

File No. 04-1000-20-2017-009

April 5, 2017

s.22(1)

Dear s.22(1)

Re: Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")

I am responding to your request of January 5, 2017 for:

The contract with Essess for the thermal imaging program, records about the procurement process for the contract including the assessment and evaluation of bidders and the recommendation to hire Essess (if sole-sourced, please include the report justifying the no-bid contract).

All responsive records are attached. Please also note the following information in regards to the procurement process:

- Date posted on BC Bid and City of Vancouver: January 21, 2016
- Closing Date: February 11, 2016
- Number of Responses: Two
- Names of companies: MyHeat Inc., Essess Inc.
- Name of awarded: Essess Inc.
- Amount awarded: \$107,575.00

Under section 52 of the Act you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your request. The Act allows you 30 business days from the date you receive this notice to request a review by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number assigned to your request (#04-1000-20-2017-009); 2) a copy of this letter; 3) a copy of your original request for information sent to the City of Vancouver; and 4) detailed reasons or grounds on which you are seeking the review.

Please do not hesitate to contact the Freedom of Information Office at foi@vancouver.ca if you have any questions.

Yours truly,

Cobi Falconer, FOI Case Manager, for

A handwritten signature in black ink, appearing to read 'Cobi Falconer', written over the typed name.

Barbara J. Van Fraassen, BA
Director, Access to Information

Barbara.vanfraassen@vancouver.ca
453 W. 12th Avenue Vancouver BC V5Y 1V4
Phone: 604.873.7999
Fax: 604.873.7419

Encl.

:kt



PROFESSIONAL SERVICES AGREEMENT
RFP PS20152048
THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING

THIS AGREEMENT is made as of the 14th day of November, 2016 (the "Effective Date")

BETWEEN:

CITY OF VANCOUVER

453 West 12th Avenue
Vancouver, British Columbia
Canada V5Y 1V4

(the "City")

OF THE FIRST PART

AND:

Essess Inc.

51 Melcher Street
Boston, Massachusetts
USA 02210

(the "Consultant")

OF THE SECOND PART

(the City and the Consultant are hereinafter sometimes referred to individually as "Party" and collectively as "Parties")

BACKGROUND:

- A. The City requires the professional services described herein, and desires to engage the Consultant to perform said services.
- B. The Consultant has agreed to perform the said services in accordance with the terms and conditions of this Agreement.

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NOW THEREFORE, in consideration of the mutual covenants and promises made by the Parties and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1.0 INTERPRETATION

1.1 In this Agreement, including the recitals, schedules and appendices to this Agreement, the following words and terms, unless the context otherwise requires, shall have the meanings set out below:

- (a) **"Agreement"** means this Professional Services Agreement inclusive of all schedules, appendices, exhibits or other documents attached hereto or incorporated herein by reference, as amended from time to time;
- (b) **"Applicable Laws"** means all statutes, regulations, by-laws, codes, rules, notices, orders, directives, standards and requirements of every competent federal, provincial, regional, municipal and other statutory authority applicable to the Consultant, any Sub-contractor and the Services, including the Vancouver Building By-law, the British Columbia Building Code, and the British Columbia Fire Code, all as may be in force from time to time;
- (c) **"City's Site"** means any land and/or premises owned by the City on which or in respect of which the Services are performed by the Consultant;
- (d) **"City's Project Manager"** means the City's employee, or his/her delegate, who is authorized in writing to deal with the Consultant on behalf of the City in connection with the Services, or to make decisions in connection with this Agreement;
- (e) **"Confidential Information"** has the meaning set out in Section 15.1
- (f) **"Contract Document"** refers to each of the individual documents composing the Agreement, including this Professional Services Agreement (exclusive of the documents attached hereto or incorporated herein by reference) and each schedule, appendix, exhibit or other document attached to this Professional Services Agreement or incorporated into the Agreement by reference;
- (g) **"Deliverables"** has the meaning set out in Section 17.1;
- (h) **"GST"** means the tax payable and imposed pursuant to Part IX of the Excise Tax Act (Canada), as amended or replaced from time to time;
- (i) **"Project Team"** has the meaning set out in subsection 2.2(c);
- (j) **"Proposal"** means the proposal submitted by the Consultant in response to the RFP, a copy of which is attached hereto, or incorporated by reference herein by operation of, Appendix B;
- (a) **"PST"** means the provincial sales tax payable and imposed pursuant to the *Provincial Sales Tax Act* (British Columbia), as amended or replaced from time to time;
- (a) **"RFP"** means Request for Proposal RFP PS20152048 - THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING, together with all addenda and questions and answers attached hereto, or incorporated by reference herein by operation of, Appendix C;

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- (b) "Services" has the meaning set out in Section 2.1;
 - (c) "Sub-contractor" has the meaning set out in Section 4.1; and
 - (d) "Term" means the term of this Agreement as specified in Section 12.1.
- 1.2 The Contract Documents are complementary and what is called for by any one will be as binding as if called for by all. In the event of any conflict or inconsistency between or among any of the Contract Documents, the Contract Documents will be interpreted in the following order of priority, from highest to lowest:
- (a) this Agreement, excluding Appendices B and C;
 - (b) the Proposal; and
 - (c) the RFP.
- 1.3 In this Agreement, including the recitals, schedules and appendices to this Agreement, except as expressly stated to the contrary or the context otherwise requires:
- (a) the recitals and headings to sections, schedules and appendices are for convenience and reference only and will not affect the interpretation of this Agreement;
 - (b) the terms "this Agreement", "hereof", "herein", "hereunder" and similar expressions refer, unless otherwise specified or the context otherwise requires, to this Agreement taken as a whole (including any and all attached schedules and appendices) and not to any particular section, subsection or other subdivision;
 - (c) each reference to a statute is deemed to be a reference to that statute and any successor statute, and to any regulations, rules, policies and criteria made under that statute and any successor statute, each as amended or re-enacted from time to time;
 - (d) each reference to a rule, guideline, policy, regulation or directive is deemed to be a reference to any successor or replacement of such rule, guideline, policy, regulation or directive;
 - (e) words importing the singular include the plural and vice versa and words importing gender include all genders;
 - (f) references to time of day or date mean the local date or time in Vancouver, British Columbia;
 - (g) all references to money mean lawful currency of Canada;
 - (h) the word "written" includes printed, typewritten, faxed, e-mailed or otherwise capable of being visibly reproduced at the point of reception and "in writing" has a corresponding meaning; and
 - (i) the words "include" and "including" are to be construed as meaning "including, without limitation".
- 2.0 **CONSULTANT'S SERVICES TO THE CITY**
- 2.1 The Consultant will provide and be fully responsible for the following services (the "Services"):

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- (a) the services described in the RFP;
 - (b) the services which the Consultant proposed to provide in the Proposal; and
 - (c) all services not specifically included in subsections 2.1(a) and 2.1(b), but which are necessary or incidental to the completion of such other Services.
- 2.2 The Consultant will be fully responsible for:
- (a) coordinating the Services with the City's Project Manager, or his/her delegate, and ensuring that the performance of the Services does not adversely impact any design or construction schedule for any project or work and/or services provided by the City's other consultants, in each case to which the Services relate;
 - (b) taking all steps required in placing, effecting and maintaining insurance and providing evidence of insurance as set out in Appendix A - Insurance Requirements; and
 - (c) maintaining and supervising its employees and Sub-contractors (the "Project Team") described in Section 3.1.
- 2.3 The Consultant represents and warrants to the City that the Consultant possesses the necessary skills, knowledge, qualifications and experience to perform the Services to the reasonable satisfaction of the City.
- 2.4 The Consultant will perform the Services:
- (a) with that degree of care, skill and diligence normally applied in the performance of services of a similar nature and magnitude to those contemplated by this Agreement at the time and place the Services are rendered;
 - (b) in accordance with sound current professional practices and design standards; and
 - (c) in conformity with any and all Applicable Laws.
- 2.5 The Consultant will commence the Services promptly and will use every reasonable effort to carry out the Services in accordance with:
- (a) the requirements and appendices of this Agreement, or
 - (b) where no date is specified for the provision of any component of the Services by this Agreement, such completion dates as are reasonably specified from time to time by the City.
- 2.6 The Consultant will not permit, do or cause anything to be done at any time which could allow any lien, certificate of pending litigation, judgment or certificate of any court or any mortgage charge, conditional sale agreement, personal property security interest or encumbrance of any nature to be imposed or to remain on title to the City's Site or any other City property.
- 3.0 PROJECT TEAM**
- 3.1 Subject to Section 3.2, the Consultant will utilize only the Project Team members noted in the Proposal.

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- 3.2 Except for substitutions required by circumstances not within its reasonable control, the Consultant may not make substitutions of Project Team members without the prior written consent of the City, which consent will not be unreasonably withheld, delayed or conditioned.
- 3.3 For the purposes of this Section 3, “substitutions required by circumstances not within its reasonable control” means substitutions required by virtue of illness, death, injury, pregnancy, medical leave, or termination of employment or contract, but expressly excludes situations where the Project Team member is called upon to perform services for another client of the Consultant, its Sub-contractor or their affiliates.
- 3.4 The City may, with stated reasons and acting reasonably, request that the Consultant replace a Project Team member. The Consultant will, subject to scheduling and staffing considerations, make commercially reasonable efforts to replace the individual with someone of substantially similar competency and experience.
- 3.5 Regardless of whether or not the City consents to a substitution, or requests a substitution, the City will not be liable to pay additional compensation to the Consultant for any replacement Project Team member.
- 4.0 SUB-CONTRACTORS**
- 4.1 Unless expressly permitted pursuant to Section 3.0, the Consultant may not engage any contractor or consultant (in each case a “Sub-contractor”) for the performance of any part of the Services, unless the Consultant has first obtained the written consent of the City, which consent may be arbitrarily withheld.
- 4.2 The Consultant will administer, coordinate, and manage all Services provided by any Sub-contractors, and will assume full responsibility to the City for all work performed by the Sub-contractors in relation to the Services and will pay all fees and disbursements of all Sub-contractors, subject to reimbursement by the City where the City has expressly agreed in this Agreement that such reimbursement is to be separate from and additional to the fees and disbursements payable to the Consultant.
- 4.3 Where a Sub-contractor is used by the Consultant under this Agreement, the Consultant will legally bind the Sub-contractor to comply with this Agreement.
- 4.4 Nothing in this Agreement will create any contractual relationship between a Sub-contractor and the City.
- 5.0 BASIS OF PAYMENT TO THE CONSULTANT**
- 5.1 In consideration of the Services performed by the Consultant to the satisfaction of the City and in strict conformity with the terms hereof, the City will pay the Consultant:
- (a) the fees set out in Appendix D; and
 - (b) subject to any “Fixed Disbursement Amount” defined herein, reimbursements for disbursements reasonably incurred by the Consultant in the performance of the Services, which shall be at actual cost without any addition for overhead or profit;
- plus GST as applicable to the sale made to the City hereunder.
- 5.2 Following the completion of each of the deliverables set out in Appendix D, the Consultant will submit to the City an invoice (each, a “Fee Invoice”) in the form set out in Section 5.3 below

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setting out the fee payable by the City for the Deliverable in the amount set out in Appendix D, any disbursements related thereto and any GST.

- 5.3 Following receipt of a Fee Invoice, the City's Project Manager shall review the invoice and raise any concerns with the Consultant within ten business days of receipt of the Fee Invoice. If the City's Project Manager raises any concerns with the invoice or requests additional information in respect of the invoice, the Consultant, if so requested, shall provide such information or will meet with the City's Project Manager to expedite and settle the disputed amount. The Consultant will submit its final invoice, as per the approved draft invoice, to the City of Vancouver, Attention: Accounts Payable, by email to APInvoice@vancouver.ca. Each invoice must contain:
- (a) the Consultant's name, address and telephone number;
 - (b) the City purchase order number;
 - (c) the name of the City's Project Manager;
 - (d) the invoice number and date;
 - (e) details of any applicable taxes (with each tax shown separately); and
 - (f) tax registration number(s).
- 5.4 Except for amounts of Fee Invoices which the City in good faith is disputing and except for Fee Invoices (or portions of invoices) in respect of which the City has requested and not received supporting evidence or a meeting pursuant to Section 5.3, the City shall pay all Fee Invoices submitted to it for the Services within thirty (30) days of receipt thereof.
- 5.5 Notwithstanding anything to the contrary contained in this Agreement, save as otherwise mutually agreed in writing subsequent to the date hereof (or pursuant to Section 6.0), the total professional fees payable to the Consultant for the Services (not including GST or disbursements) will not exceed \$107,575.
- 5.6 Notwithstanding anything to the contrary contained in this Agreement, save as otherwise mutually agreed in writing subsequent to the date hereof (or pursuant to Section 6.0), the total disbursements for which the City will reimburse the Consultant in respect of the Services will not exceed \$0 (the "Fixed Disbursement Amount").
- 5.7 Notwithstanding anything to the contrary contained in this Agreement, save as otherwise mutually agreed in writing subsequent to the date hereof (or pursuant to Section 6.0), the maximum liability of the City hereunder (the "Maximum Fees and Disbursements") will be \$107,575, plus GST as applicable to the sale made to the City hereunder.
- 5.8 The Consultant will keep proper accounts and records of all costs and expenditures forming the basis of any billing to the City, including but not limited to details of all disbursements and percentage amounts of work completed. The City shall for the purpose of review and examination have access to and be permitted to inspect such books, records, documents and any other evidence for inspection, copying and review for a period of one year after the termination for any reason of this Agreement.
- 5.9 The Consultant shall provide bank account information to the City to enable the City to make payments by electronic funds transfer, as contemplated hereby.

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6.0 CHANGES TO SCOPE OF SERVICES

- 6.1 The City's Project Manager may, from time to time and at any time on prior written notice to the Consultant, vary the scope of Services to be provided by the Consultant. In that case and where this Agreement contains delivery dates and/or limits as to fees or disbursements (or a defined "Maximum Fees and Disbursements") for all or any part of the Services, such delivery dates and/or limits will be adjusted as agreed to by both Parties in writing, and failing agreement, as reasonably determined by the City's Project Manager.
- 6.2 Should the Consultant consider that any request or instruction from the City's Project Manager constitutes a change in the scope of Services, the Consultant will provide the City's Project Manager with notice in writing within ten days of such request or instruction. If the Consultant does not deliver written notice to the City within the time period specified, the City will not be obligated to make any payments of additional fees, disbursements or out of pocket expenses to the Consultant.
- 6.3 The City's Project Manager will consider the Consultant's written notice (if any) within a further ten days of receipt of the Consultant's notice and determine and advise as to whether the request constitutes a change in the scope of the Services and, if necessary, the method by which the variation will be scoped and reimbursed. If the City determines that the professional fees payable to the Consultant should be increased due to an increase in the scope of the Services then any such increases will be based the negotiation between the City and the Consultant.

7.0 RELEASE AND INDEMNIFICATION

- 7.1 The Consultant now releases the City, its officials, officers, employees and agents from all costs, losses, damages and expenses, including those caused by personal injury, death, property damage, loss and economic loss arising out of, suffered or experienced by the Consultant, its Sub-contractors, and their respective officers, employees and agents in connection with their performance of the Services under this Agreement.
- 7.2 In undertaking the Services, the Consultant acknowledges that the Consultant has inspected the City's Site, agrees to accept the City's Site "as-is" and undertakes to take all precautions necessary to ensure the safety of all persons employed or contracted by the Consultant to perform the Services.
- 7.3 Despite any insurance coverage of the City, the Consultant hereby agrees to indemnify and save harmless the City of Vancouver and its successors, assigns, official, employees, agents and authorized representatives and each of them (in each case an "Indemnified Party") from and against all costs, losses, claims, damages, actions, and causes of actions (collectively referred to as "Claims") that an Indemnified Party may sustain, incur, suffer or be put to at any time either before or after the expiration or termination of this Agreement, that arise out of errors, omissions or negligent acts of the Consultant, its Sub-contractors, or their respective officers, employees or agents under this Agreement excepting always that this indemnity does not apply to the extent, if any, to which the Claims are caused by errors, omissions or negligent acts of an Indemnified Party.
- 7.4 This indemnity will not affect or prejudice the City from exercising any other rights that may be available to it at law or in equity.
- 7.5 The release and indemnity set out above will survive the expiry or sooner termination of this Agreement.

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8.0 INSURANCE

8.1 The Consultant will comply with the insurance requirements set out in Appendix A - Insurance Requirements.

9.0 WORKSAFEBC

9.1 The Consultant agrees that it will procure and carry and pay for, full WorkSafeBC coverage for itself and all workers, employees, servants and others engaged in or upon any work or service which is the subject of this Agreement. The Consultant agrees that the City has the unfettered right to set off the amount of the unpaid premiums and assessments for such WorkSafeBC coverage against any monies owing by the City to the Consultant. The City will have the right to withhold payment under this Agreement until the WorkSafeBC premiums, assessments or penalties in respect of work done or service performed in fulfilling this Agreement have been paid in full.

9.2 The Consultant will provide the City with the Consultant's and each Sub-contractor's WorkSafeBC registration number and clearance letters from WorkSafeBC confirming that the Consultant and each Sub-contractor are registered in good standing with WorkSafeBC and that all assessments have been paid to the date thereof prior to the City having any obligation to pay monies under this Agreement. The Consultant will indemnify the City and hold harmless the City from all manner of claims, demands, costs, losses, penalties and proceedings arising out of or in any way related to unpaid WorkSafeBC assessments owing from any person or corporation engaged by the Consultant in the performance of this Agreement or arising out of or in any way related to the failure to observe safety rules, regulations and practices of WorkSafeBC, including penalties levied by WorkSafeBC.

9.3 Whenever the Consultant is required or permitted to perform any Services on any City sites, the Consultant is now appointed and now accepts appointment as the "prime contractor" (as defined in the WorkSafeBC regulations) in connection with such Services.

10.0 CITY INFORMATION/APPROVALS

10.1 No reviews, approvals or inspections carried out or information supplied by the City will derogate from the duties and obligations of the Consultant (with respect to designs, reviews, inspections, approvals or otherwise), and all responsibility related to the Services will be and remain with the Consultant. For greater certainty, any information provided by the City to the Consultant, whether under the RFP or under this Agreement, including any studies, reports, plans, drawings, or specifications, is provided to the Consultant for information purposes only and may not be relied upon by the Consultant.

11.0 COMMUNICATION BETWEEN CONSULTANT AND CITY

11.1 The City appoints Chris Higgins Chris.Higgins@vancouver.ca as the City's Project Manager for the purposes of this Agreement.

In the event of the revocation in writing of Chris Higgins's appointment as the City's Project Manager by the City, Chris Higgins will have no further authority under this Agreement, except as may be specifically designated in writing by the City and agreed to in writing by Chris Higgins, and all references to the City's Project Manager in this Agreement will thereafter be deemed to be a reference to the City or to such other person designated in writing by the City to the Consultant.

The City's Project Manager may from time to time delegate to a representative the performance of or the authority to perform the duties, responsibilities, rights and obligations

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of the City in respect of which the City's Project Manager has been designated and appointed its sole and exclusive agent.

- 11.2 The Consultant appoints Navi Singh navi@essess.com as its representative for the purposes of this Agreement (the "Consultant's Project Manager").
- 11.3 Unless otherwise agreed to in writing by the Parties, all material communication between the Consultant and the City regarding this Agreement, including performance of the Services, will be between the City's Project Manager and the Consultant's Project Manager.

12.0 TERM OF AGREEMENT

- 12.1 This Agreement will commence on the Effective Date and will expire on the completion of the Services, which Services must be completed by the end of April, 2017 (the "Term").

Milestone	Target Completion Date
1 st Meeting with City Discuss project, work plan and finalize contract	November 16 th 2016
Scanning Provide draft of results and analysis to City for review document	December 2016 - February 2017
Meeting with the City Summary and presentation of final results	March 2017
	April 2017

13.0 TERMINATION

- 13.1 The City at any time, in its sole judgment, may, whether or not cause exists, terminate the services of the Consultant in whole or in part by giving ten days' prior written notice to the Consultant. If termination is not for cause, the Consultant will be paid for all Services properly performed to the date of the delivery of the said notice (subject to the terms of this Agreement) plus all necessary and reasonable wind-up costs incurred, if any, in closing out the Services or the part terminated.
- 13.2 Despite Section 13.1, in no event and under no circumstances will the Consultant's "necessary and reasonable wind-up costs incurred" pursuant to Section 13.1 exceed \$1,000 (including all taxes).

14.0 ASSIGNMENT

- 14.1 The Consultant will not assign this Agreement in whole or in part except with the prior written consent of the City, which consent will not be unreasonably withheld, delayed or conditioned. Any attempt to assign this Agreement without such consent will be void and of no effect. However, the Consultant will be permitted to assign this Agreement to any entity into, by or with which the business or assets of the Consultant have been merged, acquired, consolidated or re-organized, or any entity which purchases all or substantially all of the business or assets of the Consultant, provided always that the Consultant first provides the City with:
- (a) reasonable particulars of the transaction (permitting the City to independently verify the nature of the transaction); and

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- (b) a legally enforceable covenant from the new entity confirming that it is legally bound to the City to perform this Agreement.

15.0 CONFIDENTIALITY

15.1 In the course of or for the purpose of performing the Services, each party (the “receiving party”) will obtain or have access to information, including but not limited to technical information, financial information and business information, which is confidential to the other party (the “disclosing party”), and is the exclusive, world-wide property of disclosing party and/or its suppliers and customers (collectively “Confidential Information”). Excluded from the definition of Confidential Information is:

- (a) information which is in, or becomes part of, the public domain, not due to the receiving party’s breach of this Agreement or the receiving party’s actions;
- (b) information which was previously in the receiving party’s possession and did not originate from the disclosing party; and
- (c) information which lawfully becomes available to the receiving party from a third party not under an obligation of confidence to the disclosing party regarding such information.

15.2 The receiving party will not use or reproduce the Confidential Information other than as reasonably required for the performance of the Services under this Agreement. The receiving party will not, without the prior written consent of the disclosing party given on such terms and conditions as it prescribes in its sole discretion, disclose or allow access to the Confidential Information to any person, except to only those of its own employees who have a need to know the Confidential Information solely for the provision of the Services, and who have been advised of its confidential nature and have agreed to be bound by the confidentiality and use-restriction provisions in this Section 15. The receiving party will take all reasonable precautions against the Confidential Information being used by or disclosed to any unauthorized person.

15.3 If the receiving party is required by any law, legal proceeding, or court or government order, to disclose any Confidential Information, the receiving party shall limit its disclosure of such Confidential Information to the extent and purpose legally required, provided that prior to any disclosure the receiving party will promptly notify the disclosing party in writing of the existence and the terms, and conditions of the required disclosure and, at the disclosing party’s request and expense, co-operate in obtaining a protective order or other assurance that confidential treatment and restrictions on use will be accorded such Confidential Information.

