

**PETERSBURG BOROUGH, ALASKA  
RESOLUTION #2023-14**

**A RESOLUTION IN SUPPORT OF SOUTHEAST ALASKA POWER AGENCY'S  
SOUTHEAST ALASKA GRID RESILIENCY PROJECT INCLUDING INSTALLATION  
OF A THIRD TURBINE AND GENERATOR AT THE TYEE HYDROELECTRIC  
FACILITY**

**WHEREAS**, the Petersburg Borough is a member of the Southeast Alaska Power Agency (SEAPA), a Joint Action Agency organized pursuant to Alaska Statute AS 42.45.300 for the purpose of providing power to the communities of Petersburg, Wrangell, and Ketchikan; and

**WHEREAS**, SEAPA owns the Tyee Lake Hydroelectric Facility and Swan Lake Hydroelectric Projects in Southeast Alaska, which provide renewable hydroelectric power to Petersburg, Ketchikan, and Wrangell; and

**WHEREAS**, the original Tyee Project design engineer, IECO, evaluated whether a dam and three turbines should be part of the original design for the Project. While no dam was constructed, the Project does include space for a third turbine unit, but it was not purchased at the time as electric demand at the time of construction did not support these features; and

**WHEREAS**, a load study performed in 2023, conducted by SEAPA's consultant, RESPEC, has forecasted that peak loads will increase by 2.52% per year, and such growth will exceed SEAPA's peak generating capacity; and

**WHEREAS**, SEAPA recognizes that installing a third turbine and generator at Tyee (the "Project Proposal") would supplement existing hydro resources that provide power and energy to the communities of Petersburg, Ketchikan, and Wrangell; and

**WHEREAS**, the SEAPA also recognizes that additional interties may be built to serve communities, including Kake and Metlakatla, and additional generation resources may also be required to serve those loads; and

**WHEREAS**, the Project Proposal would benefit the entire region. It would have capabilities allowing it to provide voltage support and frequency security through additional spinning inertia. Peak generation capabilities are estimated to increase 25% on the SEAPA system. Voltage support would increase allowing for efficiency gains on existing units, and ancillary systems would be installed to support the third turbine; and

**WHEREAS**, Petersburg Borough Assembly recognizes the benefit of installing a third turbine at the Tyee Lake Hydroelectric Facility for electrical grid resiliency and assist with peak winter loads; and

**WHEREAS**, the Petersburg Assembly recognizes that additional renewable resources will be needed in the future to meet loads in Petersburg, Wrangell, and Ketchikan.

**NOW, THEREFORE, BE IT RESOLVED** that the Petersburg Borough Assembly:

- 1) Supports the SEAPA in its efforts to obtain all necessary approvals to install and operate a third turbine at the Tyee Hydroelectric Facility; and
- 2) Supports the SEAPA Board of Directors' efforts to secure funding for the planning and construction of a third turbine at the Tyee Hydroelectric Facility.

**PASSED AND APPROVED** by the Petersburg Borough Assembly on November 6, 2023.

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**Mark Jensen, Mayor**

**ATTEST:**

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**Debra K. Thompson, Borough Clerk**