



REQUEST FOR PROPOSALS

Sparwood Arena & Curling Rink Energy Retrofit Project

Date Issued:

October 28th, 2013

Closing Date:

December 10th, 2013 at 2:00 pm MST

Closing Location:

District of Sparwood Leisure Centre
367 Pine Ave, Box 669
Sparwood BC, V0B 2G0

Attention:

Duane Lawrence
Director of Community & Facility Services

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PART I: Notice to Bidders

Bid for: Sparwood Arena and Curling Rink Energy Retrofit Project
FOR THE DISTRICT OF SPARWOOD

Individual consultants, businesses or companies with proven experience and expertise in the retrofitting of recreation and leisure centers and/or H-VAVC and DHW systems are invited to submit detailed proposals by which the goals, objectives and other requirements of this request may be best met.

Proposals will be received in a sealed envelope, clearly marked with the name and address of the Proponent, the name of the Project: "Request for Proposal: Arena Energy Retrofit Project" and be addressed to Duane Lawrence, Director of Community & Facility Services, no later than 2:00 pm (MST), Tuesday December 10th, 2013 (the "Closing Deadline"), at the following address:

District of Sparwood – Leisure Centre
367 Pine Ave.
Sparwood, BC
V0B 2G0

This fixed fee design build project entails the updating of the Sparwood Arena and Curling Rink Complex HVAC and DHW supply systems.

Copies of the Request for Proposal can be obtained from the District of Sparwood Leisure Centre at 367 Pine Avenue, Sparwood, BC V0B 2G0 or online on BC Bid (www.bcbid.gov.bc.ca) on or after October 28th, 2013.

Inquiries regarding this project shall be directed to:

Duane Lawrence
Director of Community & Facility Services
District of Sparwood

Phone: 250.425.6821
Fax: 250.425.0551
Email: dlawrence@sparwood.ca

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PART 2: Administration

1. General Scope of Work

The general scope of work to be completed is the design build of a high efficiency HVAC & domestic hot water supply system that will replace the existing fragmented and inefficient systems that are currently in place at the Sparwood Arena and Curling Rink.

2. Invitation

Individual consultants, businesses or companies with proven experience and expertise in the design and construction of high efficiency HVAC and Domestic Hot Water systems are invited to submit detailed proposals setting out one or more means by which the goals, objectives and other requirements of this request may be best met.

3. Instructions to Proponents

The following terms will apply to this RFP and to any subsequent Contract. Submission of a proposal in response to this RFP indicates acceptance of all the following terms:

3.1. General

The District of Sparwood invites detailed proposals from Proponents in strict accordance with these proposal documents. The proposal will be evaluated for the selection of a Contractor with the intent to enter into a Contract to conduct an energy retrofit of the District of Sparwood's Arena and Curling Rink HVAC and DHW supply systems.

The law applicable to this RFP shall be the law in effect in the Province of British Columbia. Except for an appeal from a British Columbia Court to the Supreme Court of Canada, no action in respect to this RFP shall be brought or maintained in any court other than in a court of the appropriate jurisdiction of the Province of British Columbia.

In carrying out its obligation hereunder, the Proponent shall familiarize itself and comply with all applicable laws, bylaws, regulations, ordinances, codes, specifications and requirements of all regulatory authorities, and shall obtain all necessary licences, permits and registrations as may be required by law. Where there are two or more laws, ordinances, rules, regulations or code applications to the services, the more restrictive shall apply.

In case of any inconsistency or conflict between the provision of the RFP, the provisions of such documents and addenda thereto will take precedence in governing in the following order: (1) Addenda; (2) RFP; (3) Special Conditions; (4) Specifications; (5) Drawings; (6) Executed Form of RFP; (7) All other documents.

The RFP, accepted submission, and the District Contract documents represent the entire Agreement between the District and the successful Proponent and supersede all prior negotiations, representations and agreements either written or oral. The Contract documents may be amended only by written instructions agreed and executed by the successful Proponent and the District.

4. Request for Proposal Terminology

The following terms will apply to this Request for Proposal and to any subsequent Contract. Submission of a proposal in response to this Request for Proposal indicates acceptance of all the following terms:

- a) "District" means the District of Sparwood;
- b) "Best Value" means the value placed upon quality, system performance, service, past performance and price;
- c) "Contract" means the written agreement resulting from the Request for Proposal executed by the District of Sparwood and the successful Proponent;
- d) "Contractor" means the successful Proponent selected from this Request for Proposal;
- e) "Must", "Mandatory" or "Required" means a requirement that must be met in order for a proposal to receive consideration;
- f) "Owner" means the District of Sparwood;
- g) "Premises" shall mean building or part of a building with its appurtenances;
- h) "Proponent" means an individual or a company that submits, or intends to submit, a proposal in response to this Request for Proposal;
- i) "Proposal" shall mean the Proponent's submission to the RFP;
- j) "Request for RFP" (RFP) includes the documents listed in the index of the Request for RFP and any modifications thereof or additions thereto incorporated by addenda before the close of RFP's;
- k) "Should" or "desirable" means a requirement having a significant degree of importance to the objective of the Request for RFP;
- l) "Special Conditions" means the special conditions, which are included in the RFP;
- m) "Specifications" means the specifications, which are included in the RFP;
- n) "Subcontractor" includes, inter alia, a person, firm or corporation having a Contract with the successful Proponent for the execution of a part or parts, or furnishing to the successful Proponent materials and/or equipment called for in the RFP;
- o) "Successful Proponent" means the Proponent submitting the most advantageous RFP as determined by the District of Sparwood;
- p) "Work" means any labour, duty and/or efforts to accomplish the purpose of this project;

5. Modification

The District reserves the right to modify the terms of the Request for Proposal at any time at its sole discretion. The District will endeavor to distribute all modifications to Proponents that register. To register, please submit an email address, contact phone and fax number any time between October 21st and November 5th, 2013.

Modifications to the RFP will be made in the form of written addenda or re-issued documents. All addenda shall be considered to be integral to the RFP and having the same effect as if part of the original RFP. It is the Proponent's responsibility to ensure that they have all modifications. The modifications will be made available on BC Bid (www.bcbid.gov.bc.ca). proposals should include acknowledgement of receipt of all addenda.

6. Liability

While the District has used considerable efforts to ensure an accurate representation of the information in this Request for Proposal, the information contained in the Request for Proposal is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be accurate by the District, nor is it necessarily comprehensive or exhaustive. Nothing in this Request for Proposal is intended to relieve Proponents from performing their own due diligence and forming their own opinions and conclusions with respect to the matters addressed in this Request for Proposal.

7. Limitation of Damages

The Proponent, by submitting a proposal, agrees that it will not claim damages, for whatever reason, relating to the RFP, by reason of submitting a proposal, in respect of the competitive process, or in respect of any breach of any implied duty of fairness, including but not limited to any costs incurred by the Proponent in preparing its proposal. The Proponent, by submitting a proposal, waives any and all such claims.

8. Confidentiality

This document or any portion thereof may not be used for any purpose other than submission of a proposal. The successful Proponent shall agree not to divulge or release any information that has been given to it or acquired by it on a confidential basis during the course of carrying out its duties or performing its services. It is the District's policy to maintain confidentiality with respect to all confidential information related to the Requests for proposals, but the District is subject to the Freedom of Information and Privacy Act.

All documents, including proposals submitted in response to this Request for Proposal become the property of the District of Sparwood. They will be held in confidence by the District, subject to the provisions of the Freedom of Information and Protection of Privacy Act.

9. Safety

The successful Proponent will be designated as the Prime Contractor for this project, assuming all health and safety obligations and requirements.

