



Project Description for IAPH Sustainable Awards 2024

Project Title: Shore Power Installation at TTIVDW Terminal

Implementing Organization: Ports Authority of Tonga (PAT)

Project Overview: The Ports Authority of Tonga (PAT), a public enterprise fully owned by the Government, has initiated a pioneering project aimed at significantly reducing carbon emissions at our port areas by targeting vessel emissions. Recognizing the environmental challenges and the importance of sustainable practices, PAT has undertaken the installation of shore power connections at our Domestic Terminal for all local ferries operating in Tonga.

Project Goals:

1. **Reduce Carbon Emissions:** The primary objective is to reduce the carbon footprint of local ferries while they are berthed at the port.
2. **Promote Sustainable Practices:** Support the global shift towards greener and more resilient port operations.
3. **Align with Regional Vision:** Fulfill the commitments outlined in the Pacific Port Vision 2030-50, adopted during the Pacific Transport and Energy Ministers' meeting in Vanuatu in 2023.
4. **Contribute to Maritime Decarbonisation and Green Corridor Shipping:** Enhance PAT's role in the global Maritime Decarbonisation campaign and the establishment of Green Shipping Corridors.

Project Details:

- **Scope:** Installation of shore power plug-in facilities at the TTIVDW Terminal.
- **Target Vessels:** Seven local ferries operating within Tonga.
- **Operational Changes:** Starting next financial year (1st July 2024), all local ferries will be mandated to use the TTIVDW Terminal and must turn off their engines to connect to shore power immediately upon docking.
- **Environmental Impact:** This initiative is expected to nearly eliminate carbon emissions from these vessels while they are berthed, as they will switch from diesel to shore power.

Power Source:

- **Renewable Energy:** The shore power system is powered by renewable energy generated from a rooftop solar installation on the Terminal Building. This solar power system was donated by the Japanese Government, along with the construction of the new Domestic Wharf.

Challenges and Solutions:

- **Financial Constraints:** As a small port, investment in capital goods poses a significant challenge. However, PAT has demonstrated strong commitment and resourcefulness by funding this project through its own cash flow.
- **Incremental Approach:** Acknowledging our limited resources, PAT has adopted a "start small" strategy to ensure feasible and sustainable implementation.

Commitment to Sustainability: This project is a testament to PAT's dedication to environmental stewardship and sustainable development. By investing in shore power technology powered by renewable energy, we are not only reducing our carbon footprint but also setting a precedent for other small ports in the region.

Funding: The project has been entirely funded by PAT's internal cash flow, reflecting our commitment to sustainability despite financial constraints.

Broader Impact:

- **Maritime Decarbonisation Campaign:** This project is part of PAT's contribution to the global Maritime Decarbonisation campaign, aimed at reducing greenhouse gas emissions from the maritime sector.
- **Green Corridor Shipping:** The initiative supports the creation of Green Shipping Corridors, which are routes where ships can operate with lower environmental impacts, thus promoting cleaner and more sustainable maritime transport.

Future Vision: This initiative is a critical step in PAT's long-term strategy to develop green, clean, and resilient port operations. It aligns with the broader objectives of the Pacific Port Vision 2030-50, the Maritime Decarbonisation campaign, and Green Corridor Shipping, paving the way for continued innovation and environmental responsibility in the region.

In conclusion, the Shore Power Installation at the TTVDW Terminal is a forward-thinking project that embodies PAT's commitment to reducing emissions, fostering sustainable practices, and contributing to the global effort against climate change. We are proud to present this project for consideration at the IAPH Sustainable Awards 2024.





