



TO: Public Utility Board

FROM: Jackie Flowers, Director of Utilities

DATE: Jan. 22, 2021

RE: TPU SD5 (Environmental Leadership) Annual Update

PURPOSE STATEMENT FOR SD5 (Resolution U-11131)

TPU is committed to being stewards of the region's bountiful natural resources, and a leader in the preservation, protection, and restoration of those resources while maintaining our excellent delivery of services. It is clear that in order to ensure we fulfill our operational duties into the future we must balance our resource usage with the health of our environment.

SUBJECT

This memorandum provides a summary of activities performed in 2020 for each measurement of the directive.

Measurement 1. Track progress on related Tacoma Environmental Action Plan and participate in City's Greenhouse Gas Inventory.

[Contributors: Sarah Sweet, LaTasha Wortham]

The Environmental Action Plan (EAP) is a five-year plan adopted by the Tacoma City Council in 2016. TPU has participated in the City's EAP since its inception. This plan provides a road map for a more sustainable Tacoma, both through the City "leading by example" and through actions affecting the broader community. The EAP requires a yearly update to the Public Utility Board and the Tacoma City Council at a joint study session. The update will be provided at a joint study session in February 2021.

The EAP has specific actions and goals designed to meet the five-year targets by the end of 2020. TPU met or exceeded nearly all of its goals. A formal tracking process has been in place since 2017 and the TPU senior leadership team receives quarterly updates to ensure compliance. In addition, TPU staff worked closely with colleagues at General Government to provide all required information for the Greenhouse Gas Inventory. Staff will continue working closely with them as the inventory process continues to completion.

Development of the new EAP, the Climate Justice Action Plan (CJAP), is underway and expected to launch in late 2021. Several TPU employees are on committees working to develop the CJAP. The CJAP includes a commitment to equity and social justice in all aspects of the plan. The CJAP will:



- Provide a pathway to reaching carbon reduction goals that were outlined in the Tacoma City Council's Climate Emergency Resolution.
- Establish feasibility, cost, timeline, targets, scope, strategy, actions, and sustainable funding mechanisms.
- Demonstrate how the City is leading by example; accelerate municipal reduction goals to include 80% carbon reduction by 2030.
- Include actions that support the City's Comprehensive Plan and other relevant planning documents.
- Include a green economy section in collaboration with Economic Development Services.

In addition, as directed in the Climate Emergency Resolution, the Office of Environment Policy and Sustainability (OEPS) and the Office of Equity and Human Rights will collaborate to provide Climate and Equity training to the leadership of General Government and TPU. OEPS is working with Planning and Development Services on an inventory of fossil fuels, and TPU is providing applicable data for the inventory.

Measurement 2. Adherence to Watershed Management Plan.

[Contributor: Greg Volkhardt]

The Watershed Management Plan is a part of the 2018 Water System Plan. It documents the watershed control program implemented by Tacoma Water for the management of the Green River Watershed. Implementation activities in 2020 include:

- Implemented a watershed project intake process for contractors conducting projects in the Green River watershed to improve compliance with the Watershed Management Plan.
- Replaced and upsized nine culverts to pass 100-year flow events and associated debris.
- Installed seven cross drain culverts on forest roads to pass road runoff onto the forest floor to better protect water quality.
- Made numerous repairs to road drainage structures to reduce erosion and protect water quality.
- Participated with the U.S. Army Corps of Engineers on their Howard Hanson Dam Downstream Fish Passage System project team and on their aquatic nuisance species prevention program.

Measurement 3. Adherence on Electric Transportation Plan.

[Contributor: Cam LeHouillier]

In July 2020, the Public Utility Board passed a resolution to adopt the Transportation Electrification Plan and the accompanying 2020 Action Report, which endorsed the utility's intent to promote transportation electrification to benefit customers, the environment, and



society. A public stakeholder process was launched in early 2020 to gather feedback and comments from stakeholders in transportation electrification and the general public. The public was very complimentary of the plan.

In September 2020, Tacoma Power launched three new initiatives to promote transportation electrification using external (non-ratepayer) funding. The three pilot programs are:

- Material/Cargo Handling Equipment Electrification Incentive Pilot Program.
- Multi-Unit Dwelling Electric Vehicle Charging Retrofit Pilot Program.
- Public Electric Vehicle Charging Incentive Pilot Program.

TPU's Communications Team supported the launch of these three programs.

In November, Northwest Seaport Alliance Managing Members accepted \$132,000 in incentive funds from the Material/Cargo Handling Equipment Electrification grant program to support the installation of charging infrastructure for six battery electric yard tractors.

