Kenai Peninsula Borough

Project Reach*

How many Alaskans will be served by the project?

10,000-24,999

Populations Served*

What populations will be served by your project? Select all that apply.

Alaska Native peoples
Alaskans with behavioral health and substance use disorders
Alaskans with complex care needs
Alaskans with or at risk of chronic disease
Children and youth
Elders and older Alaskans
Health care workforce
Pregnant and postpartum women
Rural Alaskans

Serving Rural Alaskans*

Please describe how your project will improve access, quality, or sustainability of health care for rural, remote or frontier communities.

South Peninsula Hospital (SPH) is owned by the Kenai Peninsula Borough and operated by South Peninsula Hospital, Inc., a locally governed 501(c)(3), and one of only three independent Critical Access Hospitals remaining in Alaska. SPH serves a population of 15,000 that substantially swells during the summer. The 16 communities in the SPH service area are spread across hundreds of square miles and include Alaska Native villages accessible only by boat or plane, remote Russian Old Believer communities, as well as hub and unincorporated communities.

SPH's main hospital building is served by a 41-year-old air handling unit (AHU) that provides ventilation, heating, and cooling to the majority of clinical and non-clinical spaces in the facility. A functioning AHU is essential to safe hospital operations. It provides clean air and climate control that underpin everything that happens within hospital walls. But as SPH's system has aged, components have become increasingly prone to failure, and replacement parts have become difficult to source. A breakdown in our AHU could risk healthcare service disruptions, including cancellation of procedures, diversion of patients to Anchorage, and compromised infection control.

Replacing this system directly advances Alaska RHTP initiatives, namely promoting Health Care Access, because effective and cost-efficient air handling is essential for sustaining care SPH. Investing in facility improvements is explicitly called out as one of the potential uses of funds to reach this goal. Reliable air handling is foundational to infection prevention, temperature control for pharmaceuticals and medical equipment, indoor air quality, and the comfort and safety of patients and residents. Importantly, a mechanical failure could limit access to care across labor and delivery, outpatient, and emergency services.

This project will improve healthcare sustainability by making it less prone to disruption from a failure in SPH's air handling system, more cost effective from reduced energy use of the new system, and more resilient in the face of seismic or other environmental events. By strengthening critical infrastructure, this project

ensures rural residents maintain timely access to high-quality care close to home, reducing costly medevacs and travel burdens while improving long-term operational sustainability.

Project Overview

Project Concept Opportunity*

Briefly describe the problem or opportunity you want to address with this project.

SPH's primary air handling system is a dinosaur. This energy hog is 41 years old, beyond its useful life, and just about impossible to find parts for. A failure of one of the system's old three-phase motors leveled the system for nearly three weeks a few years ago because it took so long to find parts. This AHU serves more than one-third of the hospital building–including surgery, obstetrics, and neurology (about 35,000 square feet). When the system goes down, we lose adequate heating and cooling ability, the air stagnates–which can increase the threat of infection, and there's a risk of the fire alarm going off because of humidity issues. Typically, these systems last 15 - 25 years.

An ancient, unreliable air handling system puts SPH at risk of state citation, if our temperature and humidity controls are out of compliance with CMS requirements. In addition to being crucial for patient and provider health and safety as well as staff comfort, this system handles the air in our server room, the IT and security hub for the hospital, which has very stringent environmental requirements. On top of this, the current air handler was installed decades before today's seismic safety standards were established, and it remains vulnerable to failure in the event of an earthquake or other natural disaster. A major seismic event could cause the system to collapse or shut down—compromising patient health and safety and forcing closure at a time of greatest community need.

Project Concept Approach*

Please describe your proposed approach to the above problem or opportunity.

The RHTP presents small rural hospitals like SPH with an opportunity to invest in infrastructure that sustains healthcare for our communities long into the future. This project will replace our ancient AHU with a modern, code-compliant, energy-efficient system designed for healthcare environments and regional hazards. The new AHU will meet current standards for airflow, filtration, energy efficiency and natural disaster resilience. Enhanced system reliability will reduce unplanned shutdowns, improve environmental control in clinical areas, and support uninterrupted outpatient and inpatient care, which will reduce operational risk.