10. Insurance & Indemnity

The successful Proponent must indemnify the District and their employees, officers, directors and agents (each an "Indemnified Person") against all claims, actions, proceedings, damages, losses, costs, expenses and liabilities of any kind incurred that an Indemnified Person may sustain, incur, suffer or be put to, either before or after this Contract ends, which are based upon, arise out of or occur, directly or indirectly, by reason of, any act or omission by you or by any of your agents, employees, officers, directors, or subContractors in providing the services, except liability arising out of any independent negligent act by the District.

The successful Proponent will be asked to provide proof of Worker's Compensation Board of BC registration and coverage and proof of Comprehensive General Liability insurance coverage for a minimum of five million dollars (\$5,000,000.00). Within ten (10) working days of a Contract award notification the successful Proponent must submit certification that the District as an additional named insured.

11. Agreement

The successful Proponent agrees that by submitting a proposal, the Proponent agrees to all the terms and conditions of this Request for Proposal which will form part of the Contract. Proponents who have obtained the Request for Proposal must not alter any portion of the document, with the exception of adding information requested. To do so will invalidate the proposal.

12. Cost of Preparation

Any cost incurred by the Proponent in the preparation of this proposal will be borne solely by the Proponent.

13. No Collusion

Except as otherwise specified or as arising by reason of the provision of the Contract Documents, no person whether natural, or body corporate, other than the Proponent has or will have any interest or share in this proposal or in the proposed Contract which may be completed in respect thereof. There is no collusion or arrangement between the Proponent and any other actual or prospective Proponents in connection with proposals submitted for this project and the Proponent has no knowledge of the contents of other proposals and has made no comparison of figures or agreement or arrangement, express or implied, with any other party in connection with the making of the proposal.

14. Irrevocability

Prior to the time and date of the Request for Proposal closing deadline, any Proponent may withdraw or change their proposal, without penalty or forfeiture, by giving notice in writing to:

Duane Lawrence
Director of Community & Facility Services
District of Sparwood
Box 669, 367 Pine Ave.
Sparwood, BC V0B 2G0
dlawrence@sparwood.ca

Upon the closing deadline, all proposals become irrevocable and no words or comments may be added to, or removed from, the proposal unless requested by the District for purposes of clarification. By submission of a proposal, the Proponent agrees that should its proposal be deemed successful, the Proponent will enter into a Contract with the District. This irrevocability is only valid for a period of 90 days after the closing date.

15. Subcontracting

Utilizing a consultant(s) to complement the Proponent's services is acceptable, but must be clearly identified in, Section 3 of the proposal. This also includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents must be prepared to take the role of prime consultant and assume overall responsibility for successful interconnection of all services. This also must be clearly defined in Section 6 of the proposal.

16. Award

The District may not necessarily accept the lowest priced proposal or any proposal. At its sole discretion, the District reserves the right to reject any or all proposals received and to accept any proposal which it considers advantageous, whether or not it is the lowest priced proposal.

The District is not under any obligation to award a Contract, and reserves the right to terminate the Request for Proposal process at any time, and to withdraw from discussions with all or any of the Proponents who have responded. The District shall not be obligated in any manner to any Proponent whatsoever until a written agreement has been duly executed relating to an approved proposal.

No Contract is formed as a consequence of this Invitation to Submit Proposals. The District reserves the right to accept the proposed offer in total or in part, to reject any or all offers, to waive any minor informalities, irregularities, or technicalities, and to accept the offer deemed most favorable to the District.

Proposals must meet all the requirements herein to be eligible for consideration. Proposals that are unsigned, incomplete, conditional, illegible, unbalanced, obscure or that contain additions not called for, reservations, erasures, alterations, or irregularities of any kind may be rejected. The District reserves the right to obtain additional information from the Proponents to clarify the information in their submission.

In the event that only one proposal is received, the District reserves the right to return the proposal unopened. The acceptance of the proposal by the District shall be made only by notice in writing, and will be addressed to the successful Proponent at the address given in the proposal; and if the proposal documents are so worded, the proposal may be accepted either in whole or in part.

17. Evaluation Criteria

Notwithstanding any other provisions in the RFP, or any practice or custom in the industry, the District, in its sole discretion, shall have the unfettered right to accept or reject any or all proposals. All proposals will be evaluated by a team consisting of District representatives. Evaluation criteria are as follows:

- a. Understanding of issues specific to this assignment including proposed work methodology, proposed level of effort, and proposed work schedule.
- b. Experience and capability of firms and staff in similar assignments.
- c. Past performance of firms and staff as determined from District and references.
- d. Availability and commitment of local resources including staff, office and technical supports.
- e. Past performance of cost and scheduling control practice.
- f. Local experience and practice.
- g. Award will be made on the Best Value offered, and the District will determine Best Value.
- h. Fee schedule and total cost of services (upset fee) to the District.

Following submission and initial evaluation of technical proposals, interviews may be arranged with the Proponents as part of the proposal evaluation process.

The following weighting will be used.

- | | |
|---------------------------------------|-----|
| • Price | 40% |
| • Ability to meet facility objectives | 25% |
| • Warranty | 10% |
| • System design | 25% |

The Evaluation Committee will evaluate proposals to identify the proposal with the best overall value to the District. The Evaluation Committee may apply the evaluation criteria on a comparative basis, evaluating the proposals by comparing one Proponent’s proposal to another Proponent’s proposal.

No totals, weighting, or score will be provided to any Proponents.

18. Evaluation Committee

The evaluation of proposals will be undertaken on behalf of the District by the Evaluation Committee, which may consist of one or more persons. The Evaluation Committee may consult with others including District staff members, third party consultants and references, as the Evaluation Committee may in its discretion decide is required. The Evaluation Committee will give a written recommendation for the selection of a preferred Proponent to the District.

19. Presentations

Following an initial screening and subsequent reference verifications, the Evaluation Committee may, at its discretion, invite some or all of the Proponents to appear before the Evaluating Committee to make an oral presentation regarding their proposals. In such event, the Evaluation Committee will be entitled to consider the information received in evaluating proposals.

20. Negotiations

The District reserves the right to negotiate specific terms of the Contract prior to the final award with the successful Proponent. If a written Contract cannot be negotiated within thirty days of notification of the successful Proponent, the District may, at its sole discretion at any time thereafter, terminate negotiations with that Proponent and either negotiate a Contract

with the next qualified Proponent or choose to terminate the RFP process and not enter into a Contract with any of the Proponents.

21. Closing Date and Location

To be considered, proposals must be received in a sealed envelope no later than 2:00 pm (MST), Tuesday, December 10th, 2013 (the "Closing Deadline"), at the following address:

District of Sparwood
Box 669, 367 Pine Ave
Sparwood, BC V0B 2G0

Proposals and their envelopes must be clearly marked with the name and address of the Proponent and the name of the Project: "Request for Proposal: Sparwood Arena & Curling Rink Energy Retrofit".

Proposal packages must include two (2) hard copies, along with one (1) digital copy, in pdf format on CD-Rom or USB flash drive, of your submission.

Proposals submitted by facsimile or electronically will not be accepted.

Proposals received after the closing deadline will not be accepted. Please keep in mind that courier services such as DHL, Purolator or Canada Post generally cannot provide one day delivery service to Sparwood.

22. Site Visit

Site visits will be provide for Proponents upon request between November 6th and November 8th and/or November 13th and 14th, 2013. All visits must be arranged in advance with the District of Sparwood via email at dlawrence@sparwood.ca.

23. Late Proposals

Proposals received after the final date and time for receipt of proposals will be considered "Late Proposals". Late Proposals will not be accepted and will be returned unopened to the sender.

24. Failure or Default of Proponent

If the Proponent for any reason whatsoever fails or defaults in respect of any matter or thing which is an obligation of the Proponent under the terms of this proposal, the District at its option may consider the Proponent has abandoned the offer made or the Contract if the offer has been accepted, whereupon the acceptance, if any, of the District shall be null and void and the District shall be free to select an alternate solution of its choosing.

