

FY 2022 Passenger Ferry Grant Program, Electric and Low-Emitting Ferry Pilot, and Ferry Service for Rural Communities

Applicant and Proposal Profile

Is this a resubmission due to an invalid/error message from FTA? Yes No

Is this application for:

(If applying to two programs, please select both boxes)

- Passenger Ferry Grant Program (FTA-2022-006-TPM-FERRY)
- Electric or Low-Emitting Ferry Pilot Program (FTA-2022-007-TPM-FERRYPILOT)
- Ferry Service for Rural Communities Program (FTA-2022-008-TPM-FERRYRURAL)

If applying to more than one Ferry program, applicants should enter information for the applicable programs on this form but **Must** submit the application package including the Supplemental Form and attachments, to **Each** respective Opportunity ID on Grants.Gov. That is, complete one form, but submit it to each program in Grants.gov.

Section I. Applicant Information

Organization Legal Name:

FTA Recipient ID Number :

Organization Chief Executive Officer:
(Name and Direct Phone Number)

- Applicant Type: Designated or Eligible Direct Recipient of 5307 Urbanized Area Formula Funding
- State or Territory
- Local Governmental Authority
- A Federally-Recognized Indian Tribe

- Project Location: Large Urbanized Area (200,000+ people)
- Small Urbanized Area (50,000-199,999 people)
- Rural (less than 50,000 people)

Description of services provided and areas served:

MaineDOT's Maine State Ferry Service (MSFS) provides the primary link for passengers, vehicles, and freight to six unbridged island communities in mid-coast and down east Maine. The six islands—Frenchboro, Islesboro, Matinicus, North Haven, Swan's Island, and Vinalhaven— are rural and residents rely on ferry service for access to services, goods, and jobs on the mainland, as well as for emergency medical transport. Service levels vary by island, from Matinicus which is served by a maximum of 36 round trips per year, to Islesboro which receives 9 daily round trips during the peak season. MaineDOT owns and operates four island and three mainland terminals, which include paid parking, in Bass Harbor, Lincolnville, and Rockland.

The islands served by MSFS have varying population levels, numbers of visitors, and freight and transportation needs. Island populations fluctuate by season, increasing during the summer months with seasonal residents and visitors. To serve the higher level of demand during the peak season (mid-May through mid-October) from seasonal island residents and visitors, four of the MSFS routes operate a higher number of trips to meet increased demand.

MSFS strives to meet each island's unique needs, while maintaining a high level of reliability system-wide. Challenges faced by the

system in recent years have included increased operating costs, extraordinary repair costs due to aging vessels, and staffing shortages due to the global maritime workforce shortage complicated by periodic COVID-19 impacts.

MaineDOT currently owns and operates a fleet of seven vessels. Three of those vessels are over 30 years old and face increasing maintenance needs. In alignment with community priorities and the state’s electric vehicle and transportation emissions-reduction goals, planned vessel replacement projects include implementation of hybrid-electric vessels.

This project will replace the 35-year-old Margaret Chase Smith which primarily serves the island of Islesboro, a rural community located 3 miles from the mainland in upper Penobscot Bay. Replacement of the Margaret Chase Smith is needed to maintain reliable, sustainable ferry service to Islesboro.

Islesboro has roughly 600 year-round residents, with a summer population of over 2,000 and a significant number of visitors. The island is unbridged, and MSFS provides the only public transportation link and the only means of transporting vehicles and freight trucks to and from the island. MSFS provides service on the 20-minute crossing between Islesboro and Lincolnville, with 9 round trips Monday through Saturday and 8 round trips on Sundays during the peak season, slightly reduced to 7 round trips Monday through Saturday and 5 round trips on Sundays during the fall and winter. In 2019, the route carried over 180,000 walk-on passengers, and over 73,000 vehicles.

The ferry facilitates the provision of emergency and essential services that are vital to the island community, including food, fuel, and other emergency supplies. Roughly 38% of Islesboro’s population is over the age of 64, placing it in the 97th percentile for the U.S., therefore maintaining reliable access to these services and emergency medical transportation is critical. MSFS operates crew quarters on Islesboro to provide lodging and amenities for crews when off-duty or on-call, allowing the ferry to serve as an emergency transport option outside of scheduled service while meeting Coast Guard limitations on work hours.

The ferry is key to community and economic development for Islesboro, including providing access to jobs both on and off the island. Ferry access to Islesboro also supports opportunities for tourism and recreation on the island. The island is also home to Islesboro Central School, a K-12 magnet school supported by the ferry, which provides free transportation to all staff and students, equivalent to around \$100,000 of fares per year, for 15 to 20 staff and approximately 30 students.