Tacoma Power proposed two new tariffs designed to overcome customer barriers to transportation electrification efforts:

- The Port Electrification/Shorepower Tariff will recover utility costs with only a two-part rate (customer charge and energy charge) rather than also including a demand charge. The rate is competitive with marine gas oil generation onboard ships at berth and provides an incentive for ships to use clean renewable hydropower as an alternative to on-board fossil fuel generation. This tariff allows terminal operators a way to disaggregate their energy costs accurately to ships, making it possible for them to recover their costs. The distribution project extension for shorepower at Husky terminal is proceeding on schedule and with this rate, should be in service in late 2021.
- The State Energy Strategy and Tacoma Power's Electric Transportation Plan identify that fuels made with electricity, water, and air that can act as a substitute for fossil fuels are an important part of achieving a clean energy future. Tacoma Power recently approved a Renewable Fuels Tariff that may be the first of its kind in the country. The tariff will provide sufficient economic incentive for electrofuel producers and give Tacoma Power significant demand response capability to increase grid stability, all while Greenhouse Gas (GHG)-free transportation fuels are produced to reduce local transportation pollution, which is responsible for 75% of local GHG emissions. The announcement of the tariff was featured in several industry publications.

Measurement 4. Adherence to environmental measures within our FERC licenses.

[Contributor: Keith Underwood]

Environmental measures within the Cushman, Cowlitz, Nisqually, and Wynoochee Federal Energy Regulatory Commission (FERC) licenses that positively benefitted the environment in 2020 included:



- Operation of six fish hatcheries producing over 10 million juvenile salmon and steelhead annually in the pursuit of recovering endangered species, boosting environmental productivity, and providing for harvest opportunities.
- First year of sockeye salmon adult returns to the North Fork Skokomish River. This was a result of moving eggs from the Baker River to the Saltwater Park Sockeye Hatchery four years earlier, releasing the juveniles into Lake Cushman, capturing the smolts with our Juvenile Fish Collector attached to Cushman No. 1 Dam, releasing them into the river, and then capturing the returning adults at the Cushman No. 2 Dam adult trap.
- Completed the fifth year of a successful spring Chinook salmon introduction program.
- Successfully operated the new juvenile fish collection facilities at Cowlitz Falls for the third year by collecting and moving over 160,000 out-migrating juvenile salmon and steelhead.
- Completed five years of planning in partnership with stakeholders culminating in the Cowlitz “Fisheries and Hatchery Management Plan.” The plan provides an adaptive management framework towards the recovery of Cowlitz salmon and steelhead.
- Conserved over 20,000 acres of land for wildlife protection, of which 900 acres are managed meadows.
- Awarded a \$1.3 million grant to the Cowlitz Tribe for a salmon habitat restoration project on the Cispus River.

Measurement 5. Environmental leadership will be reflected in legislative priorities.

[Contributors: Clark Mather and Marian Dacca]

- TPU’s legislative agendas recommended by staff and adopted by the Public Utility Board, Tacoma Mayor, and City Council have multiple advocacy objectives focused on environmental leadership.
- TPU staff played an active role in the development and implementation of carbon reduction policies at the state and federal levels. Policy examples include the passage of Washington State’s Clean Energy Transformation Act (SB 6013 - 2019) and ongoing rulemaking to implement the law, passage of consumer-owned utility authority to engage in electrification of transportation (HB 1512 - 2019), and ongoing support of proposals to implement a statewide Low Carbon Fuel Standard.
- TPU worked with the statewide congressional delegation and the Army Corps of Engineers to secure \$3 million in funding to make needed progress on downstream fish passage at Howard Hanson Dam. According to Water Resources Inventory Area – 9, restoring fish runs above Howard Hanson Dam represents the single largest gain in potential salmon production in Puget Sound.
- TPU actively pursued funding and policies to provide more equitable access to solar generation.



Measurement 6. Track community outreach and communication activities related to environmental leadership.

[Contributors: John Gaines, LaTasha Wortham, Bernie Peterson, Rochelle Gandour-Rood, Sarah Sweet, Steve Bicker, Julie Sallenbach, and Monika Sundbaum]

There are multiple departments and staff members performing outreach and communications related to environmental leadership:

- The Public Affairs team includes information on conservation and TPU's commitment to the environment in nearly all of its interactions with the public.
- The Communications Team is constantly providing public messages on TPU's website, through social media, newsletters, and other forms of communications to stakeholders.
- Tacoma Power and Tacoma Water have dedicated outreach staff who are consistently working in the community to inform customers about conservation programs, electrification projects, and TPU's overall commitment to the environment.