25. Bylaw Compliance

Proponent and all sub-trades will be subject to all Municipal Bylaws and will be responsible for all Business Licenses, including fees, as necessary. Separate business Licenses are required for all Contractors and subcontractors. More information is available on our website.

In carrying out its obligations hereunder, the Proponent shall familiarize itself and comply with all applicable laws, bylaws, regulations, ordinances, codes, specifications and requirements of all regulatory authorities, and shall obtain all necessary licences, permits and registrations as may be required by law. Where there are two or more laws, ordinances, rules, regulations or codes applicable to the services, the more restrictive shall apply.

26. Solicitation

Proponents and their Agents are hereby warned that any attempt to solicit support of individual members of the Council and/or Staff of the District in regards to the award of this Contract may jeopardize their proposals.

27. Inquiries and Addenda

Requests for clarification of these instructions or the requirements of the services to be provided shall be addressed to:

Duane Lawrence
Director of Community & Facility Services
Phone 250.425.6821
E-mail dlawrence@sparwood.ca

The District of Sparwood shall not be responsible for information received by the Proponent from any other source. If a Proponent is in doubt as to the meaning of any part of the proposal documents, or finds omissions or discrepancies therein, a request for interpretation or correction thereof may be submitted and, if deemed necessary by the District, an addendum will be issued to all pre qualified persons of record receiving RFP documents.

Addenda will also be issued by the District to all pre-qualified persons of records receiving RFP documents, should the District of its own accord, wish to expand, delete or change any portion of the RFP document.

No oral explanation, interpretation or clarification of the RFP documents by any person whatsoever shall bind the District in the interpretation of the RFP document.

28. Conclusion

Thank you for your interest in submitting a proposal. It is hoped that the information provided is of value and should anything be unclear, please contact Duane Lawrence at 250-425-6821 or dlawrence@sparwood.ca.

Part 3: Project Information

1. Introduction

This document outlines the overall scope of the RFP, sets out the requirements for the proposal document and provides the evaluation criteria to be used as the basis for awarding the assignment. The objectives of the RFP are to evaluate the Proponent's experience, technical expertise, project methodology, schedule and fees to provide the goods and or services for this assignment.

The District of Sparwood is seeking proposals from qualified engineering firms for a retrofit of the District of Sparwood's Arena and Curling Rink HVAC and domestic hot water systems that will result in significant reductions to energy consumption and greenhouse gas emissions.

The Sparwood Curling Rink and Arena complex consist of a four sheet curling rink and lounge, 85 x 197 arena with seating for 350 spectators, community hall, six change rooms and various office, maintenance rooms, workshops and toilet facilities. The facility is heated via nine natural gas furnaces, one rooftop air conditioning unit, six industrial natural gas heaters and three natural gas hot water heaters. Detailed information on current HVAC and DHW components are outlined in Schedule 'B'.

2. Project Details

The primary objectives that form the basis of this Request for Proposal are:

- A net reduction in greenhouse gas emissions by a minimum of 15%
- An overall reduction in energy expenditures of 20%
- Project team shall be composed of firms that are accredited BC Hydro Power Smart Alliance members, in the consultant category for completion of the energy study of the HVAC and lighting systems and in the Contractor category for the installation of the recommended HVAC upgrade measures.
- The project team shall include members who are accredited P.Eng. Electrical Engineering and P. Eng. Mechanical Engineering.
- The Proponent must have experience in installing such energy reclaim equipment and must have testimonials from at least three previous energy savings projects with proven proposed savings achieved.
- All proposals must outline the potential maintenance concerns and discuss the life expectancy and warranty of the proposed system.
- All proposals must include integrating the system into the existing auto-logic facility control system currently used within the adjacent Aquatics Centre.
- The Retrofit must take place during the months of March through August with the system meeting substantial completion by September 1st.
- Installation procedures to be determined by the successful bidder in consultation with the District.

3. Scope of Work

The scope of work includes a complete evaluation of the existing HVAC and DHW supply systems and the design and construction of an innovative, high efficiency heating, cooling and DHW supply system for the Sparwood Arena and Curling Rink Complex inclusive of all public and non-public areas.

The successful Proponent will be responsible for:

- Evaluating the current HVAC systems used to heat and cool the arena, curling rink and various public and non-public areas within the complex.
- Evaluating the current DHW systems used to supply hot water to the various areas housed within the curling rink and arena complex including the supply of DHW to the ice re-surfacer.
- Designing a new DHW and HVAC system that will provide the maximum loads required for the arena, curling rink and various public and non-public areas within the complex.
- Ensuring any design meets or exceeds ASHRAE and all other applicable guidelines and standards for all facilities when occupied at their maximum loads.
- Ensuring any design meets or exceeds ASHRAE and all other applicable guidelines and standards for the community hall when used for fitness classes and at maximum loads.
- Reducing the total Green House Gas (GHG) emissions produced by the arena and curling rink complex by no less than 15%.
- A combined reduction of Natural Gas and Hydro consumption by no less than 20%.
- Integrating all components into the existing auto-logic control system used within the adjoining Leisure Pool Complex.
- Decommissioning and removal of all components to be replaced with the proposed system;
- Supply all required materials, equipment, labour.
- Installation and commissioning of the proposed system.
- Providing as built drawings of the approved system(s) and all related materials with respect to the maintenance and operation of all equipment devices incorporated into the system(s).
- Arranging all additional (if applicable) subcontractor work to complete project.
- Ensuring all applicable codes, standards and bylaws are complied with.
- Ensuring site safety. Public and staff access must be maintained to the facility for all normal operating hours unless duly authorized by the owner.
- Ensuring all waste if removed from site and disposed of in a manner appropriate for the type of waste produced.
- Any man lifts/scaffolding needed to complete the job, and completing the project within the identified project timeline.

3.1. Design Considerations

- All designs must incorporate an overall life expectancy for the system of no less than 20 years;
- Proposals may consider accessing the adjoining Leisure Pool Complex HVAC & DHW systems;
- Proposals should consider the integration of a dehumidification system for the arena;
- Proposals should evaluate and consider, but are not limited to nor mandated to include, the following technologies: heat pumps; geothermal; solar; heat reclaim from the arena physical plant; centralized HVAC and/or DHW; heat storage and recovery utilizing decommissioned under slab arena brine lines; use of external air temperatures in the regulating of the arena air temperatures;
- An independent hot water supply system for the Olympia may be considered;
- Integration of occupancy sensors and control systems;
- Proposals only considering 'like for like' replacement of existing infrastructure will not be considered;
- Proposals that incorporate some 'like for like' replacement of existing infrastructure where no other option is viable will be considered;

Note: Re-lamping of the arena and curling rink will be completed as a separate project. Replacement of the second older compressor has already been slated for completion in 2014.

4. Proposal Content

Proposals must provide a detailed report that outlines the types of upgrade expected to be pursued and includes preliminary drawings that show where such systems would be located in the facility. The report should include comments on the current conditions and life expectancy of the existing mechanical, electrical and control systems and the costs, benefits, life expectancy and expected maintenance issues with any upgrade of existing equipment and or proposed equipment.

The installation and on-site commissioning of all new equipment by factory trained service personnel. Adequate time must be allowed to thoroughly and safely start, program, and test run the new products with the new building management system. A separate site visit must be provided for training of operation and maintenance personnel.

The scope of work may have to be adjusted to ensure that the cost of the services remains within budget while still achieving required energy savings and green house gas emissions reductions. The Proponent shall identify possible changes in the scope of work proposed, if necessary, in order to keep this assignment within budget and shall contact the District if they wish to discuss this prior to drafting their proposal.