15.4 The City is subject to the *Freedom of Information and Protection of Privacy Act* (British Columbia), which imposes significant obligations on the City’s contractors to protect all personal information acquired from the City in the course of providing services to the City. The Consultant confirms and acknowledges its obligations to comply with all obligations imposed on it pursuant to the *Freedom of Information and Protection of Privacy Act* (British Columbia) with respect to all personal information received from the City whether as part of the Confidential Information or otherwise, including, but not limited to:

- (a) by ensuring that any personal information the Consultant acquires or has access to as a result of this Agreement will be stored and backed-up on servers and other equipment that are owned or controlled by the Consultant and that are physically located in Canada and nowhere else;
- (b) by ensuring that no personal information the Consultant acquires or has access to as a result of this Agreement is accessible from outside Canada, is transmitted outside

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Canada, or otherwise permitted to leave Canada except in accordance with the *Freedom of Information and Protection of Privacy Act* (British Columbia). The City agrees to reimburse the Consultant for additional costs relating to maintaining information in Canada, as described in prior communications between the parties with a maximum fee of \$14,000;

- (c) by ensuring that physical access to any of the Consultant's servers are locked and restricted to only the Consultant's employees and authorized agents and having appropriate physical, organizational, and technological security measures in place to ensure that access to any information the Consultant acquires or has access to as a result of this Agreement is only accessed by the Consultant's employees and authorized agents;
- (d) by notifying the City in writing if the location of the Consultant's primary or back-up servers change; and
- (e) by not modifying, adding, deleting, destroying, sharing, matching, mining, combining, manipulating, or otherwise tampering with any personal information the Consultant acquires or has access to as a result of this Agreement.

The Consultant confirms and acknowledges that, to the extent the Consultant possesses during the Term or after any personal information acquired from the City as a result of providing services to the City, the Consultant's foregoing obligations will survive the expiry or termination of this Agreement. If an access to information request is made to the Consultant under applicable laws relating to privacy and personal information, the Consultant will (i) immediately, and in any event before responding to such information request, notify the City in writing of such request, and (ii) upon the City's request, provided the Consultant is not prohibited by applicable laws from doing so, direct such information request to the City for the City to handle. In the case of (ii), the Consultant will, at the City's expense, deliver to the City copies of all relevant records within seven (7) days of notification by the City and shall comply with all other requests of the City. In the case of an access to information request made to the City, the Consultant, at the City's expense, shall deliver to the City copies of all relevant records within seven (7) days of notification by the City and shall comply with all other requests of the City.

- 15.5 The receiving party acknowledges that in the event of a breach by the receiving party or any of its employees of their respective confidentiality obligations pursuant to this Section 15, damages alone would not be an adequate remedy. The receiving party therefore agrees with the disclosing party that, in addition to and without limiting any other right or remedy it may have, the disclosing party will have the right to an immediate injunction or other available equitable relief in any court of competent jurisdiction enjoining any threatened or actual breach of such obligations.
- 15.6 The receiving party shall return all copies of the Confidential Information to the disclosing party, in all tangible forms and media, and delete all Confidential Information resident in any databases or systems, upon the earliest of the following dates:
 - (a) completion of the Services;
 - (b) expiration or earlier termination of this Agreement; and
 - (c) written request of the disclosing party for return of the Confidential Information;

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provided that the receiving party shall have the right to retain one copy of the Confidential Information solely for archival purposes or as otherwise may be required by law, subject to its ongoing confidentiality and restricted use obligations.

15.7 This Section 15 shall survive the expiration or earlier termination of this Agreement.

16.0 NO PROMOTION OF RELATIONSHIP

16.1 The Consultant will not disclose or promote its relationship with the City, including by means of any verbal declarations, announcements, sales, marketing or other literature, letters, client lists, websites, internet domain names, press releases, brochures or other written materials (the “Communications”) without the express prior written consent of the City (except as may be necessary for the Consultant to perform its obligations under this Agreement). Notwithstanding the foregoing, the Consultant may, with the City’s prior written consent, disclose or promote its relationship with the City in meetings with its current or potential investors and in sales pitches to its current or potential customers.

16.2 Furthermore, the Consultant undertakes and will cause all of its Sub-contractors to undertake not to disclose or promote its relationship with the City in any Communications in a manner which could suggest or create an association, express or implied, between the Consultant and the City. Without limiting the generality of the foregoing, the Consultant will not refer to or use any website, domain name, official emblem, logo or mascot of the City of Vancouver in any Communications, without the express prior written consent of the City.

17.0 DELIVERABLES

17.1 As a result of or as part of providing the Services, the Consultant may receive, create, produce, acquire or collect one or more of the following:

- (a) products, goods, equipment, supplies, models, prototypes and other materials;
- (b) information and data;
- (c) reports, drawings, plans, designs, depictions, specifications and other documentation; and
- (d) any other items identified in this Agreement as deliverables;

(collectively, the “Deliverables”).

17.2 Deliverables are deemed not to include:

- (a) any item not required to be produced by the Consultant or supplied to the City as part of or together with the Services, provided that if the City has paid or is liable to pay for any portion of such item’s creation, production, acquisition or collection then such item shall be deemed to be a Deliverable;
- (b) any item produced as a result of the Services, which is specified in this Agreement as being excluded from the Deliverables category; and
- (c) any item which pre-existed the effective date of this Agreement, that is owned by a third party or that is used by the Consultant as part of the services provided to any of its other customers (the “Pre-Existing Materials”).

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- 17.3 All Deliverables will be owned solely by the City unless otherwise expressly provided herein. The City shall have the complete and unfettered right to use and deal with the Deliverables for its own benefit in any way it sees fit without limitation, and without accounting in any way to the Consultant.
- 17.4 The Consultant will keep accurate records and provide regular reports to the City about the Deliverables as they are created or acquired, and grant to the City access to the Deliverables at all times on reasonable notice. The Consultant will treat each Deliverable as subject to the confidentiality provisions set out in Section 15.0 unless advised otherwise by the City.
- 17.5 Each Deliverable, as to the whole or that portion of the Deliverable then existing, will be delivered by the Consultant to the City on the earliest of each of the following events:
- (a) the date specified in this Agreement for the delivery of such Deliverable;
 - (b) immediately on the date of expiration or sooner termination of this Agreement; or
 - (c) the date specified by written notice of the City requesting delivery of all or any part of the Deliverable.
- 17.6 All Deliverables prepared or furnished by the Consultant pursuant to the Agreement shall be and remain the sole property of the Consultant. The Consultant grants to the City a non-exclusive, non-transferable license to use, modify, copy, and maintain such Deliverables for business or marketing purposes for eighteen (18) months from the Effective Date of this Agreement. After eighteen (18) months from the Effective Date of this Agreement, the City is prohibited from using, modifying, copying or maintaining any such Deliverables delivered pursuant to the initial term of this Agreement for business or marketing purposes. The Consultant further grants to the City a non-exclusive, non-transferable license to use, modify, copy, and maintain such Deliverables for internal evaluation and regulatory purposes in perpetuity. The Consultant shall provide to the City, during and after the term of this Agreement, any reasonable assistance required for the City to enforce its rights in the Deliverables during such eighteen (18) month term of the Agreement. The Consultant will be compensated at the hourly rate last in effect between the parties for any time expended in connection with any such assistance rendered by its personnel. This Section does not apply to Pre-Existing Materials.
- 17.7 The Consultant will not incorporate any Pre-Existing Materials in any Deliverable without first:
- (a) advising the City, in writing, of the nature of the Pre-Existing Materials and their proposed use and obtaining the City's written consent to do so;
 - (b) acquiring from each third-party owner of such Pre-Existing Materials, a fully paid-up, perpetual, non-exclusive license, in writing, for the City to use the Pre-Existing Materials as part of the Deliverable; and
 - (c) granting, in writing, to the City with respect to such Pre-Existing Materials that the Consultant owns, a fully paid-up, perpetual, non-exclusive license to use the Pre-Existing Materials as part of the Deliverable.
- 17.8 The Consultant represents and warrants that the Deliverables will not infringe, misappropriate or misuse any copyright, patent, trade-mark, trade secret, or confidential or proprietary information of a third party. The Consultant shall defend, indemnify and hold the City harmless from and against any and all damage, liability, cost and expense incurred by the City in connection with any claim by a third party that a Deliverable infringed, misappropriated or

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misused its copyright, patent, trade-mark, trade secret, or confidential or proprietary information.

18.0 NOTICES

18.1 Any notice required or permitted to be given to the Consultant will be sufficiently given if delivered in writing by the City's Project Manager to the Consultant's Project Manager personally or, if mailed, by registered mail to the last known address of the Consultant.

18.2 Any notice required or permitted to be given to the City will be sufficiently given if delivered in writing by the Consultant's Project Manager to the City's Project Manager personally or, if mailed, by registered mail to City of Vancouver at 453 West 12th Avenue, Vancouver, B.C., V5Y 1V4 (addressed to the attention of the City's Project Manager).

19.0 NO CONFLICT OF INTEREST

19.1 The Consultant agrees that during the Term the Consultant will not engage in any conduct which would or might put the interests of the City into conflict with the interests of any other person, whether or not a client of the Consultant's. Without limiting the general scope of this Section 19.1 and by way of example only, the Consultant is prohibited from and will not provide any services which assist or could be seen to be assisting any person in responding to a request for proposal or invitation to tender, or otherwise giving that person an unfair competitive advantage over other proponents or tenderers responding to a request for proposal or invitation to tender by the City. The Consultant now acknowledges that a breach of this Section 19.1 could constitute not only a breach of this Agreement but also a violation of the *Competition Act* (Canada) and *Criminal Code* of Canada, and accordingly, could be punishable as a crime (as well as a breach of contract).

19.2 The Consultant now confirms and warrants that there is no officer, director, shareholder, partner or employee or other person related to the Consultant's organization (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is:

(a) an elected official or employee of the City; or

(b) related to or has any business or family relationship with an elected official or employee of the City, such that there would be any conflict of interest or any appearance of a conflict of interest in the administration of this Agreement or the performance of the Services.

20.0 NON-RESIDENT WITHHOLDING TAX

20.1 If the Consultant is a non-resident of Canada as defined in Canadian income tax legislation, the City may withhold from all monies payable under this Agreement such amounts as set out in Canadian income tax legislation, unless a Canada Revenue Agency waiver has been provided to the City within the time limit required under the Canada Revenue Agency administrative guidelines as in effect from time to time and, in any event, prior to payment of an invoiced amount.

20.2 The City shall receive full credit under this Agreement for monies withheld as of and from the date of the withholding and no interest will be payable by the City on sums withheld and later paid directly to the Consultant.

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20.3 The Consultant shall indemnify the City for any losses, damages or expenses incurred by the City as a result of the Consultant's failure to properly disclose to the City its non-resident status, as defined in Canadian income tax legislation.

21.0 COMPLIANCE WITH LAW

21.1 The Consultant will comply with the City of Vancouver License By-law and maintain a valid business license throughout the duration of this Agreement.

21.2 The Consultant agrees that it will during the Term comply with all Applicable Laws.

22.0 GOVERNING LAW AND RESOLUTION OF DISPUTES

22.1 This Agreement will be governed by the laws of the Province of British Columbia and the courts of British Columbia will have exclusive jurisdiction to determine all disputes arising under this Agreement and the Parties now irrevocably agree to submit all disputes to the courts of British Columbia for resolution.

23.0 INDEPENDENT CONSULTANT

23.1 This Agreement is a contract for services and the Consultant, its permitted Sub-contractors, and the officers, directors, shareholders, partners, personnel, affiliates and agents of the Consultant and its permitted Sub-contractors are not, nor are they to be deemed to be, partners, appointees, employees or agents of the City.

23.2 The Consultant will not represent to anyone that the Consultant has any authority to bind the City in any way or that the Consultant is an employee or agent of the City.

24.0 INDEPENDENT LEGAL ADVICE

24.1 The Consultant acknowledges that the Consultant has been given the opportunity to seek independent legal advice before executing this Agreement.

25.0 TIME FOR PERFORMANCE

25.1 **Time of the Essence.** Time shall be of the essence of this Agreement.

25.2 **Unavoidable Delay.** Notwithstanding Section 25.1, except for the performance of obligations to pay money, the time periods for the City and the Consultant to perform under this Agreement will be extended for periods of time during which their performance is delayed or prevented due to an Unavoidable Delay. For the purposes of this Section, an "Unavoidable Delay" means any circumstances beyond the reasonable control of the party trying to perform (such as, for example, acts of God, war or other strife or governmental action) but expressly excludes any and all delays caused by the Consultant's lack of financial resources; the Consultant's insolvency ; strikes, lockouts or other withdrawals of services arising out of any labour dispute involving the City, the Consultant or a Sub-contractor; or governmental action taken in the enforcement of any law specifically against the Consultant or its Sub-Consultants. If an Unavoidable Delay occurs, the non-performing party will, as soon as possible after the occurrence of the Unavoidable Delay, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of its obligations under this Agreement.

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26.0 GENERAL

- 26.1 **No Waiver.** No action or failure to act by the City shall constitute a waiver of any right or duty under this Agreement, or constitute an approval or acquiescence in any breach hereunder, except as may be specifically agreed in writing by the City.
- 26.2 **Severability.** The invalidity, illegality or unenforceability of any portion or provision of this Agreement or the occurrence of any event rendering any portion or provision of this Agreement void shall in no way affect the validity or enforceability of any other portion or provision of this Agreement. Any void portion or provision shall be deemed severed from this Agreement and the balance of this Agreement shall be construed and enforced as if this Agreement did not contain the particular portion or provision held to be void. The Parties further agree to amend this Agreement to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken position.
- 26.3 **Remedies Cumulative.** The remedies of the Parties provided for in this Agreement are cumulative and are in addition to any remedies available to the Parties at law or in equity. No remedy will be deemed to exclude or restrict the right of a Party to any other remedies against the other Party and a Party may from time to time have recourse to one or more of the remedies specified in this Agreement or at law notwithstanding the termination of this Agreement.
- 26.4 **Further Assurances.** Each Party shall execute such further and other documents and instruments and do such further and other acts as may be necessary to implement and carry out the provisions and intent of this Agreement.
- 26.5 **Entire Agreement.** The Contract Documents constitute the entire agreement between the Parties with respect to the subject matter hereof, and supersede all previous communications, representations and agreements, whether oral or written, with respect to the subject matter hereof.
- 26.6 **Amendment.** This Agreement shall not be amended except as specifically agreed in writing by both the City and the Consultant.
- 26.7 **Joint and Several Liability of Joint Venture Participants.** If the Consultant is a joint venture of two or more entities, it is understood and agreed that the grants, covenants, provisos, claims, rights, powers, privileges and liabilities of the entities who comprise the Consultant shall be joint and several.
- 26.8 **Schedules and Appendices.** The schedules and appendices attached hereto are incorporated by reference in and form an integral part of this Agreement.
- 26.9 **Set-Off.** The City may at its option, withhold and set-off against any amount owing to the Consultant (whether under this Agreement or otherwise) any amounts payable by the Consultant to the City (whether under this Agreement or otherwise) and the amount of any damages suffered or claims made or to be made by the City as a result of any other claim it may have against the Consultant, whether such claim is at law or in equity or tort or on any other basis.

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- 26.10 **Enurement.** This Agreement shall enure to the benefit of and be binding upon the City and the Consultant and their respective successors and permitted assigns.
- 26.11 **Execution.** This Agreement may be executed in one or more counterparts each of which will constitute an original and together will constitute one and the same Agreement. This Agreement may be executed by the Parties electronically or by facsimile and if so executed and transmitted, this Agreement will be for all purposes as effective as if the Parties had delivered an executed original Agreement.

As evidence of their agreement to be bound by the above contract terms, the City and the Consultant each have executed this Agreement as of the day and year first above written.

CITY OF VANCOUVER


Signature

David Aarons
Category Manager, Professional Services
Print Name and Title

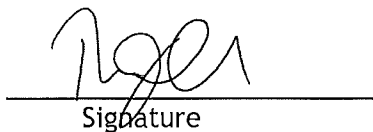
11/21/16
Date


Signature

Nick Kassam
Chief Purchasing Official
Print Name and Title

11/21/16
Date

ESSESS INC.


Signature

Thomas Scaramellino, CEO
Print Name and Title

11/21/16
Date

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APPENDIX A - INSURANCE REQUIREMENTS

A1.1 Required Types/Amounts Prior to commencing the Services, the Consultant will obtain at its own expense:

- (a) a professional (errors and omissions) liability insurance policy with limits of not less than \$1,000,000 per claim and not less than \$2,000,000 in aggregate and a deductible of not more than \$50,000, protecting the Consultant against all claims for loss or damage arising out of any error or omission of the Consultant or the Consultant's personnel in the performance of the Services;
- (b) a commercial general liability insurance policy with a limit of not less than \$2,000,000 per occurrence, and a deductible of not more than \$5,000, protecting the Consultant and the Consultant's personnel against all claims for personal injury, including death and bodily injury, and property damage or loss, arising out of the operations of the Consultant or the actions of the Consultant or the Consultant's personnel. The policy must contain a cross-liability clause in favour of the City and will name the City and the City's officials, employees and agents as additional insureds; and
- (c) an automobile insurance covering all vehicles owned, leased or operated by the Contractor in connection with this Services Contract, including third party legal liability insurance in an amount not less than \$5,000,000 per occurrence, or such higher amount as the City may require from time to time.

A1.2 Required Policy Terms

All required insurance policies must remain in full force and effect at all times until completion of the Services or earlier cancellation of this Agreement, and for a period of not less than two years thereafter, and must:

- (a) be obtained from and issued by insurers authorized to carry on business within British Columbia, on terms satisfactory to the City's Director of Risk Management, acting reasonably;
- (b) be primary insurance in respect to the City, and any insurance or self-insurance maintained by the City will be in excess of this insurance and will not contribute with such policies; and
- (c) contain a provision that such insurance coverage will not be cancelled without the insurer giving the City at least 30 calendar days' prior written notice,

and, for any property insurance carried by the Consultant, contain a clause that waives the insurer's right of subrogation against the City and the City's officials, employees and agents.

A1.3 Insurance Certificate

Prior to signing, and immediately following the signature of, this Agreement, the Consultant shall have provided, or shall provide, the City's Project Manager with evidence of all required insurance to be taken out in the form of one or more certificate(s) of insurance. The certificate(s) of insurance will identify the Agreement title, number, policyholder and scope of work and must not contain any qualifications or disclaimers. Proof of insurance, in the form of such certificate(s) of insurance (or copies of the policy(ies) themselves, if requested), will be

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made available to the City's Project Manager at any time during the performance of the Services immediately upon request.

A1.4 Sub-Contractors' Insurance

The Consultant will provide in its agreements with its Sub-contractors insurance clauses in the same form as in this Agreement. Upon request, the Consultant will deposit with the City's Project Manager detailed certificates of insurance for the policies of its Sub-contractors (or copies of the policy(ies) themselves, if requested) and a copy of the applicable insurance clauses from its Sub-contractor agreements.

A1.5 Insurance Requirements Additional to any other Requirements

The Consultant and each of its Sub-contractors will provide, at its own cost, any additional insurance which it is required by law to provide or which it considers necessary.

A1.6 Insurance Requirements Independent of Agreement Obligations

Neither the providing of insurance by the Consultant or the Sub-contractors in accordance with this Agreement, nor the insolvency, bankruptcy or the failure of any insurance company to pay any claim accruing, will be held to relieve the Consultant from any other provisions of this Agreement with respect to liability of the Consultant or otherwise.

CNA Connect

Endorsement Declaration

POLICY NUMBER B 4030909529	COVERAGE PROVIDED BY AMERICAN CASUALTY CO OF READING, PA 333 S. WABASH CHICAGO, IL. 60604	FROM - POLICY PERIOD - TO 08/05/2016 08/05/2017
--------------------------------------	-----------------------------------------------------------------------------------------------------------	-----------------------------------------------------------

INSURED NAME AND ADDRESS ESSESS, INC. c/o Sheri Olans Fenway FC, 51 Saint Stephen St. BOSTON, MA 02115

AGENCY NUMBER 033203	AGENCY NAME AND ADDRESS MASON & MASON INS. AGENCY, INC 458 SOUTH AVENUE WHITMAN, MA 02382 Phone Number: (781)447-5531
--------------------------------	------------------------------------------------------------------------------------------------------------------------------------------

BRANCH NUMBER 120	BRANCH NAME AND ADDRESS BOSTON BRANCH OFFICE 53 STATE ST. STE 510 BOSTON, MA 02109 Phone Number: (617)994-4300
-----------------------------	-----------------------------------------------------------------------------------------------------------------------------------

This policy becomes effective and expires at 12:01 A.M. standard time at your mailing address on the dates shown above.

This endorsement changes your policy. Please read it carefully.
This Endorsement Results In No Change In Premium.

The Named Insured is a Corporation.

Audit Period is Not Auditable



POLICY NUMBER

B 4030909529

INSURED NAME AND ADDRESS

ESSESS, INC.
c/o Sheri Olans
Fenway FC, 51 Saint Stephen St.
BOSTON, MA 02115

ADDITIONAL INTEREST SCHEDULE

LOCATION 1 **BUILDING** 1

The following has been added to your policy effective 10/17/2016

Type: Notice of Cancellation or Material Coverage Change

Additional Interest Name and Address:

THE CITY OF VANCOUVER, ITS OFFICIALS, OFFICERS, EMPLOYEES
453 W 12TH AVENUE

.
VANCOUVER , BC V5Y 1V4

Type: Designated Person or Organization

Additional Interest Name and Address:

THE CITY OF VANCOUVER, ITS OFFICIALS, OFFICERS, EMPLOYEES
453 W 12TH AVENUE

.
VANCOUVER , BC V5Y 1V4

POLICY NUMBER
B 4030909529

INSURED NAME AND ADDRESS
ESSESS, INC.
c/o Sheri Olans
Fenway FC, 51 Saint Stephen St.
BOSTON, MA 02115

FORMS AND ENDORSEMENTS SCHEDULE

The following list shows the Forms, Schedules and Endorsements by Line of Business that are a part of this policy.

COMMON

The following forms have been added to your policy, effective 10/17/2016

FORM NUMBER		FORM TITLE
SB147052B	06/2011	Notice of Cancellation or Material Coverage Change
G56015B	11/1991	ENDORSEMENT EFFECTIVE 10/17/16
G56015B	11/1991	ENDORSEMENT EFFECTIVE 10/17/16



Countersignature

Thomas F. Moloney
Chairman of the Board

Jonathan Kantor
Secretary

POLICY NUMBER

B 4030909529

INSURED NAME AND ADDRESS

ESSESS, INC.
c/o Sheri Olans
Fenway FC, 51 Saint Stephen St.
BOSTON, MA 02115

POLICY CHANGES

ENDORSEMENT EFFECTIVE 10/17/16

This Change Endorsement changes the Policy. Please read it carefully. This Change Endorsement is a part of your Policy and takes effect on the effective date of your Policy, unless another effective date is shown.

