Item No. 8c_supp
Meeting Date: April 27, 2021

Interlocal Agreement with National Renewable Energy Laboratory

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Port of Seattle®

Action Requested

- Request Commission authorization for the Executive Director to enter into an interlocal agreement with National Renewable Energy Laboratory to analyze energy and technology alternatives for both aviation and maritime facilities to help meet Century Agenda environmental and energy goals

- Budget previously authorized (Dec 15, 2020)

Who is NREL?

Who Is NREL?

- A national laboratory of the U.S. Department of Energy
- Its mission is to advance energy efficiency, sustainable transportation, and renewable power technologies.
- Budget $500M per year, almost 90% funds from the Department of Energy

NREL
Transforming ENERGY

What Does NREL Offer?

- Sought-after researchers for energy efficiency, renewable energy, etc.
- Do not compete with consultants
- Currently working on evaluations for dozens of ports, airports, campuses
- Major partner for DFW : Curbside traffic; Mechanical plant solution to reduce 80% of natural gas demand

NREL's REopt Tool

- Techno-economic decision support platform used to optimize energy systems for buildings, campuses, etc.
- REopt recommends optimal mix of renewable energy, conventional generation, and energy storage technologies to meet cost savings, resilience, and energy & emission performance goals.

REopt
Renewable Energy Integration and Optimization

Interlocal Agreement

- Approx 1-year agreement
- Both maritime & aviation focus
- $150K ($75K each)
- Budget previously authorized (Dec 2020)

Aviation Scope

1. As complement to Utility Master Plan, review existing plant operations and future concepts
2. Review assumptions
3. Develop future alternatives & refine concepts
4. Techno-economic assessment of proposed alternative(s)
5. Final report

Maritime Scope

1. In coordination with Waterfront Clean Energy Strategic Plan, review current and future energy demand, load and capacity profiles
2. Develop future alternatives & refine concepts
3. Techno-economic assessment of proposed alternative(s)
4. Final report

ILA Project Schedule

Task/Deliverable	Date
Commission ILA authorization	Q2 2021
Data Gathering	Q2-Q3 2021
Evaluation of Alternatives & Technologies	Q3-Q4 2021
Final Recommendations	Q1 2022