



# City of Homer

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Port and Harbor

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## Memorandum 19-048

TO: HOMER CITY COUNCIL

THROUGH: KATIE KOESTER, CITY MANAGER

FROM: BRYAN HAWKINS, PORT DIRECTOR/HARBORMASTER

DATE: APRIL 17 2019

SUBJECT: RFP AWARD OF CONTRACT FOR OPTIMIZING AND UPGRADING THE CITY-OWNED ICE PLANT

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In the fall of 2018, Harbor staff started to implement phase one of the Ice Plant Upgrade listed in the City of Homer Capital Improvement Plan 2018 – 2023. Burt began by reviewing literature on Industrial Refrigeration Energy Conservation as well as researching qualified West Coast firms in the industry. This research identified 7 general strategies that might meet most of the goals listed in the CIP.

1. Optimize our current system. Our current 2 – stage pumped recirculation system is still a highly respected system design in the industry. However, modern control systems programmed with efficiency algorithms and other minor adjustments should provide significant energy savings with minimal capital investment.
2. Upgrade our system with mainstream technology. This option might include (but isn't limited to) installing screw compressors, ice machines that operate at higher suction pressures, high – efficiency electric motors, and Variable Frequency Drives. The energy savings with this strategy might be greater than could be achieved with option 1, but would involve higher initial costs.
3. Same as option 1, but the electricity would be provided by a Natural Gas powered generator.
4. Same as option 2, but the electricity would be provided by a Natural Gas powered generator.
5. Same as option 1, but the electric motors that power our compressors would be replaced with Natural Gas powered internal combustion engines. (Note: staff is not sure if our compressor room is large enough for this option, or if computerized control systems for an arrangement like this is currently available.)
6. Same as option 2, but the electric motors that power our compressors would be replaced with Natural Gas Powered internal combustion engines. (This option is certainly feasible with screw compressors.)
7. Total replacement of our current technology with an absorption system.

Most of these options seem to have advantages and disadvantages. Burt and I then discussed the probable pros and cons of each option, how they relate to our goals, as well as what concerns they would raise, before drafting a preliminary invitation to bid document.

On February 15 2019 a RFP was issued for the purpose of a consultation contract for an evaluation of possible energy saving solutions and upgrades to the current ice plant. This RFP closed on March 14 2019. The responsive proposals were evaluated by a selection committee on criteria that included proposed cost, options for ice plant upgrades, and the overall experience and knowledge of the proposing agency.

Two bids were received, providing the City with a project cost between \$30K and \$40K.

At the March 27 2019 regular meeting, the Port and Harbor Advisory Commission was presented with information on the Ice Plant RFP and it was requested that the Commission review and make a recommendation to City Council regarding the RFP. At the time of the March 27 meeting, the motion was made to recommend to City Council to support the Ice Plant upgrade consultation RFP and Port and Harbor staff's recommendation for contract reward. Vote. Non-Objection. Unanimous Consent.

Taken from the March 27, 2019 meeting minutes:

*“Port Director/Harbormaster Hawkins summarized the purpose of the request for proposal for hiring a consultant to help evaluate upgrades needed for the Ice Plant. He explained how staff will be recommending that City Council award the contract to the higher bidder; a local firm from Anchorage with a bid that was around \$40,000. They were much more responsive and more detailed in their proposal on who will be working on the project, versus the other bid that was out of state and was not fully clear on who would be showing up to do the work. There was brief questions/discussion pertaining to the bidders, potential cold storage renovations, and the costs of electricity throughout the Fish Dock facilities. Deputy City Clerk Tussey confirmed with Mr. Hawkins what it is staff is requesting the commission to do, and that the contract award will be at City Council's April 8, 2019 regular meeting.”*

**Recommendation:**

Staff recommends City Council amend the 2019 capital budget by appropriating funds in the amount of \$40,000 from the Port and Harbor Reserves Fund for a consultation contract that evaluates options and lists recommendations for optimizing and upgrading the Ice Plant.