



Sustainable Building Services

Roadmap

Developing the 2016-2020 Strategic Plan

DRAFT

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About this Roadmap Document

This document is intended to provide executives at EllisDon with an overview of the processes that will be taking place over the coming months in the development of a comprehensive strategic plan for the Sustainable Building Services (SBS) Division.

It is important to engage staff across EllisDon in this process so that SBS can continue to evolve as an effective resource for the Corporation. Through staff engagement, executive interviews and market outreach, The SBS team will build on the current operating model and develop a new plan designed to add strategic value for long term success.

The information provided here is intended to solicit feedback from the reader. It outlines a potential direction for SBS that can change and evolve based on comments and perspectives. The SBS team welcomes your insight and support as we work towards our goal.

Introduction

EllisDon Corporation must continue to find ways to differentiate itself in a highly competitive market of similar firms. Recent trends in the global marketplace are demonstrating a growing commitment towards resource conservation, advanced clean technologies, low-carbon economics and more. EllisDon has an opportunity now to establish a new leadership position in the marketplace by recognizing the opportunities within these trends and creating a targeted response strategy. EllisDon will stand as the trusted experts on high-performance building construction, advanced materials, cleantech integration and low-carbon economics.

To help drive this opportunity, the Sustainable Building Services (SBS) division will evolve to become much more than just the administrative centre for green building certification processes it is today, it will become a division focused on Canadian innovation in high-performance building science & technology. SBS must develop a new strategy that is ready to educate associates on the latest trends in technology across sectors. SBS must grow to become the central hub for information, tools and resources required for internal divisions to accomplish strategic objectives and for external partners and clients to meet their building performance goals. There must be a suite of construction services available and ready to respond to a variety of market interests including: Net-zero energy, smart grid technologies, living buildings, resilient cities, distributed energy systems, on-site energy storage facilities, sustainable urban development, and much more.

Strategic Plan Objectives

Sustainable Building Services: Developing a New Strategic Direction

The current operating model for the SBS division is heavily focused on rating tool (LEED) certification processes for EllisDon projects. It is a reactive model designed to provide superior consulting and coordination services to achieve targets requested by the client. The team at SBS is very skilled and effective at rating tool certification but working in a single vertical market is a concern. A new diversified strategy will be developed to ensure a sustainable business model is in place to drive long term economic stability and industry leadership for EllisDon.

The Key to Success: Communication and Collaboration

The new Strategic Plan will not replace developments to date. It will build on the current model by introducing two new vertical streams under a unifying agenda that can be shared across divisions at EllisDon. The new plan will focus on a proactive industry outreach strategy designed to drive market awareness about EllisDon leadership in high-performance buildings. The plan will support new business development opportunities across our divisions, and develop the tools and resources required to inform our teams about latest technologies and processes in the marketplace.

Internal Support: Research & Development

The goal is to grow a division recognized as a central hub for the latest information on the trends, technologies and processes impacting the building construction sector domestically and internationally. SBS will provide the tools and resources required by EllisDon leadership to standout in the marketplace. The SBS team will act as the “turbo” to the EllisDon engine by collaborating as needed on projects across divisions and by finding new project opportunities in the emerging low carbon economy. New projects will not be kept internal to the SBS division; Executives at EllisDon will be engaged to review new projects as they are identified to determine the appropriate project leader as required.

Executive Engagement: Outreach & Education

SBS will build a strong network of industry leaders who will become reliable sources of information in our efforts. These new relationships will be developed to support the SBS strategic planning process and provide opportunities for new business development. Information gathered through SBS activities will also be compiled through a new system designed to keep EllisDon staff up-to-date on the latest trends and technologies in the marketplace.

Celebrating Successes

The green building market across North America continues to gain momentum. Industry leaders identify this trend as a “movement” in the marketplace; others identify it as an inevitable transformation in response to rapid technology development and finite resource economics. The SBS division is uniquely positioned to leverage EllisDon’s leadership, promote successes and demonstrate our commitments to sustainable building practices in this growing market. The SBS team will work with the marketing department at EllisDon to develop a compelling communications strategy to support business development.



Guiding Principles

- Build SBS to become more than just LEED administration services.
- Create a new focus on education and awareness.
- Create initiatives that provide EllisDon with a return-on-investment.
- Engage EllisDon leadership internally across divisions by supporting project development and introducing new business opportunities.
- Create opportunities to promote EllisDon Leadership in the marketplace.