SB-147052-B

(Ed. 06/11)

This form has been added to the policy:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CHANGES - NOTICE OF CANCELLATION

OR MATERIAL COVERAGE CHANGE

This endorsement modifies insurance provided under the following:

BUSINESSOWNERS COMMON POLICY CONDITIONS

In the event of cancellation or material change that reduces or restricts the insurance afforded by this Coverage Part (other than the reduction of aggregate limits through payment of claims), we agree to mail prior written notice of cancellation or material change to:

SCHEDULE

Name of Designated Entity:

THE CITY OF VANCOUVER, ITS OFFICIALS, OFFICERS, EMPLOYEES, SERVANTS AND AGENTS

Address/Contact Information of Designated Entity:

453 W 12TH AVENUE
VANCOUVER, BC V5Y 1V4

*Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following conditions are added:

1. If the policy is cancelled or not renewed, we will give written notice of such cancellation or nonrenewal to the Designated Entity shown in the Schedule above, or in the Declarations. Such notice may be delivered or sent by any means of our choosing. The notice to the Designated Entity will state the effective date of cancellation or nonrenewal. However, such notice of cancellation or nonrenewal is solely for the purpose



Thomas F. Motamed
Chairman of the Board

Jonathan Kantor
Secretary

POLICY NUMBER

B 4030909529

INSURED NAME AND ADDRESS

ESSESS, INC.
c/o Sheri Olans
Fenway FC, 51 Saint Stephen St.
BOSTON, MA 02115

POLICY CHANGES

ENDORSEMENT EFFECTIVE 10/17/16

This Change Endorsement changes the Policy. Please read it carefully. This Change Endorsement is a part of your Policy and takes effect on the effective date of your Policy, unless another effective date is shown.

of informing the Designated Entity of the effective date of cancellation or nonrenewal and does not grant, alter, or extend any rights or obligations under this policy.

2. If we cancel or elect not to renew the policy for any reason other than nonpayment of premium, we will give written notice to the Designated Entity shown in the Schedule above, or in the Declarations at the same time notice is given to the first Named Insured.



Thomas F. Moloney
Chairman of the Board

Jonathan Kantor
Secretary

POLICY NUMBER

B 4030909529

INSURED NAME AND ADDRESS

ESSESS, INC.
c/o Sheri Olans
Fenway FC, 51 Saint Stephen St.
BOSTON, MA 02115

POLICY CHANGES

ENDORSEMENT EFFECTIVE 10/17/16

This Change Endorsement changes the Policy. Please read it carefully. This Change Endorsement is a part of your Policy and takes effect on the effective date of your Policy, unless another effective date is shown.

3. If we cancel or elect not to renew this policy for nonpayment of premium, we will give written notice to the Designated Entity shown in the Schedule above, or in the Declarations. Such notice may be provided before or after the effective date of cancellation or nonrenewal.
4. Failure to give notice in accordance with the terms of this endorsement does not:
 - a. Alter the effective date of policy cancellation, nonrenewal or expiration;
 - b. Render such cancellation or nonrenewal ineffective;
 - c. Grant, alter, or extend any rights or obligations under this policy; or
 - d. Extend the insurance beyond the effective date of cancellation or policy expiration, whichever comes first.



Thomas F. Motamed
Chairman of the Board

Jonathan Kantor
Secretary

POLICY NUMBER

B 4030909529

INSURED NAME AND ADDRESS

ESSESS, INC.
c/o Sheri Olans
Fenway FC, 51 Saint Stephen St.
BOSTON, MA 02115

POLICY CHANGES

ENDORSEMENT EFFECTIVE 10/17/16

This Change Endorsement changes the Policy. Please read it carefully. This Change Endorsement is a part of your Policy and takes effect on the effective date of your Policy, unless another effective date is shown.

The following Additional Insured(s) has (have) been added:

Form #: SB300113C Title: ADDITIONAL INSURED - DESIGNATED PERSON
OR ORGANIZATION

Name and Address:

THE CITY OF VANCOUVER, ITS OFFICIALS, OFFICERS, EMPLOYEES, SERVANTS
AND AGENTS
453 W 12TH AVENUE
VANCOUVER, BC V5Y 1V4



Thomas F. Motamed
Chairman of the Board

Jonathan Kantor
Secretary

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**CHANGES – NOTICE OF CANCELLATION
OR MATERIAL COVERAGE CHANGE**

This endorsement modifies insurance provided under the following:

BUSINESSOWNERS COMMON POLICY CONDITIONS

In the event of cancellation or material change that reduces or restricts the insurance afforded by this Coverage Part (other than the reduction of aggregate limits through payment of claims), we agree to mail prior written notice of cancellation or material change to:

SCHEDULE

Name of Designated Entity:

Address/Contact Information of Designated Entity:

*Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following conditions are added:

1. If the policy is cancelled or not renewed, we will give written notice of such cancellation or nonrenewal to the Designated Entity shown in the Schedule above, or in the Declarations. Such notice may be delivered or sent by any means of our choosing. The notice to the Designated Entity will state the effective date of cancellation or nonrenewal. However, such notice of cancellation or nonrenewal is solely for the purpose of informing the Designated Entity of the effective date of cancellation or nonrenewal and does not grant, alter, or extend any rights or obligations under this policy.
2. If we cancel or elect not to renew the policy for any reason other than nonpayment of premium, we will give written notice to the Designated Entity shown in the Schedule above, or in the Declarations at the same time notice is given to the first Named Insured.
3. If we cancel or elect not to renew this policy for nonpayment of premium, we will give written notice to the Designated Entity shown in the Schedule above, or in the Declarations. Such notice may be provided before or after the effective date of cancellation or nonrenewal.
4. Failure to give notice in accordance with the terms of this endorsement does not:
 - a. Alter the effective date of policy cancellation, nonrenewal or expiration;
 - b. Render such cancellation or nonrenewal ineffective;
 - c. Grant, alter, or extend any rights or obligations under this policy; or
 - d. Extend the insurance beyond the effective date of cancellation or policy expiration, whichever comes first.

500200029-40309095296452



50020029-4030808529463



END OF COPY

THE CITY OF VANCOUVER
CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker or agent represents to the City of Vancouver that the attached Certificate of Insurance is accurate in all material respects.

Judy Yeary
[Name of broker or agent (typewritten)]

Mason & Mason 458 South Avenue Whitman, MA 02382
[Address of broker or agent (typewritten)]

jyeary@masoninsure.com
[Email address of broker or agent (typewritten)]

781-447-5531
[Phone number/Fax number of broker or agent (typewritten)]

Judy Yeary
[Signature of authorized official, broker, or agent]

Vice President
[Name and title of authorized official, broker, or agent (typewritten)]

State of NH)
County of Carroll) ss.:

Sworn to before me this 1 day of November 2016

Monique Hebert
NOTARY PUBLIC FOR THE STATE OF NH



my commission expires 9-17-19



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/27/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Mason & Mason Technology Insurance Services, Inc. 458 South Ave. Whitman, MA 02382	CONTACT NAME Judy Yeary
	PHONE (A/C, No, Ext) _____ FAX (A/C, No) _____
	E-MAIL ADDRESS JYeary@masoninsure.com
	INSURER(S) AFFORDING COVERAGE _____ NAIC # _____
INSURED Essex, Inc. 51 Melcher Street 7th Floor Boston, MA 02210	INSURER A American Casualty Co of PA
	INSURER B Continental Casualty Insurance Company
	INSURER C Lloyd's of London
	INSURER D _____
	INSURER E _____
	INSURER F _____

COVERAGES **CERTIFICATE NUMBER:** _____ **REVISION NUMBER:** _____

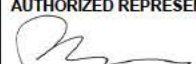
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE L MIT APPL ES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: _____			4030909529	08/05/2016	08/05/2017	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 4,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 _____ \$ _____
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			4034655458	08/31/2016	08/31/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ _____ BODILY INJURY (Per accident) \$ _____ PROPERTY DAMAGE (Per accident) \$ _____ _____ \$ _____
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			5095711682	08/05/2016	08/05/2017	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 _____ \$ _____
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / N <input checked="" type="checkbox"/> N / A If yes, describe under DESCR PTION OF OPERATIONS below			4030908686	08/05/2016	08/05/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACC DENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	ERRORS & OMISSIONS			W1CE2D160101	10/25/2016	10/25/2017	EACH OCC/GEN AGG 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
It is understood and agreed that The City of Vancouver, its officials, officers, employees, servants and agents are included as an additional insured as respects general liability as required by written contract per the terms and conditions of the policy.

The insureds insurance is primary and non-contributory.

It is understood and agreed that in the event of cancellation of the policy for any reason other than non payment of premium, 30 day written notice will be sent to the certificate holder, per the terms and conditions of the policy.

CERTIFICATE HOLDER City of Vancouver 453 W. 12th Avenue Vancouver, BC V5Y 1V4 CANADA	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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REQUEST FOR PROPOSALS NO. PS20152048
THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING
FORM OF AGREEMENT

APPENDIX B - PROPOSAL

Proposal for RFP PS20152048 - Thermal Imaging for Residential Retrofit Targeting submitted by Essess Inc. on February 10, 2016 is hereby incorporated by reference, along with the price confirmation email dated May 9, 2016 and the price clarification email for Canadian Data Centre dated August 18, 2016.

Shi, Wen

From: Navi Singh <navi@essess.com>
Sent: Thursday, August 18, 2016 5:44 AM
To: Shi, Wen
Cc: Rebecca Craft
Subject: HPRM: Re: Estimated Cost for Canadian Data Center - RFP PS20152048 - Thermal Imaging project

HP Records Manager Record Number:
DOC/2016/253045

Hi Wen,

The figures we quoted are our estimated differences for storing data on Canadian servers based on AWS' published pricing for non-Canadian regions. The current AWS region we operate in, US-east-1, is their cheapest worldwide, equal to their Oregon region, and approximately 15% cheaper than their California region. Outside of the US, their prices are 25-35% higher depending on the country and service. AWS does not yet have pricing for their Montreal region but we estimate, conservatively, that it will be at least 10-15% more expensive than US-east-1.

As of now, based on our most recent estimates, we think there are at a minimum approximately \$8,000 of one time costs to move over to AWS Canada and \$6,000 in aggregate ongoing costs over term of project, that lowers our initial estimate from \$23,000 to approximately **\$14,000**. In order to finalize the project, we will commit to bearing the responsibility of any additional fees but it's hard to go much lower based on the published pricing.

Please let me know if it would help for us to schedule a call and go over this in more detail and answer any additional questions.

Best,
Navi

Navi Singh

Vice President, Solutions Delivery

www.essess.com

51 Melcher Street, 7th Floor, Boston, MA 02210 | phone 617.532.0992 | mobile 215.550.1721 | e-mail Navi@essess.com

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On Mon, Aug 15, 2016 at 4:19 PM, Shi, Wen <Wen.Shi@vancouver.ca> wrote:

Hi Navi,

The Project Team had reviewed the additional cost related to Canadian Data Center, and had some questions listed below:

1. Our understanding from your proposal is that Esses already uses AWS (Amazon Web Services) for data processing. Amazon will open a data center in November in Canada <https://aws.amazon.com/blogs/aws/in-the-works-aws-region-in-canada>. The price will be similar to US data centers. Given that the Project Team would like to know what these price increases are based on? Is this using AWS's system and these are all AWS fees. If not what provider is your company proposing to use?
2. Are these fees in Canadian or US dollars?

Should you have any questions, please feel free to contact me!

Regards,

Wen Shi

Tel: [604-871-6139](tel:604-871-6139)

Fax: [604-873-7057](tel:604-873-7057)

From: Navi Singh [mailto:navi@essess.com]

Sent: Friday, July 22, 2016 9:38 AM

To: Shi, Wen

Cc: Rebecca Craft

Subject: Re: Estimated Cost for Canadian Data Center - RFP PS20152048 - Thermal Imaging project

Hi Wen,

Please see below a breakdown of the additional costs related to processing and storing data in Canada.

Storage costs while processing (6 months): \$7,800

Storage costs before and after processing (1 year): \$6,000

Processing costs: \$1,500

Labor costs: \$8,500

TOTAL COSTS: \$23,800

If you have any questions, please don't hesitate to give me a call at [\(215\) 550.1721](tel:215-550-1721) or send an email.

Best,

Navi

Navi Singh

Vice President, Solutions Delivery

www.essess.com

51 Melcher Street, 7th Floor, Boston, MA 02210 | phone [617.532.0992](tel:617.532.0992) | mobile [215.550.1721](tel:215.550.1721) | e-mail Navi@essess.com

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On Wed, Jul 20, 2016 at 1:17 PM, Shi, Wen <Wen.Shi@vancouver.ca> wrote:

Hi Navi,

Thank you for your email!

In regards to 15.4 (b), "The City agrees to reimburse the Consultant for additional costs relating to maintaining information in Canada, as described in prior communications between the parties". The Project Team would like ESSESS to provide an estimate of the detailed costs related to this.

For your information, AWS (Amazon Web Services) will be opening in Canada this year in Montreal.

Regards,

Wen Shi

Tel: [604-871-6139](tel:604-871-6139)

Fax: [604-873-7057](tel:604-873-7057)

From: Navi Singh [mailto:navi@essess.com]
Sent: Tuesday, June 21, 2016 1:26 PM
To: Shi, Wen
Cc: Rebecca Craft
Subject: Re: Contract Language Deviation Request for RFP PS20152048 - Thermal Imaging project

Hi Wen,

Apologies for the delay in getting this back to you. Please see attached two versions of the Deviations & Variations. The one titled "160616_Essess Deviations & Variations to Vancouver_**clean**" has all of the changes accepted while the one titled "160616_Essess Deviations & Variations to Vancouver_**edits**" shows each of the individual edits.

Please feel free to give me a call if you have any questions or comments.

Best,

Navi

Navi Singh

Vice President, Solutions Delivery

www.essess.com

51 Melcher Street, 7th Floor, Boston, MA 02210 | phone [617.532.0992](tel:617.532.0992) | mobile [215.550.1721](tel:215.550.1721) | e-mail Navi@essess.com

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On Tue, Jun 21, 2016 at 1:10 PM, Shi, Wen <Wen.Shi@vancouver.ca> wrote:

Good morning Navi,

Any updates to the proposed language for the agreement deviation?

Regards,

Wen Shi

Tel: [604-871-6139](tel:604-871-6139)

Fax: [604-873-7057](tel:604-873-7057)

From: Shi, Wen

Sent: Wednesday, June 15, 2016 10:05 AM

To: 'Navi Singh'

Cc: Rebecca Craft

Subject: Contract Language Deviation Request for RFP PS20152048 - Thermal Imaging project

Hi Navi,

In the Deviations and Variations section of your proposal, there were deviation requests to the City's standard Form of Agreement regarding Section 15 (confidentiality), Section 16 (No Promotion of Relationship), Sections 17.6 and 17.7 (Ownership of Deliverables).

Please provide proposed language incorporating the above changes and the City will review the new language.

Should you have any questions, please feel free to contact me!

Regards,

Wen Shi

Tel: [604-871-6139](tel:604-871-6139)

Fax: [604-873-7057](tel:604-873-7057)

From: Navi Singh [<mailto:navi@essess.com>]

Sent: Monday, May 09, 2016 11:31 PM

To: Shi, Wen

Cc: Rebecca Craft

Subject: HPRM: Re: Pricing Confirmation for Thermal Imaging project

Hi Wen,

Yes, that is correct. Once Task One has been awarded, Task Two and Task Three may be added at later dates.

Best,

Navi

Navi Singh

Vice President, Solutions Delivery

www.essess.com

51 Melcher Street, 7th Floor, Boston, MA 02210 | phone [617.532.0992](tel:617.532.0992) | mobile [215.550.1721](tel:215.550.1721) | e-mail Navi@essess.com

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On Mon, May 9, 2016 at 3:14 PM, Shi, Wen <Wen.Shi@vancouver.ca> wrote:

Hi Navi,

Could you please confirm, if the City only award Task one perform thermal imaging and analysis at this time, will Essess keep the discounted price (as below) for either Task Two or Task Three if the City decides to award those at a later stage?

Task One: Perform thermal imaging and analysis	\$ 107,575.00
------------------------------------------------	---------------

If award Task Two later, the extra fee will be \$20,085 as per the following discounted total price.

Task One: Perform thermal imaging and analysis	\$ 127,660.00
Task Two: Online database and reporting	

If award Task Three later, the extra fee will be \$26,731 as per the following discounted total price.

Task One: Perform thermal imaging and analysis	\$ 134,306.00
Task Three: Perform communications and outreach	
Task Four: Design the communications / outreach activities	
Task Five: Be a contact point for homeowners and connect the homeowner with a person or organization that can perform the energuide audits	

If you have any questions, please feel free to contact me!

Regards,

Wen Shi

Tel: [604-871-6139](tel:604-871-6139)

Fax: [604-873-7057](tel:604-873-7057)

From: Navi Singh [mailto:navi@essess.com]

Sent: Thursday, April 21, 2016 9:19 AM

To: Shi, Wen

Cc: Rebecca Craft

Subject: Essess Thermal Imaging

Hi Wen,

We were hoping to get an update on the status of THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING; PS20152048. Do you have an idea as to when we may expect a decision?

Our thermal imaging vehicles are currently scanning the west coast of the United States and I was hoping to take this opportunity to plan a scan of Vancouver as well. Please let me know if you are available for a quick call sometime in the next day or two.

Thank you so much for you help.

Best,

Navi

Navi Singh

Vice President, Solutions Delivery

www.essess.com

51 Melcher Street, 7th Floor, Boston, MA 02210 | phone [617.532.0992](tel:617.532.0992) | mobile [215.550.1721](tel:215.550.1721) | e-mail Navi@essess.com

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ESSESS THERMAL ANALYSIS PROGRAM (TAP) ECONOMICS

Prepared for the City of Vancouver

*Prices displayed in CAD and will be adjusted to reflect exchange rate on contract execution date

Exchange Rate (USD to CAD) 1.3

Program Assumptions

Target Homes (No less than...)	10,000	20,000	30,000	50,000	75,000	100,000
--------------------------------	--------	--------	--------	--------	--------	---------

Unit Costs

Scanning & Analysis Costs (\$ / home / yr)	\$3.58	\$2.75	\$2.50	\$1.50	\$1.00	\$1.00
Processing Costs (\$ / home / yr)	\$1.30	\$1.30	\$1.17	\$0.98	\$0.52	\$0.13
Hosting Costs (\$ / home / yr)	\$1.30	\$1.63	\$1.95	\$2.28	\$2.60	\$2.93
Real Estate Records (\$ / home / yr)	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13
Direct Mail Costs (\$ / home / piece)	\$2.60	\$2.28	\$1.95	\$1.72	\$1.72	\$1.72

Fixed Costs

Project Management Fee (PM Fee)	\$32,500	\$32,500	\$32,500	\$32,500	\$32,500	\$32,500
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Standalone Product Subscriptions

1 Tiering Analysis	\$82,550	\$116,100	\$146,500	\$162,750	\$156,250	\$158,500
2 Driveby Application	\$95,550	\$148,600	\$205,000	\$276,500	\$351,250	\$451,000
3 One-Time Thermal Report Direct Mail Campaign	\$108,550	\$161,600	\$205,000	\$248,550	\$284,950	\$330,100

Subscription Packages plus Package Discount for Pilot

1+2 (20% Discount)	\$102,440	\$144,880	\$190,000	\$247,200	\$307,000	\$386,800
1+3 (25% Discount; no PM Fee at 75,000 and 100,00)	\$105,788	\$145,575	\$178,125	\$210,788	\$189,338	\$223,200
1+2+3 (25% Discount)	\$139,913	\$194,325	\$246,375	\$320,475	\$408,713	\$515,700



REQUEST FOR PROPOSALS NO. PS20152048
THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING
PART C - PROPOSAL FORM

PROPOSAL FORM

RFP No. PS20152048, THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING (the "RFP")

Proponent's Name: Essess Inc.
"Proponent"

Address: 51 Melcher Street, Boston, MA 02210

Jurisdiction of Legal Organization: Delaware, US

Date of Legal Organization: 4/25/11

Key Contact Person: Navi Singh

Telephone: (215) 550-1721 Fax: (617) 516-1689

E-mail: navi@essess.com

The Proponent, having carefully examined and read the RFP, including all amendments and addenda thereto, if any, and all other related information published on the City's website, hereby acknowledges that it has understood all of the foregoing, and in response thereto hereby submits the enclosed Proposal.

The Proponent further acknowledges that it has read and agreed to the Legal Terms & Conditions attached as Appendix 1 hereto and has separately executed such Appendix 1. .

IN WITNESS WHEREOF the Proponent has executed this Proposal Form:


Signature of Authorized Signatory for the Proponent

February 10, 2016
Date

Navi Singh, Vice President of Solutions Delivery
Name and Title

Signature of Authorized Signatory for the Proponent

Date

Name and Title



February 10, 2016

Essess Inc.
51 Melcher Street, 7th Floor
Boston, MA 02210

**Essess Thermal Analysis Program
Prepared for the City of Vancouver
Re: Thermal Imaging for Residential Retrofit Targeting; PS20152048**

Dear Sir or Madam,

Essess presents the following proposal to the City of Vancouver to implement the Thermal Analysis Program (“TAP”) in order to identify homes and homeowners that could benefit and would be likely to undertake home energy retrofits. Essess proposes to perform thermal imaging and analysis using it’s mobile thermal intelligence solution; create personalized Thermal Reports for customers most in need and likely to undertake home energy retrofits; perform communications and outreach using a direct mail and digital campaign centered around the Essess Thermal Reports; and be a contact point for homeowners and connect the homeowner with a person or organization that can perform an EnerGuide home evaluation.

Essess has read, understands and agrees to all provisions of the Thermal Imaging for Residential Retrofit Targeting; PS20152048 RFP except as outlined in the section titled “Deviations and Variations”. Essess is more than happy to follow up and elaborate on any detail regarding any aspect of this submission. Essess is in the process of registering for WorkSafeBC and will have proof of valid registration before contract execution.

