

2021 RSW Purchase Program Application

Bristol Bay Economic Development Corporation

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BBEDC will offer a limited number of Refrigerated Sea Water (RSW) chillers to BBEDC CDQ resident commercial salmon fishermen who own boats adequate to install, operate and maintain the equipment, and who can demonstrate they can afford the installation. Review this application packet carefully and completely.

Applicants in default in any BBEDC programs are no longer eligible to participate in additional BBEDC programs or services until fully compliant.

APPLICATIONS ARE ACCEPTED YEAR-ROUND & MUST BE COMPLETE WHEN SUBMITTED TO BBEDC

REQUIRED ATTACHMENTS & IMPORTANT INFORMATION

Before your application can be considered, you must provide the information noted by the check boxes below.

- A current BBEDC CDQ Affidavit of Residency and Relationship Disclosure Form.
- Evidence that you actively participated in the Bristol Bay salmon fishery for the previous three (3) consecutive seasons. (*Fish tickets, tax returns, processor letter, etc.*)
- Proof of ownership of a CFEC Bristol Bay Salmon Permit, or a contract to fish with a CFEC Bristol Bay Salmon permit holder who is a BBEDC CDQ community or watershed resident. *A permit holder partner contracted to fish with the applicant must also provide a current Affidavit of Residency and Relationship Disclosure form.*
- Proof of ownership of a Bristol Bay salmon fishing vessel capable of housing RSW equipment.
- Clear photographs of the boat and the location on the boat where you plan to install the RSW equipment.

AFTER PROVIDING THE INFORMATION ABOVE, APPLICANTS MUST:

- Provide an effective action plan for installing the equipment and have the plan approved by a professional RSW technician.
- Prove proficient knowledge in the operation, care and maintenance of an RSW system by enrolling in an approved Marine Refrigeration Operation class and obtaining a Certificate of Completion.
- Prove that they have the financial resources to pay for the installation, any needed boat modification and technical expertise.
- Provide those modifications and fully prepare the vessel for installation of the equipment before the award for the refrigeration unit will be released to the manufacturer.
- Maintain BBEDC residency and remain an active participant in the Bristol Bay salmon fishery for the subsequent three (3) consecutive salmon seasons using the same vessel with the RSW system purchased through this program, except that it may be the subsequent two consecutive salmon seasons if the vessel is transferred to a watershed resident to be actively used in the commercial salmon fishery. *Failure to do so will result in legal action to force repayment of the equipment's cost, with possible tax consequences and penalties. Complete copies of BBEDC's RSW Purchase Program Policies are available at BBEDC's offices.*

Staying afloat financially –

Will installing a “free” RSW system in your boat earn you more money?



Fishermen need to take a hard look at *the real cost* of installing BBEDC’s “free” Refrigerated Sea Water systems in their boat. Engine and boat modifications to operate these systems can cost tens of thousands of dollars. For some Bristol Bay fishing operations, RSW may not make financial sense.

Applicants for BBEDC’s RSW Purchase Program are required to show that their fishing equipment can be successfully upgraded to benefit from the RSW equipment, and that they have the financial resources to pay for the modifications. Because each boat is unique, BBEDC will not provide instructions on how any individual’s RSW system should be built. Successful applicants will be required to:

- 1 Prove proficient knowledge in the operation, care and maintenance of an RSW unit by enrolling and attending an approved Marine Refrigeration Operation class and obtaining a Certificate of Completion.
- 2 Provide an effective action plan for the installation and have it approved by a certified RSW technician.
- 3 Prove that they have the financial resources to pay for the installation, any necessary boat modifications and technical expertise.
- 4 Provide those modifications and fully prepare the vessel for installation of the equipment before the refrigeration unit will be released to the fisherman.

Practical and Financial Considerations

BBEDC’s RSW Purchase Program will provide a limited amount of chillers to CDQ residents. One thing to note, is that some chillers require a minimum hydraulic flow rate and pressure of 10 gallons a minute at 3000 psi, a flow rate and pressure above what is commonly installed in Bristol Bay boats. Unless your boat has significant unused hydraulic capacity, expect to spend \$5,000 or more just for the parts to upgrade your vessel’s hydraulic capacity, and more still for labor unless you can do the work yourself.

You will need to protect your chiller from rust and corrosion. If it can only be installed on deck or in a location where they are subject to water and sea spray, a protective removable cover must be built around it. Protecting the system may require installing a flush deck unless your boat has other weatherproof space adequate to protect the equipment and provide access for maintenance.

Fish holds must be isolated from the engine room and bilge, and must be insulated. Insulation is especially critical for aluminum boats. To have aluminum holds professionally insulated can cost \$15,000 or more.