Current SBS Focus

Measurement & Verification

- Rating Tool Consulting
- Procurement Services
- Risk Management
- Document Control
- Corporate Oversight
- Supply Chain Management
- Asset Management

Proposed Vertical Streams

Research & Development

- Advanced Materials
- Cleantech Integration
- Conservation & Demand-side Management
- Smart Building Systems
- Technology Testing
- Finance Incentive Applications

Outreach & Education

- New Business Development
- Network Communications
- Research & Publications
- Outreach & Advocacy
- Public Speaking
- Government Relations



Developing our Value Proposition

Although the SBS division is an indirect asset to EllisDon, it is important that we work to ensure a definitive return-on-investment strategy is in place.

SBS will need to demonstrate the value of the division across EllisDon.

Your input is crucial to our strategic plan development process; we need to know how to best serve your needs. Based on feedback from EllisDon staff reviewing this document, SBS will set in place a list of objectives to guide our participation in projects and activities over the coming years, ensuring we continue to demonstrate ongoing value to the Corporation.

SBS is intimately connected to a rapidly growing market niche. As such, we can leverage our networks and provide additional resources in support of your objectives.

Directives for SBS Development

The following directives will become an integral part of the SBS strategic plan. They are designed to guide the development of programs and initiatives created by SBS. As the planning process evolves over the coming months, input from EllisDon staff will help refine these directives and potentially introduce new ones for consideration.

Provide a Clear Vision for what Sustainability means to EllisDon

The SBS division will become a focused group of professionals under a unified objective. The team will work together to create a strong vision for SBS, and build a vision based on global strategies in the marketplace, and then articulate objectives for a clear understanding across EllisDon.

- We will strive to match sustainability with financial targets and strategies with a goal to bridge the gap between advocacy and return-on-investment.
- We will research how other companies - internationally recognized for their sustainability achievements - have met their targets and then present strategies, and long term opportunities for review.
- The SBS team will provide concise data, tools and resources to EllisDon staff as required. SBS will become recognized as the trusted “filter” of information so executives can gain a true snapshot of global trends how the emerging markets will impact the construction sector.

Rating Tools: Preparing for a world beyond LEED

LEED, the rating tool developed by the US Green Building Council, has had great success in North America and is now making in-roads internationally. But there are challenges ahead for LEED and SBS is monitoring activities closely. We are also aware of highly successful rating tools in other countries (such as BREEAM in the UK) that are getting ready for the North American market. In addition, we have new building strategies such as “net-zero energy” under development that are presenting SBS with new business opportunities.

- SBS will continue to watch developments and prepare to lead the marketplace in management and document coordination for these emerging systems.

Business Development: Bringing Leadership Projects to EllisDon

The SBS team is in a unique position in the marketplace. We have direct access to the professionals that are focused primarily in the green building and cleantech industries. SBS will leverage this position to find new projects early in the development process.

- We will connect with industry associations, government agencies technology developers, etc. to promote EllisDon services.
- We also have access and connections to international markets. When appropriate, we can support EllisDon’s efforts outside of Canada.

Become the Knowledge Centre for Advanced Materials & Technologies

Through years of experience with building materials and products, EllisDon has gained unique insight into the challenges that come through the construction process. These experiences are what gives clients the confidence that EllisDon will deliver a high quality building. However, as new technologies and advanced materials come to the market designed to make our buildings smarter, and more energy efficient, our teams will need to have access to the latest information.

- SBS will build a comprehensive database of advanced materials, products and technologies.
- We will also review technology testing protocols and work with external agencies to verify technology claims.
- SBS will ensure EllisDon staff and clients will have quick access to the information required to make informed decisions.

A Strategic Opportunity for EllisDon: Becoming leaders in a Low Carbon Economy

CO2 reduction strategies are becoming an important topic across all levels of government. Global leaders are looking at the impact of industrial practices, identifying that approximately 40% of global carbon emissions comes from the construction and operation of buildings.

We have a unique opportunity to leverage EllisDon's leadership and establish a "Low Carbon Agenda" as a corporate strategy to offset the carbon impact from buildings. EllisDon can explore low-carbon building construction practices (expanding on the cradle-to-grave strategies) and act as the sector representative in the marketplace through collaboration with public and private leaders for a national strategy to reduce emissions. Administered by SBS, a Low Carbon Agenda at EllisDon could transcend divisional specific interests in support of a corporate wide CSR initiative.

As a key part of a Low Carbon Agenda, SBS will review potential projects that appropriately align with EllisDon's business model. For consideration, a carbon accounting process could be developed to report on the "embodied carbon" of materials and building practices used over the course of construction. Commitments from architects and engineers to build high-performance buildings is important but operational efficiencies are only achieved over the life of the building. To minimize severe climate change, the goal is to reduce the total quantity of greenhouse gasses getting into the atmosphere as quickly as possible, therefor tracking the embodied carbon during the construction phase plays an important role if we are to effectively implement an industry-wide carbon reduction strategy.