Sincerely,

Navi Singh
Vice President, Solutions Delivery
T: (215) 550.1721
E: navi@essess.com
www.Essess.com



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1.0 Executive Summary

Essess proposes to implement its Thermal Analysis Program (TAP) to help the City of Vancouver identify homes and homeowners that could benefit from, and would be likely to undertake home energy retrofits. As Vancouver aspires to become the world's greenest city, it must find ways to decrease the greenhouse gas emissions caused by inefficient building envelopes. Initiatives like the Thermal Imaging for Retrofit Targeting Project aim to help Vancouver residents become more energy efficient, save money, and increase their comfort by identifying areas of improvement at the building envelope level. Yet, gathering building envelope data for thousands of homes can be prohibitively expensive both in terms of time and money.

Essess is the leader in mobile thermal data acquisition and imaging. In addition to its speed, the imaging system enables Essess to provide full quantitative measurement and analysis of the energy leaking from buildings across large territories at the rate of 5,000 to 10,000 buildings a night. This system thus dramatically improves the economics of gathering energy efficiency intelligence across thousands of buildings. Essess' Thermal Analysis Program (TAP) is able to intelligently identify the most likely candidates for a home energy retrofit through a combination of thermal analysis of the building's envelope, incorporating billing data, property records and other demographic information. For this project, Essess will use its mobile data capture system to scan 12,000-15,000 homes, or more should Vancouver so choose based the budget options outlined in Appendix 7). Once the homes are scanned and the data is captured, the system will automatically identify the 10-20% worst performing homes and prioritize these homes by identifying the homeowners likely to complete an energy efficiency upgrade. A personalized Essess Thermal Report will be generated for each home in that 10-20% and Essess will use these reports as the centerpiece of customer communications and outreach activities. Essess will also provide a Tiering Analysis with all scanned homes to help prioritize outreach efforts. The Reports will be designed to make key energy efficiency recommendations around wall and attic insulation and other energy efficiency measures to generate leads for the City of Vancouver. The reports will also contain a call-to-action encouraging the resident to schedule an energy audit.

Essess Thermal Reports have been verified to significantly increase participation in energy efficiency home retrofit programs across the United States. Through our innovative thermal imaging technology and proven marketing strategy, Essess will help Vancouver reach its goal of increasing home retrofits, improving building stock and decreasing greenhouse gas emissions by generating leads that result in home energy efficiency upgrades.



2.0 Commercial Proposal

A substantial amount of Essess’ costs are related to the initial setup for imaging a specific territory. Once the imaging vehicle has been deployed to the territory to be scanned, Essess can cost-effectively capture thousands of homes within a short period of time. As a result, we have included in our proposal several options at varying pricing levels from which Vancouver can choose. The pricing shows the benefits of our technology’s scale capabilities² that allow us to increase the total of number of scanned homes from 12,000 - 15,000 to 75,000 - 100,000. Furthermore, the current scanning target of 12,000 to 15,000 homes will make it difficult to convert 300-400 homes to complete retrofits (which can be a significant undertaking for the homeowner). For example, if Essess scans only 15,000 homes and targets the top 20%, it would require a conversion rate of over 13% to get 400 homes to complete physical energy upgrades. Table 1 highlights the number of homes needed to sign up 300-400 homes in Vancouver for physical energy upgrades at various conversions rates.

Furthermore, Essess’ cost structure is based on a fixed cost for scanning and project management (\$25,000) plus the unit cost of scanning and analyzing a defined number of homes. This makes the unit economics significantly more attractive for a large-scale program.

Table 1. Sensitivity Analysis showing the number of homes needed to meet the desired number of physical energy upgrades at different conversion rates and the costs related for Thermal Reports and Tiering Analysis. See Appendix 7 for more information on product and pricing.

Number of Homes Scanned	Top 20% Targeted	1% Conversion	2% Conversion	3% Conversion	4% Conversion	Cost (C\$) (\$1 USD = \$1.25 CAD)
10,000	2,000	20	40	60	80	\$105,788
20,000	4,000	40	80	120	160	\$145,575
30,000	6,000	60	120	180	240	\$178,125
50,000	10,000	100	200	300	400	\$210,788
75,000	15,000	150	300	450	600	\$189,338
100,000	20,000	200	400	600	800	\$223,200

² It is also the case that should Vancouver choose to scan more homes, and choose the tiering analysis product, the city would have that information for future carbon emission reduction efforts.



Table 2. Commercial table shows the total project fee for 20,000 homes. Prices displayed are in CAD and will be adjusted to reflect exchange rate on contract execution date (pricing based on USD to CAD exchange rate of 1.3)

Program Assumptions	Amount
Unit Costs	
Scanning & Analysis Costs (\$ / home / yr)	\$2.75
Processing Costs (\$ / home / yr)	\$1.30
Hosting Costs (\$ / home / yr)	\$1.63
Real Estate Records (\$ / home / yr)	\$0.13
Direct Mail Costs (\$ / home / piece)	\$2.28
Fixed Costs	
Project Management Fee (PM Fee)	\$32,500
Standalone Product Subscriptions	
1 Tiering Analysis	\$116,100
2 Driveby Application (OPTIONAL)	\$148,600
3 One-Time Thermal Report Direct Mail Campaign	\$161,600
Subscription Packages plus Package Discount for Pilot 1+2+3 (25% Discount)	
Grand Total (Including PST but Excluding GST)	\$194,325

Table 3 below shows Essex team members and their respective roles in the Vancouver project.

Table 3. Commercial table showing the role of Essex team members.

Team Members	Activity/Role
Rebecca Craft	Chief Customer Officer
Jan Falkowski	Technical/software lead
Zeke Hausfather	Chief scientist
Wes Matthews	Logistics Manager
William Morris	Hardware lead
Navi Singh	Project management



3.0 Technical Proposal

Essess proposes using our mobile thermal imaging vehicle to scan the City of Vancouver to identify homes and homeowners that could benefit from and would be likely to undertake home energy retrofits. Millions of dollars worth of energy escapes from Vancouver's residential buildings each year due to sub-standard building envelopes. Essess' Thermal Analysis Program (TAP) has the ability to help identify the source of this wasted energy for thousands of homes across the city and help convert residents to take up energy efficiency upgrades at scale. The drive-by system uses specially equipped vehicles driving on streets and roadways to capture a 3D thermal video of the surrounding environment. The actual imaging system is a custom-designed multi-sensor rig integrated onto the top of the vehicle. As the vehicle drives, the imaging rig captures the scene on both sides of the car, enabling the system to image large geographic areas each night. The images are stored onboard the vehicle using a custom-built data recording system before being shipped to Essess headquarters. Before analysis, the data are uploaded to the Amazon Web Services (AWS) servers housed in nondescript facilities across the United States (AWS data centers have industry leading security to ensure the data are protected by military grade perimeter control with state of the art intrusion detection systems).

Essess will combine no-touch thermal imaging, robust building analytics, billing analysis, parcel-level GIS data, tax assessment property records (where available), local weather data, and other datasets to provide a comprehensive analysis of building energy use and remediation potential that is highly personalized to each scanned building in the target areas. Post analysis, Essess will select the 20% of buildings most in need of energy efficiency upgrades based on the results of the analysis and the building characteristics and generate customer personalized Thermal Reports which will characterize the heat loss and recommend customized solutions to help mitigate the energy loss observed in the Thermal Report. Essess will create a Tiering Analysis differentiating great leads from good leads based on a 5 (great) to 1 (good) tiering system.

As per Part B, Section 5.0, the City of Vancouver will provide access to the following:

- a) GIS data on parcels along with publicly available information on home age, and other requested and available information about the home.
- b) Access to map of the city by home age.
- c) Access to a map of the city with block-by-block natural gas usage.



- d) Access to City personnel - although Essex will have access to city personnel, Essex will be responsible for all aspects and costs for organizing, facilitating and reporting back on the thermal imaging pilot.

Essex aims to help the City of Vancouver meet its stated goal of completing at least 300-400 energy upgrades. In accordance with Part B, Section 4.0 - Work Scope, the Thermal Analysis Program will be divided into five tasks, outlined in Table 4 below, together with the Essex personnel responsible for completing those tasks.

Table 4. Technical Table showing project activities and key tasks to be undertaken.

Description by Activities	Team Members	Team Member Activity Role
Task One: Perform Thermal Imaging and Process Data		
Scan Vancouver	William Morris	Hardware lead
Process Data	Jan Falkowski	Software lead
Task Two: Data Analysis and Tiering Analysis		
Analyze Data	Jan Falkowski	Software lead
Produce Tiering Analysis	Zeke Hausfather	Energy scientist
Task Three: Design and Perform Communications and Outreach activities centered around Thermal Reports		
Design Thermal Reports	Navi Singh	Project management
Distribute Thermal Reports	Navi Singh	Project management
Task Four: Driveby Application (optional)		
Create online driveby application	Jan Falkowski	Software lead
Task Five: Essex will set up a unique 1-800 number and a custom email address for customers to serve as a way to connect homeowner with a person or organization that can perform EnerGuide audits.		
Set-up 1-800 number and email	Navi Singh	Project management
Dedicated Customer Representative	Navi Singh	Project management

1. Task One: Thermal Imaging and Processing Data

The City of Vancouver has over 300,000 single-detached homes. Essex will perform thermal imaging and analysis of at least 12,000 - 15,000 single family or two family homes (unless the City chooses a larger scanning option) in Vancouver neighborhoods to be selected by Essex and the City of Vancouver. To provide analysis for 12,000 – 15,000 homes Essex will undertake imaging for more than 20,000 homes. This is because Essex cannot guarantee that every home within the area of interest will be visible from a public street or surface. Essex will obtain detailed parcel-level

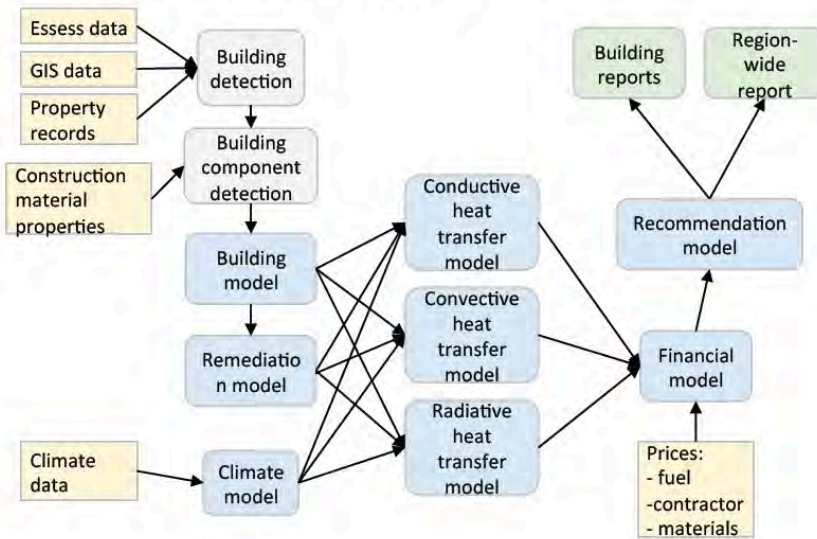


characteristics and specific GIS-based transmission area boundaries specified by the City of Vancouver to incorporate regional analyses for all target areas as an input into its scanning process. For each home scanned, Essess will process the data through an automated processing pipeline to produce an analysis of the heat being lost from the building envelope. This analysis is based on a study of each building envelope's thermal signature along with other factors specific to the building (vintage year, size of home, etc.). Essess incorporates both publicly available data as well as data purchased from third party vendors.

During each evening scan, Essess collects 2 to 3 terabytes of data from a single vehicle. If humans were to perform the task of analyzing such a large amount of data, the analysis would be too costly and would take far too long. Essess has invested millions of dollars over the past four years not only supporting its hardware capabilities, but also developing an automated data processing system that is capable of automatically detecting the building facades among all the scanned data, identifying building facade components, and then performing robust heat flow analysis across all building facades captured by the imaging vehicle (i.e., those facades that can be viewed from the street). The output of this data processing system is actionable advice to specific building owners around cost-effective improvements that can be made to the building envelope and/or actionable advice to utility and other clients on areas of the territory and specific customer cohorts that should be high priority targets in retrofit programs and other customer marketing programs.

The architecture behind Essess' automated data processing system is shown in the diagram below. The yellow boxes in the diagram represent inputs into the automated data processing pipeline. These include the scan data, geo-location data, property records and construction material information, as well as a robust climate model and the appropriate fuel, contractor and material prices for the geography scanned.

Energy analysis architecture



The first step of data processing is to identify all of the buildings (as opposed to trees, ground, sky, stop signs, street lights, cars, and all the other various items that may be found in a residential neighborhood or large customer facility). To perform this task, Essess employs some of the most sophisticated computer vision and machine learning algorithms available.

2. Task Two: Data Analysis and Tiering Analysis

Once the relevant data from each scan session is identified by the data processing pipeline, it is analyzed by a building and remediation model that performs a Bayesian heat flow analysis determining for every pixel in every façade and building component the difference between the indoor temperature and the ambient temperature to identify areas where heat flux may be abnormal. This heat flow model accounts for convective (e.g. exfiltration, infiltration) and conductive (e.g. wall insulation) envelope issues. The resulting analysis allow us to produce our signature products.

The Tiering Analysis product provides a comprehensive data analytics report on each home Essess is able to scan. The Tiering Analysis places customers into different tiers, from Tier 1 to Tier 5. Tier 1 customers are those who are most likely to complete physical energy upgrades. When planning and designing program tactics and campaigns, typically marketing dollars would be focused on Tier 1 customers first, then Tier 2, and so on and so forth. The analysis that Essess conducts behind the tiering process takes into account demographic factors that determine a customer’s likelihood of converting

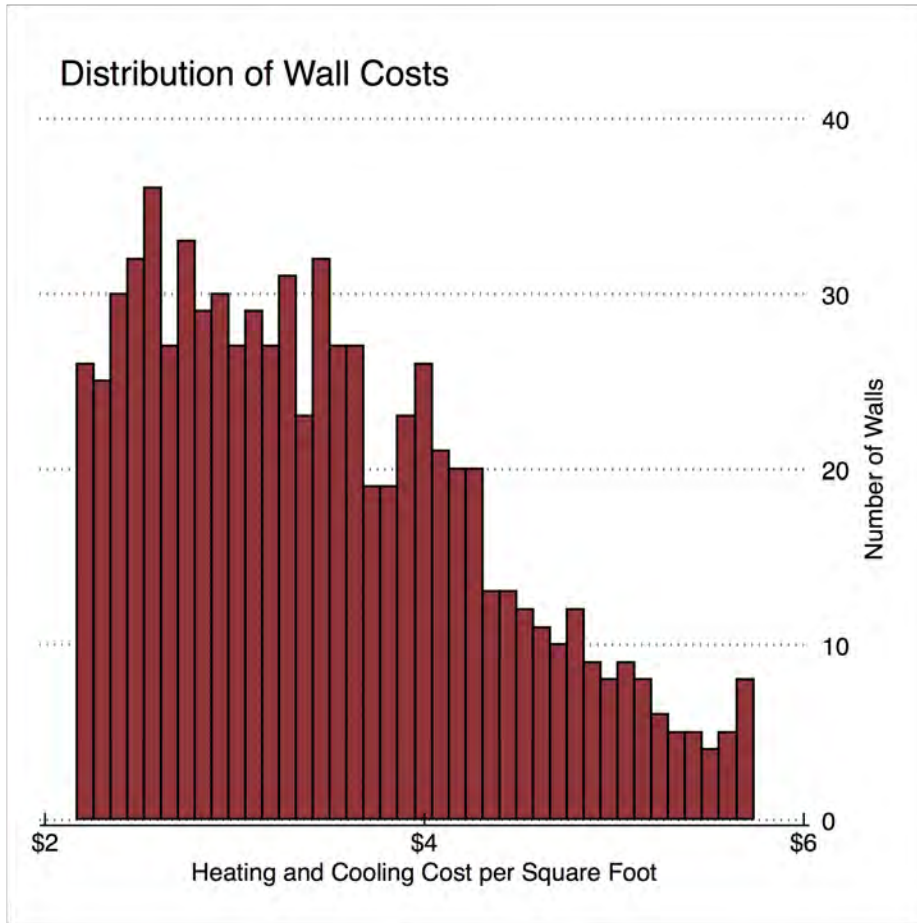


along with the energy savings benefits determined by our thermal scanning, building analytics, and billing analysis.

Estimates of energy loss reported in the Tiering Analysis from poor insulation, air leakage, or inefficient HVAC equipment are used to calculate potential remediation energy savings and cost estimates based on local temperature data, estimated building thermostat set points, billing data, and heating and cooling equipment fuel types and efficiencies. Our processes for estimating energy loss from each of poor insulation, air leakage, and inefficient HVAC equipment are described below.

Wall Insulation

Essex thermal imaging captures the heat-loss characteristics of wall surfaces of homes during drive-by imaging. By analyzing these thermal images, normalizing for material type and observation times, and comparing each image to nearby similar homes, we can identify homes with poor wall insulation with a relatively high accuracy. We use the relative emissivity of walls to infer R-values, property records to determine insulatable areas, and billing analysis to confirm abnormal usage patterns and calibrate savings estimates.



Example of distribution of estimated wall costs across scanned structures. The same distributions can be performed across any territory for any of the measures.

Attic Insulation

In addition to walls, Essess thermal imaging captures attic images of most homes we scan and the attic information is put through a process similar to that used for wall insulation: thermal images are analyzed, compared to other homes, outliers are detected, r-values are estimated, and billing analysis and property records are used to estimate and calibrate savings.

Air Sealing

Essess has developed computer image recognition systems to automatically detect windows and doors on buildings. We further isolate the glass of the window or wood of the door from the surrounding area, and identify how



much heat is leaking through window and door frames at the time of the scan. By identifying those homes with the most abnormal rates of air leakage, we can identify prime targets for air sealing interventions and provide an initial savings potential estimate.

Replacing Malfunctioning/Inefficient HVAC

Billing analysis that incorporates nearby home comparisons and local weather data can identify abnormally high seasonal use patterns associated with heating and cooling. When billing analysis is coupled with thermal imaging, it can effectively identify the cohort of homes in which high seasonal usage is most likely due to inefficient or malfunctioning HVAC equipment.

Both poor insulation and high thermostat set points show up clearly in thermal images, as they increase the rate of heat transfer through the home's surfaces. However, homes with inefficient or malfunctioning HVAC equipment but good insulation or standard thermostat set points will show up as normal on a thermal image. By identifying homes with normal thermal images but abnormal seasonal use patterns we can more effectively identify those homes that would benefit from utility programs aimed at tuning or upgrading HVAC systems.

Data Fields

The below list represents the following fields, where available, that will be provided in the Tiering Analysis product. Essess cannot guarantee the availability of any specific field for a given customer.

- Homeowner name, street address and unique Essess ID
- Type of residence (single family detached, attached, multifamily, etc.)
- Type of fuel used for space heating (electricity, natural gas, etc.)
- Building vintage
- Market value of property
- Square footage of building
- Material type of building exterior based on property records and Essess analysis
- Number of stories of building
- Number of bedrooms (proxy for occupant number)
- Window or central AC system
- Type of building foundation (slab, basement, etc.)
- Essess estimated insulatable attic/roof area based on GIS building footprint polygon and/or square footage



- Insulatable wall area based on GIS building footprint or square footage
- Heating degree hours from nearest weather station
- Cooling degree hours from nearest weather station
- Normalized emissivity percentile of walls compared to other buildings
- External temperature at the building location when scanning occurred
- Normalized emissivity percentile of attic/roof compared to other buildings
- Normalized emissivity percentile of window and door frame emissivity compared to other buildings
- Estimated annual pre-remediation attic/roof cost per sqft
- Estimated annual pre-remediation wall cost per sqft
- Estimated annual post-remediation attic/roof cost per sqft
- Estimated annual post-remediation wall cost per sqft
- Estimated annual pre-remediation air flux per sqft
- Estimated annual post-remediation air flux per sqft
- Estimated annual cooling kwh reduction via attic/roof insulation improvements
- Estimated annual cooling kwh reduction via wall insulation improvements
- Estimated annual cooling kwh reduction via air sealing improvements
- Estimated annual heating fuel unit reduction via attic/roof insulation improvements
- Estimated annual heating fuel unit reduction via wall insulation improvements
- Estimated annual heating fuel unit reduction via air sealing improvements
- Estimated annual dollar savings from air sealing improvements
- Estimated annual dollar savings from wall insulation improvements
- Estimated annual dollar savings from attic/roof insulation improvements
- Abnormal HVAC flag: Indicator flag for homes with low emissivity but high seasonal usage
- Tier: Classifier (1-5) indicating retrofit viability of the home
- Estimated annual cooling load based on billing analysis
- Estimated annual heating load based on billing analysis



3. Task Three: Design and Perform Communications and Outreach activities centered around EsseSS Thermal Reports

Another signature product in our Thermal Analysis Program is a Thermal Report. Customers in the target areas who may benefit from the Targeted Programs will receive personalized Thermal Reports in the mail with clear calls to action to participate in Vancouver's Thermal Imaging for Residential Retrofit Targeting program. The personalized Thermal Reports will include a thermal image of the customer's own home with a pin on the biggest leak in the home. It should be noted that the inclusion of a thermal image of the customer's own home is the single largest factor in motivating conversions at substantially higher rates than traditional direct marketing.

A number of the potential remediation possibilities included in the personalized Thermal Report will be tailored for each customer. Specifically, the Thermal Report will show that customers the most significant leak in his or her building envelope and how much energy that customer could save by fixing the most serious leaks in his or her home. The back of the Thermal Report shows a customer how he or she compares to his or her neighbors and outlines other energy recommendations that will help make the home more energy efficient. The design of the Thermal Report is the result of three years of testing and knowledge acquired in various campaigns. While the report may be configured for specific City of Vancouver requirements, EsseSS strongly recommends maintaining the overall layout of the Thermal Report.

Samples of Thermal Reports (front and back) for City of Vancouver customers are displayed on the following pages and these initial samples can serve as a foundation for future discussions of the Thermal report design.





SAMPLE A. SAMPLE
 123 ANY STREET
 VANCOUVER, BC 000 000


Jim, here is your complimentary thermal report.
 Thermal imaging helps you identify energy leaks in your home that result in energy inefficiency and higher energy bills.
 If you would like to schedule an in-home energy assessment, please call us or email at VancouverThermal@essess.com or 1-800-555-5555.
 Sincerely,
 Your Friends at the City of Vancouver

YOUR THERMAL REPORT



123 Any Street, Vancouver, BC, Canada

-  The bright areas indicate where your home is leaking energy.
-  The pin identifies the most significant leak in your home.
-  Your home's envelope leaks more energy than **83% of your neighbors.**
-  By fixing the most serious leaks in your home, you could save up to \$747 each year.

Not your home?
 Please email us at VanCouverThermal@essess.com.

SIGNIFICANT LEAK SOLUTION



Improve your attic insulation.

Warm air rises and escapes through poorly insulated attics. Adding attic insulation is easy and would save you \$304 on your energy bills this year.

