

# Vessel with Voltage

## Updating a Transit District Fleet with Hybrid Technology

Hank Berg

General Manager

Casco Bay Island Transit District

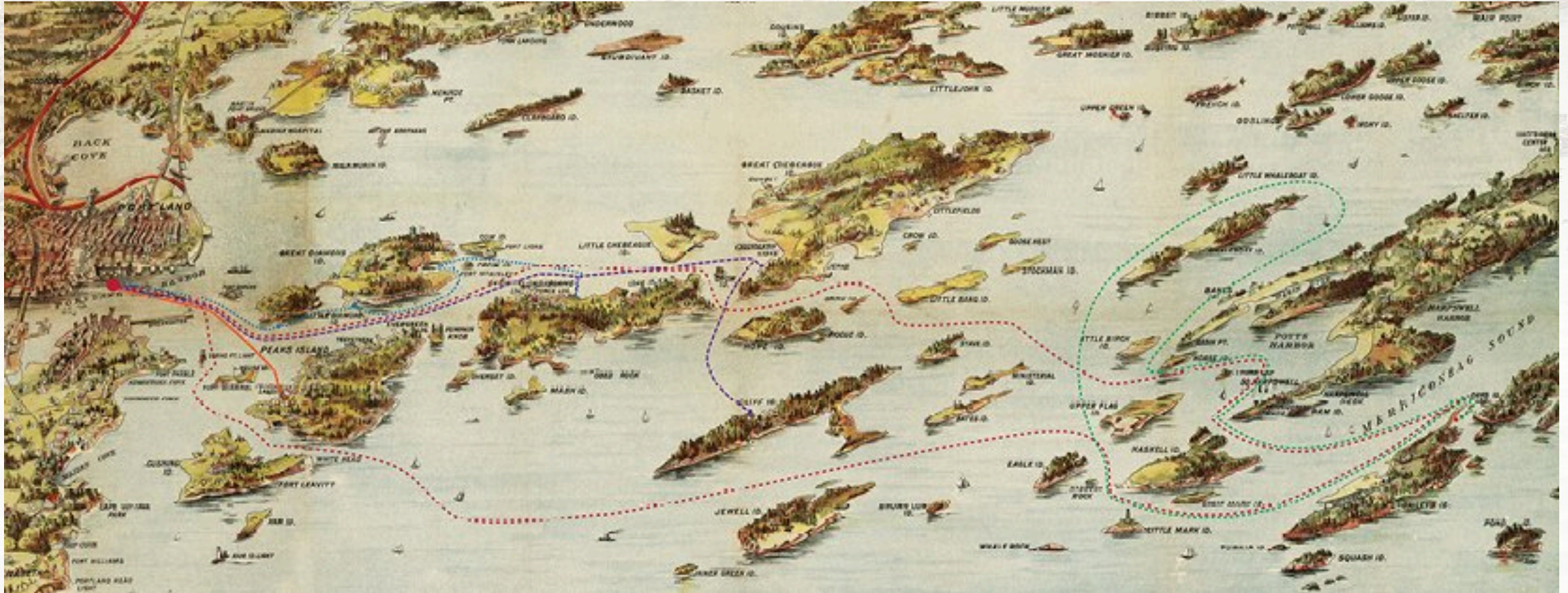
March 31, 2023





# Casco Bay Lines Service Area

## Casco Bay - Portland Maine



# CBL Fleet

Useful life of a CBITD ferry: **30 Years**

Average Age: **26.2 Years**



	Vessel	Year Built	Age	Passengers	Vehicles
ACTIVE	<b>Machigonne II</b>	<b>1987</b>	<b>36.0</b>	399	12
ACTIVE	Maquoit II	1994	29.0	399	~1
ACTIVE	Aucocisco III	2005	18.0	399	
ACTIVE	Wabanaki	2013	10.0	398	
STANDBY	Bay Mist	1985	38.0	297	

