

FY2019 BIDDEFORD CAPITAL IMPROVEMENT PROGRAM

Project Description Form

DEPARTMENT: Ice Arena	PROGRAM: Bleachers
Est. Total Cost: \$250,000	
Estimated Cost FY2019: \$	Estimated Cost FY2020-2023: \$250,000
City Share FY2019: \$	City Share FY2020-2023: \$250,000

1. Description of Project: Bleachers
2. Need for and impact of Project: The life of the bleachers is reaching its useful life. Replacing them would create additional storage space that is greatly needed. They would provide additional seating and would bring the Ice Arena up to code on all safety regulations.
3. Consistency with the adopted plans or other related planning documents:
4. Years previously on the BIDDCIP; funding received in each of the past five (5) years (if applicable): FY2014- \$; FY2015 - \$; FY2016 - \$; FY2017 - \$; FY2018 - \$
5. New personnel, equipment, or supplies required: Replacing the bleachers
6. How project originated and how cost estimates were obtained: The project has been brought to our attention by our insurance company and inspectors have mentioned that the seating is getting tired. Cost estimate was provided by Hussey Seating.
7. Any related department or City Projects:
8. Financing possibilities or potential grants:
9. Justification of timing of project and segments (if applicable): Safety Concerns
10. Other information: Project would start in April for an August completion date.

IMPLEMENTATION SCHEDULE (Fiscal Years)

	2019	2020	2021	2022	2023	Future
TOTAL PROJECT COST	\$	\$	\$250,000	\$	\$	
NON-CITY SHARE	\$	\$	\$	\$	\$	
CITY SHARE	\$	\$	\$250,000	\$	\$	

Attach on separate page(s) additional information (if needed).

FY2019 BIDDEFORD CAPITAL IMPROVEMENT PROGRAM

Project Description Form

DEPARTMENT: Ice Arena	PROGRAM: Refrigeration Plant
Est. Total Cost: \$350,000	
Estimated Cost FY2019: \$350,000	Estimated Cost FY2020-2023: \$
City Share FY2019: \$350,000	City Share FY2020-2023: \$

1. Description of Project: Refrigeration Plant
2. Need for and impact of Project: The age of the current system is over 40 years old, and a new plant will have energy efficiencies that will offset some of the cost.
3. Consistency with the adopted plans or other related planning documents:
4. Years previously on the BIDDICIP; funding received in each of the past five (5) years (if applicable): FY2014- \$; FY2015 - \$; FY2016 - \$; FY2017 - \$; FY2018 - \$
5. New personnel, equipment, or supplies required: Replacing the existing system
6. How project originated and how cost estimates were obtained: By recommendation from Miller Refrigeration. Then went out and received 3 bids from contractors in the industry.
7. Any related department or City Projects:
8. Financing possibilities or potential grants: Revenue Bond
9. Justification of timing of project and segments (if applicable): Project needs to start April 2018 to have everything ready to be ready to make ice for August 1 st . The chemical R22 is being discontinued shortly, and the aging system currently has one out of four compressors not working. There is a worry the others are following closely behind, and make have costly repairs needed soon.
10. Other information: There are electricity savings after replacement. The estimated reduction in electricity is \$11,200/year.

IMPLEMENTATION SCHEDULE (Fiscal Years)

	2019	2020	2021	2022	2023	Future
TOTAL PROJECT COST	\$350,000	\$	\$	\$	\$	
NON-CITY SHARE	\$	\$	\$	\$	\$	
CITY SHARE	\$350,000	\$	\$	\$	\$	

Attach on separate page(s) additional information (if needed).

Compressor Energy Savings

To show the potential energy savings by replacing our old compressor system with (2) Mycom N4WB compressors we were able to obtain data from North Yarmouth Academy. NYA has the exact compressor system that Miller Refrigeration is proposing for Biddeford. The following data has been collected showing floor and building temperatures, as well as Kilowatt usage.

	Biddeford Arena	NYA
Floor Temp	18	19
Sub – Floor Temp	35	38
Building Temp	50	40

Biddeford Arena has ice for 8 months of the year from August through March and the five ice seasons listed below show the kW used during time frame. During the off season, the arena consumes another 27,000 kW.

Year	kW	Monthly kW average
10 – 11	551,760	68,970
11 – 12	518,760	64,845
12 – 13	592,560	74,070
13 – 14	637,920	79,740
14 – 15	586,220	73,277

The arenas current energy charge is at .0639 per kW and our delivery is at .006912 per kW.

NYA has ice for 10 months of the year from July through April and the five ice seasons listed below show the kW used during time frame. During the off season, the arena consumes another 22,000 kW.

Year	kW	Monthly kW average
10 – 11	494,000	49,400
11 – 12	581,000	58,100
12 – 13	572,000	57,200
13 – 14	500,000	50,000
14 – 15	531,000	53,100