Proposals that only incorporate a 'like for like' upgrading of furnaces, domestic hot water tanks and heaters will not be considered.

4.1. Copies

Proposals (two original and one copy) must be submitted in printed form and an additional digital copy in PDF format is required. The following topics should be addressed in the following order:

4.2. Cover Letter

A cover letter signed by an authorized representative of the company must be provided outlining the intent of the response and stating that the information contained in the response accurately describes the services to be provided. The response must also guarantee that all quoted prices will be honored for a specified period from the submission date.

4.3. Proponent Profile and References

A description of the Contractor's organization, size, and services provided; areas of expertise and length of time in operation must be addressed. References must be provided that are able to verify energy savings as detailed within the Proponents project reference list. If there are special concerns or restrictions on our use of any reference, these concerns must be addressed in the proposal. We will not complete any agreement without adequate reference checks.

4.4. Scheduling

The proposal will include the Proponent's itinerary to complete the work proposed (start up, information gathering, site visits, preliminary plans, etc.).

4.5. Costs

The proposal will define the costs for the Proponent's goods and service. The proposal shall outline the costs of all components and include all applicable PST, GST and other associated costs.

5. Proposal Preparation

5.1. Alternate Solutions

If alternate solutions are offered, please submit the information in the same format, as a separate proposal.

5.2. Changes to Proposal Wording

The Proponent will not change the wording of its proposal after closing and no words or comments will be added to the proposal unless requested by the District for the purpose of clarification.

5.3. Limitation of Damages

The Proponent, by submitting a proposal agrees that it will not claim damages, for whatever reason, relating to the RFP, by reason of submitting a proposal, in respect of the competitive process, or in respect of any breach of any implied duty of fairness, including but not limited to any costs incurred by the Proponent in preparing its proposal. The Proponent, by submitting a proposal, waives any and all such claims.

5.4. Firm pricing

Proposals must be firm for at least 90 days after the final date. Pricing will be firm for the entire Contract period.

5.5. Currency and Taxes

Prices quoted are to be in Canadian Dollars, including duty, where applicable; F.O.B. destination, delivery charges included where applicable; and excluding PST and GST.

6. Additional Terms

6.1. Sub-Contracting

Using a Subcontractor (who must be clearly identified in the proposal) is acceptable. This includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents must be prepared to take overall responsibility for successful interconnection of the two product or service lines and this must be defined in the proposal.

Subcontracting to any firm, organization, company or individual, whose current or past corporate or other interests may, in the District's opinion, give rise to a conflict of interest in connection with this project will not be permitted. This includes, but is not limited to, any firm or individual involved in the preparation of this proposal.

6.2. Liability of Errors

While the District has used considerable efforts to ensure an accurate representation of information in this RFP, the information contained in this RFP is supplied solely as a guideline for Contractors. The information is not guaranteed or warranted to be accurate by the District, nor is it necessarily comprehensive or exhaustive. Nothing in this RFP is intended to relieve Contractors from forming their own opinions and conclusions with respect to the matters addressed in this RFP.

6.3. Agreement with Terms

By submitting a proposal the Contractor agrees to all the terms and conditions of this RFP. Contractors who have obtained the RFP electronically must not alter any portion of the document, with the exception of adding the information requested. To do otherwise will invalidate the proposal.

6.4. Use of Request for RFP

This document, or any portion thereof, may not be used for any purpose other than the submission of proposals.

7. Special Conditions

- a. A qualified proposal is one that meets the needs and specifications of the District; the terms and conditions contained in the RFP. The preferred proposal is a qualified proposal offering the best value, as determined by the District.
- b. The District will decide whether a proposal is qualified by evaluating all of the proposals based on the needs of the District, specifications, terms, and conditions and price. The District will examine all proposals and recommend which proposal is in the District's best interest.
- c. A proposal which is unqualified is one that exceeds the cost expectations of the District and/or does not meet the terms and conditions contained in the RFP and/or does not meet the needs and specifications of the District. The District reserves the right to reject any or all unqualified proposals.
- d. The District reserves the right to cancel this RFP at any time.
- e. The District recognizes that "Best Value" is the essential part of purchasing a product and /or service and therefore the District may prefer a proposal with a higher price, if it offers greater value and better serves the District's interests, as determined by the District, over a proposal with a low price. The District's decision shall be final.
- f. The District reserves the right to negotiate with a preferred Proponent, or any Proponent, on any details, including changes to specifications and price. If specifications require
- g. significant modification, all Proponents shall have the opportunity to adjust their proposals or re-submit altogether, as determined by the District.
- h. All equipment, goods and workmanship must conform to all Laws and Standards necessary for use in Canada and the Province of British Columbia.

- i. All proposed prices shall include the delivery F.O.B. to the Sparwood Leisure Centre or other destination point, as specified by the District, and the Contractor shall bear all risks of loss and/or damage.
- j. Where only one proposal is received, the District reserves the right not to make public the amount of the proposal. The amount of the proposal will be made public if a Contract is awarded. The District reserves the right to accept or reject a proposal, where only one proposal is received.
- k. The District reserves the right in its sole discretion to accept or reject all or part of any proposal which is non-compliant with the requirements of this Invitation.
- l. The District shall not be obligated either to accept or reject any non-compliance with the requirements of this Invitation.
- m. The District reserves the right to cancel the Contract Agreement for goods and/or services as outlined in this RFP, at any time, by providing 30 days written notice to the Vendor.

8. Contractor’s Insurance

8.1. Errors and Omissions Insurance

The Contractor shall, at the Contractor’s expense, establish and maintain Professional Errors and omissions Insurance to the following minimum requirements:

Minimum Insurance

Contracting Services for projects not exceeding \$500,000 in value \$250,000
 Contracting Services for projects exceeding \$500,000 in value.....\$500,000
 *The maximum deductible in all categories shall be \$2500.00

The Contractor’s Professional Errors and Omissions Insurance shall remain in force for the life of the project and the twelve (12) months after Substantial Completion, and shall contain the following endorsement to provide the District with prior notice of changes and cancellations.

“The Insurer and the Insured Contractor shall provide written notice to be delivered by hand, or sent by registered mail to the District at least thirty (30) days in advance of the activation date of any proposed cancellation, change or amendment restricting coverage under this policy.”

8.2. Commercial General Liability Insurance

The Contractor shall provide, maintain and pay for general liability insurance coverage, in the joint names of the Contractor and the Owner, with limits of no less than five million dollars (\$5,000,000) inclusive per occurrence for bodily injury, death and damage to property including loss of use thereof, with property damage deductible of two thousand dollars (\$2,000). Such coverage will extend throughout the length of the Contract period and subsequent warranty period.

9. Specifications

All measurements are thought to be as accurate as possible. It is the Proponent's responsibility to insure these measurements are correct, and make changes to the quote if needed. It is expected that a site visit take place prior to the closing date.

10. Deliverables

10.1. Pricing & Warranty

The District requires the following deliverables on pricing and warranty with the RFP:

- a. Submit a price breakdown.
- b. Submit optional pricing (if required).
- c. Submit all or any product warranties.

Note: All pricing of materials will include supply and delivery.

10.2. Other Deliverables

The District requires the following other deliverables:

- Detailed calculations of energy savings and equipment operation benefits resulting from the recommendations.
- Providing written cost estimates and expected time required to implement any recommendations.
- Taking inventory of the current HVAC system and demonstrating how a new system would be implemented.
- Completed Part 5: Bid Sheet.

Part 4: Form of Proposal

Each proposal must be arranged as follows:

- Title Page.
- Letter of introduction.
- Table of Contents.
- Section 1 Executive summary.
- Section 2 Understanding of scope of services.
- Section 3 Work plan and methodology, work schedules and deliverables.
- Section 4 Other services not identified in the scope of services.
- Section 5 Project staff qualifications and (role personal resume of key people).
- Section 6 Project staff qualifications and role.
- Section 7 References- minimum of 3 similar energy projects.
- Section 8 Fees.
- Appendix #1 The Energy Audit.

