EcoSpex Inc. – The Next Generation of Procuring Green Building Products
CaGBC Montreal Chapter June 15th 2015 Julie Scarcella, Founder
Solving the Procurement Dilemma

EcoSpex’s online premier support tool simplifies sourcing and specifying by offering extensive choices of third party verified product and systems.
Development Milestones

2014-2015
Deliver OPA project, sign up manufactures and utility sector. Launch full site EcoSpex pilot

2013
EcoSpex code received by BRE UK March 2013
EcoSpex system rebuilt; negotiated new partners

2012
Strategic partners formed; updated operational and business plans; EcoSpex departs BRE Oct 2012

2011
Development of site underway in England with BRE. Pilot built and trialled; further re-tooling and consultation with industry underway

2010
Partnership with BRE UK to licence EcoSpex, Dec 2010 to October 2012 – managed BRE Canada Inc.

2009
Funding from NRC (IRAP) and PWGSC commences

2007
Full SWOT of similar international systems; one-on-one meetings with designers, engineers and builders commence.

2006
Research and development initiated with input from industry stakeholders
What we do

• B2B platform connecting manufactures/suppliers with architects, builders and other users
• Comprehensive third-party verification process and transparency
• Centralized, standardized system, reliable with trusted content.
THREE CRITICAL ISSUES

1. Inefficiently sourcing of products
2. Lack of product and manufacturer credibility
3. Difficulties synthesizing product information

Burlington Art Centre – LEED Gold
DILEMMA — how to source the best, leading edge technology that delivers the promised performance

EcoSpex is designed to break through barriers
PROCURING GREEN BUILDING PRODUCTS WITH TRUSTED DOCUMENTATION IS A MAJOR ISSUE
SOLVING PROCUREMENT ISSUE

- Centralized source
- Trusted, verified product information

Sources Used for Green Building Information

- Internet: 14% Trusted, 77% Used
- Industry Associations: 20% Trusted, 58% Used
- Directly from Product Manufacturers: 3% Trusted, 35% Used
How we are different and why?

1. Innovation in our software
2. Quality Assurance Verification Process
3. Incentive energy efficient alignment
4. Industry & Analytics Reporting
5. BIM
Co-developed by International experts; years of listening and input from industry, academic & government. Invested by NRC_IRAP, PWGSC, BRE, Research from Universities, OCE and private investors.
Based upon international best practices

Co-developed by BRE UK (Building Research Establishment), 100 YEAR old company

Advance R&D with academia

Complies with ISO 9001 standards by the end of 2016

International peer review panel of expert qualified professionals

Part of the verification is done externally by technical experts.
Our verification process cuts the product research and data review by 90%
What we Verify?

Exams supplier’s ability to meet best sustainable operations practices; examines policies, sustainability plans and third-party certificates from reputed organizations.

Seven sections of detailed technical and environmental review as part of the verification process - see Premium Seven Part Product Assessment for details

Verified assessment provides Green Building Rating Technical Opinion on relevance of product to credits for LEED, BOMA, Green Gloves, Passive House, Living Building Challenge, etc. Does NOT certify the credits.

Integrates and complies with 3-part specification standards recommended for use in North America by the Construction Specifications Canada (CSC) and Construction Specifications Institute (CSI).

Includes other documents related to the product (e.g. MSDS, guidelines, BIM, Cad Drawings, Utility links, video links of how to install etc.

Showcases there product in a project (commercial or residential) gallery of images and a summary on the project details. Additionally a technical case is also available to be scripted by EcoSpex staff.

Pre-screened product’s eligibility for relevant utility incentives programs partnered with EcoSpex. Eligibility not guaranteed, as additional factors may affect qualifications (e.g. type of building).

Tracks all leads generated from the specification community to the supplier. (not part of the verification process/feature for supplier)
Verification Process Outcomes

Verification protocol + Policy, Process and Procedures = Verification seal of approval
Bringing credibility to the industry

Verification Objectives

- Create recognition and credibility among industry, academia, government and the public.

- The EcoSpex verification team evaluates data through a comprehensive Verification Process for accuracy, validity, relevance, and completeness. Eliminate all greenwashing.

- To develop a trustworthy, legitimate process based on whole picture, reduce silos among all disciplines.

- Ensure we are robust and evidence based, complying with international quality assurance standards.

- That the process provides full transparency ensuring stakeholders can have confidence in the sustainability, health, and technical attributes of the product.

- Create a standardized approach to building product verification based on international best practices and peer review.