2020 activities included:

- A community outreach and engagement tracking tool created by Public Affairs. The spreadsheet shows that public outreach, even during the pandemic, is moving forward. Outreach staff quickly pivoted to virtual formats and increased online communication tools to reach customers.
- Tacoma Water expanded its range of social media topics and kept the website up-to-date regarding the abundance of our water supply. A new children's coloring piece teaches about the watershed and water system, and encourages everyone to think about the end uses of water.
- Tacoma Water launched an online request and fulfillment program in partnership with Mail Services to send water savings kits (spray nozzles, hose timers, showerheads, etc.) to customers. Emphasis was placed on promoting this offering to low-income households. This program reaches customers who historically have been unable to come to the TPU lobby during business hours. Furthermore, Tacoma Water dropped the flow rates on the aerators and showerheads, now offering some of the most efficient fixtures available.
- Tacoma Power and Tacoma Water collaborated on web content, social media posts, and e-newsletter features that focused on seasonal conservation tips and rebates that could help customers save on their utility bills.
- In the midst of numerous challenges due to COVID, including serious economic impacts to our community, Tacoma Power continued supporting residential and business customers with a comprehensive portfolio of cost-effective energy conservation programs. The Customer Energy Programs team innovated with virtual business tools



internally and with customers to provide business continuity and surpassed its I-937 compliance target for 2020, achieving over 25,000 MWh of energy savings by delivering cost-effective incentives and loans – enough to power over 2,200 homes for a year.

- Customer Energy Programs distributed 1,000 Energy Savings Kits by mail to customers that applied for emergency assistance in order to help reduce their energy burden. Information about our income-qualified deferred loan program that enables customers to make energy efficient upgrades (insulation, windows, and heat pumps) with no up-front cost or monthly payment was shared.
- Almost 1,000 Tacoma Power business and residential customers are enrolled in the Evergreen Options program. Participants agree to add an extra charge to their bill. The funds go toward purchasing renewable energy credits and supporting an annual grant program. The \$50,000 Evergreen Options renewable energy grant is awarded to a local non-profit, school, or government agency with interest in advancing renewable energy efforts in the Pacific Northwest. In 2020, we promoted the application window via messaging in TPU's customer communication channels and on KNKX radio, as well as through direct outreach with program participants. Program participants voted on the applications, and the grant was awarded in December to Shiloh Baptist Church, an anchor institution in the Black/African American community since 1953. Their 19.78 kW solar photovoltaic installation project is an opportunity to show grassroots solutions to the impacts of climate change. This project creates an opportunity for church members to learn about, and experience, solar energy first-hand.
- In support of the City of Tacoma's tree canopy initiative, Tacoma Power began promoting the 2020-2021 Tree Coupon Program via social media and other communication channels in October. Messaging focused on the availability of the coupon (\$30 off per tree, up to three trees), which can be used at local participating nurseries through March 31, 2021. Messaging also mentions health benefits, energy savings, ambient air-cooling, improved storm water management, increased air pollutant filtration, and landscape beautification. We will promote coupon redemption and feature our nursery partners beginning in early 2021. We will also connect with communities in underserved neighborhoods. We've received 1,086 requests for the 2,000 tree coupons available this season; this is a faster pace than in prior years.
- The Communications Team ran a robust campaign to promote paperless billing to customers, resulting in increasing enrollment to a total of 16% of customers receiving their bills via email.
- In partnership with the EnviroHouse, Tacoma Power and Tacoma Water offered virtual workshops covering conservation and electric vehicle topics, including a virtual National Drive Electric Week event.



- All 2020 community electric vehicle (EV) outreach aligned with Action 1 of the Transportation Electrification Action Report:
 - Expanded resources on the TPU website to provide more information for our customers.
 - Moved EV 101 and Ride and Drive events to virtual formats to continue engaging customers in EV-related conversations and information sharing.