Section II. Project Information

About the Project

Project Title:
(Descriptive title of this project)

Replacement of MaineDOT’s Margaret Chase Smith Ferry

Project Executive Summary:

This project includes construction of a new ferry to replace the 35-year old Margaret Chase Smith, which has exceeded its useful life. The new ferry will provide a vital connection to mainland Maine for the roughly 600 residents of the island of Islesboro, a rural community located in upper Penobscot Bay, 3 miles off the coast. Design will begin in the coming months for a double-ended replacement ferry, with 3 vehicle lanes and the capacity to carry approximately 40 vehicles and 225 passengers.

This project will reduce greenhouse gas emissions and promote environmental sustainability by replacing an aging, diesel vessel with a new hybrid-electric vessel designed to operate with low to zero emissions. The vessel’s propulsion and on-board battery storage system will be designed for full electric ferry operation in anticipation that the required shoreside electrical charging infrastructure system will be technically and financially viable. By replacing one of the oldest vessels in the fleet, this project will increase the reliability of the Maine State Ferry Service system, reduce vessel repair and maintenance requirements, and ensure continued access for island residents to services, goods, and medical care. The replacement vessel will incorporate wider vehicle lanes and will enhance the pedestrian access on the ferry to improve safety. The new ferry will have an increased vehicle capacity that will allow more personal and freight vehicles to be carried on each trip, improving access for island residents, freight, and emergency services. The double-ended vessel design will

significantly increase the operating efficiency of the route by eliminating the need for the ferry to turn around at each end of the route.

Project Statement of Work (one sentence summarizing request):

MaineDOT plans to construct a double-ended hybrid-electric vessel, with optional all-electric operations, to replace the 35-year-old Margaret Chase Smith, which primarily serves the island of Islesboro, Maine, in order to reduce CO2 emissions, improve air quality, maintain a state of good repair, and enhance capacity and service reliability for the Maine State Ferry Service and the 6 unbridged islands it serves.

Will you need a Buy America waiver? Yes No

Propulsion Type:

- Battery electric
- CNG
- Diesel
- Diesel-electric hybrid
- Electricity (including electricity from solar energy)
- Fuels (except alcohol) derived from biological materials
- Gasoline
- Hydrogen
- Liquefied petroleum gas
- Methanol, denatured ethanol, and other alcohols
- Natural Gas
- A mixture containing at least 85% of methanol, denatured ethanol, and other alcohols by volume with gasoline or other fuels
- Any other fuel that is not substantially petroleum and that would yield substantial energy security and environmental benefits

If other fuel, specify:

Other

If Other, specify:

- Project Type:
- Facility Rehabilitation
 - Facility Replacement
 - New Facility (expansion)
 - New Vessel (expansion)
 - Number of vessels for service expansion:
 - Vessel Rehabilitation
 - Number of vessels to be rehabilitated:
 - Vessel Replacement
 - Number of vessels to be replaced:
 - Related Equipment
 - Operating (Rural Program Only)
 - Planning (Rural Program Only)
 - Other

If Other, specify:

Climate Change

Please describe the significant community benefits relating to the environment (see NOFO section E.2):

The project will benefit nearby communities and customers by improving air quality. The existing ferry utilizes ~100,000 gallons of diesel per year resulting in annual emissions of ~1,016 metric tons of CO2. Assuming a 90% reduction in fuel use with hybrid-electric operations, the new ferry will result in annual emissions reductions of ~914 metric tons of CO2. See Attachment 1 "Emissions Calcs." All-electric operations, if supported by shoreside charging, would further reduce emissions.

Environmental Justice Populations

Is there an environmental justice population(s) located within the service area? Yes No

Describe the environmental justice population(s) and the anticipated benefits resulting from the project for those population(s) (see NOFO Section E.2):

Using the EPA EJSCREEN, it has been identified that the Town of Islesboro, which includes the entire island of Islesboro, is classified as medically underserved, having limited access to healthcare and an exceptionally high population of older adults. Roughly 38% of Islesboro's population is over the age of 64, landing it in the 97th percentile in the United States. As no hospitals exist on the island itself, a new hybrid-electric ferry will provide a cleaner, more reliable means for Islesboro residents to access medical services on the mainland. See Attachment 4 "EJ Maps."

The project will improve existing transit routes for all users of the transportation system, including vehicles, pedestrians, and bicyclists. It will improve safety and quality of access to and from Islesboro, not only for residents seeking healthcare or other services, but also those who reside on the mainland and provide professional services and supplies to those on the island.