- Ensure the specification community can TRUST our documents, reduce risk.
General Verification Process for each Claim/Attribute

1. Company submits questionnaire with supporting document
2. Identify appropriate party to review (internal or external)
3. Check legitimacy of ecolabel and certifying body using Ecospex database
4. If additional documentation is needed, send request to company
5. Assess whether evidence is valid and supports claim
6. If scheme is not listed in database, develop new criteria for assessment
7. Is evidence sufficient to verify claim?
8. If so, send to Technical Director for final review
9. Once approved, note in the product QA tracking document
## Listing Company Questionnaire example

<table>
<thead>
<tr>
<th>Section</th>
<th>Question</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.1</td>
<td>Carbon Footprint</td>
<td>Please input a carbon footprint result and upload your supporting document in PDF format. If this is found in a document already provided for another question, indicate this in the comment box.</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Primary Energy Use</td>
<td>Please input a primary energy use result and upload your supporting document. (Primary Energy Use is an account of the cumulative energy attributed to a product over its life cycle.)</td>
</tr>
<tr>
<td>2.3.3</td>
<td>Primary Water Use</td>
<td>Please input a primary water use result and upload your supporting document. (Primary Water Use is an account of the cumulative water attributed to a product over its life cycle.)</td>
</tr>
<tr>
<td>2.3.4</td>
<td>Recycled Content</td>
<td>Post-consumer: Please input the amount of recycled content, %, or range of %, of total weight of the product. Upload your supporting document. Pre-consumer: Post-consumer Recycled Material: material generally commercial, industrial, and institutional facilities in the product, that cannot longer be used for its intended purpose.</td>
</tr>
<tr>
<td>2.3.5</td>
<td>Rapidly Renewable Content</td>
<td>Please input the amount of rapidly renewable content as % of whole product’s weight. Please upload your supporting document. Rapidly Renewable Material: agricultural product that takes 10 years or less to grow and recycle, and to have sustainable fashion.</td>
</tr>
<tr>
<td>2.3.6</td>
<td>Health - Has your product been tested for one or more of the following?</td>
<td>Please specify the attributes from below that apply to your product. You will need to upload supporting third-party documentation to validate your claims. Products without known hazards and that are low in volatile organic compounds (VOCs). We ask you to declare if your product complies with community standards for standard which reduces the impacts on indoor air quality and health buildings. VOC: Volatile organic compounds. Includes the volatile organic compounds (VOCs) and other organic compounds (OVOCs) that contribute to the production of ozone and other pollutants.</td>
</tr>
</tbody>
</table>
### Internal Verification tracking document

<table>
<thead>
<tr>
<th>Waste Classification</th>
<th>Premium VEL</th>
<th>Choice from list</th>
<th>(Select from list)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country or countries of manufacture/Manufacturing Locations</td>
<td>Premium VEL</td>
<td>TBA</td>
<td>self-de</td>
</tr>
<tr>
<td>Facilities undertaken an energy audit</td>
<td>Premium VEL</td>
<td>Yes/No</td>
<td>1. Note whether report is ASHRAE compliant</td>
</tr>
<tr>
<td>Renewable electricity purchases</td>
<td>Premium VEL</td>
<td>Yes/No</td>
<td>2. Report signed by accredited energy auditor (use CCM)</td>
</tr>
<tr>
<td>Renewable Energy Certificates (RECs)</td>
<td>Premium VEL</td>
<td>Yes/No</td>
<td>1. Contract is valid</td>
</tr>
<tr>
<td>Carbon Offsetting Scheme</td>
<td>Premium VEL</td>
<td>Yes/No</td>
<td>2. Energy provider is listed in CCM or otherwise legitimate</td>
</tr>
<tr>
<td>Renewable Energy Systems</td>
<td>Premium VEL</td>
<td>Yes/No</td>
<td>3. Amount and type of energy in contract matches claim</td>
</tr>
<tr>
<td>Type I: ISO 14024 - Environmental Labelling Programs (Eco-labels)</td>
<td>Standard</td>
<td>Yes/No</td>
<td>4. Correct location listed</td>
</tr>
<tr>
<td>Type II: ISO 14021 - Self Declared Environmental Claims</td>
<td>Standard</td>
<td>Yes/No</td>
<td>1. Certification scheme valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Correct evidence submitted</td>
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<tr>
<td></td>
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<td></td>
<td>3. Valid certificationing</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>4. Evidence confirms claim</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Accredited Certification Body</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Document pertains to correct manufacturer</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>2. Third-party testing info provided</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Document signed by manufacturer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Correct evidence submitted</td>
</tr>
</tbody>
</table>
Manual for Verifiers

Once a buyer makes an environmental claim based on a REC, the buyer can no longer sell the REC and the REC is considered permanently "spared." Buyers can also have their RECs retired in their name by their supplier to ensure that no other entity can lay claim to the same environmental benefit.