1. Title Page

Show RFP title, closing date and time, Proponent's name, address, telephone number and contact person.

2. Letter of Introduction

One page, introducing the Proponent and signed by the person(s) authorized to sign on behalf and bind the Proponent to the statements made in the RFP.

3. Table of Contents

Include page numbers, list of tables, list of figures and appendices.

4. Executive Summary (Section 1)

Include a one page summary of the key features of the proposal.

5. Understanding of the Scope of Services (Section 2)

Provide a detailed and comprehensive summary of the Proponent's understanding of the proposed Scope of Services under this assignment. Detail the Scope of Services in disciplines.

6. Work Plan and Methodology, Work Schedules and Deliverables (Section 3)

Provide a list which expands the Scope of Services into a series of tasks or work activities to provide a detailed and comprehensive Scope of Service. Submissions must provide detailed information on the proposed system(s), all equipment to be included in the system(s), warranty, maintenance expectations, estimated energy efficiencies and identification of key project deliverables.

All submissions must provide a clear description of the proposed design concept, work plan and methodology to successfully accomplish this assignment.

7. Other Services Not Identified in Scope of Services (Section 4)

Clearly describe any services that have not specifically been solicited with the Request for Proposal that are believed to be essential to the successful completion of the project.

Include time estimate for any such work. The cost estimate for such other services shall be included under Section 8 Fees and shall be clearly identified as "Other Services".

8. Project Firm(s) Qualifications (Section 5)

Identify all firms, Proponent, sub-consultant and other(s) that will be used to undertake this project. Identify the specific role or discipline that each firm will contribute to the project.

- Provide brief history, size and background of all firms involved.
- Describe the corporate qualifications and ability of each firm to undertake this project.
- Identify corporate resources in the context of this assignment.
- Highlight projects where the Proponent and sub-consultant firms and key personnel have successfully worked together.

9. Project Staff Qualifications and Role (Section 6)

Provide a project organization chart specific to this project. Identify only senior and intermediate staff members that will be actively involved in the project.

Identify all the key personnel involved on the project. Describe each staff member's role in this project and their qualifications to successfully take on the role. Provide a table which includes the following:

- Team personnel.
- Project role/title.
- Years with the firm.
- Years of relevant experience.
- Name specific relevant project experience.

The Proponent shall not change key staff of firms without written permission from the District.

The District reserves the right to request reasonable changes to key personnel to suit the requirements of the project.

10. References (Section 7)

Provide at least three specific, recent (within last five years), references that are clearly related to past experience for this scope of work and the results after completion of the measures.

For each project provide name, project location, contact name, contact title, phone number, fax number, estimated energy savings prior to commencement and quantified energy saved after one year of operation.

See schedule E for sample table.

Describe the relevance of the referenced projects and clients to this assignment.

11. Fees, Rates, Changes and other Commercial Considerations (Section 8)

- Prices shall be in Canadian Dollars, excluding PST & GST.
- Charge out rates shall be fixed for the duration of the project.
- Include mark-up for disbursements and sub-consultants in the fee proposal.
- Travel disbursements for out-of-town personnel shall be quoted on the most economical travel methods.

Provide a clear statement on acceptance of the terms and conditions of the agreement. Any additional services or exceptions shall be stated and explained. Note that any non-conformance to the stated terms and conditions will be taken into account in the evaluation.

Part 5: Bid Sheet

Request for Proposal: District of Sparwood Leisure Centre Energy Retrofit

Closing Date: December 10th, 2013 at 2:00 pm (MST)

The undersigned Proponent has carefully examined the Conditions, Specifications and Drawings (if applicable) contained within this RFP and will provide the services as described in the bid package in response to the RFP.

This proposal is valid for 90 days.

Addenda

The Proponent hereby acknowledges receipt of the following Addenda to the Request for Proposal Documents:

Addendum Number	Date of Issue

Budget

ITEM (Description)	AMOUNT
Sub Total	
HST	
Total	

SIGNED AND DELIVERED

at _____ this _____ day of _____, 20_____.

(Continued on next page)

If the Proponent is an incorporated entity:

Name of Corporation

Signature of Authorized Representative

Name

Title

Address

(Corporate Seal)

If the Proponent is an individual or unincorporated entity:

Name of Business (if any)

Signature of Individual or Authorized Representative

Name of Individual or Authorized Representative

Title

Address

Signature of Witness

Name

Address

Part 6: Schedules

SCHEDULE A

Minimum Values for HVAC

The below minimum values must be verified by all Proponents. Proposals must ensure all values are met or exceeded.

Curling Lounge and Concourse

The upstairs lounge is approximately 1,000 square feet. For a lounge area such as this, ASHRAE recommends a combined ventilation rate of 9 cfm of outdoor air per person. Assuming an occupant load of 85 people, 765 cfm of outdoor air would be required. There are also two washrooms on the second floor. The women's washroom has one water closet, and, therefore, requires 50 cfm of exhaust air. The men's washroom contains one water closet and one urinal and, therefore, requires 100 cfm of exhaust. Through building heat loss calculations, the required heat into this space is approximately 130 MBH.

The lower floor concourse is approximately 1,800 square feet. As a spectator area, 8 cfm of fresh air is required per person. Based on an estimated occupant load of 60 people, 480 cfm of outdoor air is recommended. Two washrooms are located in this area as well, each requiring a minimum of 50 cfm of exhaust. The required heat into this space is approximately 80 MBH.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Curling Lounge	765 cfm	150 cfm	130 MBH	4 Tons
Curling Concourse	480 cfm	100 cfm	80 MBH	2 Tons

Curling Rink

The curling rink is a 4-sheet curling rink with overall dimensions of approximately 150 feet by 67 feet. ASHRAE standards recommend 0.30 cfm of outdoor air per square foot of sports arena play area. This equates to approximately 3,000 cfm for the curling rink. ASHRAE standards also recommend 0.50 cfm of exhaust per square foot of arena; this would equate to 5,000 cfm. However, in practice, these high values are rarely achieved.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Curling Rink	3,000 cfm	5,000 cfm	650 MBH	N/A

Upper Floor Banquet Hall

Above the lower floor corridor is a multi-use banquet hall that is around 2,600 square feet. This space is utilized for small meetings/gatherings, large banquets and fitness classes. As a multi-use assembly, ASHRAE standards recommend 6 cfm of fresh air per person. Considering it as an

aerobic fitness room, however, this recommendation is raised to 22 cfm of fresh air per person. Assuming a maximum class size of 50 people, 1,100 cfm of fresh air is recommended. This area also has two washrooms, each requiring 200 cfm of exhaust air. Through heat loss calculations, the required heat for this space is 140 MBH.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Banquet Hall	1,100 cfm	N/A	140 MBH	8.5 Tons

Arena & Spectator Area

Similar to the curling rink, 0.30 cfm of outdoor air is recommended per square foot of playing area for the arena. As the arena is approximately 16,800 square feet, a total of 5,040 cfm of fresh air is recommended by ASHRAE. ASHRAE also recommends an exhaust rate of 0.50 cfm per square foot. Therefore 8,400 cfm of exhaust is recommended. In practice, however, lower ventilation and exhaust rates are used and control is by CO2 sensors.

Dehumidification for an ice arena of this size is most commonly performed by a desiccant dehumidification system with a nominal moisture removal rate of 75 lb/hr. Desiccant dehumidifiers are typically used as they are an effective measure to remove moisture from low temperature air.

