

Maine DOT Request for Proposals for Electrical Integrator for Replacement of Margaret Chase Smith Ferry Vessel

RFP questions received as of February 4, 2026 and answers are below:

1. What are the goals of the hybrid system?

a. Examples:

1. Improved fuel efficiency / lower emissions
2. Boosting prop engine (Improved performance)
3. Aux gensets off while prop engines are running

Answer:

Main diesel engine size is being limited to 750 hp each side, using electric motors to boost the propulsion power when needed.

When running at slow speed, and when pushing at the dock, use of main diesel engines will be limited and vessel will use the electric motors.

Generators will need to run to charge batteries, provide electric propulsion/thruster power and vessel hotel power as needed.

Vessel is tied up at terminal for 14 hours every night, giving an opportunity to charge batteries from shore power.

2. What are the goals of electric-only mode?

a. Example:

1. Engines off while loading/unloading vehicles while batteries carry hotel load

Answer:

During the day, the vessel spends 15 minutes of every 30 minutes unloading and then loading vehicles. The goal will be to push against dock with

electric motors running and main engines off. Generators will run as needed.

3. What shore power capacity is available:

- a. Single or 3 phase voltage

- b. Amps available at 240vAC and 480vAC

Answer:

Terminals on both sides can provide 240 VAC, 3-phase, 200 amp power now. Ferry Service is working on an upgrade to 480 VAC, 3-phase, 200 amp.

4. Verification of expectations for when shipyard would need material from RFP

Based on standard vessel construction sequencing we typically see:

- a. Engines and major machinery installed mid-build when the machinery spaces are structurally ready.
- b. Power electronics and switchboards installed after the machinery spaces are outfitted and cable trays are in place.
- c. Battery modules installed late in the build, often shortly before commissioning, to minimize long-term storage, handling risk, and environmental exposure.

Given a January 2027 construction start, our preliminary expectation is:

- Engines, motors, drives, gearbox, and battery racks: 2Q 2027
- Battery modules: 4Q 2027

Answer:

Based on previous vessel's original building schedule, main propulsion machinery should be delivered 14 to 15 months after contract signing. Generators, switchboards and batteries should be delivered 13 to 14 months after contract signing. Final scheduling will be coordinated with shipyard.

And note that anticipated shipyard construction period is January 15, 2027 to January 15, 2029 at this point.

5. Based on the RFP document (page 3), we understand our scope to include "DC propulsion switchboards, AC ship service switchboard, battery banks, propulsion motors, variable speed drives, shore power connections and onboard transformers". This leaves some key items on the table that we are thus assuming are not to be included in our scope and therefore pricing, primarily: Auxiliary & Emergency **Generators, Propulsion Engines, Gearboxes** for Propulsion Engines and PTI/PTO Motors, **Thruster**, and **Shaft line & Prop**. While we do not intend to

include these in our RFP response we recognize our role in working with you to ultimately decide on the rating and specifications for these items down the road if we are selected from this RFP.

Please let me know if any of these items are on the wrong side of our understanding, and if there is anything else I did not mention that you want to be explicit about ownership of.

Also, related question – Does MaineDOT expect integrators to sell the CAT engines or just integrate into system?

Answer:

At this point, the propulsion machinery and electrical equipment shown on the plans is preliminary. The RFP is requesting a rough order of magnitude cost estimate to help the selection team make decisions about the vendors and available propulsion equipment options. There will be an opportunity to provide a detailed quote to the shipyards once the design has been finalized.

The proposers will need to provide an all-inclusive propulsion and integration package as a result of this RFP process, keeping in mind that the design is not complete now. Ultimately, the shipyard will be contracting directly with the integrator to purchase the equipment.

Main diesel engines, hybrid reduction gears, PTI/PTO motors, Auxiliary and Emergency Generators, Bow thruster and bow thruster motor will need to be supplied to the shipyard by the integrator, including all control systems. Please outline the components that are included and excluded from your proposal. Shafts and propellers will be shipyard-supplied.

6. Is this RFP for one vessel or potentially more?

Answer:

MaineDOT is only planning for one vessel to be built to the new design at this time.

7. Please clarify where on the MaineDOT website the RFP is posted.

Answer:

RFP is posted at <https://www.maine.gov/dot/doing-business/bid-opportunities/rfps>