



EcoConsulting Inc.

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Environmental impact consultation for progressive and sustainable solutions

Wal-Mart Burlington: Energy Supply Chain Sustainability Analysis

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Introduction:

The purpose of this assessment is to test the strength of Wal-Mart Burlington's sustainability claims and initiatives and ultimately make recommendations based on any weakness' found. Specifically, research for this final report was targeted towards Wal-Mart Burlington's renewable energy source, Bullfrog Power¹ as well as other energy use strategies employed by this location. EcoConsulting Inc. makes it a priority to ensure that a corporation's sustainability program will not become a liability should it prove to be unsubstantiated.

Following analysis of the energy supply chain, this report goes on to make recommendations for both corporate policy and infrastructure improvements in order to achieve the highest level of true sustainability with regards to renewable energy sources.

Report Focus and criteria:

Wal Mart Burlington, has implemented a number of demand side measures to reduce energy use, an important first step with regards to sustainability.²

The focus of this report however is on the sustainability of the supply of renewable energy sources to the Burlington location. Using the services of Bullfrog Power, Wal-Mart makes the claim that the "store is powered 100% by renewable power sources like wind and low-impact water power through Bullfrog Power.³" By simply looking past the glossy cover of Bullfrog Power's claims, this fundamental aspect of the Burlington store's sustainability was found to be too weak to provide a truly strong notion of sustainability⁴. The risk of losing public support due to flimsy policy is high. The following analysis indicates how EcoConsulting came to this conclusion and then makes recommendations based on the findings.

Criteria for analysis are:

1. Environmental Impacts: Are Wal-Marts energy sources as green as they claim?
2. Local benefits: Do the various energy producers build positive community and strive for social justice?
3. Economic viability: Do the suppliers provide economic benefit for local communities?

Private Power Boackgrounder:

Following the 2004 restructuring of the Ontario Electricity Board, Ontario experienced a boom in the growth of private renewable power.⁵ Suddenly an entire private energy industry was born, and the previously public power system was becoming increasingly privatized. It has been argued that this situation leaves behind any effective public policy tools regarding these

¹ www.bullfrogpower.com.

² Wal-Mart Canada press release <<http://www.newswire.ca/en/releases/archive/January2009/16/c8221.html>>

³ Ibid, p.1

⁴ Equal preference placed on Ecological, Social and Economic Sustainability.

⁵ <http://www.oeb.gov.on.ca/OEB/About+the+OEB/History+of+the+OEB/Electricity+Restructuring+Act+2004>

developments.⁶ Sustainability policy was left in the hands of the private companies who's primary goal is economic growth. This has been proven, as in the case of British Columbia, to be largely detrimental to environmental sustainability.⁷ Bullfrog's primary power provider is the private corporation Brookefield Renewable Power which operates 164 hydroelectricity generating stations throughout North and South America.⁸

Report Findings:

Renewable Sources:

When research began it became clear that although Wal-Mart and Bullfrog both make strong claims for sustainability, ultimately these claims proved weak at best.

Wal-Mart announced in press releases that Bullfrog was providing 100% renewable, low-impact hydro and wind power.⁹ Bullfrog was defining the power as "low-impact" based on its EcoLogo certification program.¹⁰ According to EcoLogo's own data only 18 of the 29 Brookefield hydro dams in Ontario are actually certified as "environmentally preferable."¹¹ The power from Brookefield's dams is indeed renewable, but is not 100% "low-impact" as the company claims. Further, the EcoLogo certification criteria nowhere claims that low impact is anyway related to the scope of the project.¹² These supposedly green projects can be any size. In total Brookefield Renewables is responsible for the flooding of 29,539 km² of Ontario and Quebec, an area only slightly smaller than Vancouver Island.¹³ The cumulative impacts of these projects must be taken into consideration if they are to be deemed sustainable.

From a social perspective, Brookefield also comes up short. In the past it has been accused of abandoning the communities in which it has previously provided employment in, such as the case of the Katahdin paper mills in Maine.¹⁴

Currently the company is aggressively pushing through hydro developments in the sensitive Patagonia region of Chile, laying 2300 km of power line through a previously undeveloped area.¹⁵ Brookefield's sustainability brochures amount to little more than green-washing, even having the audacity to proclaim that essential safety features at their dam facilities were built for the community by choice, rather than out of necessity.¹⁶

Bullfrog makes a confident assertion that its power stream is 100% renewable and low-impact, but further research indicates that the calculation methods to determine Bullfrog's power mix are

⁶ Liquid Gold, p.209

⁷ Liquidgold p.205

⁸ Production Summary <http://www.brookfieldpower.com/power_summary.html>

⁹ Wal-Mart Canada press release <<http://www.newswire.ca/en/releases/archive/January2009/16/c8221.html>>

¹⁰ https://www.bullfrogpower.com/clean/on_clean.cfm

¹¹ http://www.ecologo.org/en/certifiedgreenproducts/details.asp?product_type_id=11#results

¹² CCD-003.pdf from <http://www.ecologo.org/en/seeourcriteria/category.asp?category_id=24>

¹³ <http://www.brookfieldpower.com/canada.html#ontario>

¹⁴ Brookefield abandon's communities:<http://www.bangordailynews.com/detail/100446.html>

¹⁵ Brookefield develops sensitive patagonia region:http://www.patagoniasinrepresas.cl/final/noticia.php?id_noticia=404, <http://www.straight.com/article-123599/canadian-pensioners-to-pave-patagonia>

¹⁶ Brookefield Sustainability Initiatives: http://www.brookfieldpower.com/resources/BRPI_Sustainable_Fall2007.pdf at www.brookfieldpower.com/environment_progress.html

at best vague assumptions, and in no real way provide accurate descriptions of where Wal-Mart is really investing its money; Wal-Mart may very well be buying nuclear and coal powered energy.¹⁷

Sustainability Ideology:

After minimal research into Wal-Mart's own sustainability platform via its website, EcoConsulting found that all energy reduction and renewable energy initiatives were focussed on one goal: cost saving for the corporation of Wal-Mart.