Exploring Incentives and Financing through an Innovative Carbon Offset Strategy

Provinces and States across North America are implementing a carbon tax / cap & trade policy as a strategy to help reduce emissions into the atmosphere.

EllisDon can participate in a "carbon offset" strategy to support investment into green buildings and renewable energy projects. Offset credits are used in the aerospace and military sectors, we can learn from this and develop an offset strategy where a portion of the carbon tax can be allocated to the construction of green buildings.

Leveraging Networks:

Preliminary discussions have taken place with the Province of Ontario's new Climate Change Directorate (managing the cap & trade initiative) at the Ministry of Energy and Climate Change. SBS can work with the Directorate to develop an EllisDon-led offset program across Ontario.

A pilot project has also been discussed with the Province, the City of Toronto and Centennial College to develop a new low-carbon building at the main campus in Scarborough, Ontario. This building would be a state-of-the-art-facility to house the College's programming around green buildings and renewably energy technology. Carbon offset financing could be applied to make this project possible.



A Low Carbon Agenda

Recent commitments by the USA, China and other G20 countries to reduce CO2 emissions provide a strategic opportunity for EllisDon to lead a Low Carbon Agenda.

Case in Point:

On Aug 3rd, 2015 the US Government, led by President Obama, announced the US "Clean Power Plan". The aim of the Plan is to cut greenhouse gas emissions from US power stations by nearly a third within 15 years. Although there is political opposition to this Plan, there is aggressive commitment by the Obama administration to ensure implementation. The Plan sets standards to reduce CO2 emissions by 32% from 2005 levels by 2030, which is 9% more than the proposed rules previously set forth by the Obama administration.

For further details about how EllisDon can benefit from participation in a global CO2 emission reduction strategy, review the document that accompanies this SBS Roadmap:

"A Low Carbon Agenda: The Business Case"



Showcase EllisDon's Market Leadership in High-performance Buildings

Create an “elevator pitch” graphic statistics sheet that highlights EllisDon green building accomplishments. This format is becoming popular in social media, it provides quick numbers and reference titles - “info at a glance” for the busy executive without the time to search for relevant info. These stats are backed up by quick summary details only, further details are then provided as requested -updated quarterly or annually.

Option 1: highlight EllisDon accomplishments - example:

- Number of LEED buildings
- total sqft of built green buildings

This can be used in a hard copy/PDF overview document, also great for PPT presentations.

Option 2: Create an EllisDon building label system.

This can be introduced to highlight ROI for property owners.

It would list the targets achieved compared to base building, example:

- total energy savings
- total GHG savings
- Total KWh saved (and generated?)
- Water savings

Note: a building label system is mandatory in Europe at point of sale to show purchasers costs to operate.



Thinking Outside the Box: Brainstorming Project Ideas for Future SBS Development

A number of projects are being proposed here (and on the following page) for consideration. We ask that you review each and provide comments regarding the viability of each concept. These are exploratory ideas only. Your feedback will help SBS pick the top 3 ideas for further development into a detailed delivery plan.

Test City -The “EllisDon Innovation Hub”

New technologies look impressive but often do not stand up to the demands of regular use. More importantly, technologies need to prove that they can withstand the environmental condition across regions. EllisDon can establish a testing centre for new building/energy technologies and construction materials to demonstrate viability to clients.

Examples of other market leaders with test centres in Canada include Magna, Cisco, Mackenzie Health, Powerstream, Siemens, Schneider Electric, General Electric, TRCA, to name but a few. The City of Vaughan is also now setting up a testing center for international technology coming to Canada. Vaughan is partnering with Israel for tech collaboration -could be potential alignment with EllisDon/RAFAEL R&D project?

Technology testing options for EllisDon to consider:

- ED Head office demos (Powerstream's micro-grid centre is an example of HO use for testing)
- Consider Partnering with other groups: LC Campus, Cisco, Cement Assoc. BASF, Philips other.
- New build on a test site - use to invite clients for tours. Add a presentation centre for meetings, etc.
- Create partnership program (sponsor?) with CSA, ETV, and other verification centres to validate the materials and technologies EllisDon clients might be considering.
- Partner with universities & colleges for students to study technologies.

Opportunity: install and test Tesla's new Powerwall energy storage system -Good for marketing and promotions.

