

Dear Internet Service Providers and other interested firms:

The Isle au Haut Broadband Committee is seeking an engineered design for broadband infrastructure to serve this unbridged island off of Deer Isle - Stonington in Penobscot Bay. Attached you'll find a Request for Information that will begin the process of finding internet service providers or other partnering firms who wish to design a broadband network and who also have an interest in system implementation as a potential next phase. We look forward to any questions that you may have as well as your response to the RFI.

To encourage year-round residency, to attract and retain businesses, to provide telehealth services, to improve access to financial services for lobster and other businesses, and to entice seasonal residents to stay longer, Isle au Haut has identified the need for reliable, high-speed internet. The community includes many lobstermen who use the internet for bookkeeping in addition to their family/residential use. Broadband will help support telework opportunities, municipal video conferencing, telehealth services, and education opportunities for both our year-round population and seasonal residents.

We have secured an initial \$10,000 of funding for the design phase. We continue to investigate sources of funding for a broadband project implementation at the private, local, county, state and federal levels. With a strong sense of community, regular boat transportation to the largest lobster port in Maine, and Acadia National Park in our backyard, we are well poised to achieve our goal of sustaining a year-round community for a long time to come. Broadband will help us attract and retain businesses, allow seasonal residents to stay on island longer, and help support our lobster fleet.

The committee anticipates receiving responses by August 11, 2017, and having an engineered design completed by October 6, 2017. We hope to hear from you.

Please direct your questions about the project to:  
Charles Hopkins, [ch645hopkins@gmail.com](mailto:ch645hopkins@gmail.com)

Sincerely,

Isle au Haut Broadband Committee

Isle au Haut Broadband Committee  
Request for Information

## 1 Introduction

The Isle au Haut Broadband Committee, hereinafter also referred to as “the committee,” issues this Request for Information (RFI) to obtain information about providing an engineered design for broadband infrastructure to serve this unbridged island off of Deer Isle - Stonington in Penobscot Bay, hereinafter also referred to as “the island.” The committee includes year-round and seasonal residents as well as current and past selectboard members.

The committee seeks information in order to help determine the interest of internet service providers (ISP) or other firms, hereinafter also referred to as “respondents,” to design infrastructure for bringing broadband to the island. This objective is further described in Section 3 of this RFI.

The purpose of the request is to pursue a broadband solution that will enable telecommuting, support telehealth services, provide municipal services including the ability to video conference or stream meetings, and provide educational opportunities. The island’s vision is a sustainable, close-knit, year-round community, with the natural beauty, marine heritage, and resourceful creativeness that attracts and retains young families and their business aspirations. Improving internet service will help achieve this vision. This RFI further describes the community and the objective for which information is requested, in Section 3.

The committee proposes a timeline in Section 3 and a business model in Section 4. The committee requests that responses address all information requested in Section 5. The process and timeline for responding to this RFI is outlined in Section 2.

## 2 Response Process

The committee foresees the following RFI schedule:

12 June 2017	RFI issued
30 June 2017	Questions from Respondents Due
14 July 2017	Answers to Respondent Questions Posted
11 August 2017	Deadline for the Committee to Receive Responses

Responses must be received no later than 4:00 p.m. on August 11, 2017. Please submit responses:

as a pdf emailed to

[ch645hopkins@gmail.com](mailto:ch645hopkins@gmail.com)

or in a sealed envelope to

Town of Isle Au Haut  
Attn: Charles Hopkins  
P.O. Box 71  
Isle Au Haut, ME 04645

Respondents interested in designing a broadband network for Isle au Haut should provide the information requested in Section 5. Responses will not be considered final or binding; however, respondents are strongly encouraged to submit information that could be used as a basis for negotiating an agreement. By seeking an engineered design from an ISP, the committee is able to entertain the possibility of said ISP partnering with the committee to construct and operate the network, for delivery of broadband service to this island. Other firms are welcome to respond, and are encouraged to provide information about partnering with ISP(s).

Responses to this RFI will help the committee determine its next steps, which may involve either a bid process or the selection of a respondent for meetings where the potential for a public-private partnership will be explored. All responses will be carefully considered and respondents will be notified shortly of next steps. The committee's target date for a decision is August 18, 2017. All responses will be posted, except for confidentiality portions, on the Town of Isle au Haut's website: [www.isleauhautmaine.us/broadband-committee/](http://www.isleauhautmaine.us/broadband-committee/). The committee reserves the right to discontinue these efforts based on the responses to this RFI or other changes in circumstances.