SPH will replace the existing AHU that serves the bulk of the SPH main hospital building. The project will include engineering design, seismic and structural evaluation, equipment procurement, installation, commissioning, and integration with existing building management systems.

The new system will:
1. Meet current healthcare ventilation and filtration standards
2. Improve energy efficiency and reduce operating costs
3. Include modern controls for monitoring performance and indoor air quality
4. Be designed with seismic bracing and other resilience features
5. Incorporate enhanced filtration capacity to address volcanic and other airborne hazards common to the southern Kenai Peninsula.

We are ready to immediately launch this project. Project planning will include coordination with clinical leadership to ensure uninterrupted patient care. The timeline is as follows:
1. Facility & Engineering Assessment (6 wks): Evaluate existing system condition, load requirements, structural capacity, electrical capacity, infection control risks, and seismic considerations.

2. Design & Construction Documents (8 wks): Mechanical engineer develops stamped drawings and specifications to meet healthcare standards, energy code, and seismic requirements.
3. Permitting & Approvals (6 wks, overlaps with design): State plan review and local building permits.
4. Procurement of Equipment (12 wks): Order AHU
5. Pre-Construction Planning (2 wks, overlaps with procurement): Develop phasing plan to maintain hospital operations, infection control plan, and temporary ventilation strategy.
6. Installation & Construction (20 wks): Remove old system, set new units, ductwork, controls integration, and seismic bracing.
7. Commissioning & Testing (4 wks): Air balancing, controls programming, performance verification, and staff training.

Project Concept Preliminary Outcomes*

What change would you expect to see if this project is successful and on what timescale?

Within 12 months of project completion, SPH anticipates the following outcomes:

1. Zero unplanned service interruptions due to air handler failures
2. 15 - 25% reduction in energy use and cost with new air handler (based on industry standards)
3. 100% positive feedback from facilities staff on performance of new system
4. Zero time out of compliance with CMS regulations on environmental conditions in areas served by new system

Long-term (3–10 years), SPH anticipates:
1. Zero to low service interruptions of air handler system
2. Zero to low maintenance issues related to seismic or other environmental events
3. Sustained 15 - 25 % reduction in energy use and cost from previous system
4. Sustained compliance with CMS environmental condition regulations

The SPH Facilities Department will conduct monthly monitoring, maintenance, and evaluation of the system to gauge success at delivering on the outcomes above.

Project Concept Sustainability*

How will the change initiated by this project persist after the project ends?

Replacing the AHU promotes long term sustainability by reducing energy use and the risk of emergency repairs and downtime, which can limit patient access. Updated systems are more efficient and can reduce utility bills by 25% or more. Even if SPH realized only a 10% energy reduction, that's $140,000 of savings in one year. Additionally, old AHU systems lead to frequent repairs that can result in operation room shut downs and the shutdown of hospital isolation and ICU services. One day of lost surgery revenue can be easily over $500,000 of lost revenue. If the OR were required to be shut down for a week that could result in $2 million of lost revenue and not only have a financial impact on the organization, but also end up limiting access to services, which could result in delays of life saving care. Additionally, an up-to-date AHU system can

provide consistent temperatures throughout the facility resulting in improved patient and staff satisfaction, increasing customer loyalty, new patient visits, and reduced staff turnover.
Ensuring the resilience of the SPH facility will go a long way to shoring up community- and region-wide resilience in the face of a public health emergency or natural or human-caused disasters. SPH is designated as a sheltering and feeding location in the Kenai Peninsula Borough's Emergency Operations Plan, SPH is central to regionwide emergency preparedness and response. Our communities rely on SPH to provide uninterrupted healthcare.

Project Concept Key Risks or Uncertainties*

What potential risks do you anticipate, and what is your plan to mitigate them?