As renewable generators produce electricity, they create one REC every 1000 kilowatt-hours (or 1 megawatt-hour) of electricity placed on the grid. If the physical electricity and the associated RECs are sold to separate buyers, the electricity is no longer considered "spared" or "green." The REC product then conveys the attributes and benefits of the renewable electricity, not the electricity itself.

There are two approaches to verifying REC ownership and the right to make environmental claims:

1. REC contracts and an audit of the chain of title
2. REC tracking systems

Both of these approaches help buyers avoid double counting and double claims, and ensure against fraud. Of the two, REC tracking systems provide greater transparency when tracking RECs from their point of creation to their point of final use. However, they are meant to monitor whole transactions and are not relevant for product manufacturers.

Instructions

1. Confirm that a REC contract between Company and REC provider has been submitted
   Action: Refer to Appendix C

2. Confirm that the REC provider is accredited. A list of accepted REC providers can be found in PCMS on the Green-e Energy's website. Note: Green-e Energy is the leading, third-party accreditation body for RECs. All the RECs in PCMS are Green-e Energy certified. RECs issued by Green-e Energy accredited providers are not sold more than once by any one party, and since they are sold in the voluntary market, they cannot count towards the state's renewable energy mandate.
   Action: Refer to Appendix A

3. Confirm that the REC contract contains the company's name, facility relevant to the leased product, and has not expired.
   Action: Refer to Appendix C

4. Confirm that the contract demonstrates the same amount of RECs have been purchased as claimed.
   Action: Refer to Appendix C

2.0.0 Carbon Offsetting

Background: Carbon offsets are credits for reductions in greenhouse gas (GHG) emissions made at another location (called the sourcing program). These credits are bought by companies to offset their GHG emissions and are sold in market systems of carbon dioxide equivalent (CO2e). The idea is that by purchasing one tonne of carbon offsets, there will be one less tonne of carbon dioxide emitted somewhere else by the sourcing program. The sourcing program must be verified to do this. In this way, the companies purchasing carbon offsets are indirectly supporting the reduction of GHG emissions.

There are two elements to verify. The first is to verify that the carbon offsetting program is legitimate. The second is to verify the certificate outlining the amount of carbon offsets purchased by the company. The instructions for both of these are outlined below:

1. Confirm that a Carbon Offsetting Certificate has been submitted
   - Note: Ensure that the certificate shows the Carbon Offsetting or Carbon Offset, as some documents use similar but not exact language such as:
     - Carbon Credit: A permit that allows a country or organization to produce a certain amount of carbon emissions and that can be traded if the full allowance is not used.
     - Carbon Neutral: Refers to achieving net zero carbon emissions by balancing a measured amount of carbon released with an equivalent amount sequestered or offset, or buying enough carbon credits to make up the difference.
   Action: Refer to Appendix A

2. Confirm that the certification scheme is legitimate. A list of accepted certification schemes can be found in PCMS.
   Action: Refer to Appendix A

3. Confirm that the certificate contains the company's name and has been issued within the last year.
   Action: Refer to Appendix A

4. Confirm that the certificate demonstrates the same information as defined by the manufacturer.
   Action: Refer to Appendix A

5. Determine that the program from the certificate that is offsetting the money is verified by one of the following organizations: The Verification Body of the programs should appear on the certificate.
   - Verified Carbon Standard (VCS)
   - Gold Standard
   - American Carbon Registry
   - Clean Development Mechanism (CDM)
   - Social Carbon
   - The Climate, Community, and Biodiversity
   Action: Refer to Appendix A

6. Confirm the details on the certificate such as the verification body and the program.
   Action: Refer to Appendix A

7. Confirm the amount of carbon credits purchased.
   Action: Refer to Appendix A

8. Verify the offsetting program's carbon credits by calculating the amount of carbon released and the offsets purchased.
   Action: Refer to Appendix A
EcoSpex connects design & construction professionals to building product manufacturers faster, easier and more effectively

- Simplified Procurement
- Organized Documentation
- Knowledge Centre
- Outstanding Communication
- We are the Middle Man
- Any Building Project