Any questions from potential respondents to this RFI must be received no later than 4:00 p.m. on June 30, 2017. Please direct questions regarding this RFI to: Charles Hopkins, committee member: [ch645hopkins@gmail.com](mailto:ch645hopkins@gmail.com). The committee will make a best effort to respond with answers, at least four weeks prior to the RFI deadline, to questions received.

### **3 Background and Broadband Goals**

The Town of Isle au Haut has a year-round population of 73 according to the 2010 US Census. The population more than triples in the summer. In addition to the school and town hall, other anchor institutions include: the town dock; the Isle au Haut Electric Power Company; a developing telehealth facility; Acadia National Park ranger station; and the Union Congregational Church. The MSLN provides 100 mbps symmetrical service to the portion of the town hall that operates as the public library, which has two public computers available and WiFi. Businesses include: a year-round grocery store co-op, a seasonal inn, a seasonal eatery, a seasonal gift shop, seasonal vacation rentals, and home-based businesses including jewelry and woodworking, and bookkeepers for fishermen and other businesses.

The 2016 Comprehensive Plan calls for attracting and supporting new home-based businesses and telecommuters, and calls on the town to ensure high-speed internet is available in all residential areas. The Isle au Haut Community Development Corporation is charged with creating affordable housing and recruiting new families to live on the island year-round. The Maine Seacoast Mission currently provides telehealth services. While its immediate internet needs are met, the community seeks to ensure future needs are considered to sustain and enhance telehealth services; the community has acquired a building for a potential telehealth facility in the future.

Isle au Haut has an independent nature to its culture. Most of Isle au Haut residents are self-employed. Providing the capability to telework helps ensure year-round residency. Broadband can also help extend the "shoulder seasons" by enticing seasonal residents and visitors to come earlier and stay longer, which extends the time they contribute to the community. Both year-round and seasonal residents exhibit a creative resourcefulness that makes Isle au Haut a rich place to live and

work. To sustain this close-knit, year-round community, surrounded by natural beauty and marine heritage, Isle au Haut has identified the need for reliable, high-speed internet for attracting and retaining young families and their business aspirations.

Current internet service is provided by TDS Telecom, the island's only incumbent service provider. Recently TDS performed upgrades on-island. Some island residents are now able to access speeds up to 25/3 mbps and a portion of customers are able to access 15/0.7 mbps. Most of the remaining community can only access up to 5/0.5 mbps. (Note that actual counts of internet subscribers and which premises are eligible for which speeds is not currently available to the broadband committee.)

Isle au Haut, translated "High Island," is so named because of its topography; there are great changes in elevation around the island. There are three denser areas of premises with additional premises existing all around the island. The town center includes the town dock, post office, the gift shop, town hall and library, and grocery store. The Point is a residential area to the north of the town center. Head Harbor is a growing area of residences on the east side of the island.

Most of the utility poles on the island are owned by the Isle au Haut Electric Power Company with a few beyond their service area owned by TDS. Access to the existing utility poles on the island for broadband purposes is not anticipated to be an obstacle for implementation. The undersea power cable to Isle au Haut is functioning beyond its expected lifetime, and the vision for the future is to generate power on the island by solar. In 2015, Tilson Technology completed a broadband feasibility study that included Isle au Haut. Additional information related to the existing infrastructure is contained in that study, which can be accessed on this website:

<http://www.islandinstitute.org/resource/broadband-island-and-coastal-sustainability>.

The committee is in pursuit of a broadband solution that will ensure all premises can access the same speeds regardless of their location on the island and that will allow increasingly faster speeds as backhauls are upgraded in the future. The community also seeks a solution that will not result in extreme variability of speeds experienced day to day or hour to hour across the island. Not only are these points important for widespread community support of a broadband project, but the areas of greatest potential for development, primarily the east side towards Head Harbor, are also the areas least served currently. The committee anticipates on-island infrastructure built will ensure equitable service islandwide, and the committee may also favor solutions that do not require substantial future on-island hardware upgrades to realize improvements from any future backhaul upgrades.

For the purposes of this RFI, "broadband" means internet service that meets the federal definitions of broadband (e.g., 25/3), and that can carry increased capacity and speeds in the near future (e.g., 25/10). The committee anticipates weighing the cost of broadband solutions with the longevity expected, and will entertain proposals that provide much higher speeds now or in the future (e.g., 100/100). The network must have the capacity for the uploading needs associated with future, typical municipal and telehealth facilities including, but not limited to, video conferencing, streaming meetings, and secure database sharing. The broadband network must accommodate significant swings in usage, greater saturation of the network on evenings, weekends, non-fishing days or poor-weather days and in summer months. The network must have the capacity to ensure internet service is consistent and reliable. We will consider any and all technology options to meet these needs.