As with any project in rural Alaska, key risks include supply chain delays, weather disruptions, cost escalation, construction disruption to clinical operations, and unforeseen structural constraints during installation. SPH will mitigate these risks by:

1. Being ready with an RFP
2. Engaging experienced healthcare engineers and contractors
3. Ordering long-lead equipment early
4. Phasing installation to avoid interruption of critical services
5. Conducting structural and seismic assessments prior to procurement
6. Environmental hazards (earthquakes, ashfall) will be addressed through seismic design standards and enhanced filtration capacity.

Through proactive planning and staged implementation, SPH will minimize operational disruption and ensure successful project completion.

Project Partnerships*

Do you have key partners identified for this project?

No, partners are not needed for this project.

Readiness & Scope Snapshot

Stage of Development*

Please assess the current stage of your proposed project. Your answer does not commit your LOI to a specific funding pathway but rather informs understanding of the project's development stage.
RHTP funding is available for all pathways.

Concept Formation: The project is taking shape, but key elements are still being developed. Scope, partners, budget and workplan details have not yet been established. Funding at this stage would support refining the project concept, early coordination, and building administrative readiness to prepare for a full project application.

Defined Approach: The project has a defined approach that aligns with RHTP goals. The scope and deliverables are partially defined, there is a general sense of the budget, partners have been identified, and roles are generally understood. Some administrative, staffing, and evaluation infrastructure capacity is in place. Early thought has

been given to long-term sustainability and scalability. Funding at this stage supports critical planning efforts to strengthen and refine a detailed project workplan to prepare for implementation.

Ready to Launch: The project has a complete plan aligned with RHTP goals, with clear scope, objectives, budget, milestones, and deliverables. Partners are committed, roles and responsibilities are clearly defined, and staffing, resources, and infrastructure are in place. The approach is supported by data collection, evaluation, and monitoring systems. Project sustainability is built into the design. Funding at this stage supports immediate execution of projects that advance rural health transformation goals.

Ready to Launch

RHTP Initiative Areas*

RHTP funding supports projects aligned with Alaska's six RHTP initiatives. Funded projects may work across more than one initiative. Based on your current project approach, select all that apply.

Health Care Access

RHTP Allowable Uses*

RHTP projects must align with and advance Alaska's goals and six RHTP initiatives and strengthen access, quality, coordination, and sustainability of health care, particularly in rural and remote communities. Federal law allows RHTP funds to be used for the activities listed below in support of these initiatives. Based on your current project concept, select all that may apply. (Note: for more information on the RHTP allowable uses, see the Alaska Department of Health RHTP webpage).

Capital expenditures and infrastructure
Prevention and chronic disease

Estimated Project Duration*

Based on your project concept, how long do you anticipate needing to complete the proposed work?

12 months

Project Duration*

Please explain if your project has multiple phases, dependencies, or other nuances to the project duration.

None

Estimated Funding Range for First Year of Funding*

While RHTP is a five-year initiative, funding will be awarded annually. For the project scope you outlined, what resources do you anticipate needing for this funding round's project period?

$1M-$5M

Future Funding Needs*

Please describe future funding needs for this project (beyond this project period). If you are unsure of future funding needs, please indicate that below. If you do not have funding needs beyond this project period, please write "N/A."

N/A

Potential Support Needs*

In addition to grant awards, RHTP will include opportunities for grantee learning and support. To gauge potential offerings, what potential support might you be interested in?

None at this time

Acknowledgements & Certifications

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I understand that submission of this Registration & LOI does not guarantee funding and may result in an invitation to submit a Full Proposal, a request for refinement, or deferral to a future cycle.

I certify that:

- No funds received under this award will be used for lobbying activities.
- I will not attempt to influence government officials on decisions related to this award or other legislative or administrative matters using awarded funds.
- Awarded funds will not be used for religious proselytizing or activities intended to promote or discourage adherence to a particular religious faith.

Yes

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