Contact us now to see how you can save money and make your home more comfortable.
 Call us at 1.800.555.5555 or email VancouverThermal@essess.com!

HOW MUCH ENERGY YOUR HOME IS LEAKING COMPARED TO NEIGHBORS

Your neighbors are the single-family homes closest to you.



Energy leaks measured in the number of hours a window is open each year



The energy leaking from your home is equivalent to leaving a window open for 229 hours out of the year.



That's **171 more hours than the average home** in your neighborhood.

ENERGY EFFICIENCY RECOMMENDATIONS



Seal and insulate your ducts.

Properly sealing and insulating your ducts makes your home more comfortable and improves air quality. You could also qualify for a rebate.



Make sure your window frames don't leak.

Bright areas around the edges of windows means that they are leaking air out of the house. A bit of caulk can easily seal them up.



Insulate your basement walls.

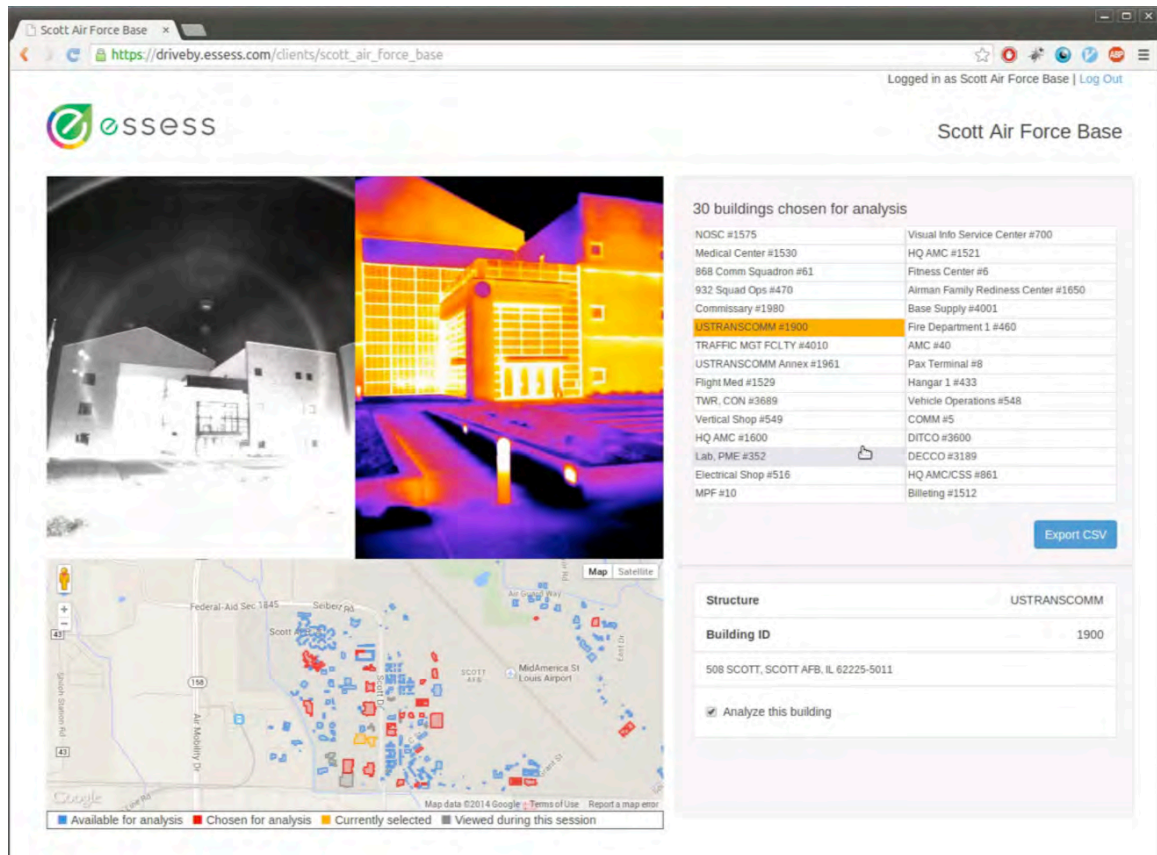
The area of the basement that is above ground is often poorly insulated, and is a major source of escaped heat from your home. Sealing leaks and adding a bit of insulation can help cut down your energy bill.

Contact us now to see how you can save money and make your home more comfortable.

Call us at 1.800.555.5555 or email VancouverThermal@essess.com!

4. Task Four: Driveby Application (optional)

Our third signature product is our Driveby Application web portal. Authorized City of Vancouver staff (or contractors, or other relevant stakeholders) can access the portal to view thermal images for the entire target geography. This application enables Vancouver personnel and other stakeholders, if Vancouver desires, to identify subjectively all of the leaks on any street-facing facades of any structure in the Vancouver area (typically over 70% of facades are captured by the Driveby Application).



Users of the Driveby Application can jump to any building in the area by clicking on the building on the map and then select buildings for deeper analysis, which appear in red on the map. All building data can also be exported to a Microsoft Excel file. When purchased in conjunction with the Tiering Analysis, the application will pre-populate the Tier 1 buildings from the Tiering Analysis and display them in a list on the right hand side of the application and highlight all Tier 1 buildings in red on the application's map. These Tier 1 buildings are the highest priority customers for retrofit adoption both in terms of benefit and likelihood to convert.



The Driveby Application can be used as both a pre-diagnostic tool by contractors and during appointments with building owners to demonstrate clearly the building's various envelope issues while the contractor or assessor is on-site. This application may also be used by customer service representatives of contractors or home materials retailers to provide helpful advice to homeowners or business owners in store. The Driveby Application is often purchased in conjunction with the Tiering Analysis as one provides an objective ranking while the other enables humans to subjectively confirm the objective ranking. Combined, they make a powerful argument to justify specific envelope improvements in any given building.

5. Task Five: Esess will set up a unique 1-800 number and a custom email address for customers to serve as a way to connect homeowner with a person or organization that can perform EnerGuide audits.

Esess will set up a unique 1-800 number and a custom email address, both of which will be printed in the footer of each Thermal Report. Individuals interested in completing physical energy upgrades will be able to call the 1 800 number or use the email to connect with a dedicated Esess customer representative. The customer representative will help connect the interested customer with a contractor to help initiate an EnerGuide audit.



3.1 Proponent Overview

Essess is a mobile thermal imaging company based in the Innovation District of Boston. Essess leverages technology developed by MIT researchers to deliver scalable and actionable building envelope advice. Essess' mobile thermal imaging technology has several advantages over current energy auditing systems. The high-throughput speed of the imaging system performs energy audits an order of magnitude faster than manual imaging and analysis. In addition to its speed, the imaging system enables Essess to provide full quantitative measurement and analysis of the energy leaking from all buildings across large territories. Such quantitative information allows for significantly better targeting and prioritizing of buildings for home performance measures, including various kinds of insulation products and services.



Historically, gathering building envelope data required manual thermal audits that are typically inconvenient, time-consuming and expensive. Although these on-site audits provide a wealth of helpful information, manual on-site audits can be difficult to implement at large scale due to the cost and time required to conduct an audit on each unit.

Essess offers the leading mobile drive-by thermal imaging and our technology dramatically improves the economics of gathering energy efficiency intelligence across thousands of buildings. This intelligence is critical to making smart decisions on where to invest in retrofits and avoid the current “shot in the dark” approach whereby it is impossible to calculate meaningful ROI and expected benefits of efficiency investments for customers prior to a home visit and at a large scale. Essess' Thermal Analysis Program (TAP) is able to intelligently identify the most likely candidates for a home energy retrofit. Through a combination of a thermal analysis of the building's envelope, and analysis that incorporates billing data, property records and other demographic information, Essess can offer this insight at scale.

Essess can efficiently identify homes and homeowners that are most likely to benefit from and would undertake home energy retrofits. The ambitious goals set forth in Vancouver's Greenest City Action Plan (GCAP) require the kind of building intelligence offered by TAP. First, Essess, through its mobile data



capture system and automated data processing pipeline, can easily scan 12,000-15,000 homes in the Vancouver area (under ideal conditions, Essess is capable of capturing up to 10,000 homes per night). Essess can then quickly identify the 10-20% worst performing homes and prioritize homes based on most likely to complete an upgrade. Second, Essess can then target the identified residents to make energy efficiency recommendations and generate leads for the City of Vancouver. Third, TAP could be deployed to assist Vancouver in achieving its residential energy efficiency goals by guiding homeowners through the process of building envelope improvements.

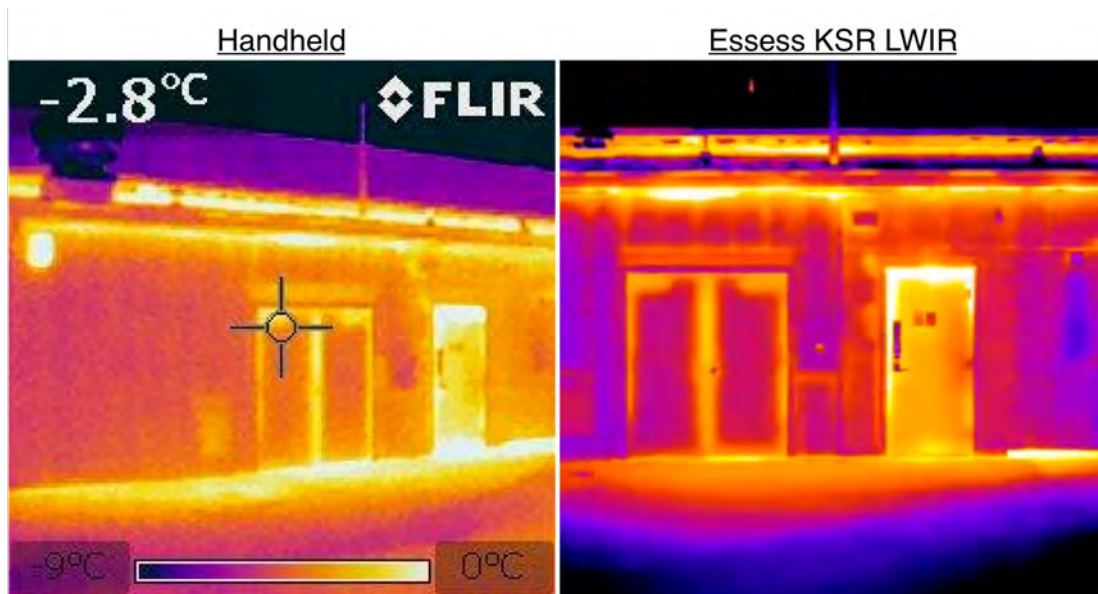
Essess can supercharge these and other initiatives by leveraging thermal analyses to identify the buildings that have the highest energy leakages and the greatest potential for savings via envelope sealing and retrofits.

Technology Capabilities

Essess uses specially equipped vehicles driving on streets and roadways to capture a 3D thermal video of the surrounding environment. The actual imaging system is a custom-designed multi-sensor rig integrated onto the top and front of each vehicle. As a vehicle drives, the imaging rig captures the scene on both sides of the car, enabling Essess to image large geographic areas each night. The images are stored onboard the vehicle using a custom-built data recording system and then processed at Essess' headquarters in Boston, MA.

In a thermal image, the brightness of an area is indicative of its energy loss. The brighter the area, the more energy is escaping. Common image patterns demonstrating substantial energy waste include bright yellow lines where siding meets the roof or a chimney, bright yellow or orange auras near the attic or foundation, and yellow auras or lines along window or door edges or around soffits. By contrast, a properly insulated building area will appear darker than the surroundings, most commonly blue or purple.

This technology has the capability to generate complete thermal scans of large areas in a matter of days and is combined with the deep analysis described above to achieve scale in home energy audits. Traditional infrared scanning, audits and analysis would take months and be prohibitively expensive when undertaken across large population like Vancouver is proposing. Essess achieves this level of scale while also improving the accuracy and reliability of the thermal analysis. Although certain information can only be obtained through an in-home audit, Essess' thermal imaging system provides comparable intelligence at an order of magnitude lower cost and greater scale.



Example of traditional handheld thermal camera (left) and Essess vehicle-mounted Kinetic Super-Resolution image (right) of the same building.

Essess has invested millions of dollars over the past four years developing the leading drive-by thermal imaging capability in the market today. Our imaging vehicles are equipped with technology to enable our unique data collection capabilities, including capabilities related to:

Multi-spectral infrared imaging of structures:

- Long wave infrared (LWIR) radiometric cameras
- Near-infrared (NIR) high dynamic range cameras
- NIR scene illumination for rural and poorly lit suburban regions
- Capture thermal signatures of structures
- Discovery of building facades and background removal using computer vision and machine learning engines
- Camera housing offers 70 degree vertical field of view and full width horizontal field of view of structure due to vehicle motion

Automated building detection within property boundaries:

- Rotating laser array light detection and ranging (LIDAR) sensor captures ranging and reflectance even from large standoff distances
- Buildings are isolated from the scene using 3D LIDAR point clouds
- Ranging capability allows structures to be bounded within property lines and relevant locations



- Mapping grade Global Positioning Systems (GPS) and support filtering algorithms ensure that location of structures and properties are highly accurate
- Collected data used in simultaneous localization and mapping (SLAM), which allows Essess to supplement the GPS data captured and more accurately correlate each image to the relevant home

Highly reliable on-board data capture and diagnostics system:

- Performs over wide range of seasonal temperatures
- High mast enables operation in a variety of regions, including short standoff distances with 3-4 story buildings
- On-board data validation and recording software and hardware
- Real-time diagnostic and quality control provided by LTE cell network streaming to Essess headquarters

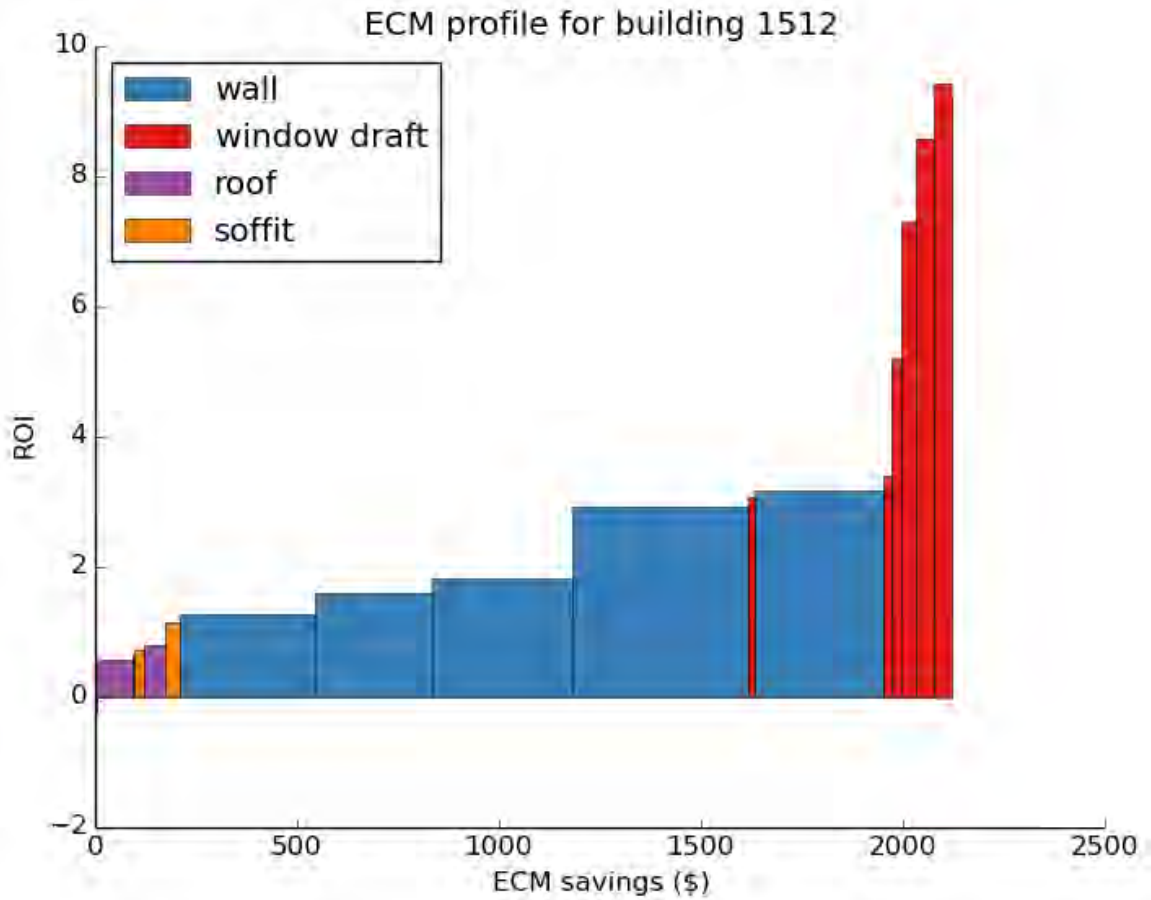
Combined, these hardware and software capabilities constitute the single most effective way to capture heat loss and building envelope data via drive-by thermal imaging. Each camera captures data in a video format, meaning that Essess generates hundreds of thousands of images comprising over 2 terabytes of data each night. The LIDAR sensors enable Essess to generate a 3D map of the physical environment and map buildings to parcels in a highly accurate manner. The proprietary hardware and software configuration enables Essess to capture vast amounts of data and subsequently process that data in a very efficient and automated manner.



Essess Imaging Vehicle



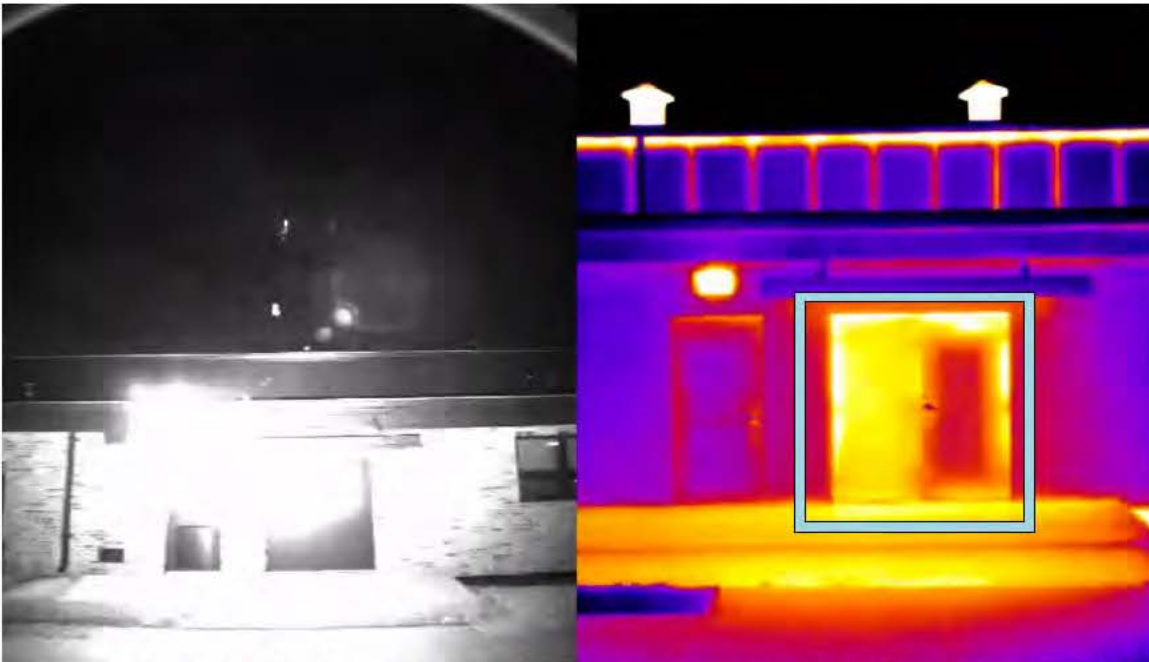
Using the Escess scanning vehicle, a customized energy conservation measure (ECM) profile can be generated for each building showing the cumulative dollar savings and individual measure return on investment (ROI), as shown in the “McKinsey Curve” diagram below:



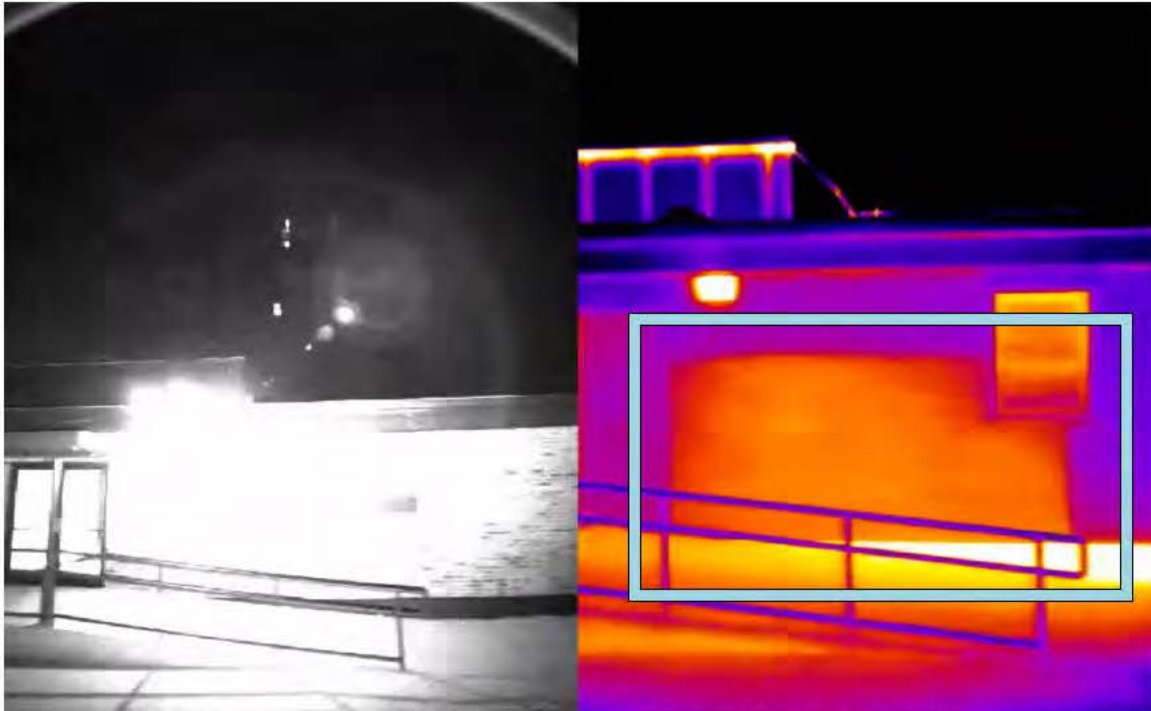
Additionally, Escess can provide far infrared and near-infra red images of all scanned buildings with distinct abnormalities highlighted. Examples of different types of detected abnormalities are shown in the subsequent images:



Example of a poorly insulated wall, with thermal bridges clearly visible.



