industrial base within our service territory. This green economy may also attract business activity across the value chain including storage, transportation, and the use of GEH across a number of sectors. This type of capital investment would create new, green jobs that pay a living wage, providing job opportunities and career pathways for the residents of Tacoma and Pierce County.

Policy, Regulation, and Community Outreach

The Board, TPU and Tacoma Power will continue to advocate for policies and regulations that encourage and foster the development and use of GEH and other climate-neutral fuels. We will engage in advocacy, education and outreach to local community partners, regulators, legislators, the environmental community, Native American Tribes and other stakeholders to

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highlight GEH as a critical component of reducing dependence on fossil fuels across a range of sectors: energy, transportation, buildings, and industrial processes.

Summary

GEH production in the Tacoma area will support the Tacoma Power service area by using renewable, nearly zero-carbon hydropower to replace current fossil fuel uses, which will increase retail load, reduce greenhouse gas emissions and other harmful pollutants to make progress toward TPU and COT’s carbon reduction and equity goals, and support the local economy by promoting sustainable economic development. Tacoma Power will work with The Board, COT, partners, and other stakeholders in exploring further opportunities to incent and demonstrate the versatility of GEH.