The arena spectator area seats approximately 400 people. ASHRAE's recommended outdoor air flow rate is 8 cfm per person for this area. Therefore, a total of 3,200 cfm is recommended. As the spectator area is in the same space as the arena play area itself, the outdoor air requirements from both must be considered for the space. Therefore a total of 8,240 cfm is recommended for the entire space. However, as this ventilation value is less than the minimum exhaust rate for the arena, the exhaust rate will take precedence.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Arena	5,040 cfm	8,400 cfm	1,100 MBH	N/A
Spectator Area	3,200 cfm	8,240 cfm	N/A	N/A

Equipment and Storage Rooms

The equipment/Zamboni room is approximately 600 square feet and located at the southwest end of the ice area, and a 1,500 square-foot storage room is located adjacent to it. There is also a workshop/storage room located adjacent to the south side of the arena that is approximately 800 square feet. ASHRAE recommends 0.06 cfm per square foot and 5 cfm per person for occupiable storage rooms. Therefore, the storage rooms would require 50, 110, and 70 cfm of outdoor air respectively.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Equipment Room	50 cfm	N/A	20 MBH	N/A
Storage Room	110 cfm	N/A	60 MBH	N/A
Workshop	70 cfm	N/A	25 MBH	N/A

Two West Change Rooms (5 & 6)

The two west change rooms were an addition built in the mid 1980s. This was a 2,300 square foot addition with storage space, two shower rooms, two washrooms, and two change rooms. Each change room is approximately 250 square feet. ASHRAE recommends 0.50 cfm of exhaust per square foot for locker rooms. Therefore, the change rooms require 125 cfm each. For washrooms with heavy use, ASHRAE recommends 70 cfm per water closet or urinal. Therefore the washrooms each require 210 cfm of exhaust air. There is no ASHRAE standard for shower rooms; however, as a rule-of-thumb we would recommend 12 air changes per hour. In this case, that equates to 175 cfm of exhaust per shower room. These values are totaled in Table 12 below.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Change Rooms 5&6	N/A	1,270 cfm	175 MBH	N/A

Two Central Change Rooms (3 & 1)

The two central change rooms are 200 square feet each and, therefore, each require 100 cfm of exhaust air according to ASHRAE. The change rooms also have washrooms and shower rooms that require 140 cfm and 70 cfm respectively. An official's change room and a first aid room are located on the same heating system, and are each approximately 85 square feet. An exhaust flow of 45 cfm is required for the official's change room by ASHRAE.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Change Rooms 3 & 1	N/A	665 cfm	70 MBH	N/A

Two Northernmost Change Rooms (2 & 4)

The two northernmost change rooms are approximately 220 square feet each and, therefore, each require 110 cfm of exhaust air according to ASHRAE. The change rooms also have washrooms and shower rooms that require 140 cfm and 120 cfm respectively.

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Change Rooms 2 & 4	N/A	740 cfm	85 MBH	N/A

Main Floor Common Areas

On the first floor, in-between the ice arena and curling rink, is a common corridor area with a kitchen, office area, storage, and washrooms. The public corridor area is approximately 3,600 square feet, for which ASHRAE recommends 0.06 cfm of outdoor air per square foot. The two washrooms in this area each require 250 cfm of exhaust each. A small office area requires a combined rate of 17 cfm of outdoor air per person. The kitchen requires a dedicated range hood exhaust system with makeup air. Drawings indicate an exhaust rate for the range hood of 2,000 cfm. Therefore, the makeup air required is 1,900 cfm (not currently provided).

Area	Min. Outdoor Air (ASHRAE 62.1 2010)	Min. Exhaust Required	Min. Heating Required	Min. Cooling Required
Arena Main Floor & Common Areas	350 cfm	500 cfm	222 MBH	N/A

SCHEDULE B

Current Facility HVAC & DHW Infrastructure

Existing HVAC Systems:

Nine (9) natural gas furnaces provide heating and ventilation to six change rooms, community hall, lounge, and two concourse areas as well as to various storage rooms, offices and washrooms. Seven (7) industrial space heaters provide heat in the curling rink and workshops. Four (4) natural gas fired radiant heaters provide heat to the arena stands.

Existing Plumbing System:

Three (3) hot water boilers provide hot water for domestic use as well as for ice resurfacing. One of these hot water systems currently utilizes discharged heat from the refrigeration system.

Existing Refrigeration System:

One (1) of the existing two (2) compressors has been recently replaced. Arena slab was replaced in 2006. Abandoned chilled water piping from the original installation is accessible.

Location	Service Area	Make	Year	Input MBH	Rated Efficiency*
Change Room 5 & 6 Mech. Closet	Change Room #5	Engineered Air	2004	180	80%
Change Room 5 & 6 Mech. Closet	Change Room #6; Hallway & Storage	Engineered Air	2004	180	80%
Curling Mech. Room	Upper Lounge	Frigidair	2011	150	95%
Curling Mech. Room	Lower Concourse	Frigidair	2011	150	95%
Hall Mech. Room	Arena Front Entranceway	Lennox	2005	135	80%
Arena Central Mech. Room	Arena Concourse	Frigidair	2011	200	80%
Arena Central Mech. Room	Change Rooms 1 & 3	Frigidair	2008	200	80%
Arena Central Mech. Room	Banquet Hall	Lennox	2004 Estimated	135	80%
NE Arena Mech. Room	Change Rooms 2 & 4	Lennox	2004 Estimated	135	80%

*Rated efficiency refers to manufactures efficiency ratings and may not reflect actual operating efficiency.

Other Heating Systems

Location	Type	Make	Year	Input MBH	Rated Efficiency
Tool Room	Industrial Space Heater	Reznor	2003?	100	80%
Workshop	Industrial Space Heater	Reznor	1999	125	80%
Ice Resurfacers Garage	Industrial Space Heater	Reznor	2003	125	80%
Curling Rink	Industrial Space Heater (4 units)	3 x – Lennox 1 x – Reznor	1990 2003	N/A	80%
Arena Stands	Radiant Heaters (8)	Superior Radiant	2005	N/A	N/A

Cooling

Location	Service Area	Make	Year	Capacity	Rated Efficiency
Hall Roof Top	Banquet Hall & Arena Concourse	Lennox	2004	10 tons	N/A

Hydronic Systems

Hot water for ice resurfacing is provided through a 670 MBH hot water heater and an insulated hot water storage tank (DHWT-3) located in the equipment/Zamboni room. This system also utilizes a shell-and-tube heat exchanger to preheat the hot water using waste heat from the ice plant's ammonia system. The system also provides hot water to change rooms (5&6) and includes a recirculating pump to provide on demand hot water.

Hot water for the curling rink and arena is provided by two domestic hot water heaters. The arena DHW system includes a recirculating pump to provide on demand supply of hot water.

In total, the arena complex has approximately 130 hot water fixture units. There is no official standard or building code that addresses proper sizing for hot water systems. However, the American Society of Plumbing Engineers (ASPE) publishes a handbook with design guidelines. Using these guidelines and likening the arena complex to a club facility leads to an estimated peak demand of 1,110 US gallons per hour (gph). ASPE suggests providing storage for 90% of the peak hourly demand. Therefore, 1,000 US gallons of storage is suggested for the arena complex. To reduce the amount of storage necessary, a larger water heater output could be selected.

Location	Service Area	Make	Model	Year	Capacity	Type	Input MBH
Curling Rink Mech. Room	Curling Lounge & Concourse	John Wood	JW 40	2007	40	Nat. Gas	34
Arena Central Mech. Room	Change Rooms 1 – 4 & Public Washrooms; Custodial Rooms	AO Smith	BT 365	N/A	75	Nat. Gas	328.65
Ice Resurfacers Garage	Change Rooms 5 & 6; Ice Resurfacers	AO Smith	BC 670	1990	120	Nat. Gas	670

Refrigeration System

The refrigeration system for the arena utilizes two 75 hp Mycom compressors. One compressor was replaced in 2012; the second 1976 compressor is slated for replacement in 2014 or 2015. An ammonia-brine, shell-and-tube heat exchanger; a 25 hp brine pump; and an Evapco ATC-120 evaporative condenser with two 3 hp fans are also part of the system.