Example of a leaky doorframe and poorly insulated door. Contrast the door on the right to the relatively well-insulated and sealed one on the left.



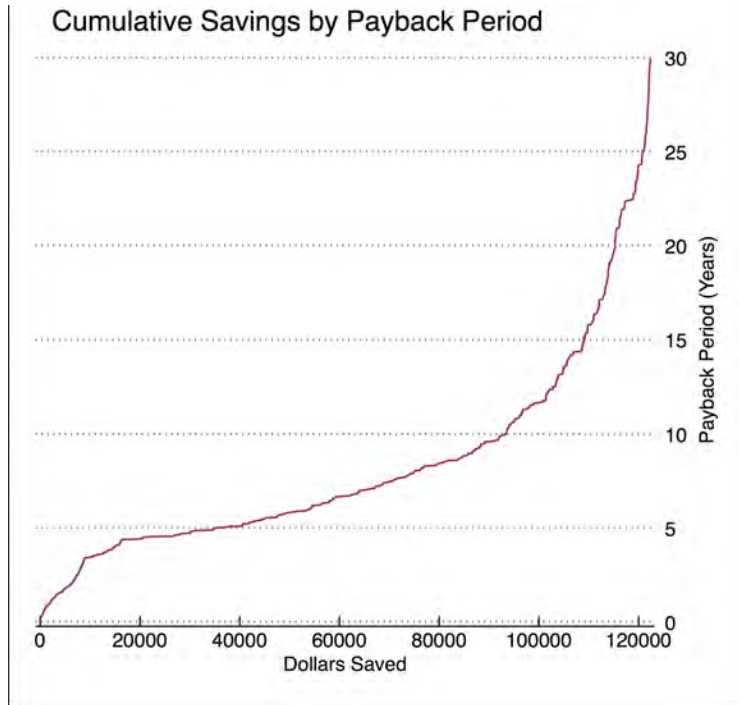
Example of a poorly insulated patch on an otherwise well-insulated wall.



Example of a poorly insulated roof.



All calculated ECMs and associated energy savings can be shared for Thermal Report recipients. Potential energy savings can be calculated for various payback periods of interest to the City of Vancouver. A sample version of this analysis is shown below:





3.2 Key Personnel

Rebecca Craft, Chief Customer Officer

Rebecca Craft is the Chief Customer Officer at Essess. As such, Ms. Craft oversees all activities related to customer development and success; program design, delivery and evaluation; and strategic partnerships. She also works closely with the CEO on defining Essess' role in the future of utility customer operations and energy efficiency markets. Prior to joining Essess, Ms. Craft was the Director of Energy Efficiency and Demand Management at Consolidated Edison Company of New York, Inc., where she was responsible for the development, implementation, and management of energy efficiency, demand response and peak demand management programs for the Company's electric and gas systems.

Jan Falkowski, Vice President of Engineering & Chief Technology Officer

Jan Falkowski oversees Essess' engineering efforts and is responsible for alignment among our hardware, software and machine learning teams. He works closely with Thomas Scaramellino, the Company's Chief executive Officer, to execute a product vision that addresses critical needs in the building energy efficiency market. Mr. Falkowski's career has focused on the development and deployment of intelligent robotic and sensor systems and supporting software applications. Prior to joining Essess, Mr. Falkowski held senior management and engineering roles at Vecna Technologies, where he was responsible for the R&D and product efforts of the company's first commercial robotics product and its subsequent launch in domestic and international markets. Mr. Falkowski received his bachelor's and master's degrees at Carnegie Mellon University, where he studied mechanical engineering and robotics.

Zeke Hausfather, Chief Scientist

Zeke Hausfather is an energy systems analyst and data scientist responsible for leading the team that develops Essess' emissivity and remediation algorithms. Prior to joining Essess, Mr. Hausfather was a research scientist at Berkeley Earth, the chief scientist at C3 Energy, and the cofounder and chief scientist of Efficiency 2.0, a behavior-based energy efficiency company. Mr. Hausfather received his bachelor's degree at Grinnell College, masters degrees at both Vrije



Universiteit and Yale School of Forestry and Environmental Studies, and will receive his PhD from the U.C. Berkeley Energy and Resources Group.

Bill Morris, VP of Hardware Research & Development

Bill Morris oversees the development and production of the thermal imaging systems and vehicles at Essess. Previously, Mr. Morris was a founder of 'I Heart Engineering', a Brooklyn-based robotics company, and the managing editor of the 'I Heart Robotics' blog. Mr. Morris is a classically trained programmer and systems administrator. He received his bachelor's in mechanical engineering from The City College of New York. In addition to developing a wide range of robots, including a novel wall climbing robot and a quadrotor helicopter for 3D mapping, he has made significant contributions to several academic papers and various open source projects as an active contributor to ROS (Robot Operating System).

Wes Matthews, Manager of Drive Operations

Wes Matthews manages all drive operations, including scheduling, hiring, training, logistics and routing for our vehicle fleet and drivers. In that capacity, Mr. Matthews ensures the safety of our vehicle fleet and drivers during the collection of up to 500 terabytes of data per vehicle each year. He is also responsible for our data export and storage activities and the continued development of our driver support software and tools.

Navi Singh, Vice President of Solutions Delivery

Navi Singh, an experienced corporate strategist, is responsible for working with Essess' customers and strategic partners to customize the company's technology to meet industry-specific needs. Prior to joining Essess, Mr. Singh was the director of corporate strategy at AARM Corporation, an alternative asset risk management firm associated with Harvard Business School. Before AARM Corp., he was a member of the molecular neurobiology lab in the Biomedical Sciences Research Complex at the University of St. Andrews. Mr. Singh received his master's degree from Harvard University and his bachelor's degree from the University of St. Andrews in Scotland, U.K.

See Appendix 6 for Essess resumes.



3.3 References

Table 5. Esess references and the corresponding projects.

Company Name	Project Manager & Contact Info	Brief Description of Work and Date Performed	Budget	Project Duration	Project End Result	Number of Homes / buildings Imaged
United States Department of Defense	James Miller TEL: (217) 373-4566 EMAIL: James.P.Miller@usace.army.mil	Esess scanned over 8.8 million sqft of buildings for two military bases to analyze building envelope efficiency. Esess provided each military base with an in-depth analysis of building-level and base-level issues, custom recommended measures for each building, and the corresponding ROI for each measure.	\$404,577	15 months	Esess was able to uncover over \$300,000 in potential envelope-related savings per year for one base and over \$100,000 in potential envelope-related savings per year for the other.	2 Military bases comprised of over 8.8 million sqft of buildings.
PECO Energy, Philadelphia, PA	Marina Geneles TEL: (215) 841-6396 EMAIL: marina.geneles@peco-energy.com	Esess worked with PECO Energy and an independent evaluator to determine customer reactions to Esess Thermal Reports, to verify Esess recommendations with in-home visits, and to measure the conversion rates for customers signing up for energy upgrades.	\$71,400	6 months	The results showed that PECO customers did not have any privacy concerns when presented a Thermal Report, all of Esess' recommendations were actionable, and that Esess Thermal Reports resulted in a 3.8% Response Rate for energy upgrades.	Esess imaged over 200,000 homes in the PECO territory.
Philadelphia Gas Works (PGW) / Performance Development Systems (PSD)	Paul Perowicz Tel: (412) 738-0268 Email: PPerowicz@psdconsulting.com	Esess delivered generic Thermal Reports for customers in the Philadelphia area as part of a multi-step campaign encouraging homeowners to call in for a personalized thermal report and sign up for energy upgrades.	\$28,725	12 months	The results of the campaign showed that when customers see their personalized Thermal Report, they are very likely to uptake energy upgrades. For those customers who opted-in to the program, we saw a \$63% conversion rate .	Esess imaged nearly 30,000 homes in the PGW territory.

3.4 Subcontractors

Esess does not propose to use any subcontractors.



3.5 Work Plan

Essess employs best-practice agile project management to ensure that projects proceed confidently and effectively. This means that flexibility and dynamic planning processes are baked into our approach so we can address needs nimbly as they change from Vancouver stakeholders over time. If project milestones or program goals are at risk, Essess has the ability to shift resources dynamically to ensure the highest quality implementation, knowing that Vancouver's goals and priorities may change during the implementation and beyond. Essess will rely upon the following best-practice tactics as part of program implementation:

Project Management - Essess will work closely with the City of Vancouver to manage project risk, deliver designs and functionality that accurately reflect the needs and preferences of Vancouver's Project Leads, and effectively communicate project progress and efficacy.

Account Management - Essess will assign a Project Manager to act as the primary liaison with the City of Vancouver Project Leads. The Project Manager will work with an assigned Vancouver Project Manager to ensure that deliverables related to program execution, including user experience, technical development and quality assurance, are met in a timely and professional manner.

Executive Sponsor – Due to the scale and importance of the Thermal Imaging For Residential Retrofit Targeting project, Essess anticipates allocating one of its senior executives to oversee the project implementation in addition to a dedicated Project Manager and a team of project leads for the different implementation tracks. The Essess project management and support teams will execute training sessions for relevant stakeholders, as desired by Vancouver Project Leads.

Meeting Attendance - Essess will also participate in any stakeholder meetings requested by the City of Vancouver Project Leads. These training and stakeholder events may occur in person or via webinar, depending on Vancouver personnel preference.

Scope Finalization and Requirements Gathering - Upon notice of award, Essess will engage in a deliberate process of clarifying and documenting the project's scope. We facilitate discussion among all stakeholders in which we identify expectations and gather specific program requirements. We find that it is critical to engage with all key stakeholders as early as possible, so that the broadest possible range of interests and ideas are brought to the table at project



inception. This approach minimizes the likelihood that other departments or stakeholders may create surprises for the Project Leads later in the implementation phase. Business requirements may include overall goals and objectives; functional requirements such as specific design, user experience or functionality necessary to satisfy a business goal; stakeholder requirements that set forth the expectations and needs of internal or external partner organizations, customers, regulators or other entities who may have an interest in the project; user requirements such as accessibility, geographic specificity, target audience, user types and any other information relevant to how the end user's experience impacts program goals; and nonfunctional requirements such as performance, scalability, quality and schedule of service and report specifications. Together, we document expectations in a Statement of Work and in supplementary functional requirements documents. Additionally, we commit to market-based service levels in a Service Level Agreement finalized in the scoping and contracting phases.

Risk Mitigation - we mitigate project risk through many of the tactics described in this section, including clear documentation of project scope, a highly responsive agile development process, explicit change control and accountability structures centralized on a small number of individuals, and clear and explicit mechanisms for addressing defects or project delays.

Project Timeline

The first step in the project timeline is for Essess to scan the targeted parts of Vancouver. Upon capturing the thermal scan of the target areas, data processing typically takes no longer than 4-8 weeks depending on data availability from the City of Vancouver and other potential data providers.

After scanning and data processing is complete, the project timeline may vary depending on the products purchased. The Tiering Analysis and Driveby Application products typically require no more than 3 to 4 weeks to deliver after data processing is complete. Essess will then work with the City of Vancouver to schedule training sessions for each of these products upon their delivery. Training sessions may include Vancouver personnel and other stakeholders, trade allies or other partners that Vancouver authorizes to have access to these applications and data sources described above.

If the City of Vancouver chooses to purchase Thermal Reports to deliver to end customers, then Essess begins designing and delivering draft marketing communications for Vancouver Project Leads to review and approve. Given the iterative nature of this process, particularly with the involvement of another marketing partner, typically 3 to 4 design iterations are reviewed before final approval of the marketing communication over a period of 4 to 8 weeks. In order



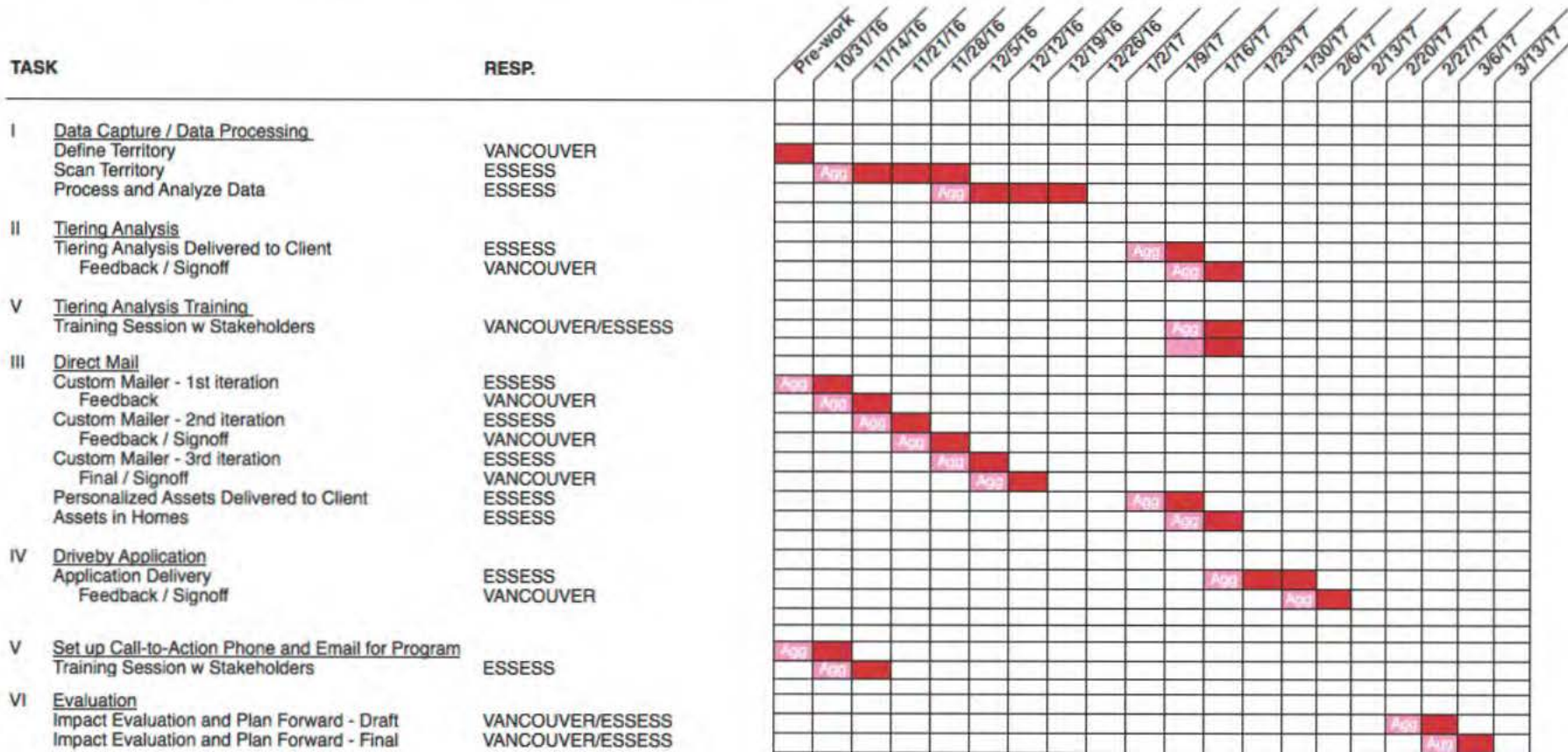
to shorten the project timeline, Essess will work with the City of Vancouver to finalize the design of the Thermal Reports during the “Pre-work” portion of the project timeline. Essess will also set up a unique 1-800 number and email address which will be used as the Call-to-Action on the Thermal Reports. Essess will set up a training session with the City of Vancouver and recommended EnerGuide contractors to familiarize all stakeholders with the process of lead follow-up.

While the number of homes scanned and Thermal Reports delivered to customers is configurable by the City of Vancouver, Essess strongly recommends keeping the overall template design. Samples of Thermal Reports for Vancouver are displayed in Section 3.0.

Essess uses standard project management software to track project milestones. Once the City of Vancouver identifies the products it may wish to purchase, Essess would be more than happy to provide a detailed project plan using its project management software.

City of Vancouver Project Timeline - DRAFT

Pink cells marked "Agg" represent "Aggressive" targets that could accelerate project timeline. Note that not all steps are critical path, so time savings are not strictly additive





3.6 Sustainability

The Essess Thermal Analysis Program can deliver substantial community and non-energy benefits across the customer base in Vancouver including significant CO₂-equivalent reductions and job creation benefits in the Vancouver area. Benefits will vary depending on the nature of the product or products purchased by the City of Vancouver. Initial analysis shows that if Essess helps reduce home energy usage by 20% for 400 homes via weatherization/retrofit, we will reduce CO₂ emissions by approximately by 200 tonnes. Essess is happy to provide updated benefits estimates that include other customer types (small-to-medium businesses, large commercial and industrial accounts, etc.) or a different number of residential customers upon receiving instructions from the City of Vancouver.

The Thermal Analysis Program can also be expected to generate between 4 and 17 new jobs, primarily in the contractor market, related to envelope improvements in the Vancouver area. Beyond carbon reduction and job creation benefits, the Thermal Analysis Program can potentially generate benefits for trade allies, retailers and contractors in the City of Vancouver by leveraging the thermal intelligence and targeting data across the territory to increase sales of envelope-related and other building monitoring or HVAC control products. In the insulation, HVAC and remodeling market, identifying appropriate leads is one of the most difficult components of sales and marketing efforts. The Thermal Analysis Program provides an unprecedented ability to generate effective leads for these local businesses.

Finally, by providing actionable envelope advice that would otherwise be very costly for customers to obtain as a free service, the City of Vancouver can deliver substantial customer satisfaction benefits across residential and large commercial customers, including related groups like homeowners associations, condo boards and similar entities. Essess would be happy to discuss a comprehensive test design to measure empirically community and customer satisfaction benefits delivered by the Thermal Analysis Program.³ Essess would welcome the opportunity to explore with the City of Vancouver other ways the Tiering Analysis and Thermal Report products could benefit the Targeted Areas in conjunction with other marketing campaigns or the efforts of external stakeholders. The more useful Essess' products are in related efforts, the more value Vancouver and its citizens obtain for each dollar spent on Essess'

³ It is important to note that a well designed randomized controlled test design comparing outcomes among those receiving with those not receiving the reports will also enable the City of Vancouver to identify energy savings for any savings achieved from the customers who receive Thermal Reports but undertake retrofits or building envelope improvements on their own.



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products and services.

Declaration of Supplier Code of Conduct Compliance is attached as Appendix 2.

The Vendor Sustainability Leadership Questionnaire is attached as Appendix 4.

Short Form Services Sustainability Requirements is attached as Appendix 5.



3.7 Deviations and Variations

Essess, Inc. (“Essess” or the “Consultant”) requests the following variations to the City of Vancouver’s RFP:

- In **Part B, Section 1.1(a)**, Essess proposes increasing the number of homes imaged to 75,000-100,000.

Essess, Inc. (“Essess” or the “Consultant”) requests the following variations to the City of Vancouver’s Form of Agreement:

- In **Section 15 (Confidentiality)**, Essess requests that the definition of “Confidential Information” and the terms of subsections 15.1, 15.2, 15.3, 15.5 and 15.6 be made mutual.
- Essess can agree to the terms of **Section 16 (No Promotion of Relationship)** to the extent they relate to public disclosures, but would like to retain the right to disclose or promote its relationship with the City in meetings with its current or potential investors and in sales pitches to current or potential customers.
- With respect to **Sections 17.6 and 17.7 (ownership of Deliverables)**, Essess cannot agree to transfer full ownership rights, title and interest in its Deliverables to the City. Essess requests that Sections 17.6 and 17.7 be replaced with terms that state that the Consultant will retain ownership over all Deliverables it prepares or furnishes pursuant to the Agreement, including both its proprietary reports and the underlying technical data and analytics. Essess will grant the City a non-exclusive, non-transferable license to use, modify, copy, and maintain the Deliverables for the term of the Agreement. Of course, the City will retain ownership rights to its own trademarks and other intellectual property incorporated into the reports that Essess creates.

By way of background, Essess is in the business of conducting energy audits using thermal imaging technology and provides municipalities, utilities and other customers with proprietary customer analytics, intelligence and marketing reports that use the data Essess collects to support existing programs and to motivate adoption of energy efficiency measures that deliver persistent and deep benefits. Essess has spent four years and approximately \$10 million developing the thermal imaging technology, software applications, scientific algorithms, report designs, creative assets and other proprietary material to deliver these products into the utility market and other related markets. All of Essess’ Deliverables are subject to copyright, trade secret and other intellectual



property protection. As a result of this substantial investment, Essess does not provide “works for hire.” Rather, Essess offers a subscription to various data analytics, customer intelligence, software and marketing reports over a certain period of time and for a certain geographic territory. The reason for this is critical: if Essess were to grant to any customer ownership rights over its products, Essess would no longer be able to use those products for any future clients, thereby negating the millions of dollars of investment that led to these mature offerings, which would undermine the entirety of Essess’ business model. Moreover, Essess would also enable any of its customers to compete with Essess at any time in the future were it to grant such rights. With that in mind, we hope you can understand that it is not possible for Essess to transfer ownership of its reports after spending millions of dollars on both the technology that makes these reports possible and the design of the reports themselves.

Moreover, the management team behind Essess has worked with many of the largest investor-owned utilities in North America and, in all of these projects, the utilities agreed to an identical subscription model for the delivery of marketing reports, customer data analytics, and related software. In fact, it is standard for all of the major vendors in this market to deliver their products under this model. No vendor would be able to justify the substantial investment in developing products if they were delivered in any other manner.



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3.8 Conflicts; Collusion; Lobbying

See Appendix 1: Legal Terms and Conditions, Section 9.0



Appendix 1: Legal Terms and Conditions

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APPENDIX 1 TO PROPOSAL FORM

LEGAL TERMS AND CONDITIONS

1 APPLICATION OF THESE LEGAL TERMS AND CONDITIONS

These legal terms and conditions set out the City's and the Proponent's legal rights and obligations only with respect to the RFP proposal process and any evaluation, selection, negotiation or other related process. In no event will the legal terms and conditions of this Appendix 1 apply to, or have the effect of supplementing, any Contract formed between the City and the Proponent or otherwise apply as between the Proponent and the City following the signing of any such Contract.