Racial Equity/Barriers to Opportunity

Does the project address racial equity or barriers to opportunity (see NOFO Section E.2)? Yes No

If yes, please describe:

This project will address barriers to opportunity by ensuring a reliable, sustainable public transportation link for an unbridged island community, maintaining access to jobs, education, and emergency/medical services. While Islesboro currently has limited racial diversity, which is common for many Maine communities, MaineDOT is committed to ensuring that meaningful input from disadvantaged and underserved populations is incorporated into project planning. This project will be conducted in accordance with MaineDOT’s tools and policies focused on ensuring that all Maine people have access to safe, reliable transportation options, and that planning processes reach underserved and disadvantaged communities. Planning policies will include MaineDOT’s Public Involvement Plan, which outlines how MaineDOT ensures disadvantaged populations and underserved areas have meaningful opportunities for public involvement and the MaineDOT Statement on Equity.

Creating Good-Paying Jobs

Applicants for facility projects, please describe how the project will support creating good paying jobs (see NOFO section E.2):

The estimated \$35 million cost for new vessel construction will yield an estimated 137 direct jobs and 314 indirect jobs (see Attachment 3 “Jobs Estimate”). The vessel will require ongoing maintenance that will be performed by skilled MaineDOT personnel, as well as marine technicians in contracted shipyards. MSFS staff and vessel crew are represented by the Maine Service Employees Association, Service Employees International Union, Local 1989.

Justice40

Does the project support the Justice40 Initiative? Yes No

Describe how the project supports the Justice40 Initiative and the benefits provided (see NOFO Section E.2):

While Islesboro does not meet USDOT’s Justice40 threshold, the project does support Justice40 by reducing air pollution and improving reliable access to medical and quality of life services in a community that USDOT lists as suffering from a health disadvantage through the interim Transportation Disadvantaged Census Tracts (Historically Disadvantaged Communities). Additionally, this community has low transportation access (reliance on the ferry), is a Medically Underserved Area per EPA EJSCREEN, and 38% of the population is over the age of 64.

MaineDOT has garnered community input for the project through the Maine State Ferry Advisory Board and following the MaineDOT’s Public Involvement Plan and Statement on Equity. In accordance with Title VI and other authorities, MaineDOT is committed to upholding the principles of equal opportunity in all decisions involving employees and contractors/consultants, and to ensuring that the public is afforded access to our programs and services.

Describe the methodology used to determine the project meets the Justice40 Initiative (see NOFO Section E.2):

MaineDOT used USDOT’s interim Historically Disadvantaged Communities tool to determine that the project does not meet the Justice40 Initiative threshold of 4 or more Transportation Disadvantage indicators. However, Islesboro’s Census Tract 440 is

indicated as suffering from a health disadvantage. Per the EPA EJSCREEN tool, 38% of the island’s population is over the age of 64, which falls into the 97th percentile for the U.S. EJSCREEN also identifies Islesboro as a Medically Underserved Area. See Attachment 4 “EJ Maps.”

Low transportation access is evident due to Islesboro’s geographic isolation and limited transportation options. The ferry is the main connection to the island and used by workers, mail and freight services, and other travelers. It is the single, essential lifeline that provides access to hospitals, services, supplies, and opportunity for the community. The only other options (water taxi, aircraft) are limited and cost-prohibitive.

Justice40 Population Impacted

Justice40 Disadvantaged Community Served as Identified in the NOFO Section E.2

Actual or Estimated Annual Ridership Count

Islesboro does not fully meet this threshold.

0

Insert Item

What is the percentage of Disadvantaged Communities within the project area? 0 %

Was this estimate generated using the Justice40 online mapping tool? Yes No

Project Budget

Description	QTY	Federal Amount Requested	Federal Match Amount	Other Federal Funds	Other	Total Cost
Ferry Replacement	1	28,000,000	0		7,000,000	35,000,000

Insert Item	Total:	28,000,000	0	0	7,000,000	35,000,000
-------------	--------	------------	---	---	-----------	------------

Operating Support (Rural Program Only)

Rural Ferry Program applicants requesting operating assistance should complete the following based on the applicant's fiscal year.