One desuperheater is currently utilized to preheat hot water by utilizing the waste heat from the refrigeration cycle. This system preheats the incoming water to the hot water heater and storage tank located in the equipment room.

The arena slab was recently replaced in 2006 and, therefore, new chilled brine piping was also installed. The new arena slab was constructed above the existing slab and separated with rigid insulation. The abandoned chilled brine piping of the original arena slab is still in place and accessible.

Adjoining Leisure Centre

An aquatics centre is located adjacent to the Arena and Curling Rink Complex. Although the leisure centre is not part of this request for proposal Proponents may consider integrating proposed systems into the existing leisure centre systems located in this facility.

These systems have recently been updated and consist of a solar DHW pre heat system, dehumidification and heat pump system which maintains the natatorium and main pool temperatures; a heat pump heating system for the hot tub supported by natural gas boilers; two 500 MBH atmospheric boilers which supply ambient temperature to HVAC systems, DHW reheat and, supplemental heat to natatorium and hot tub.

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SCHEDULE C

Summary Energy Consumption and Emissions

The arena complex is mostly utilized from September to early March. The ice rink season typically begins in the first week of September and extends through to March 15th. Weekdays during the season tend to have four or five ice resurfacings, whereas weekend days increase to eight or ten ice resurfacings.

The curling season is typically from October 1st through to March 15th. The vast majority of curling rink use occurs in the evenings.

Natural gas and electrical service is provided to the facility by FortisBC and BC Hydro respectively. Historical usage is discussed in 2.2 and 2.3 below. Based on this data, an average price per GJ was calculated and listed in *Table 1* below. Also included in this table is CO₂ emission rates for British Columbia.

Table 1: Average Utility Pricing & Emissions

Utility	Average Price	CO ₂ Emissions
Natural Gas	\$9.27 / GJ	49.86 kg / GJ
Electricity	\$0.0645 / kWh	0.025 kg / kWh

Natural Gas Consumption

Natural gas service to the Sparwood Arena Complex is provided through FortisBC and is supplied to three different points of delivery: the arena, the curling rink, and the leisure centre. *Figure 1* and *Figure 2* below show the natural gas consumption in GJ of the arena and curling rink respectively over the past seven months as well as the associated costs. The complex currently consumes approximately 8,375 GJ of natural gas with an annual expenditure of \$77,640. Utilizing the emission factors in Table 1, 418 tons of CO₂ emissions have been created due to the complex natural gas consumption.