Annual Market Research Publication

Create an annual research report to showcase advanced building concepts and technologies. Demonstrate how EllisDon is watching and exploring market trends to keep clients informed on latest developments in the market. The report could present case studies, interviews, tech analysis and more. This could Build on EllisDon's image as the trusted industry leader providing insight into market trends and "realistic" tech applications. The report could be printed hard copy for hand out at conferences and events as needed.

EllisDon Leaders Roundtable

As recognized leaders in the market, EllisDon could host a national roundtable discussion on issues that are impacting the marketplace. We would invite executives from firms at the same level of market leadership as EllisDon, but from other sectors.

As an example, if we begin a discussion on the impact carbon taxes will have on the market, we could invite:

- Cisco Systems (communications), Ford or GM (transportation), Celestica (Manufacturing), Lockheed Martin or Bombardier (aerospace), Philips/GE/Siemens (technology), Canadian Solar (renewables) Cenovus (fossil fuels), BASF/Dow Chemicals/Roxal (materials), etc.
- We could ask Renew Magazine, a highly respected industry publication, to organize the event of behalf of EllisDon. Renew is focusing on national infrastructure projects. Renew could write a report on the findings from the Roundtable to published as a supplement document in Renew magazine for national distribution.
- We could also connect this roundtable to a large event like Construct Canada/PM Expo, FCM National Conference, Quest, etc.

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>>Thinking Outside the Box -Continued:

The EllisDon Fresh Water Project

Establish a new program/strategy around the research, development and integration of new water technologies and systems. Canada is well recognized as leaders in water management but new global issues are impacting cities beyond Canada’s water expertise. EllisDon will capitalize on Canada’s international water reputation and collaborate with international water technology leaders that are working to address water issues including desalination, recycling, waste water treatment, and more.

EllisDon will become a go-to company for trusted water technology testing and verification and for design/build projects to ensure the infrastructure is in place for cities and communities to access clean, safe water.

First-step options for project development:

- EllisDon can align with the Canadian Water Summit, Canada’s premier national conference on water.
- Begin to explore international technologies in Australia, India, UAE and others that have proven water conservation technologies in place.
- Connect with the Federation of Canadian Municipalities (FCM). This government agency has an international program that works to build new infrastructure in countries including Latin & South America and the Carribean. We can leverage FCM to access government introductions, etc.

Post-Secondary Mentorship

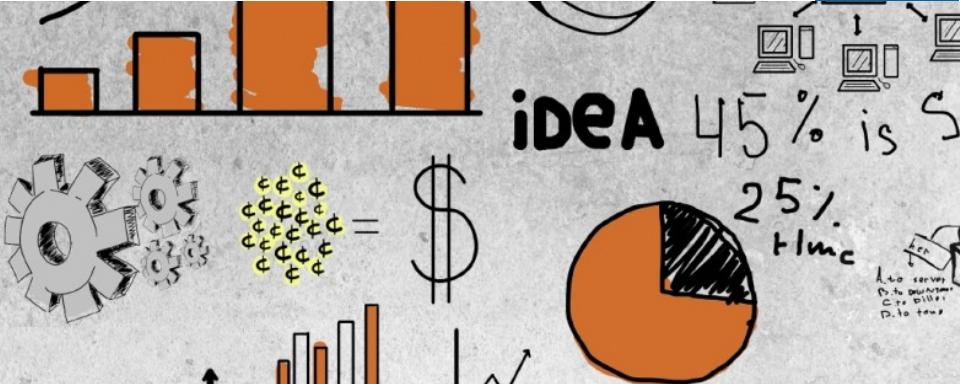
SBS could facilitate a mentorship program with post-secondary students through internships and work terms. Students would work on SBS program development and innovative technology projects to advance objectives. Students could then be vetted and considered for longer employment contracts with ED to stimulate a young professionals workforce for growth and development.

- Financing is available through MITACS and other intern programs. SBS will explore and develop a financing model to support the program.

Quarterly SBS Staff Discovery Sessions

Brainstorming new concepts and ideas for SBS growth & development. Adopt the Silicon valley model (Google, Apple) where employees contribute ideas for apps and high-tech developments. Free flowing thoughts and discussions across the group. Staff develop ideas and pitch to the team -make a fun, internal event around this.

- EllisDon VPs are invited as judging panel for fun interaction (Dragon’s Den style?)
- Group votes on best ideas to begin developing.
- Annual winner gets an extra vacation day on a long weekend of choice.



Adding to our List of Potential Projects

Have you got an idea for a project that could be championed by SBS? Perhaps you have thoughts on how we can collaborate on a project idea you have for your division? Please let us know, your input is very important to us as we begin the process of “re-imagining” our roles and responsibilities at EllisDon.



Reader's Name _____



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