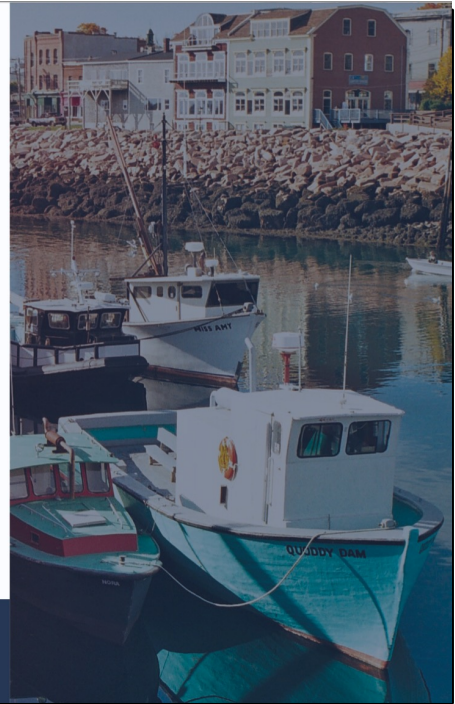




EASTPORT
Maine
eastport-me.gov

ENERGY RESILIENCY IN EASTPORT

How ETIPP is assisting Eastport



ENERGY TRANSITION INITIATIVE PARTNERSHIP PROJECT (ETIPP)

The National Renewable Energy Laboratory (NREL) partners with the U.S. Department of Energy's (DOE) Energy Transitions Initiative Partnership Project (ETIPP) to help remote, island, and islanded communities transform their energy systems and increase energy resilience.

1

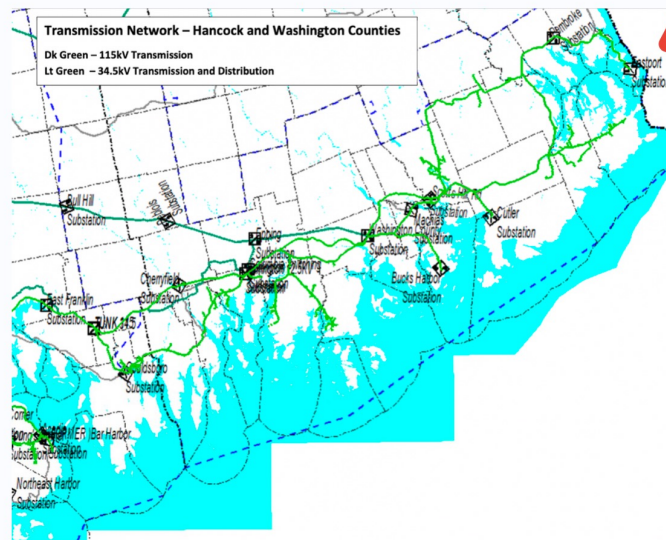
Micro-Grid
Feasibility
and Design

2

Energy
Efficiency
Scenarios

Eastport is currently participating in the ETIPP program, which will conclude in 2022. This program comes at NO COST to residents/Eastport. In the initial application Eastport identified the two priorities for the National Renewable Energy labs to focus their work on (priorities shown above).