Several messages were clear:

That green initiatives were “win-win financially.”

That these actions were “about competing in the marketplace”

And despite the fact that Wal-Mart is “considered the largest private power purchaser in the world” its efforts to reduce usage ultimately amounted to “energy savings.”¹⁸

Wal-Mart's choice to not pursue other energy options also reflects this. As it stands, hydro and wind are some of the cheapest form of renewables. Solar on the other hand remains an expensive albeit legitimate energy production source.¹⁹ State of the Environment reports to Burlington municipal council have in the past encouraged the use of PV technology among its business'.²⁰ Although it is a pricier option, it ensures that environmental impacts are minimized and concentrated on the building site itself. Solar also ensures that energy supply is more diversified. The environmental risk of overdeveloping one resource, i.e. Rivers, is reduced if energy can be gathered from various sources.

A central issue at the moment is that the renewable power gold rush mentality is precipitating a sense of hyperdevelopment that currently lacks any sustainable foresight. The social, and environmental benefits of private hydro projects developed within this zeitgeist are arguably limited. As outlined in a municipal report on the Leducor development of the Ashlu River near Squamish, B.C., the local social benefits of these projects are rarely realized.²¹ The vast majority of the money generated by these projects (75 cents for each dollar) ends up leaving the communities in which they are located, resulting in social unsustainability.²² Real sustainability will require careful and significant economic investment in green technologies across the board, not just cheap and easy technologies that can be readily deployed to sway public opinion.

Conclusions:

Currently Wal-Mart's initiatives, although a good first step, are placing ecological and social concerns secondary to economic profitability.

¹⁷ <https://www.bullfrogpower.com/clean/Bullfrog%20Ontario%20Emissions%20Calculation%20Methodology%202009.pdf> P.5

¹⁸ Sustainability 1.0 and 2.0 Videos <<http://walmartstores.com/Video/>>

¹⁹ www.berr.gov.uk/files/file21118.pdf

²⁰ SOER ch.6, p.95

²¹ Liquid Gold, p.158

²² http://www.ontario-sea.org/Page.asp?PageID=751&SiteNodeID=202&BL_ExpandID=44

In EcoConsulting's opinion, Bullfrog Power does not provide a robust enough source of truly sustainable power. Both Wal-Mart and Bullfrog are guilty of buying into an unsustainable renewable energy rush. Research into the renewable energy supply chain has concluded that the type of sustainability championed by Wal-Mart is superficial rather than substantial. With a continued sole focus on cutting costs and economic growth, Wal-Mart, in our opinion, will ultimately fail at making positive environmental change. This results in lackluster policy implementation, as well as hollow intentions and should be remedied if Wal-Mart wishes to remain competitive. The following recommendations are measures that Wal-Mart can take to remedy these issues

Recommendations for Wal-Mart Burlington:

1. **Further Energy Reductions:** Continued energy use reduction should be a central goal. Demand side reductions are a great way to reduce the need for potentially harmful energy sources. Wal-Mart should strive for green building certifications, such as the LEED Green Building Rating System.²³ Increased reliance on 3rd party certifications will go a long way in improving Wal-Mart's credibility.
2. **Support Local Power:** Investment in localized, community based power can achieve ecological, economic and social sustainability and ensure healthy communities.²⁴ Increased investment in private solar power generation will also help Wal-Mart reach its sustainability goals. Wal-Mart Burlington took the time to install skylights and roof insulation. With more investment, the Burlington store could utilize a photovoltaic array to harness sun that could power a portion of its LED lighting. These measures will cost more, but the long term savings still exist and will ultimately do more for Wal-Mart's public image than its current superficial sustainability.
3. **Influence Supply Chain:** Wal-Mart should work towards influencing all elements of its energy supply chain to develop stronger sustainability programs. As well as critically analysing its own impacts, Wal-Mart should begin to apply pressure to its suppliers to do the same. True sustainability needs champions, there is room for Wal-Mart to fill this role.
4. **Total Corporate Sustainability:** As our site visit has indicated, Wal-Mart has not gone to enough lengths to ensure that *all* stores will be sustainable into the future. Although our focus is on the Burlington store, EcoConsulting feels that it is in Wal-Mart's best interest to focus on making the entire corporation as sustainable as possible. Part of the problem is reliance on homegrown sustainability frameworks that are too strongly based on economics. Wal-Mart must adopt third party sustainability frameworks. The Natural Step is one such framework that

²³ LEED Certification in Canada: <http://www.cagbc.org>

²⁴ OSEA-Community Power benefits: <http://www.ontario-sea.org/Page.asp?PageID=122&ContentID=1251&SiteNodeID=202&BL_ExpandID=44>
Iowa Policy Project: <http://www.ontario-sea.org/Storage.asp?StorageID=450>

has worked effectively in other regions of Canada.²⁵ It ensures a holistic, systems based approach for planning and policy development and if adopted on a large scale can ensure robust sustainability. Visit www.naturalstep.org for more on the system.

²⁵ The Natural Step in Whistler: <http://www.thenaturalstep.org/en/resort-municipality-whistler-bc>

Print Resources:

Calvert J.(2007). Liquid Gold: Energy privatization in British Columbia, Halifax and Winnipeg: Fernwood.