Length	Beam
122 feet	37 feet
Draft	Engines
8 feet	2Caterpillar+2Gen

# Machigonne II

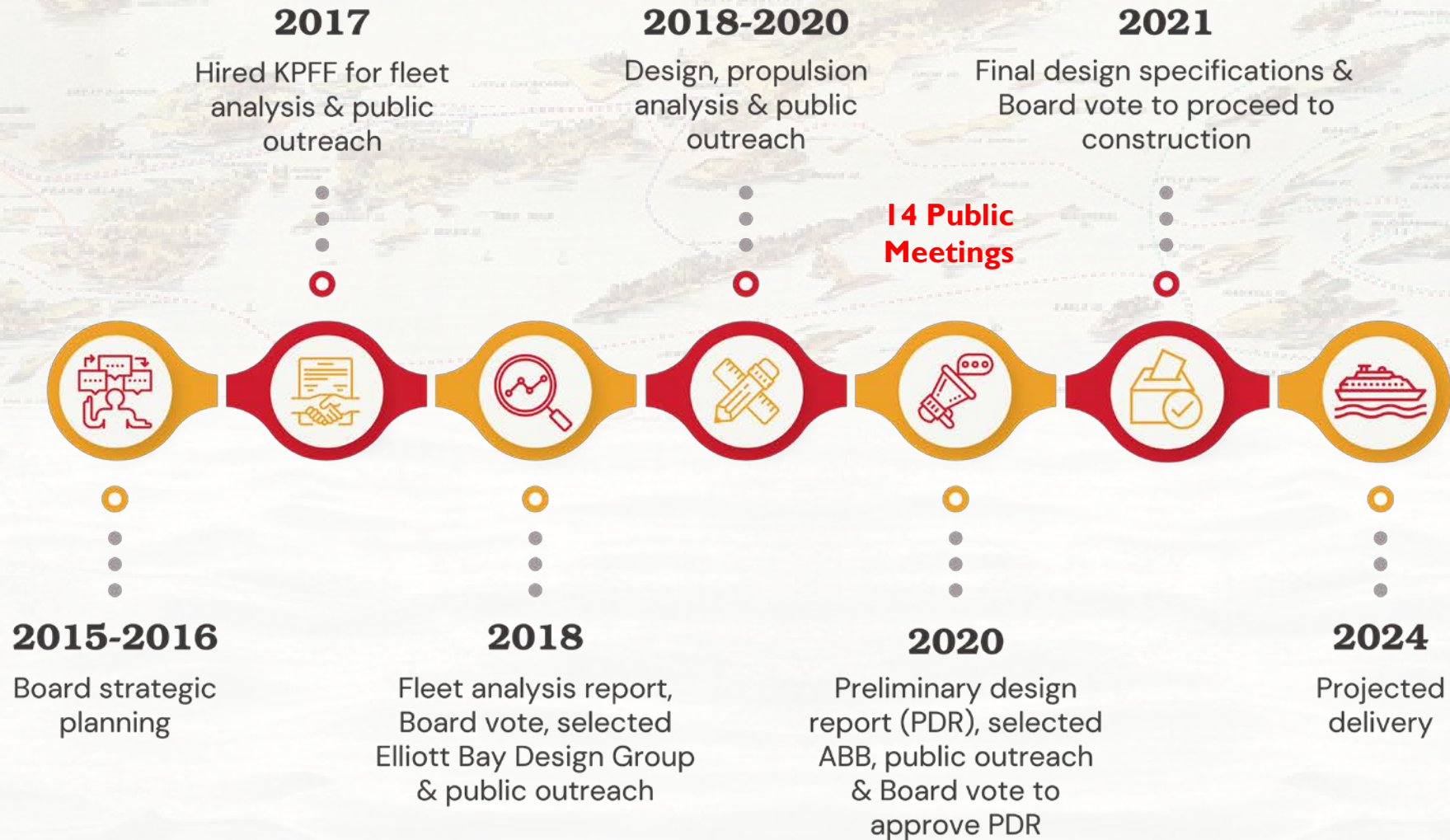


# CBL Peaks Island Service



**One Island: 4.5 NM Round Trip**

# Project Timeline





Length	Beam
164 feet	40 feet
Draft	Propulsion
7.5 feet	Diesel Elec Hybrid

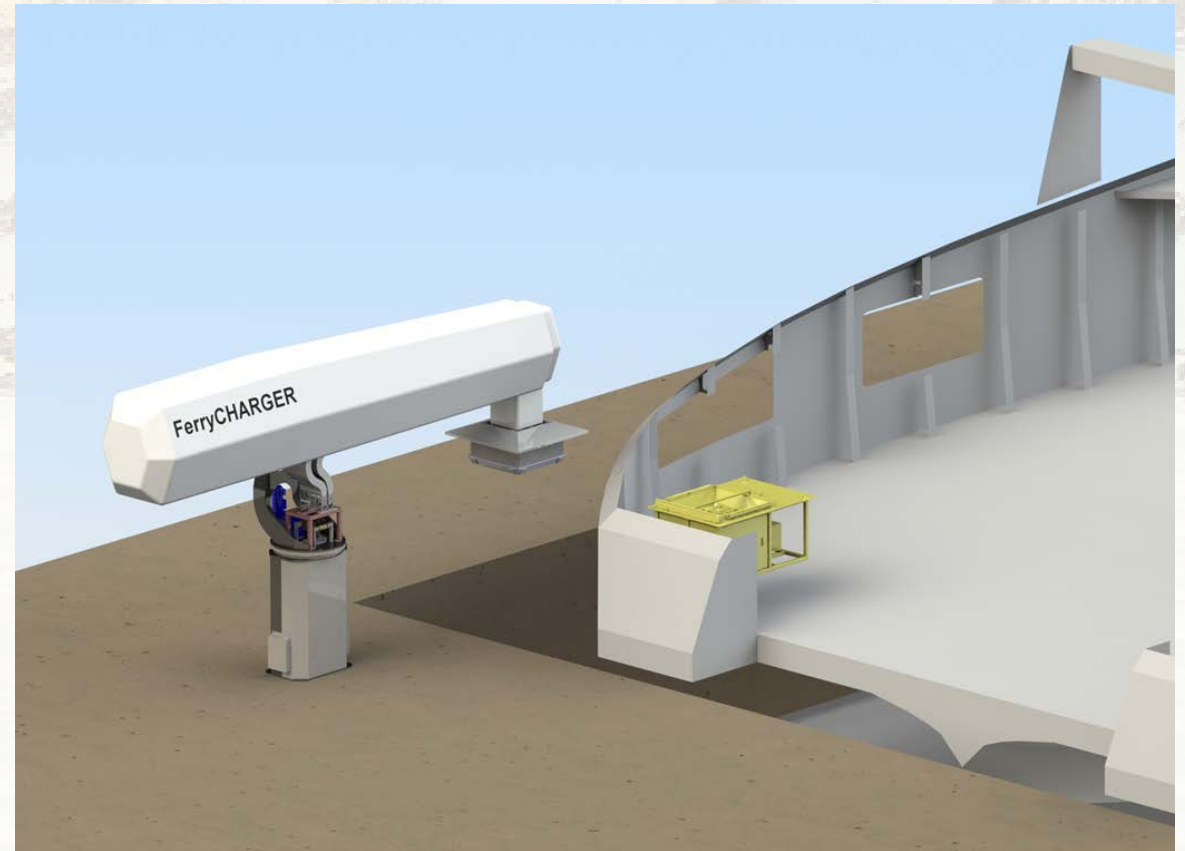