	A. Total Operating Cost**	B. Operating Support Provided by the State	C. Fares and Other System Generated Revenues	D. Other Funding Sources*	
2017					
2018					
2019					
<i>Anticipated*</i>					Amount Eligible to Apply
2023					
2024					

**do not include funds anticipated through this application*

**** Column B+C+D=A for 2017-2019**

2017-2019 Average Operating Support Provided by the State or locality:

75 Percent (minimum that must be provided) of 2017-2019 Average Operating Support Provided by the State or locality:

Matching Funds Information

Matching Funds Amount:

Source of Matching Funds:

The match will provided by the state using multimodal funding and bond funding.

Supporting Documentation of Local Match:

MaineDOT is committed to providing these matching funds to the Federal funds requested. See Attachment 5 "Matching Funds" for documentation committing to the non-federal match for this project.

Project Scalability

Is Project Scope scalable? Yes No

If Yes, specify minimum Federal Funds necessary:

Provide explanation of scalability with specific references to the budget line items above:

Project Timeline (Please be as specific as possible)

Timeline Item Description

Timeline Item Date

Issue RFP for vessel design	07/01/2022	X
Vessel design (Sept. 2022 to June 2024)	09/30/2022	X
Pursue funding for design of shoreside vessel charging infrastructure improvements (early 2023)	01/01/2023	X
Contract support for vessel construction	07/01/2024	X
Vessel construction (if federal funding secured) (Sept. 2024 to Sept. 2026)	09/01/2024	X

Insert Item

Congressional Districts (Project Location)

Congressional District

ME-002

Insert Item

Section III. Evaluation Criteria

***** Address each of the evaluation criteria as described in the Notice of Funding Opportunity. *****

Demonstration of Need

The Project will replace the Margaret Chase Smith (MCS) which was built in 1987. The MCS has not yet undergone a significant overhaul and is 5 years beyond the useful life of 30 years suggested by FTA’s Award Management Requirements for such a ferry. If funding is secured to begin vessel construction by the end of 2024, it is anticipated that the new vessel could be in service by 2026, when the MCS will have reached 39 years of age. As MaineDOT reported to the National Transit Database in 2019, the expected useful life of the vessel was identified as 5 years from the time of reporting, or through 2024.

The Islesboro community depends on MSFS service, and a reliable vessel is key to ensuring access to services, goods and supplies, and emergency medical care for its aging population. As the 35-year-old MCS continues to age beyond its estimated useful life, its condition deteriorates, contributing to an increased risk of mechanical or structural failure. MSFS completes regular maintenance to

help mitigate these risks, but the level, frequency, and cost of maintenance requirements grows as the MCS continues to age. In 2021, roughly \$500,000 was spent to repair the MCS, and the vessel spent significant time out of service. By 2027, the MCS would require significant time out of service to complete maintenance and repair activities including hull inspection, overhaul of engines, and electronics upgrades, estimated at a minimum cost of \$750,000. Because the MCS is the largest vessel in the MSFS fleet, its increased time out of service for maintenance and haul-outs impacts the system by requiring the next largest vessel to be shifted from its assigned route, which is then served by an even smaller vessel. This leaves both routes with less vehicle capacity than typical, each able to carry about 75% of the capacity of normal operations. This decrease in level of service negatively impacts island residents, especially during times of peak demand. Additionally, as an older, diesel-powered vessel, the MCS results in significant fuel use and emissions.

Built over 30 years ago, the MCS was not designed with current safety guidelines or ADA design standards and presents challenges for both walk-on and vehicle users. Narrow lanes make it difficult for passengers to exit their vehicles on the ferry and access cabin spaces. MaineDOT requested input on desired vessel design considerations from users of the Islesboro ferry service through a public survey conducted in 2021. Incorporating survey feedback (link provided in Attachment 2 "Links to Planning Documents"), the replacement vessel design will improve access for passengers and vehicles through increased vehicle capacity, wider lanes to allow passengers to get in and out of their vehicles and accommodate freight vehicles, improved access to vessel facilities, and improved protected spaces for walk-on passengers. Passenger cabins on the replacement vessel will be located on the main deck, whereas the cabins in the MCS are located on the upper deck of the vessel making access challenging for mobility impaired users. Modernization of the vessel is needed to align with current passenger and crew access and safety regulations, improving accessibility for passengers.

Ridership and traffic information from MaineDOT show that 59% of riders on the Islesboro route in 2019 consisted of walk-on passengers. MaineDOT is exploring options to expand parking at Lincolnville which could increase the number of walk-on passengers by allowing more users to leave a vehicle on the mainland and walk on to the vessel. The improvements provided by the new vessel are necessary to better support the large percentage of walk-on passengers and to provide additional capacity that can accommodate future growth in non-vehicular passengers and reliable access to services.