- In response to COVID, Tacoma Power’s Natural Resources communications emphasized information and updates for stakeholders, while continuing to share about our efforts and investments in protecting natural resources when appropriate:
 - Some notable campaigns and communications included the Kosmos Flats environmental cleanup, Nisqually flooding response, Earth Day, a donation received of [400,000 rainbow trout](#), the summer-run steelhead recycling program, social media partnerships with Northwest River Partners and the National Hydropower Association, [Cowlitz sea-run cutthroat trout returns](#), and [Cushman’s first sockeye returns](#).
 - Community outreach events included hosting the first-ever virtual public meeting for the Cowlitz River Fisheries and Hatchery Management Plan and Annual Project Review, sponsoring the [Nisqually Watershed Festival](#) ([including a video](#) about Nisqually wildlife and habitat monitoring work), and sponsoring Long Live the Kings’ [Survive the Sound program](#).

Measurement 7. Customer survey results regarding environmental leadership.

[Contributors: Dan Drennan and Holly Lucht]

TPU continues to perform very well amongst retail customers with regards to environmental perception. Customer feedback was collected via 400 telephone interviews and 1,144 web surveys in August and September 2020.

TPU included ratings for several environmental measures in the annual survey:

	Being Environmentally Responsible	Environmentally Responsible Power	Environmentally Responsible in Sourcing and Delivering Water
Phone – mean score (scale of 1-10)	8	8	7.9
Web – mean score (scale of 1-10)	7.7	7.7	7.8
	Scores are stable and consistent with 2018 and 2019.	Scores are stable and consistent with 2018 and 2019.	Scores are stable and consistent with 2019 performance ratings with slight improvement in web respondent perception.



The strong performance and consistency in scores across these measures reflect positive customer awareness of the efforts by the utilities to be environmentally conscious in their operations and ongoing customer engagement. Both Tacoma Power and Tacoma Water have undergone extensive strategic communication planning, implementation, and public engagement supported by Public Affairs & Communications. These efforts, along with each division's strategic initiatives, will be pursued as part of a multi-year effort to ensure customers are informed of TPU's environmental performance.

Additional Activities

Tacoma Power participated on the State Energy Strategy Advisory Committee, which provides input to the Department of Commerce as they develop a new energy strategy for Washington.

Tacoma Water participated on the Water Resource Inventory Area (WRIA) 9 and WRIA 10/12 Lead Entities to implement salmon recovery plans in the Green River and Puyallup River/Chambers-Clover Creek basins.

Tacoma Water participated on the WRIA 9 Streamflow Restoration Committee established under RCW 90.94 to offset the impact of future permit-exempt domestic wells on instream flows in the Green River basin.

Greg Volkhardt from Tacoma Water served on the Pierce County Conservation Futures Technical Advisory Committee to review proposals for acquisition of environmentally significant properties using Conservation Futures funding.

Tacoma Power issued final payments to Community Solar participants in the amount of \$606,695 to 979 customers. Each payment included WA State Renewable Cost Recovery Incentive Program incentives, and a one-time payment for the value of the solar energy that the system is estimated to produce through 2036.

Tacoma Rail installed equipment to collect idle reduction data from the railroad's locomotives. These statistics reflect the nine locomotives not yet repowered/remanufactured:

- 28,400 hours attributable to anti-idle automatic shutdown.
- 99,500 gallons of fuel saved on account of managed shut down.
- 36 tons of Greenhouse Gasses (GHG) emissions avoided.
- 0.04 tons of Particulate Matter (PM) emissions avoided.

Software challenges made it impossible to extract data from the seven repowered/remanufactured locomotives. Tacoma Rail is working on a solution and looks forward to providing a comprehensive report to the Board later in 2021.

Tacoma Rail developed a comprehensive Oil Spill Contingency Plan which was approved by the Washington State Department of Ecology, and is under review by the U. S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. Rail staff and TPU



Emergency Management staff successfully executed a virtual tabletop drill of the plan for observers from the Department of Ecology and U.S. Coast Guard.

Fleet Services continued to use renewable diesel and looked at increasing its usage. Additionally, Fleet Services continued to look at ways to electrify TPU's fleet. Fleet Services got the hybrid Water fleet on order and started 2021 with another F-150 hybrid pickup.

The TPU Sustainability Action Team launched programs to help employees take action to make an impact. Campaigns included "switch off" light switch stickers; garbage consolidation (including new mini cans for each employee); a Recycle Right refresher; and "How to Be Sustainable at Home," featuring team-made videos and research that teach employees ways to stay sustainable while working from home.

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2. Adherence to Watershed Management Plan.

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3. Adherence to Electric Transportation Plan.

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4. Adherence to environmental measures within our FERC licenses.

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5. Environmental leadership will be reflected in legislative priorities.

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6. Track community outreach and communication activities related to environmental leadership.



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7. Customer survey results regarding environmental leadership.

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Additional Activities - Tacoma Rail

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