# New Peaks Island Ferry

Casco Bay Lines • Portland, Maine

# Shoreside Charging

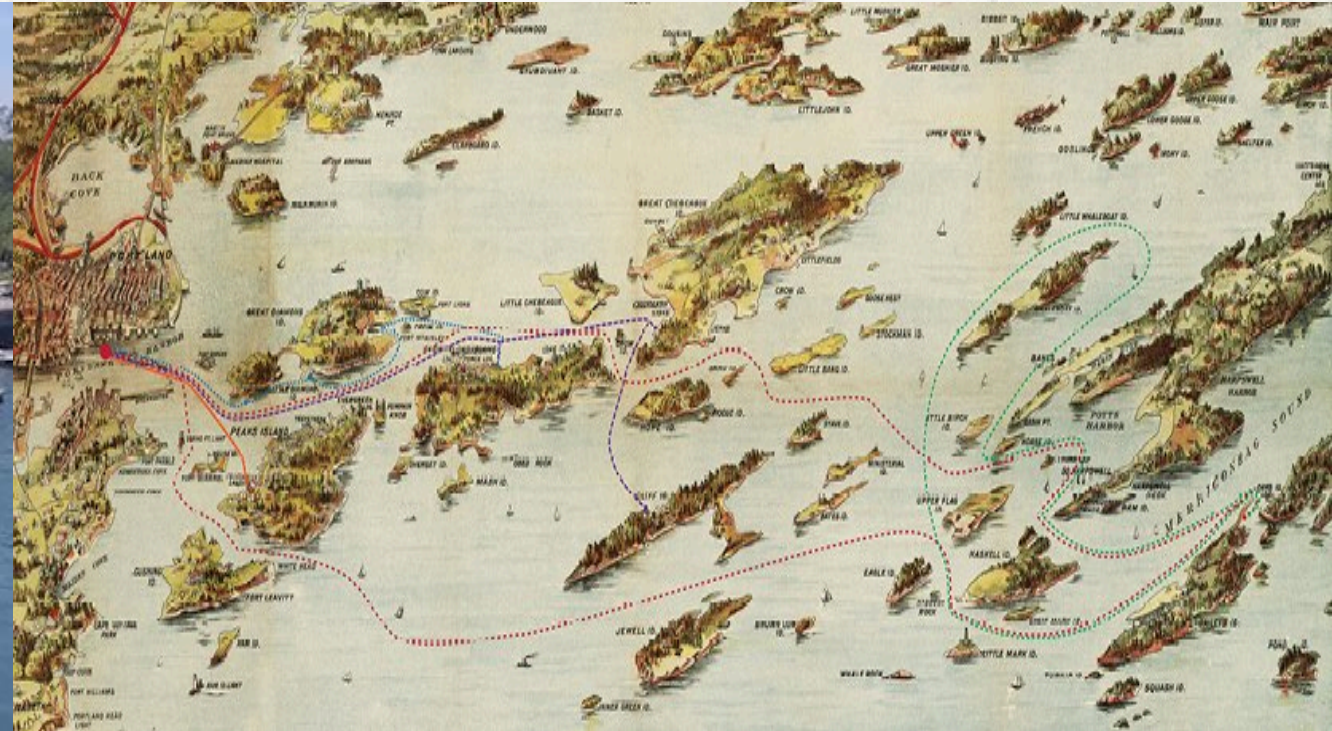
- Goal: 10 year battery life
- 220 kWh is used each round trip
- Charging occurs only at Portland
- Challenges:
  - 10 minute charging window
  - Automated process with 30 sec set up
  - Getting power to site:  
Charger requires 1.3MW
  - Peak demand rate issue



# CBL's Next Vessel Project



**Maquoit Replacement  
w/ Diesel Electric Hybrid Propulsion**



**Casco Bay Down Bay Service  
5 Islands: 21 NM Round Trip**

# Thank You!

**t: (207) 774-7872**

**e: [hankb@cascobaylines.com](mailto:hankb@cascobaylines.com)**