Figure 1: Arena Natural Gas Usage By Month

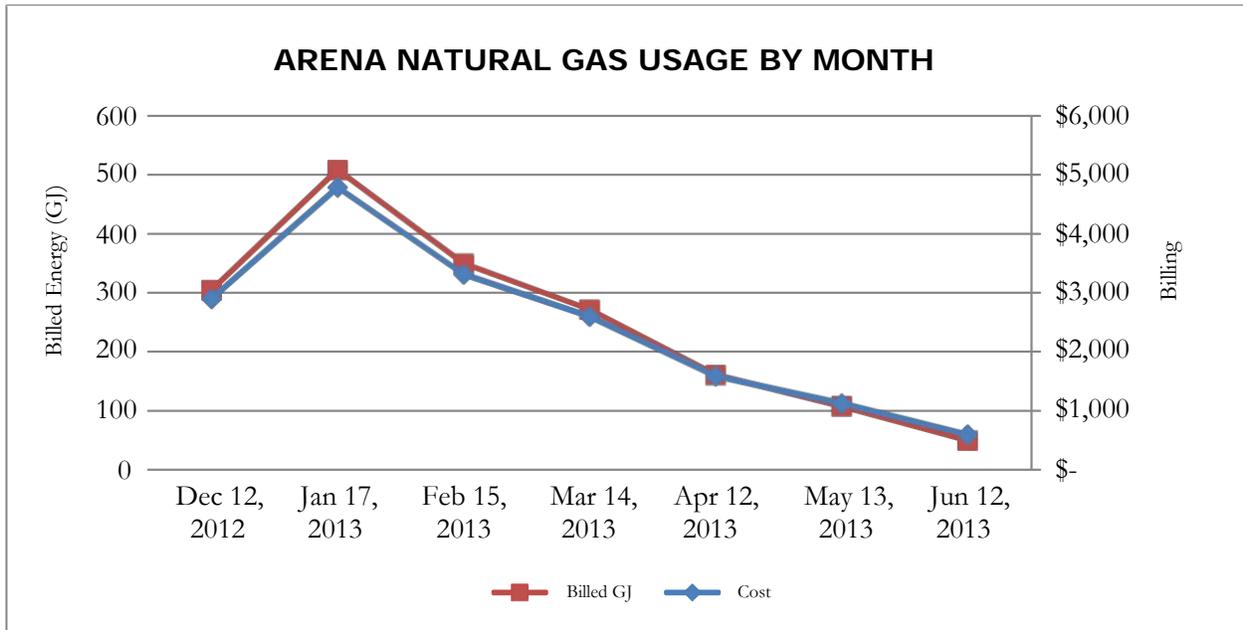


Figure 2: Curling Rink Natural Gas Usage By Month

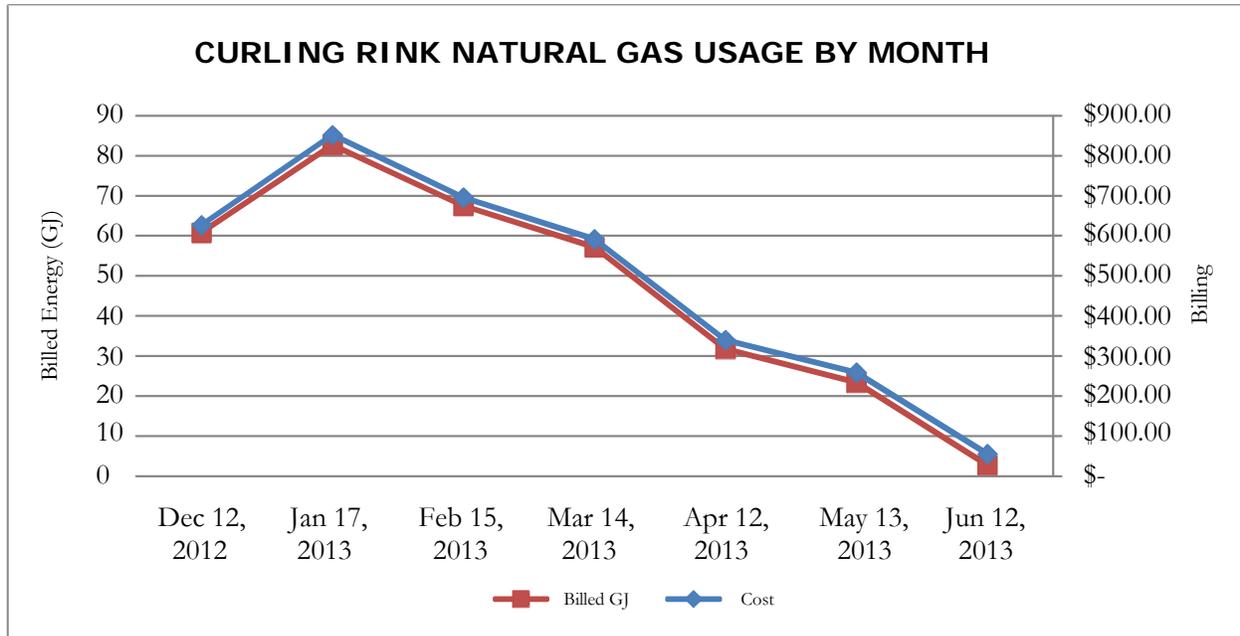
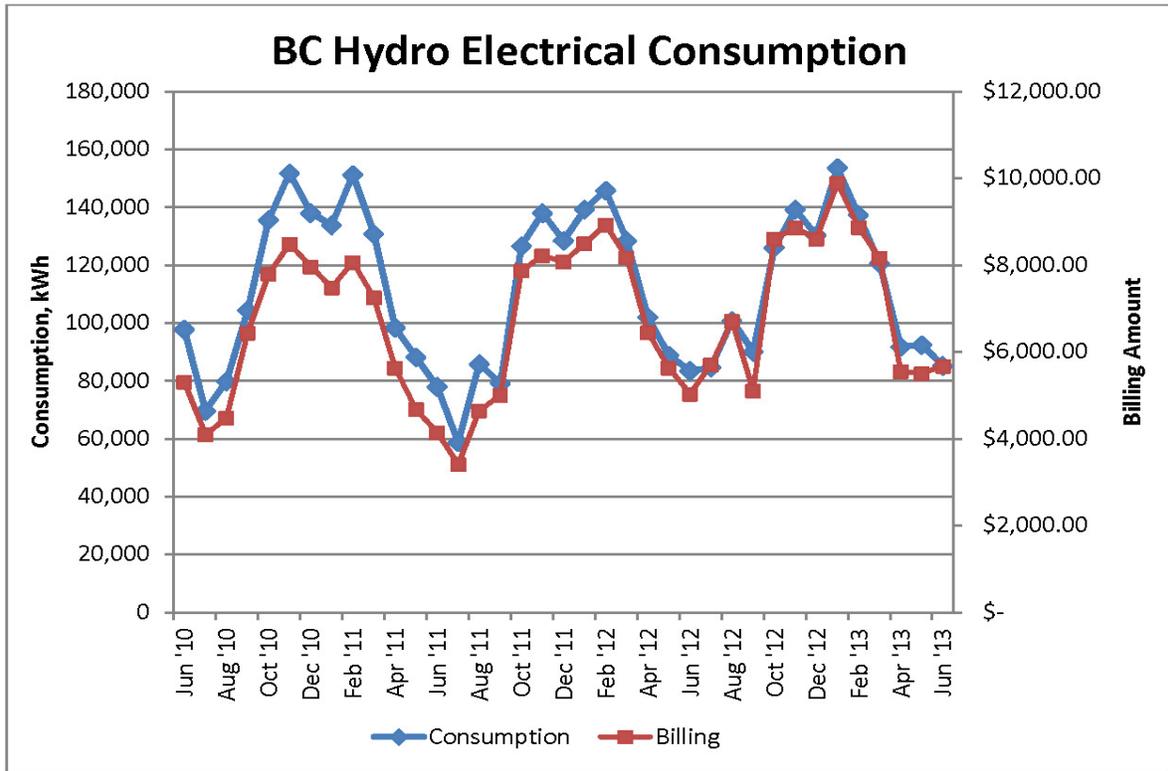


Figure 3: BC Hydro Electrical Consumption



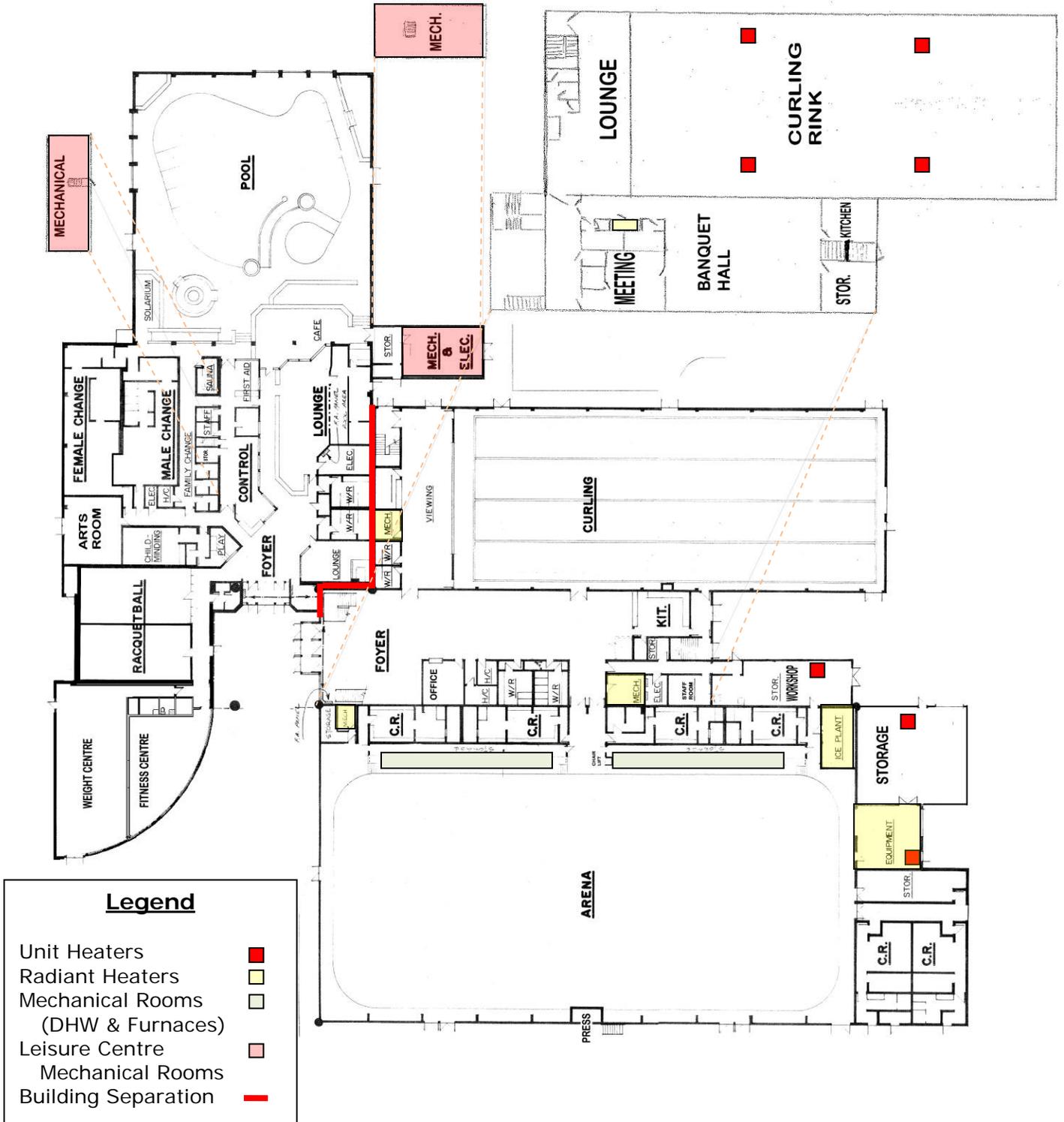
In the past 12 months the complex has consumed 1,351,800 kWh and paid \$87,206.59 for this electricity. Therefore, utilizing the emissions factors in *Table 1*, 34 tons of CO₂ emissions have been created due to the complex's electrical consumption.

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SCHEDULE D

Facility Site Plan - Overview

Arena & Curling Rink Complex With adjoining Leisure Centre



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Schedule 'D'

References

Project Name	Project Location	Project Date	Client Contact Name	Client Contact Title/Position	Client Contact Phone Number	Original Proposed Energy Savings	Realized Energy Savings