The committee expects to obtain an engineered design by October 6, 2017.

## 4 Business Model

The committee will support the chosen respondent with travel coordination to the island for on-the-ground assessments as part of the engineering. We have obtained a \$10,000 grant for an engineered design of a broadband network. It may be advantageous for the cost of the engineered design to be rolled into the cost of building the broadband network. The committee anticipates using the engineered design as part of their fundraising efforts over the winter and spring, including a warrant article for the 2018 Town Meeting.

By seeking an engineered design from an ISP or other firm, the committee expects to obtain a broadband infrastructure design that said respondent or other ISP may use to construct and operate a network, for delivery of broadband service to Isle au Haut. The community welcomes opportunities to work on the install, as this aligns well with the island's history and culture of resourceful independence.

The committee has already surveyed and convened the community to decide on its broadband goals (Section 3) and will not need to work with the respondent on goal identification. We have also planned workshops and secured funding from the Island Institute for digital literacy work; we do not need this process to address digital literacy. We would like the chosen respondent to be available after the engineered design completion date, in order to work with the committee on presenting the results in community meetings and/or to town government authorities.

The committee will entertain responses that propose variations on this model. For the eventual build-out, we are investigating sources of funding, at the private, local, county, state and federal levels.

## 5 Information Requested

Please provide information requested in an organized and formatted manner, by following the outline of this Section 5, in order to help facilitate the committee's review. Please do not refer to attachments or other materials or resources. To facilitate the committee's review, please include any additional information you would like to share within the appropriate sections (below) of your response. This additional information may include:

- Any outcomes or conditions you consider to be essential or strongly desired in a potential partnership that you would like to highlight
- Any particular ways that your participation could provide value to the island
- Any information that you believe the committee should consider

5.1 The respondent must submit a cover letter signed by an authorized representative of the entity. The cover letter must include the following:

- A concise summary of the response to the RFI
- The legal name of the entity, its headquarters address, its principal place of business, its legal form (i.e. corporation, joint venture, limited partnership, etc.)

5.2 Please provide a point of contact for your response and other communications pertaining to the RFI, including a name, address, e-mail address, and phone number.

5.3 Please describe your company, including:

- How long the company has been in operation
- How long the company has engineered internet infrastructure networks
- Where the company headquarters is located, and where the closest field office is located
- Technical, managerial and operational experience of the team, highlighting any key members as appropriate to this project

5.4 Please describe at least one past project where you have engineered designs of broadband networks for a rural area. In your description of past performance, please list:

- The number of premises included
- Description of the physical environment (e.g., density of premises, terrain)
- Description of the network capacity (speeds, reliability, etc.)
- Description of the technology proposed
- Timeline of engineering and date of completion of the design
- Cost of the engineered design, and whether it was rolled into the cost of building the network
- Customer (community/client) contact information (name, title, phone, email, physical address)
- Key lessons learned that would be relevant for this RFI

5.5 Please provide two additional references with contact information.

5.6 Please demonstrate understanding of the community goals and background in providing information on how to meet the broadband goals described in Section 3 above. Please provide an estimated timeline, including a proposed start date and a response to completion date for an engineered design proposed in Section 3 above.

5.7 Please indicate whether engineered design(s) would target speeds of 25/3, 25/10, and/or 100/100 mbps, and whether the cost of said design(s) would vary based on the speeds. Please provide an estimated cost for the engineered design(s). The respondent is invited to propose service levels that they deem technologically and economically achievable; however, respondents should propose solutions that at least meet the minimum speeds and other broadband goals described in Section 3.

5.8 The respondent should prepare a detailed description of what the engineered design(s) would include. This should include, but is not limited to, the following components:

- Synthesis of current assets and potential leverage points
- Consideration of possible bottlenecks in on-island and/or backhaul infrastructure that could explain any variability in internet service, and how the proposed broadband infrastructure design(s) address or avoid these bottlenecks
- Geographical and topological network schematics, and an easy to use topo map for community meetings
- Necessary hardware and facilities
- Options for backhaul
- Implementation plan
- Financial Plan: One-time cost of infrastructure & implementation, minimum annual revenue required, and expected annual operational and maintenance costs
- Quality assurance plan
- Description of the possible upgrades for increased speeds, etc. in the future given the capacity of the proposed broadband infrastructure design(s)

5.9 Please comment on the proposed business model in Section 4 above, including availability and willingness post completion date for community presentations, but please do not include proposed goal-setting or digital literacy as part of the response to this RFI. If there are any variations or exceptions that you would require to participate, please identify and explain them. The respondent is invited to state high-level terms for this business model. Please provide any knowledge or experience of operating this business model.