



PEACE RIVER REGIONAL DISTRICT
Rural Budgets Administration Committee Meeting

A G E N D A

Thursday, April 27 , 2017

at the

Northern Grand Hotel, 9830 – 100 Avenue, Fort St. John, BC.

9:45 a.m.

-
1. CALL TO ORDER - Director Goodings to Chair the Meeting
 2. REPORTS:
April 25, 2017, Report from Jill Rickert, Community Services Coordinator - Grant Request – Clearview Arena Society.
 3. ADJOURNMENT:



Peace River Regional District REPORT

To: Rural Budgets Administration Committee

Date: April 25, 2017

From: Jill Rickert, Community Services Coordinator, Community and Electoral Area Services

Subject: Grant Request – Clearview Arena Society

RECOMMENDATION(S):

That the Rural Budget Administration Committee approve the request from Clearview Arena Society and authorize a grant from Gas Tax funds in the amount of \$11,298 to install a new mechanical refrigerant valve and brine underfloor pump, which will result in a more energy efficient chilling system for the Clearview Arena.

BACKGROUND/RATIONALE:

The Clearview Arena Society is requesting support to replace some of the refrigeration equipment required to operate the Clearview Arena. As part of the arena's general maintenance process, an inspection completed in March by Yeti Refrigeration Inc. of Prince George, identified specific items that required attention. These items are listed below:

- repairs to the Condenser;
- replacement of the Compressor;
- replacement of the Electronic Refrigeration Valve (EXV); and
- replacement of the Underfloor Pump.

The replacement of the valve would allow more precise refrigerant flow control and improve the systems efficient. The new valve coupled with the repaired condenser, would lower the compressor discharge pressure improving the overall compression ratio. By lowering the pressure, it would reduce the system's energy consumption, increase the system's capacity, reduce the run times and extend the compressor's life. The valve would also provide for the chiller as it will be able to monitor brine temperatures and prevent freezing. The underfloor pump needs to be replaced in order to support the use of brine as the current pump is not rated to do so. Overall, with the repairs to the condenser, replacement of the compressor and new valve should yield an energy savings of about 40% (see attached calculations).

The overall cost of this project was quoted at \$60,250 plus taxes; however, with the cost of the condenser removed, the total project will now cost \$43,365 to complete. Please note that the Clearview Arena Society repaired the condenser and will be paying for the costs of the compressor at \$32,067; therefore they are only seeking support from the Rural Budgets Administration Committee in the amount of \$11,298.

OPTIONS:

1. The Committee could choose to support this request using funds from Electoral Area B Peace River Agreement Funds, Category 2 – Arenas, rather than Gas Tax Funds; or

Staff Initials:

Dept. Head:

J. Morgan

CAO:

Ch. Birk

Page 1 of 2

J. Rickert

Special Meeting - April 27, 2017

2. The Committee could choose to support this request using funds from Electoral Area B Fair Share, rather than Gas Tax Funds.

STRATEGIC PLAN RELEVANCE:

This is supported under the Essential Regional Services section of the Strategic Objectives, specifically 1.3 Regional Recreation – The PRRD is committed to working with Peace River Region residents to have continued access to facilities for recreational and cultural purposes.

FINANCIAL CONSIDERATION(S):

According to the March 2017 Financial Report, the remaining balance in the following funds is:

- Gas Tax Funds - \$1,892,285.92.
- Electoral Area B Peace River Agreement Funds - \$208,404.40
- Electoral Area B Fair Share Funds - \$1,201,205.39

COMMUNICATIONS CONSIDERATION(S):

The applicant will be notified in writing as per the Committee's decision.

OTHER CONSIDERATION(S):

Attachments: Grant Application from Clearview Arena Society.



PEACE RIVER REGIONAL DISTRICT

GRANT REQUEST APPLICATION FORM



Society: S-0059688

Date: April 9/17

Community Club or Group Name: Clearview Arena Society

Mailing Address: Box 73

City: Goodlow, BC

Postal Code: V0C1S0

Civic Address: 13786 - 223 Rd.