VERSANT POWER MAP

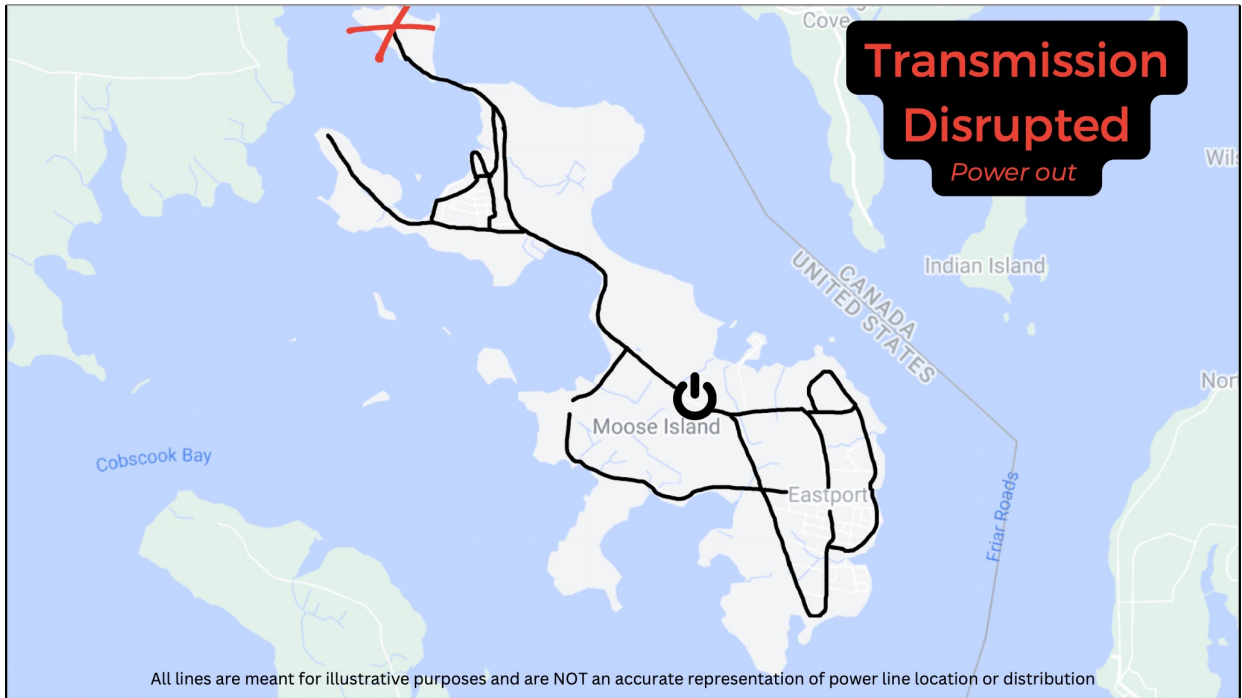


<https://www.versantpower.com/media/65215/Maps-of-Transmission-Circuits.pdf>

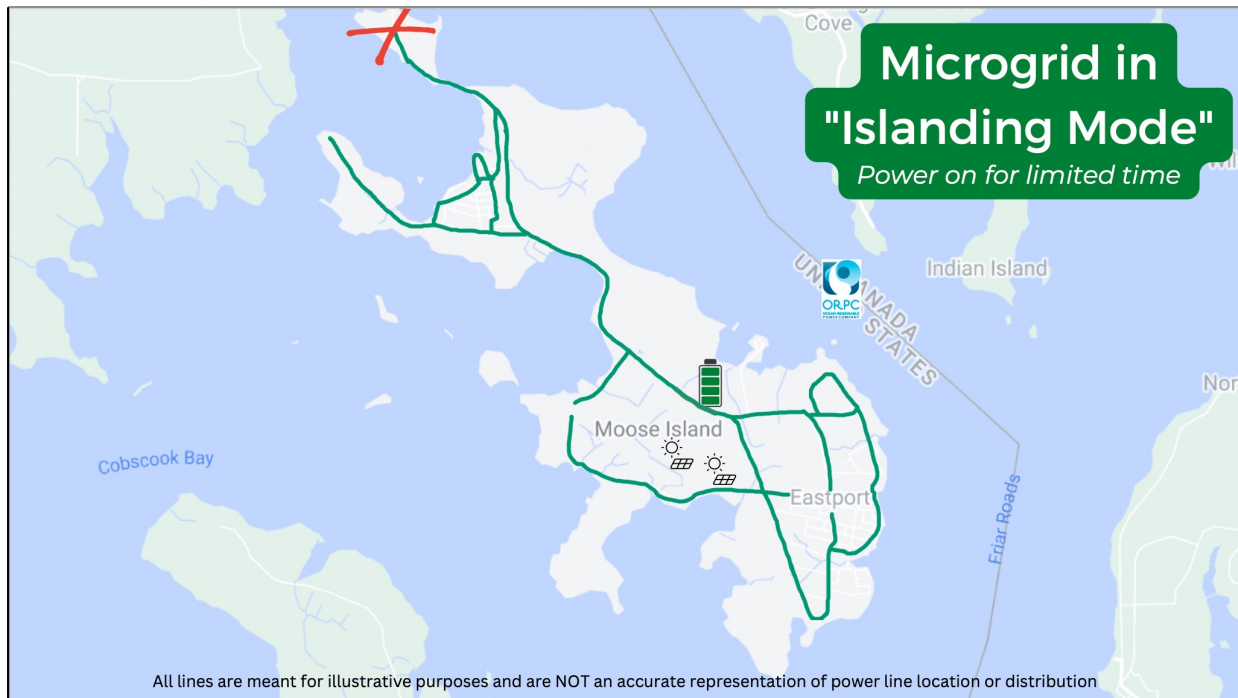
This map shows that Eastport is at the end of the Versant transmission line. If something happens down the line, especially around Pembroke area, Eastport will lose power.



This is how our grid works under normal situation. Power comes into the island, gets distributed at a local substation, and then sent out to all the homes, schools, and businesses in Eastport. These lines are NOT an accurate representation of where power goes, they are meant for *illustrative purposes only*.



When the grid gets disrupted, we lose power.



With a microgrid, the island would still receive power for a limited period of time when the grid is disrupted. Large batteries would be installed at the substation that could switch on immediately when the grid is disrupted. The batteries could be charged by renewable sources (like solar, tidal, or wind) initially, and theoretically continuously when in "islanding mode" to extend the battery life. How much power/time on we receive depends on the size of the batteries, how many are here, and how much power is being pulled from them when in use.

CHALLENGES WE FACE

- Regulatory hurdles with battery ownership, system integration, and interconnections
- Funding, potentially an expensive project and want to limit burden on residents

There are challenges that will need to be addressed before a microgrid could happen. First, we need legislative guidance when it comes to batteries: from their ownership, integrations, and how they interconnect to the grid. This is relatively new technology, so guidance is key. Another challenge is the cost of this project; from batteries to interconnection fees, this is likely to be an expensive project. That being said, one of the City's priority is to minimize the financial impact this would have on residents.



If you have any questions, please reach out to Paige via the email shown or by calling Eastport's city hall at (207) 853-2300. Thank you!