2 DEFINITIONS

In this Appendix 1, the following terms have the following meanings:

- (a)! "City" means the City of Vancouver, a municipal corporation continued pursuant to the Vancouver Charter.
- (b)! "Contract" means a legal agreement, if any, entered into between the City and the Proponent as a result of the RFP.
- (c)! "Losses" means, in respect of any matter, all direct or indirect, as well as consequential: claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement whether from a third person or otherwise).
- (d)! "Proponent" means the legal entity which has signed the Proposal Form, and "proponent" means any proponent responding to the RFP, excluding or including the Proponent, as the context requires.
- (e)! "Proposal" means the package of documents consisting of the Proposal Form (including this Appendix 1), the Proponent's proposal submitted under cover of the Proposal Form, and all schedules, appendices and accompanying documents, and "proposal" means any proposal submitted by any proponent, excluding or including the Proponent, as the context requires.
- (f)! "Proposal Form" means that certain Part C of the RFP, completed and executed by the Proponent, to which this Appendix 1 is appended.
- (g)! "RFP" means the document issued by the City as Request for Proposals No. PS20152048 - THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING, as amended from time to time and including all addenda.

3 NO LEGAL OBLIGATION ASSUMED BY THE CITY

Despite any other term of the RFP or the Proposal Form, including this Appendix 1 (except only Sections 7, 8.2 and 11 of this Appendix 1, in each case to the extent applicable), the City assumes no legal duty or obligation to the Proponent or to any proposed subcontractor in respect of the RFP, its subject matter or the Proposal unless and until the City enters into a Contract, which the City may decline to do in the City's sole discretion.



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4 NO DUTY OF CARE OR FAIRNESS TO THE PROPONENT

The City is a public body required by law to act in the public interest. In no event, however, does the City owe to the Proponent or to any of the Proponent's proposed subcontractors (as opposed to the public) any contract or tort law duty of care, fairness, impartiality or procedural fairness in the RFP process, or any contract or tort law duty to preserve the integrity of the RFP process. The Proponent hereby waives and releases the City from any and all such duties and expressly assumes the risk of all Losses arising from participating in the RFP process on this basis.

5 EVALUATION OF PROPOSALS

5.1! Compliance / Non-Compliance

Any proposal which contains an error, omission or misstatement, which contains qualifying conditions, which does not fully address all of the requirements or expectations of the RFP, or which otherwise fails to conform to the RFP may or may not be rejected by the City at the City's sole discretion. The City may also invite a proponent to adjust its proposal to remedy any such problem, without providing the other proponents an opportunity to amend their proposals.

5.2! Reservation of Complete Control over Process

The City reserves the right to retain complete control over the RFP and proposal processes at all times. Accordingly, the City is not legally obligated to review, consider or evaluate the proposals, or any particular proposal, and need not necessarily review, consider or evaluate the proposals, or any particular proposal, in accordance with the procedures set out in the RFP, and the City reserves the right to continue, interrupt, cease or modify its review, evaluation and negotiation processes in respect of any or all proposals at any time without further explanation or notification to any proponents.

5.3! Discussions/Negotiations

The City may, at any time prior to signing a Contract, discuss or negotiate changes to the scope of the RFP, any proposal or any proposed agreement with any one or more of the proponents without having any duty or obligation to advise the Proponent or to allow the Proponent to vary its Proposal as a result of such discussions or negotiations with other proponents or changes to the RFP or such proposals or proposed agreements, and, without limiting the general scope of Section 6 of this Appendix 1, the City will have no liability to the Proponent as a result of such discussions, negotiations or changes.

5.4! Acceptance or Rejection of Proposals

The City has in its sole discretion, the unfettered right to: accept any proposal; reject any proposal; reject all proposals; accept a proposal which is not the lowest-price proposal; accept a proposal that deviates from the requirements of the RFP or the conditions specified in the RFP; reject a proposal even if it is the only proposal received by the City; accept all or any part of a proposal; enter into agreements respecting the subject matter of the RFP with one or more proponents; or enter into one or more agreements respecting the subject matter of the RFP with any other person at any time.

6 PROTECTION OF CITY AGAINST LAWSUITS

6.1! Release by the Proponent

Except only and to the extent that the City is in breach of Section 8.2 of this Appendix 1, the Proponent now releases the City, its officials, its agents and its employees from all liability for any Losses incurred in connection with the RFP or the Proposal, including any Losses in connection with:



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- (a)! any alleged (or judicially determined) breach by the City or its officials, agents or employees of the RFP (it being agreed that, to the best of the parties' knowledge, the City has no obligation or duty under the RFP which it could breach (other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially))
- (b)! any unintentional tort of the City or its officials or employees occurring in the course of conducting the RFP process,
- (c)! the Proponent preparing and submitting the Proposal;
- (d)! the City accepting or rejecting the Proposal or any other submission; or
- (e)! the manner in which the City: reviews, considers, evaluates or negotiates any proposal; addresses or fails to address any proposal or proposals; resolves to enter into a Contract or not enter into a Contract or any similar agreement; or the identity of the proponent(s) or other persons, if any, with whom the City enters any agreement respecting the subject matter of the RFP.

6.2! Indemnity by the Proponent

Except only and to the extent that the City breaches Section 8.2 of this Appendix 1, the Proponent indemnifies and will protect, save and hold harmless the City, its officials, its agents and its employees from and against all Losses, in respect of any claim or threatened claim by the Proponent or any of its proposed subcontractors or agents alleging or pleading:

- (a)! any alleged (or judicially determined) breach by the City or its officials or employees of the RFP (it being agreed that, to the best of the parties' knowledge, the City has no obligation or duty under the RFP which it could breach (other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially));
- (b)! any unintentional tort of the City or its officials or employees occurring in the course of conducting the RFP process, or
- (c)! liability on any other basis related to the RFP or the proposal process.

6.3! Limitation of City Liability

In the event that, with respect to anything relating to the RFP or this proposal process (except only and to the extent that the City breaches Section 8.2 of this Appendix 1), the City or its officials, agents or employees are found to have breached (including fundamentally breached) any duty or obligation of any kind to the Proponent or its subcontractors or agents whether at law or in equity or in contract or in tort, or are found liable to the Proponent or its subcontractors or agents on any basis or legal principle of any kind, the City's liability is limited to a maximum of \$100, despite any other term or agreement to the contrary.

7 DISPUTE RESOLUTION

Any dispute relating in any manner to the RFP or the proposal process (except to the extent that the City breaches this Section 7 or Section 8.2 of this Appendix 1, and also excepting any disputes arising between the City and the Proponent under a Contract (or a similar contract between the City and a proponent other than the Proponent)) will be resolved by arbitration in accordance with the *Commercial Arbitration Act* (British Columbia), amended as follows:

- (a)! The arbitrator will be selected by the City's Director of Legal Services;



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- (b)! Section 6 of this Appendix 1 will:
 - i.! bind the City, the Proponent and the arbitrator; and
 - ii.! survive any and all awards made by the arbitrator; and
- (c)! The Proponent will bear all costs of the arbitration.

8 PROTECTION AND OWNERSHIP OF INFORMATION

8.1! RFP and Proposal Documents City's Property

- (a)! All RFP-related documents provided to the Proponent by the City remain the property of the City and must be returned to the City, or destroyed, upon request by the City.
- (b)! The documentation containing the Proposal, once submitted to the City, becomes the property of the City, and the City is under no obligation to return the Proposal to the Proponent.

8.2! Proponent's Submission Confidential

Subject to the applicable provisions of the *Freedom of Information and Protection of Privacy Act* (British Columbia), other applicable legal requirements, and the City's full right to publicly disclose any and all aspects of the Proposal in the course of publicly reporting to the Vancouver City Council on the proposal results or announcing the results of the RFP, the City will treat the Proposal (and the City's evaluation of it), in confidence in substantially the same manner as it treats its own confidential material and information.

8.3! All City Information Confidential

- (a)! The Proponent will not divulge or disclose to any third parties any non-public documents or information concerning the affairs of the City which have been or are in the future provided or communicated to the Proponent at any time (whether before, during or after the RFP process). Furthermore, the Proponent agrees that it has not and must not use or exploit any such non-public documents or information in any manner, including in submitting its Proposal.
- (b)! The Proponent now irrevocably waives all rights it may have by statute, at law or in equity, to obtain any records produced or kept by the City in evaluating its Proposal (and any other submissions) and now agrees that under no circumstances will it make any application to the City or any court for disclosure of any records pertaining to the receipt, evaluation or selection of its Proposal (or any other submissions) including, without limitation, records relating only to the Proponent.

9 NO CONFLICT OF INTEREST / NO COLLUSION / NO LOBBYING

9.1! Declaration as to no Conflict of Interest in RFP Process

- (a)! The Proponent confirms and warrants that there is no officer, director, shareholder, partner, employee or contractor of the Proponent or of any of its proposed subcontractors, or any other person related to the Proponent's or any proposed subcontractor's organization (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is:
 - i.! an official or employee of the City; or



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ii.! related to or has any business or family relationship with an elected official or employee of the City,

in each case, such that there could be any conflict of interest or any appearance of conflict of interest in the evaluation or consideration of the Proposal by the City, and, in each case, except as set out, in all material detail, in a separate section titled "Conflicts; Collusion; Lobbying" in the Proposal.

(b)! The Proponent confirms and warrants that there is no person having an interest (as defined above) who is a former official, former employee or former contractor of the City and who has non-public information relevant to the RFP obtained during his or her employment or engagement by the City, except as set out, in all material detail, in a separate section titled "Conflicts; Collusion; Lobbying" in the Proposal.

9.2! Declaration as to No Conflict of Interest Respecting Proposed Supply

The Proponent confirms and warrants that neither the Proponent nor any of its proposed subcontractors is currently engaged in supplying (or is proposing to supply) goods or services to a third party such that entering into an agreement with the City in relation to the subject matter of the RFP would create a conflict of interest or the appearance of a conflict of interest between the Proponent's duties to the City and the Proponent's or its subcontractors' duties to such third party, except as set out, in all material detail, in a separate section titled "Conflicts; Collusion; Lobbying" in the Proposal.

9.3! Declaration as to No Collusion

The Proponent confirms and warrants that:

- (a)! the Proponent is not competing within the RFP process with any entity with which it is legally or financially associated or affiliated, and
- (b)! the Proponent is not cooperating in any manner in relation to the RFP with any other proponent responding to the RFP.

in each case, except as set out, in all material detail, in a separate section titled "Conflicts, Collusion, Lobbying" in the Proposal.

9.4! Declaration as to Lobbying

The Proponent confirms and warrants that:

- (a)! neither it nor any officer, director, shareholder, partner, employee or agent of the Proponent or any of its proposed subcontractors is registered as a lobbyist under any lobbyist legislation in any jurisdiction in Canada or in the United States of America; and
- (b)! neither it nor any officer, director, shareholder, partner, employee or agent of the Proponent or any of its proposed subcontractors has engaged in any form of political or other lobbying whatsoever with respect to the RFP or sought, other than through the submission of the Proposal, to influence the outcome of the RFP process,

in each case as set out, in all material detail, in a separate section titled "Conflicts, Collusion, Lobbying" in the Proposal.



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10 NO PROMOTION OF RELATIONSHIP

The Proponent must not disclose or promote any relationship between it and the City, including by means of any verbal declarations or announcements and by means of any sales, marketing or other literature, letters, client lists, press releases, brochures, web sites or other written materials (whether in print, digital, electronic or other format) without the express prior written consent of the City. The Proponent undertakes not to use the name, official emblem, mark, or logo of the City, including without limitation, "City of Vancouver", "Vancouver Police Board", "Vancouver Public Library", "Vancouver Park Board", "Vancouver Board of Parks and Recreation", or any other reference to any of the foregoing, without the express prior written consent of the City.

11 GENERAL

- (a)! All of the terms of this Appendix 1 to this Proposal Form which by their nature require performance or fulfillment following the conclusion of the proposal process will survive the conclusion of such process and will remain legally enforceable by and against the Proponent and the City.
- (b)! The legal invalidity or unenforceability of any provision of this Appendix 1 will not affect the validity or enforceability of any other provision of this Appendix 1, which will remain in full force and effect.
- (c)! The Proponent now assumes and agrees to bear all costs and expenses incurred by the Proponent in preparing its Proposal and participating in the RFP process.
- (d)! The Proponent consents to the City contacting any references named by the Proponent in the Proposal.

AS EVIDENCE OF THE PROPONENT'S INTENT TO BE LEGALLY BOUND BY THIS APPENDIX 1, THE PROPONENT HAS EXECUTED AND DELIVERED THIS APPENDIX 1 AS AN INTEGRAL PART OF ITS PROPOSAL FORM IN THE MANNER AND SPACE SET OUT BELOW:



Signature of Authorized Signatory for the Proponent

February 10, 2016

Date

Navi Singh, Vice President of Solutions Delivery

Name and Title

Signature of Authorized Signatory for the Proponent

Date

Name and Title



Appendix 2: Declaration of Supplier Code of Conduct Compliance

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APPENDIX 2 TO PROPOSAL FORM

DECLARATION OF SUPPLIER CODE OF CONDUCT COMPLIANCE

Purpose: All proposed suppliers are to complete and submit this form to certify compliance with the supplier performance standards set out in the Supplier Code of Conduct.

The City of Vancouver expects each supplier of goods and services to the City to comply with the supplier performance standards set out in the City's Supplier Code of Conduct (SCC) <http://vancouver.ca/policy_pdf/AF01401P1.pdf>. The SCC defines minimum labour and environmental standards for City suppliers and their subcontractors.

Suppliers are expected to comply with the aforementioned standards upon submitting a tender, proposal, application, expression of interest or quotation to the City, or have a plan in place to comply within a specific period of time. The City reserves the right to determine an appropriate timeframe in which suppliers must come into compliance with these standards. To give effect to these requirements, an authorised signatory of each proposed vendor must complete the following declaration and include this declaration with its submission:

As an authorised signatory of Esess Inc. (*vendor name*), I declare that I have reviewed the SCC and to the best of my knowledge, Esess Inc. (*vendor name*) and its proposed subcontractors have not been and are not currently in violation of the SCC or convicted of an offence under national and other applicable laws referred to in the SCC, other than as noted in the table below (*include all violations/convictions that have occurred in the past three years as well as plans for corrective action*).

Section of SCC / title of law	Date of violation /conviction	Description of violation / conviction	Regulatory / adjudication body and document file number	Corrective action plan

I understand that a false declaration and/or lack of a corrective action plan may result in no further consideration being given to the submission of Esess Inc. (*vendor name*).

Signature: 

Name and Title: Navi Singh, Vice President of Solutions Delivery



Appendix 3: Certificate of Existing Insurance, Certificate Liability Insurance, and Essex Insurance Letter

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APPENDIX 3 TO PROPOSAL FORM
CERTIFICATE OF EXISTING INSURANCE
TO BE COMPLETED AND APPENDED TO THE PROPOSAL

Section 2 through 8 – to be completed and executed by the Insurer or its Authorized Representative

1. THIS CERTIFICATE IS ISSUED TO: City of Vancouver, 453 W 12th Avenue, Vancouver, BC, V5Y 1V4
and certifies that the insurance policy (policies) as listed herein has/have been issued to the Named Insured and is/are in full force and effect.
2. NAMED INSURED (*must be the same name as the Proponent/bidder and is either an individual or a legally incorporated company*)

BUSINESS TRADE NAME or DOING BUSINESS AS

Essex, Inc.

BUSINESS ADDRESS 25 Thomson Place, Boston, MA 02210

DESCRIPTION OF OPERATION

Hardware and Software technology co that has developed drive-by thermal imaging capabilities to identify energy waste in bldgs.

3. PROPERTY INSURANCE (All Risks Coverage including Earthquake and Flood)

INSURER <u>American Casualty Co of PA-CNA</u>	Insured Values (Replacement Cost) -
TYPE OF COVERAGE <u>Property-</u>	Building and Tenants' Improvements \$ _____
POLICY NUMBER <u>4030909529</u>	Contents and Equipment \$ <u>76,500</u>
POLICY PERIOD From <u>08/05/2015</u> to <u>08/05/2016</u>	Deductible Per Loss \$ <u>500</u>

4. COMMERCIAL GENERAL LIABILITY INSURANCE (Occurrence Form)

Including the following extensions:		INSURER <u>American Casualty Co of PA - CNA</u>
<input checked="" type="checkbox"/> Personal Injury	POLICY NUMBER	<u>4030909529</u>
<input checked="" type="checkbox"/> Property Damage including Loss of Use	POLICY PERIOD	From <u>08/05/2015</u> to <u>08/05/2016</u>
<input checked="" type="checkbox"/> Products and Completed Operations	Limits of Liability (Bodily Injury and Property Damage Inclusive) -	
<input checked="" type="checkbox"/> Cross Liability or Severability of Interest	Per Occurrence	\$ <u>2,000,000</u>
<input checked="" type="checkbox"/> Employees as Additional Insureds	Aggregate	\$ <u>4,000,000</u>
<input checked="" type="checkbox"/> Blanket Contractual Liability	All Risk Tenants' Legal Liability	\$ <u>2,000,000</u>
<input checked="" type="checkbox"/> Non-Owned Auto Liability	Deductible Per Occurrence	\$ _____

5. AUTOMOBILE LIABILITY INSURANCE for operation of owned and/or leased vehicles

INSURER <u>American Casualty Co of PA - CNA</u>	Limits of Liability -
POLICY NUMBER <u>4034655458</u>	Combined Single Limit \$ <u>1,000,000</u>
POLICY PERIOD From <u>08/31/2015</u> to <u>08/31/2016</u>	<i>If vehicles are insured by ICBC, complete and provide Form APV-47.</i>

6. UMBRELLA OR EXCESS LIABILITY INSURANCE

INSURER <u>Continental Casualty - CNA</u>	Limits of Liability (Bodily Injury and Property Damage Inclusive)
POLICY NUMBER <u>5095711682</u>	Per Occurrence \$ <u>2,000,000</u>
POLICY PERIOD From <u>08/05/2015</u> to <u>08/05/2016</u>	Aggregate \$ <u>2,000,000</u>
	Self-Insured Retention \$ <u>10,000</u>

7. PROFESSIONAL LIABILITY INSURANCE

INSURER _____	Limits of Liability
POLICY NUMBER _____	Per Occurrence/Claim \$ _____
POLICY PERIOD From _____ to _____	Aggregate \$ _____
	Deductible Per Occurrence/Claim \$ _____

If the policy is in a "CLAIMS MADE" form, please specify the applicable Retroactive Date:

8. OTHER INSURANCE

TYPE OF INSURANCE _____	Limits of Liability
INSURER _____	Per Occurrence \$ _____
POLICY NUMBER _____	Aggregate \$ _____
POLICY PERIOD From _____ to _____	Deductible Per Loss \$ _____
TYPE OF INSURANCE _____	Limits of Liability
INSURER _____	Per Occurrence \$ _____
POLICY NUMBER _____	Aggregate \$ _____
POLICY PERIOD From _____ to _____	Deductible Per Loss \$ _____

SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE

Judy Year Dated 2/19/16
PRINT NAME OF INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER
Judy Year, Mason & Mason TIS 458 South Avenue, Whitman MA 02382



Certificate of Liability Insurance



EYERSYS-01 DMEANEY

DATE (MM/DD/YYYY)
2/4/2016

CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Mason & Mason Technology Insurance Services, Inc. 458 South Ave. Whitman, MA 02382		CONTACT NAME: Judy Yeary PHONE (A/C, No, Ext): FAX (A/C, No): E MAIL ADDRESS: JYeary@masoninsure.com	
		INSURER(S) AFFORDING COVERAGE INSURER A : American Casualty Co of PA INSURER B : Continental Casualty Insurance Company INSURER C : INSURER D : INSURER E : INSURER F :	
INSURED Essess, Inc. 51 Melcher Street 7th Floor Boston, MA 02210			

COVERAGES CERTIFICATE NUMBER REVISION NUMBER

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO. JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER			4030909529	08/05/2015	08/05/2016	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 4,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			4034655458	08/31/2015	08/31/2016	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			5095711682	08/05/2015	08/05/2016	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N <input type="checkbox"/> N/A	4030908686	08/05/2015	08/05/2016	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 RE: THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING: PS20152048

CERTIFICATE HOLDER City of Vancouver Supply Chain Management 453 West 12th Ave Vancouver, BC V5Y 1V4 CANADA	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
-----------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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ACORD 25 (2014/01)

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Esess Requested Insurance Letter



February 4, 2016

City of Vancouver
Supply Chain Management
453 West 12th Ave.
Vancouver, British Columbia
Canada V5Y 1V4

RE: THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING: PS20152048

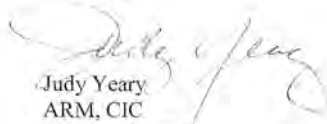
To Whom it May Concern:

With regards to the Insurance requirements for Proposal PS20152048 THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING

- Esess, Inc. currently does not have Errors & Omissions liability insurance.
- Additional Insured for the City and the City's officials, employees and agents - Esess Inc. will be able to comply with this
- Primary and Non-Contributory - Esess, Inc. will be able to comply with this
- Waiver of Subrogation for General Liability - Esess, Inc. will be able to comply with this
- Provide 30 days notice of cancellation except for non-payment – Esess, Inc. will be able to comply with this

If you have any questions, please let us know,

Sincerely,



Judy Yeary
ARM, CIC
Vice President

Mason & Mason Technology Insurance Services, Inc.
458 South Avenue | Whitman, MA 02382 | T: (+1) 781-447-5531 | F: (+1) 781-447-7230 | www.masoninsure.com



Appendix 4: Sustainability Leadership Questionnaire

REQUEST FOR PROPOSALS NO. PS20152048
THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING
PART C - PROPOSAL FORM

APPENDIX 4 TO PROPOSAL FORM

VENDOR SUSTAINABILITY LEADERSHIP QUESTIONNAIRE

As part of the City’s Corporate Procurement Policy and related Supplier Code of Conduct described in Section 9.1 of Part A, all City vendors must meet minimum requirements related to ethical, social and environmental standards.

Beyond these basic requirements, the City would like to recognize vendors that are demonstrating leadership and innovation in sustainability. In order to be able to do so, the City requires that Proponents answer the following questions. The answers provided will be evaluated as part of the Proposal evaluation process described in Section 8.0 of Part A.

Please keep in mind that these questions relate to your company’s internal operations and overall sustainability leadership.

The City may request that the Proponent provide additional information to support any of the responses provided.

If additional space is required, the Proponent may attach its response(s) to this Annex and reference the relevant question and section number.

For all questions where the answer is ‘Yes’ and additional information is requested, if this information is not included in the Proposal, the answer may not be evaluated.

For all questions where there is a word limit, responses are to be kept within this word limit. Information in excess of the word limit may not be evaluated.

Questionnaire structure:

Section 1: Environmental Impact	Reducing greenhouse gas (GHG) emissions Reducing waste Sustainable purchasing
Section 2: Social Impact	Workplace development programs Supporting social enterprises Additional social sustainability initiatives
Section 3: Definitions	Definitions for key terms used in this Annex.