Goodlow, BC V0C1S0

Contact Person: Debbie Smith

Alternate Person: Sherrin Munro

Tel: 250-781-3304

Tel: 250-261-5905

Fax: 250-781-3308

Fax:

Email: danystrucking@xplornet.ca

Email:

CLUB EXECUTIVES

President: Matt Bruha

Vice President: Shayne Marshall

Treasurer: Debbie Smith

PROJECT COSTS

Total Cost of Project: 43365.00

Amount Requested: 11298.00

Describe the project for which your organization is requesting a grant. Include volunteer/in-kind work to be provided:

Replacing the compressor and the existing mechanical valve with new electronic refrigerant valve this will improve system efficiency. Replace existing underfloor brine pump the one we have is not rated for brine usage. Arena is covering cost of the new compressor.

ATTACHMENTS REQUIRED:

- Project budget, including all sources of funding
- Year-end financial statements
- Current financial report including bank balances, investments, term deposits, etc.
- Copy of the Society Resolution requesting this grant.

Signature of Applicant:

Date: April 9/17.

For Office Use Only

Fair Share: B ☐ C ☐ D ☐ E ☐PRA: B ☐ C ☐ D ☐ E ☐BCR/PRA: B ☐ C ☐ D ☐ E ☐Gas Tax: ☐Other: ☐

diverse. vast. abundant.

PLEASE REPLY TO:

☒ Box 810, 1981 Alaska Ave, Dawson Creek, BC V1G 4H8 Tel: (250) 784-3200 or (800) 670-7773 Fax: (250) 784-3201 Email: prrd.dc@prrd.bc.ca
☐ 9505 100 St, Fort St. John, BC V1J 4N4 Tel: (250) 785-8084 Fax: (250) 785-1125 Email: prrd.fs@prrd.bc.ca

All work is going to be done by Yeti Refrigeration Inc.

1) Compressor Replacement cost \$ 30540.00
1527.00 gst
32067.00

2) EXV conversion cost \$ 4960.00
248.00 gst
5208.00

3) Underfloor Brine Pump cost \$ 5800.00
290.00 gst
6090.00

Total Cost of work \$ 43365.00

Clearview Arena Society
Balance Sheet As at 12/31/2016

ASSET**Current Assets**

Chequing Bank Account	54,518.96	
PETTY CASH	460.00	
Platinum Plan Savings Account	65,999.44	
Total Cash		120,978.40
5 Yr Redeemable Term Deposit	99,009.24	
Credit Union Shares	68.44	
Total Term Deposits		99,077.68
Accounts Receivable	10,006.00	
receivable	0.00	
Payroll Advances	0.00	
Total Receivable		10,006.00
Purchase Prepayments		0.00
Total Current Assets		230,062.08
TOTAL ASSET		230,062.08

LIABILITY**Current Liabilities**

Accounts Payable		-15,177.08
Vacation payable		0.00
EI Payable	0.00	
CPP Payable	0.00	
Federal Income Tax Payable	0.00	
Total Receiver General		0.00
WCB Payable		1,604.28
PST Payable		0.00
GST Charged on Sales	0.00	
GST Paid on Purchases	-10,114.22	
GST Owing (Refund)		-10,114.22
Total Current liabilities		-23,687.02
TOTAL LIABILITY		-23,687.02

EQUITY**Owners Equity**

Retained Earnings - Previous Y...	229,026.70	
Current Earnings	24,722.40	
Total Owners Equity		253,749.10
TOTAL EQUITY		253,749.10
LIABILITIES AND EQUITY		230,062.08

Clearview Arena Society

Income Statement 01/01/2016 to 12/31/2016

REVENUE**Sales Revenue**

Yerly Ice Rentals	12,405.00
Other Ice Rentals	6,065.00
Skate Sharpening	1,295.35
Room Rentals	120.00
Concession Revenue	37,053.35
Consession Rentals	0.00
RD Annual Grant	131,450.00
Grants	14,563.57

Net Sales	<u>202,952.27</u>
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Other Revenue

Interest Revenue	2,032.00
Donations	18,554.00
Advertising revenue	0.00
Miscellaneous Revenue	301.20

Total Other Revenue	<u>20,887.20</u>
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TOTAL REVENUE	<u>223,839.47</u>
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EXPENSE**Project Development**

Purchases	0.00
Freight Expense	1,720.68

Project Total	<u>1,720.68</u>
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Payroll Expenses

Wages & Salaries	59,308.11
Concession Wages	19,431.45
EI Expense	2,010.91
CPP Expense	3,413.82
WCB Expense	861.29
Employee Benefits	0.00

Total Payroll Expense	<u>85,025.58</u>
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General & Administrative Exp...