Plumbing to circulate the chilled water through the holds is necessary, and to route condenser water into and out of the chiller. Costs will vary but must be considered.

Consider carefully if the cost of installing an RSW system will benefit *your* fishing operation

If you typically catch 60,000 pounds a season, a 15 cent a pound chilling bonus would earn you an extra \$9,000. If installing a BBEDC-supplied RSW system costs you \$20,000 out of your own pocket, it would take about two years to recoup the cost, and you’d see the extra income from chilling with RSW in the third year.

To chill the same amount of fish with ice, you need at least a pound of ice for every four pounds of fish, for every day you fish whether you catch anything or not. An average of 15 tons of ice in a season costing \$150 a ton would total \$2,250. This doesn’t include the cost of fuel or down fishing time while you wait in line for ice, but deducting \$2,250 from your \$9,000 chilling bonus leaves a profit of \$6,750 every year.

In this example, during the two years that the RSW-equipped boat has been paying off its investment, the ice boat has an extra \$13,500 in chilling bonuses. Comparatively, chilling with RSW gives you a bonus of \$9,000 a year, but only after you’ve paid back the cost of the installation.

Will the payback work for you? Is your fishing operation large enough to benefit from an RSW system? The less fish you catch the longer it will take to recoup your investment. Roughly speaking, catching 60,000 pounds a year will have a pay off in three years. Catching 90,000 pounds a year will return your investment in two years.

VESSEL EVALUATION AND RSW INSTALLATION PLAN

Name: _____ Date: _____

Address: _____ Community: _____ Zip: _____

Phone: _____ Cell Phone: _____ Email: _____

Permit Holder: _____ Permit Number: _____

(If the permit holder is not the boat owner, a written contract showing an agreement to fish with the boat owner for the coming season is required. Permit holder must be a BBEDC CDQ or watershed resident, and must submit an Affidavit of Residency and Relationship Disclosure form.)

Boat Name: _____ Boat Model & Year Built: _____

ADF&G or AK No. _____ Engine Model: _____ Horse Power: _____ Engine Hours: _____

ESTIMATING THE COST OF RSW INSTALLATION

HYDRAULICS: If your vessel needs additional hydraulic capacity, how do you plan to provide it? Detail all parts and any needed labor costs.

Estimated Cost: _____

PLUMBING: RSW systems require a balanced plumbing system to deliver adequate chilled water to the fish holds and a sump to return the same amount of fish hold water to the chiller. Also required are separate through-hull fitting and hoses to supply seawater to the chiller that exhausts overboard to remove heat from the water circulating through the fish holds. The seawater supply must pass through a filter to remove debris. How do you plan to plumb your system? Detail all parts and any needed labor costs.

Estimated Cost: _____

FISH HOLD MODIFICATIONS AND INSULATION: Fish holds must be isolated from the bilge, and insulation against engine heat and keel coolers is critical, for aluminum boats especially. If your fish holds require insulating or other modification, what is your plan? Detail all parts and any needed labor costs.

Estimated Cost: _____

REVIEW PAGE 2 FOR HELP WITH ESTIMATED COSTS

RSW INSTALLATION PLAN

Boat Owner: _____ Boat Name: _____

Type of RSW Unit You Plan to Install (Hydraulic, Diesel, 7.5ton, 5ton, etc.) _____

Cost of RSW Unit You Plan to Install (Please Attach Quote) \$ _____

MISCELLANEOUS COSTS: If you haven't taken a Marine Refrigeration Operation class previously, you will be required to take one. Will you need to haul your boat to another location in order to complete your installation? Are there other expenses you will face that will make an RSW installation unaffordable?

TOTAL YOUR ESTIMATED INSTALLATION COSTS:

HYDRAULIC SYSTEM	\$ _____
PLUMBING	\$ _____
FISH HOLD MODIFICATIONS	\$ _____
MISCELLANEOUS	\$ _____
TOTAL	\$ _____

FINANCIAL PLAN

Explain in detail how you will pay for the installation. * BBEDC will not release the RSW equipment until the work described in your work plan is complete as certified by an RSW technician. **Successful completion of a Marine Refrigeration Operation class is also required if you haven't taken it previously. Contact BBEDC for class scheduling.**

*BBEDC Vessel Upgrade Grants and the separate RSW Support Program may be options.

Why did you apply for this program and how will it assist you?

How did you learn about this program?

Liaison Website BBEDC Staff Program Directory Other Describe Other

**APPLICATIONS MUST BE COMPLETE WHEN SUBMITTED TO BBEDC
PLEASE REVIEW THE CHECKLIST ON PAGE 1**