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SECTION 1: ENVIRONMENTAL IMPACT

This section of the leadership questionnaire addresses the following:

- reducing greenhouse gas (GHG) emissions
- reducing waste
- sustainable purchasing

1. Does your company own buildings in Metro Vancouver?

- Yes No

If no, skip to question 2.

If yes, describe efforts in the past three (3) years to improve the energy efficiency of owned buildings owned and/or rented space in Metro Vancouver with respect to the elements listed below. Please limit answer to 400 words or less.

- a. Equipment and lighting upgrades (e.g., HVAC, water heaters, LED lighting)
- b. Building envelope improvements (e.g., insulation, windows)
- c. Staff conservation and engagement programs (e.g., turning off lights and computers, etc.)

2. Does your company own or lease fleet vehicles and/or heavy off-road equipment to be operated in Metro Vancouver?

- Yes No

If no, skip to question 3.

If yes, describe actions in the past three (3) years to reduce the GHG emissions of vehicles and heavy equipment operated in Metro Vancouver. (Actions could include: purchase of low emissions vehicles, use of alternative fuels, deployment of telematics software, driver training programs, etc.). Please limit answer to 250 words or less.

ANSWER: Essess has yet to operate or image in Vancouver. However, Essess utilizes advanced telematics software to make imaging capture as efficient as possible in order to limit CO2 emissions. Each vehicle is equipped with a commercial grade navigation system that ensures that the vehicle stays on the curated tract. We also have a detailed driver training program to insure that the Essess driving team prioritizes safety, efficiency, and effectiveness.

3. Describe any other initiatives undertaken past three (3) years that have significantly reduced the GHG emissions of your operations. Please limit answer to 250 words or less.

ANSWER: Essess has spent millions of dollars on research related to capturing thermal images at scale. Each year, our hardware team is tasked with making improvements to the imaging vehicle to not only improve the quality of the data being captures but also the efficiency at which it is captures.



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4. Does your company have an office or operations recycling program in place?

- Yes No

If yes, which materials does your company recycle -- check only those that apply:

- office paper
- plastic and glass containers
- soft plastic
- food waste/compostables
- batteries
- printer or toner cartridges
- Styrofoam
- IT equipment / electronics / mobile devices
- clean wood (e.g., pallets)
- metals

5. Describe any other initiatives undertaken in the past three (3) years that have significantly reduced waste from your operations. Please limit answer to 250 words or less.

ANSWER: Essex has an internal 'Digital Instead of Paper' policy which encourages all Essex employees limit printing documents if a digital copy is available.

6. Indicate which environmentally preferable and/or sustainable goods or services your company currently purchases - check only those that apply:

- Sustainable food items (e.g., Fairtrade coffee; organic produce; OceanWise seafood)
- Copy paper (e.g., 100 per cent post-consumer waste; Forest Stewardship Council certified; tree free)
- Janitorial supplies (e.g., ECOLOGO or Green Seal certified)
- IT equipment (e.g., EPEAT Gold, EnergyStar qualified)
- Office products (e.g., ECOLOGO; recycled; non-toxic)
- Printing services (e.g., Forest Stewardship Council certified paper and printer)
- Promotional / marketing items (e.g., fair labour practices; reusable; recyclable)
- Courier services (e.g., use energy efficient, low carbon or alternative fuel vehicles)
- Catering services (e.g., serve sustainable food; employ social enterprises; use reusable serving ware)
- Landscaping services (e.g., use energy efficient equipment; employ social enterprises)
- Other: (list)

ANSWER: All Essex business cards are printed on 100% recycled paper using soy ink and any paper used for printing is recycled stock.



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PART C - PROPOSAL FORM

SECTION 2: SOCIAL IMPACT

This section of the leadership questionnaire addresses the following elements:

- Workplace development programs
- Supporting social enterprises
- Other social sustainability initiatives

1. Does your company employ and/or provide training opportunities for person(s) with barriers to employment (e.g., people with addictions, disabilities, mental health issues; people who are newcomers or refugees, etc.) that go beyond the hiring practices required by law? See definition of person with barriers to employment in Section 3 below.

Yes No

If yes, describe the program including the name of non-profit or educational institution or government agency that you work with to identify potential trainees or employees; and the number of employees/trainees that work in your company.

2. Does your company conduct business with, or support in other ways, one or more social enterprises (as defined in Section 3 below)?

Yes No

If yes, name the social enterprise(s) and describe the nature of the business conducted and/or support provided.

3. Is your company structure either of the following:

a. Social enterprise (as defined in Section 3 below).

Yes No

If yes, state the name of the non-profit or co-operative (including society and/or charitable number):

b. Community Contribution Company (C3 or CCC, as defined in Section 3 below)

Yes No



REQUEST FOR PROPOSALS NO. PS20152048
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PART C - PROPOSAL FORM

4. Describe any additional social sustainability initiatives that demonstrate your company's commitment to the health and well-being of local communities. Please limit answers to 250 words or less.

ANSWER: Essess was created to address the problem of identifying energy loss and facilitating structural improvements to building envelopes in a scalable and cost-effective manner. Our goal is to help reduce CO2 emissions while also saving people money.

SECTION 3: DEFINITIONS

Social Enterprise:

"Social enterprises are businesses owned by non-profit organizations, that are directly involved in the production and/or selling of goods and services for the [combined] purpose of generating income and achieving social, cultural, and/or environmental aims (Social Enterprise Council of Canada)." See www.socialenterpriseCanada.ca.

In addition to having the aforesaid combined purpose, to qualify as a "Social Enterprise" for purposes hereof, an entity must:

- be a business operated by a registered non-profit or community services co-operative;
- have a product or service that it sells to customers;
- have a defined social and/or environmental mandate.

Person with Barriers to Employment:

A "person with barriers to employment" is someone who faces one or more circumstances that can lead to underemployment or unemployment. There are a wide range of circumstances that can create barriers to employment including but not limited to: addictions, disabilities, mental health issues, and being a newcomer or refugee. For the purposes hereof, to qualify as a person with barriers to employment, the employee or trainee must be participating in a recognized, pre-approved employment program for person(s) with barriers to employment run by a non-profit organization or educational institution or government agency.

Community Contribution Company (C3):

"Community Contribution Company" means a corporation formed under the laws of British Columbia that includes in its articles the following statement:

This company is a community contribution company, and, as such, has purposes beneficial to society. This company is restricted, in accordance with Part 2.2 of the *Business Corporations Act*, in its ability to pay dividends and to distribute its assets on dissolution or otherwise.

Or, a company incorporated under another jurisdiction that includes in its articles substantively similar restrictions related to dividends and distribution of assets.

Refer to www.fin.gov.bc.ca/prs/cc for more information.



Appendix 5 : Short Form Services Sustainability Requirements

Question 1: Does delivery of the service require the use of equipment and/or vehicles? If yes, provide information to demonstrate that the equipment and/or vehicles to be used are the most energy efficient possible (e.g., ENERGY STAR qualified; position on the EnerGuide label; use lower carbon fuels; use renewable energy):

Answer: Yes, Essess' thermal imaging process involves the use of vehicles. The vehicle. We use customized Toyota Rav4s that are driven under 10mph. The low speed allows us to mitigate the risk of motion blur and is fuel-efficient as the vehicle cruises at minimal throttle.

Question 2: Will the delivery of the service generate solid waste that must be disposed of to landfill or incinerator?

Answer: If the City of Vancouver chooses to purchase Essess Thermal Reports, Essess will print the reports on recycled paper and encourage homeowners to recycle their Thermal Report.

Question 3: Are any of the products and/or materials to be used in delivering the service environmentally preferable (e.g., contain higher post-consumer waste recycled content; carry a 3rd party eco- certification; non-toxic)? See definitions below for more information.

Answer: Essess Thermal Reports are printed on recycled paper.



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PART C - PROPOSAL FORM

APPENDIX 5 - SHORT FORM SERVICES SUSTAINABILITY REQUIREMENTS

The City seeks a Proponent that can deliver the proposed service(s) in an environmentally and socially responsible manner. This includes the following requirements:

- a) uses the most energy efficient equipment and vehicles possible or provides a viable low carbon alternative to the use of equipment or vehicles that consume energy;
- b) minimizes waste disposed to landfill or incinerator;
- c) uses environmentally preferable products or materials in delivering the service (e.g., products that contain higher post-consumer recycled content; that carry a 3rd party eco-certification; or do not contain or create substances of concern);
- d) uses social enterprises and/or employs people with barriers to employment in delivering part, or all, of the service.

The Proponent is encouraged to provide services that meet the above requirements where applicable.

In the Proposal, please address the following questions regarding the service(s) that will be provided. Please review the definitions section prior to answering the questions. **If a question is not applicable to the service provided, indicate "not applicable."**

1. Does delivery of the service require the use of equipment and/or vehicles?

- Yes No

If yes, provide information to demonstrate that the equipment and/or vehicles to be used are the most energy efficient possible (e.g., ENERGY STAR qualified; position on the EnerGuide label; use lower carbon fuels; use renewable energy):

If a low carbon alternative is being proposed, provide information to demonstrate that it consumes less energy.

2. Will the delivery of the service generate solid waste that must be disposed of to landfill or incinerator?

- Yes No

If yes, describe how your company would minimize solid waste disposed to landfill or incinerator.

3. Are any of the products and/or materials to be used in delivering the service environmentally preferable (e.g., contain higher post-consumer waste recycled content; carry a 3rd party eco-certification; non-toxic)? See definitions below for more information.

- Yes No Not applicable to service

If yes, please provide information to demonstrate that the products or materials are environmentally preferable (e.g. per cent post-consumer waste; 3rd party certification; free of substances of concern):

4. Is your company able to use a social enterprise and/or employ people with barriers to employment in delivering part, or all, of the service(s)?



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Yes No

If yes, please describe how your company would propose to do this:

5. Definitions:

Energy Efficient:

Ways to demonstrate energy efficiency, include, but are not limited to the following types of measures:

- ENERGY STAR qualified,
- position on the EnerGuide label “energy consumption indicator” (e.g., above 50%),
- equipment uses renewable energy sources such as solar power

Environmentally preferable products

Environmentally preferable products are products that:

- have the highest possible post-consumer recycled content
- carry a 3rd party certification
- do not contain or create substances of concern

Post-consumer recycled content: is the amount of material in a product that has completed its intended use as a consumer item (such as a sheet of copy paper or a plastic bottle), has been diverted from the waste stream by having been collected in a residential or commercial recycling program, and has been incorporated into a new product.)

3rd party eco-certification: refers to a type 1 eco-label that is a voluntary, multiple-criteria based, third party program that awards a license that authorizes the use of environmental labels on products - indicating overall environmental prefer-ability of a product within a particular product category based on life cycle considerations. Examples include: ECOLOGO, GREENGUARD, Green Seal, etc.

Substances of concern: The following are substances of concern to the City due to their adverse effects on the environment including human, plant and animal health. Products and/or materials used to provide the service should:

- not contain “persistent bioaccumulative and toxic” (PBT) chemicals (such as hexachlorobenzene, DDT, PCBs, mercury, etc.). See <http://www.epa.gov/pbt/pubs/cheminfo.htm> for more information;
- not contain heavy metals of concern such as lead, mercury, nickel, cadmium, etc.; and
- not create dioxins during its manufacture, use or disposal.

Social Enterprise

“Social enterprises are businesses owned by non-profit organizations, that are directly involved in the production and/or selling of goods and services for the [combined] purpose of generating income and achieving social, cultural, and/or environmental aims (Social Enterprise Council of Canada).” See www.socialenterprisecanada.ca.



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In addition to having the aforesaid combined purpose, to qualify as a “Social Enterprise” for purposes hereof, an entity must:

- be a business operated by a registered non-profit or community services co-operative;
- have a product or service that it sells to customers;
- have a defined social and/or environmental mandate.

Person with Barriers to Employment

A “person with barriers to employment” is someone who faces one or more circumstances that can lead to underemployment or unemployment. There are a wide range of circumstances that can create barriers to employment including but not limited to: addictions, disabilities, mental health issues, and being a newcomer or refugee. For the purposes hereof, to qualify as a person with barriers to employment, the employee or trainee must be participating in a recognized, pre-approved employment program for person(s) with barriers to employment run by a non-profit organization or educational institution or government agency.



Appendix 6: Essex Personnel Resumes

Rebecca Craft
 Chief Customer Officer
 Essex, Inc.
 51 Melcher Street, 7th Floor
 Boston, MA 02210

(a) Education

Wellesley College	B.A., Economics	1981
Indiana University School of Law	J.D.	1984

(b) Experience

Essex, Inc.	January 2016	Present
Consolidated Company of New York	2002	2012
Director, Energy Efficiency and Demand Management	2007	2012
Assistant to the Chairman	2005	2007
Director, Energy Markets Policy Group	2002	2005
Prudential Financial	1990	2002
Worked in a variety of positions in international managed assets, retirement services; corporate strategy and as assistant general counsel		

(c) Memberships and Affiliations

- Building Energy Exchange, New York City – Founding and current board member
- Department of Energy, State Energy Efficiency Action Network - Member of Executive Committee
- PowerBridge NY – Judge for grants to scientists for pre-commercialization of high-tech, clean-energy ideas
- Expert Peer Review Panel for Department of Energy State Energy Program – Member of panel that structured and oversaw evaluation of State Energy Program

(d) Role in Project

Ms. Craft will serve as Executive Sponsor for the Vancouver Project and oversees all activities related to customer development and success



Jan Falkowski
Chief Technology Officer
Essess, Inc.
51 Melcher Street
Boston, MA 02210

(a) Professional Preparation

Carnegie Mellon University
Carnegie Mellon University

M.S. Mechanical Engineering 2001
B.S. Mechanical Engineering,
Robotics, Mathematics 2000

(b) Appointments

Essess Inc. – Chief Technology Officer, VP Engineering – Present	11/2014
Vecna Technologies – Senior Technical Manager, Senior Robotics Engineer – 10/2014	01/2008
Mobot Robotics LLC – Principal Software Engineer, Robotics Engineer – 01/2008	09/2001

(c) Publications & Major Projects:

1. QC Bot - Commercial autonomous mobile courier vehicle for supply transport logistics in healthcare facilities
2. BEAR – DOD & DARPA funded 22-DOF hybrid humanoid robot and mobility base for soldier rescue and logistics
3. CADVIS - DARPA funded robotic mechanism design optimization tool
4. RAVEN - Semi-autonomous tour guide assistant for distance learning at the National Aviary
5. N. Checka, S. Schaffert, D. Demirdjian, J. Falkowski, and D.H. Grollman. *Handheld operator control unit*. In 7th ACM/IEEE International Conference on Human-Robot Interaction (HRI), March 2012.

(d) Role in Project

Technical Lead



Zeke Hausfather
Chief Scientist
Essess, Inc.
51 Melcher Street
Boston, MA 02210

(a) Education

Grinnell College	BA	2001
Vrije Universiteit	MS	2006
Yale University	MEM	2008

(b) Experience

Essess, Inc.	2014	Present
Berkeley Earth, Research Scientist	2012	2014
C3 Energy, Chief Scientist	2012	2013
Efficiency 2.0, Chief Scientist	2007	2012
Cesar Env. Econ. Consulting, Research Analyst	2005	2006

(c) Publications

1. Hausfather, Z., Menne, M., Williams, C.N., Masters, T., Broberg, R., and Jones, D. 2013. Quantifying the Effect of Urbanization on U.S. Historical Climatology Network Temperature Records. *Journal of Geophysical Research*. Vol. 118-2, Pages 481-494.
2. Thomas, B., Hausfather, Z., and Azevedo, I. 2014. A Regional Model of Direct and Indirect Rebound Effects. *Environmental Science and Technology*. Submitted.
3. Lifset, R., Eckelman, M., Harper, E., Hausfather, Z., and Urbina, G. 2012. Metal lost and found: dissipative uses and releases of copper in the United States 1975-2000. *The Science of the Total Environment*. Vol. 417-418 Pages 138-147.
4. Min, J, Hausfather, Z, and Lin, Q. 2010. A High-Resolution Statistical Model of Residential Energy End Use Characteristics for the United States. *Journal of Industrial Ecology*. Vol. 15 No. 5.
5. Hausfather, Z. 2005. India's Shark Trade: An Analysis of Indian Shark Fisheries Based on Shark Fin Exports. *Maritime Studies*. Vol. 3 No. 1.

(d) Other

1. Climate science journalist with the Yale Climate Media Forum and climate science blogger at The Blackboard, RealClimate, and Climate Etc.
2. Wrote code to successfully replicate NASA and NOAA's global surface temperature reconstruction methods.

(e) Role in Project:

Chief Energy Scientist



William Morris
Engineer
Essex, Inc.
51 Melcher Street
Boston, MA 02210

(a) Education

The City College of New York	B.S. MechEng	2009
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(b) Experience

Eye-R Systems / Essex, Inc.	2013	Present
I Heart Engineering, CEO	2010	2013
William Morris Consulting, Owner	2001	2004
Thorn Communications, Director of Systems	2000	2001
Elance, Director of Operations	1999	2000

(c) Publications

1. Ivan Dryanovski, William Morris, Jizhong Xiao, “Multi-Volume Occupancy Grids: An Efficient Probabilistic 3D Mapping Model for Micro Aerial Vehicles”, Intelligent Robots and Systems, 2010. IROS 2010. IEEE/RSJ International Conference on 18-22 Oct. 2010
2. William Morris, Ivan Dryanovski, Jizhong Xiao, “3D Indoor Mapping for Micro-UAVs Using Hybrid Range Finders and Multi-Volume Occupancy Grids”, RGB-D Workshop at Robotics: Science and Systems on June 27, 2010
3. Matthew Elliot, William Morris, Angel Calle, Jizhong Xiao, “City-Climbers at Work”, Robotics and Automation, 2007 IEEE International Conference on 10-14 April 2007 Page(s):2764 – 2765

(d) Other

1. Developed (Patent Pending) system for thermo-optical calibration of thermal camera systems.

(e) Role in Project

Hardware Lead



Navi Singh
VP, Solutions Delivery
Essess, Inc.
51 Melcher Street
Boston, MA 02210

(a) Professional Preparation

University of St Andrews	BSc	2008
Harvard University	AM	2010

(b) Appointments

Eye-R Systems / Essess, Inc., VP, Solutions Delivery	2011	Present
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Navi is responsible for developing strategic partnerships, contract execution, and working with clients to ensure product delivery.

AARM Corporation, Director of Corporate Strategy	2010	2011
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Developed product-driven strategy, centralizing product and roadmap decisions around product management. As project manager, worked directly with the engineering to develop and deliver a final product.

Independent Business/Venture Consultant	2008	2010
-----------------------------------------	------	------

Worked with entrepreneurs to improve performance by analyzing existing organizational problems and developing plans for improvement.

University of St Andrews, Research Fellow	2007	2008
-------------------------------------------	------	------

Worked in the Biomedical Sciences Research Complex as project lead in the Molecular Neurobiology lab. The work primarily involved the following areas of research: Chemical Biology, Molecular Biology, Molecular Medicine, Structural Biology, and Translational Biology.

(c) Role in Project:

Navi Singh will be overseeing the project and working closely with the City of Vancouver representatives to insure Essess meets all regulations related to the project. Mr. Singh will be the main point-of-contact with Vancouver personnel working on this project.



ESSESS THERMAL ANALYSIS PROGRAM (TAP) ECONOMICS

Prepared for the City of Vancouver

*Prices displayed in CAD and will be adjusted to reflect exchange rate on contract execution date
Exchange Rate (USD to CAD) 1.3

Program Assumptions

Target Homes (No less than...)	10,000	20,000	30,000	50,000	75,000	100,000
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Unit Costs

Scanning & Analysis Costs (\$ / home / yr)	\$3.58	\$2.75	\$2.50	\$1.50	\$1.00	\$1.00
Processing Costs (\$ / home / yr)	\$1.30	\$1.30	\$1.17	\$0.98	\$0.52	\$0.13
Hosting Costs (\$ / home / yr)	\$1.30	\$1.63	\$1.95	\$2.28	\$2.60	\$2.93
Real Estate Records (\$ / home / yr)	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13
Direct Mail Costs (\$ / home / piece)	\$2.60	\$2.28	\$1.95	\$1.72	\$1.72	\$1.72

Fixed Costs

Project Management Fee (PM Fee)	\$32,500	\$32,500	\$32,500	\$32,500	\$32,500	\$32,500
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Standalone Product Subscriptions

1 Tiering Analysis	\$82,550	\$116,100	\$146,500	\$162,750	\$156,250	\$158,500
2 Driveby Application	\$95,550	\$148,600	\$205,000	\$276,500	\$351,250	\$451,000
3 One-Time Thermal Report Direct Mail Campaign	\$108,550	\$161,600	\$205,000	\$248,550	\$284,950	\$330,100

Subscription Packages plus Package Discount for Pilot

1+2 (20% Discount)	\$102,440	\$144,880	\$190,000	\$247,200	\$307,000	\$386,800
1+3 (25% Discount; no PM Fee at 75,000 and 100,000)	\$105,788	\$145,575	\$178,125	\$210,788	\$189,338	\$223,200
1+2+3 (25% Discount)	\$139,913	\$194,325	\$246,375	\$320,475	\$408,713	\$515,700

Appendix 7: EsseSS Product Options and Pricing

REQUEST FOR PROPOSALS NO. PS20152048
THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING
FORM OF AGREEMENT

APPENDIX C - RFP

RFP PS20152048 - Thermal Imaging for Residential Retrofit Targeting issued by the City of Vancouver on January 20th, 2016, with a closing date of February 11th, 2016 is hereby incorporated by reference.

REQUEST FOR PROPOSALS NO. PS20152048
THERMAL IMAGING FOR RESIDENTIAL RETROFIT TARGETING
FORM OF AGREEMENT

APPENDIX D - DELIVERABLES AND FEES

Table 1 - Project Fees

Description	Project Fees (Including Disbursements)
Task One: Perform thermal imaging and analysis	\$107,575.00

Table 2 - Payment Schedule

Description	Percentage of Payment
Project kick-off meeting	25% of the total contract value
Scanning completion	25% of the total contract value
Delivery of tiering analysis and associated images/data	50% of the total contract value

Table 3 - Optional Tasks

The City retains the right to award the following optional tasks pending the result from Task One and the budget approval in 2017. These Optional Tasks may not require.

Description	Project Fees (Including Disbursements)
Task Two: Online database and reporting	\$65,731
Task Three: Perform communications and outreach	
Task Four: Design the communications / outreach activities	
Task Five: Be a contact point for homeowners and connect the homeowner with a person or organization that can perform the energuide audits	
Additional charges for using Canadian Data Server	\$14,000
Total for Optional Tasks	\$79,731