Accounting & Legal	3,527.70
Advertising & Promotions	0.00
Bad Debt Account	0.00
Concession Expense	11,583.63
Custodial Expense	2,200.19
Fuel Expense	957.12
Oil and Diesel Conditioner	112.68
GST Expense	0.00
License & Permits	150.00
Insurance	5,374.00
Interest & Bank Charges	0.00
Office Supplies	606.25
Miscellaneous	0.00
Repair & Maintenance-Building	26,339.02

Clearview Arena Society

Income Statement 01/01/2016 to 12/31/2016

Repair & Maintenance-Equipm...	26,273.22
Repair & Maintenance-yard	7,150.28
Small Tools & Equipment Rentals	402.22
Staff Training	250.00
Telephone	1,452.77
Travel & Entertainment	0.00
Utilities	25,991.73
Total General & Admin. Expe...	<u>112,370.81</u>
 TOTAL EXPENSE	 <u>199,117.07</u>
 NET INCOME	 <u><u>24,722.40</u></u>

Clearview Arena Society
Balance Sheet As at 04/16/2017

ASSET**Current Assets**

Chequing Bank Account	6,187.82	
PETTY CASH	460.00	
Platinum Plan Savings Account	66,105.28	
Total Cash		72,753.10
5 Yr Redeemable Term Deposit	99,009.24	
Credit Union Shares	68.44	
Total Term Deposits		99,077.68
Accounts Receivable	0.00	
receivable	0.00	
Payroll Advances	0.00	
Total Receivable		0.00
Purchase Prepayments		0.00
Total Current Assets		171,830.78
TOTAL ASSET		171,830.78

LIABILITY**Current Liabilities**

Accounts Payable		-17,850.38
Vacation payable		0.00
EI Payable	64.73	
CPP Payable	149.38	
Federal Income Tax Payable	210.82	
Total Receiver General		424.93
WCB Payable		1,973.63
PST Payable		0.00
GST Charged on Sales	0.00	
GST Paid on Purchases	-11,493.72	
GST Owing (Refund)		-11,493.72
Total Current Liabilities		-26,945.54
TOTAL LIABILITY		-26,945.54

EQUITY**Owners Equity**

Retained Earnings - Previous Y...	253,749.10	
Current Earnings	-54,972.78	
Total Owners Equity		198,776.32
TOTAL EQUITY		198,776.32
LIABILITIES AND EQUITY		171,830.78



Yeti Refrigeration Inc.
4599 Azure Ave.
Prince George BC
V2M 6R3
1-250-640-7322
byron@yetirefrigeration.ca

March 8, 2017

Clearview Arena Refrigeration Maintenance Items

Sherri Munro
Clearview Arena Society
Box 73
Goodlow BC
V0C 1S0
clvarena@gmail.com

For your consideration,

We would like to bring the following items to your attention as you plan for off season facility maintenance.

Item #1: Leaking Condenser Replacement and Electronic Refrigerant Valve Upgrade

During a recent service call to your facility we performed a leak check of your refrigeration equipment. No leaks were discovered within the compressor room. We did, however notice large oil stain on the underside of the outdoor condenser unit. Oil staining is a tell tail sign of a refrigerant leak. We were unable to pick up any trace of refrigerant with our electronic leak detectors, likely due to the high winds that day. The log book indicated that the previous contractor, Fraser Valley Refrigeration, added refrigerant without any major leak being detected. Please see the photos in the appendix detailing the oil slick. We recommend replacing the old condenser with a new, larger more efficient model.

We would also like to propose installing an electronic refrigerant valve (EXV). This valve would replace the existing mechanical refrigerant valve that feeds your chiller. This electronic valve allows more precise refrigerant flow control, thereby improving system efficiency. This valve, coupled with the new condenser will give us the ability to lower compressor discharge pressure, this greatly improves the compression ratio of the compressor. Lowering discharge pressure will reduce system energy consumption, increase system capacity, reduces compressor run times, and will extend compressor life. This new valve also provides chiller freeze protection as it monitors brine temperatures. When your facility was converted to Freon, this technology was not available. It is now the standard within our industry for efficient system operation. Your compressor replacement, coupled with and EXV and new condenser will yield annual energy savings of 40%. Attached are the energy efficiency calculations.