Demonstration of Benefits

Note: If applying to more than one program, be sure to select "yes" and provide a response to the applicable questions below.

Is this an application to the Passenger Ferry or Rural Program? Yes No

Please describe the benefits of the proposed project per the statutory requirements of the Ferry or Rural Programs (see NOFO Section E(1)(b)(ii)):

Is this an application to the Low-Emitting Program? Yes No

Please describe the benefits of the proposed project per the statutory requirements of the Low-Emitting Program (see NOFO Section E(1)(b)(ii)):

The project will reduce emissions of particulates and other pollutants and greenhouse gases, by replacing an old diesel ferry with a new hybrid-electric vessel, for an estimated annual savings of 914 metric tons of CO2. Customer experience will be enhanced by greatly limiting the exhaust and noise inherent with diesel engines. This project improves the safety of the MSFS by providing a new vessel with modern technologies, safety systems and design. The project will allow MSFS to maintain a state of good repair, reduce ferry out of service time, and maintain level of service and reliability. The project will maintain access for essential services, medical care, freight, and emergency response and transportation network resilience.

Islesboro depends on the ferry for community development and access to economic opportunities, including jobs on and off the island, recreation, and the Islesboro Central School. In 2019, 59% of riders were walk-on passengers without a vehicle.

Planning and Local / Regional Prioritization

This project is consistent with local and regional planning documents and identified priorities. The project supports two of the top priorities identified in the Islesboro 2022 Looking Ahead Comprehensive Plan, including responding to climate change and sea level rise and ensuring the affordability of transportation to and from Islesboro. The Town of Islesboro’s Plan identified the goal of working with the Maine State Ferry Service in the design process for a new ferry that will replace the Margaret Chase Smith.

Furthermore, this project is consistent with transit priorities included with the Statewide Strategic Transit Plan, Long-Range Transportation Plan 2050, and Maine’s climate action plan, “Maine Won’t Wait,” which set the greenhouse gas reduction goals of a 45% reduction by 2030 and an 80% reduction by 2050. This project supports those emissions goals and identified strategies of shifting energy sources from fossil fuels to electricity, especially in sectors with high greenhouse gas emissions such as transportation.

See Attachment 2 “Links to Planning Documents” for a links to referenced planning documents.

This project could not be included in the most recent State Transportation Improvement Program (STIP) due to lack of funding. If this project is selected, it can be added to the STIP before grant award.

This request for assistance is supported by state and local governments, the Maine State Ferry Service Advisory Board, and local environmental and economic stakeholder groups. Reference Attachment 6 “Letters of Support” for a full list of letters of support received and anticipated letters forthcoming.

Local Financial Commitment

MaineDOT is committed to providing these matching funds to the Federal funds requested. See Attachment 5 “Matching Funds” for documentation committing to the non-federal match for this project.

Project Implementation Strategy

Can this project be obligated within 12 months? Yes No

The replacement vessel will operate on an existing route and can be put into operations right away with decreased emissions at the start. There are no shoreside infrastructure improvements proposed in this ferry construction contract, therefore the project will not require an environmental review process. Further study of shoreside electrical vessel charging infrastructure, outside of the scope of this project, will include assessment of environmental impacts and compliance with any applicable environmental processes.

MaineDOT issued a Request for Proposals for design of the replacement vessel in July 2022. Vessel design has been fully funded using state funds and will begin September 2022. Upon notice of award, MaineDOT would amend our STIP to include this project and execute a grant agreement within 12 months to authorize obligation. If funding for vessel construction is secured, MaineDOT will be prepared to begin contracting for vessel construction in July 2024 upon completion of vessel design.

If this grant is not received, vessel construction would be delayed.

Technical, Legal, and Financial Capacity

MaineDOT is the state agency responsible for managing and funding all transportation modes statewide. Employing approximately 1,800 people, the agency expends or disburses more than \$900 million annually, including federal, state and local funds. The Maine State Ferry Service was established in 1960 and has provided reliable daily service to multiple coastal Maine islands ever since. Approximately 90 employees operate the Ferry Service, including many with required Coast Guard mariner credentials to carry passengers and vehicles.

Match for the vessel replacement will come from our state multimodal fund or bond funding. The agency is an experienced, thorough, and responsible recipient of previous Bus and Bus Facilities, TIGER, FASTLANE, INFRA, CHBP, BUILD, CRISI and RAISE grant funding.

USDOT can rely on MaineDOT to execute a grant agreement for this project within 12 months of award and fully obligate funds for the Project without risk. There are no other public or private parties or funders involved in delivering the Project.

Validate Form