Please consider the following as our condenser/EXV replacement quote. Price includes:

- High Efficiency 6 fan replacement condenser sized for application
- Electronic Refrigerant Valve (EXV)
- Variable speed fan controls
- Condenser stand alterations
- Required refrigerant piping and electrical
- Crane services and freight to site
- All required labour for removal, replacement, and commissioning
- Travel and LOA

Total Price: \$ 54,450.00 + Tax (Price firm for 30 days.)

Item #2: Underfloor Pump Replacement:

The existing underfloor pump is not rated for brine usage. We propose replacing with a pump suited for the application complete with an enclosed drive motor. This price is for supply of pump and motor only. Some re-piping will be required. We recommend having the new pump on hand for when the existing pump fails.

Price for replacement pump: \$5,800.00 +tax

Please don't hesitate to contact Yeti Refrigeration Inc if you have any questions regarding your facility. We're always happy to help. Thanks for the opportunity, and thank you for supporting northern BC business.

Regards,

Byron Conroy

Appendix: 1. Existing condenser photos.

2. Projected energy savings







M-series vs WB-series**Situation**

Discharge temp	Tc	70.0	F
Suction temp	Te	5.0	F
Super Heat	sh	15.0	F
Super Cooling	sc	0.0	F

WBHE-series with 100F Condensing

Number of Piston	4	pistons
Revolution	1,000	rpm
Nuber of Comp	1	
Motor Efficiency	93.0	%
Motor Power Factor	0.905	

WBHE-series w/ 70F condensing

Number of Piston	4	pistons
Revolution	1,000	rpm
Number of Comp	1	
Motor Efficiency	93.0	%
Motor Power Factor	0.905	

Site Situation of WB

How many hours per day	12 hours													
How many days per month	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
days		31	28	31	0	0	0	0	0	30	31	30	31	
How much C/kW														
Cents per Kilowatt	7.00 C/kW													

Benefit

1.341

WBHE-series with 100F Condensing

Capacity	36.3 TR	127.6 kW	Number	1	Total	36.3 TR	127.6 kW	Run time	12.0 h
Power	77.9 BHP	58.1 BkW	62.5 kW	64.2 kVA	77.9 BHP	58.1 BkW	62.5 kW	64.2 kVA	

COP

2.20

WBHE-series w/ 70F condensing

Capacity	50.3 TR	176.9 kW	Number	1	Total	50.3 TR	176.9 kW	Run time	8.7 h
Power	64.5 BHP	48.1 BkW	51.7 kW	53.1 kVA	64.5 BHP	48.1 BkW	51.7 kW	53.1 kVA	

COP

3.68

WBHE-series w/ 70F condensing

167.4 %

Electricity

Month	Days	Run time		Electricity Consumption		Electricity Bill	
		h/year		kWh/month		\$ /month	
		ies with 100F C	eries w/ 70F co	ries with 100F C	eries w/ 70F co	ries with 100F C	eries w/ 70F co
Jan	31	372.0	268.5	21,609.84	12,912.56	1,512.69	903.88
Feb	28	336.0	242.5	19,518.57	11,662.96	1,366.30	816.41
Mar	31	372.0	268.5	21,609.84	12,912.56	1,512.69	903.88
Apr	0	0.0	0.0	0.00	0.00	0.00	0.00
May	0	0.0	0.0	0.00	0.00	0.00	0.00
Jun	0	0.0	0.0	0.00	0.00	0.00	0.00
Jul	0	0.0	0.0	0.00	0.00	0.00	0.00
Aug	0	0.0	0.0	0.00	0.00	0.00	0.00
Sep	30	360.0	259.8	20,912.75	12,496.03	1,463.89	874.72
Oct	31	372.0	268.5	21,609.84	12,912.56	1,512.69	903.88
Nov	30	360.0	259.8	20,912.75	12,496.03	1,463.89	874.72
Dec	31	372.0	268.5	21,609.84	12,912.56	1,512.69	903.88
Total	212	2544.0	1,835.9	147,783.45	88,305.28	10,344.84	6,181.37

Benefit	Save	708.07	h/year	27.83%
		59,478.16	kWh/year	40.25%
		4,163.47	\$/year	

