



**Written submission from the
SauGreen for the Environment Inc.**

**Mémoire de
SauGreen for the Environment Inc.**

In the Matter of

À l'égard de

**Bruce Power Inc. – Bruce A and B
Nuclear Generating Station**

**Bruce Power Inc. - Centrale nucléaire de
Bruce A et Bruce B**

Request for a ten-year renewal of its Nuclear
Power Reactor Operating Licence for the
Bruce A and B Nuclear Generating Station

Demande de renouvellement, pour une période
de dix ans, de son permis d'exploitation d'un
réacteur nucléaire de puissance à la centrale
nucléaire de Bruce A et Bruce B

Commission Public Hearing – Part 2

**Audience publique de la Commission –
Partie 2**

May 28-31, 2018

28-31 mai 2018



Monday, April 16, 2018

c/o CNSC Secretariat

Canadian Nuclear Safety Commission
280 Slater St., P.O. Box 1046 , Station B
Ottawa, Ontario K1P 5S9

Tel.: 613-995-5894 or 1-800-668-5284

Fax: 613-995-5086

E-mail: icnsc.interventions.ccsn@canada.ca

To whom it may concern,

On behalf of the board of SauGreen for the Environment not-for-profit corporation, I would like to offer our letter explaining how community funding for tree planting from Bruce Power is being used in our area, through this written submission.

SauGreen is a Port Elgin-based environmental group formed in 2010, working with the Town of Saugeen Shores and the community about waste diversion, rain barrels, community gardens, active transportation, and other eco-friendly projects. A branch, named Trees for Saugeen, was formed in 2011 in order to promote Urban Tree Planting across the region, particularly for shade trees in parks, playgrounds, sports fields and along trails and roadways, and partners with over 30 organizations. In-kind value for SauGreen's programs is over \$665,000 to date, with \$425,000 cash raised. The in-kind calculations include volunteer planning and organizing, staff and heavy equipment provisions, professional expertise and volunteer labour. SauGreen has successfully raised funds from the Provincial government, Federal and regional foundations, as well as regional corporations, businesses, service clubs and community members.

Tree planting is one of the most effective community development programs possible for all ages, since everyone loves the idea of planting trees, people would prefer not to cut them down, and they want to leave a good legacy for future generations. Tree planting has many benefits, including health and property value increases, habitat provision, and general well-being. Afforestation is part of the Ontario Government's plan in meeting its climate goals, and it is also helpful for Bruce Power to plant trees when aiming toward net neutrality in its carbon emissions.



Since 2012, Bruce Power has donated \$160,600 to SauGreen's programs, primarily toward tree planting throughout the area near Bruce Power in Saugeen Shores, Saugeen First Nation, Arran-Elderslie, and Kincardine, \$10,000 of which has been donated for use in 2018 in the Tree Sale. The community and volunteer support is an important part of the programs' success; if you calculate the services the trees provide according to the TD report on the economic value of trees (based on Toronto statistics), residents receive from \$1.35 to \$3.20 in benefits for each dollar spent on forest maintenance, which would increase the value of Bruce Power's contribution to a range of \$216,810-\$513,920. When you consider SauGreen's consistent ability to raise more than double the cash value in-kind, this significantly leverages the funding from Bruce Power even more. Bruce Power's funding from 2012-2018 directly covered the cost of planting 4,478 trees at a wide variety of locations in the area.

If we generally calculate the carbon sequestration based on just the 875 large trees planted with Bruce Power funding, with their local phenomenal success rate of over 98% (root pruned by a caliper tree grower, long term urban setting, with care by residents and staff, little risk of fire or disease) at approximately 100kg per tree + 4kg additional growth per year, there would be approximately 100,000kg by May, 2018. (see below: Professor Emeritus RC Tennyson)

SauGreen for the Environment's biggest priority has been the Tree Sale concept, now known as the Tall Tree Initiative, which has been running in Saugeen Shores since 2011, and is also being done with Kincardine, with support from Bruce Power as well.

The Tall Tree Initiative is a unique program that fosters partnerships to put on a community tree sale. The Tall Tree Initiative founders will provide turnkey templates, mentoring and project oversight to sponsors and local partners for a community tree sale program. Sponsor will provide funding and/or volunteers/in-kind services to organize the tree planting program and co-brand with an efficient green initiative. Through partnership with a tree grower-wholesaler, we are able to offer an affordable, complete, and tried-and-tested program to hold a large caliper tree sale. This program is particularly useful for small municipalities without a big tax base, to make tree planting affordable.

We are continuing to develop a template to share with other municipalities to make it easy for them to plant trees. We hope to learn how to efficiently assist with project management and support the tree sale moving forward with resources that can help them succeed. We also hope to be able to better quantify the GHG emissions reductions from the tree planting by better monitoring the success rate and growth.



<http://www.talltreeinitiative.ca/>

We expect about 40% of the tree sale buyers to learn more about tree planting, care and maintenance, and to plant their own trees, since people can buy up to 3 trees at once, and some of them will not be doing the planting. The youth involved will all learn about tree planting from a forester, as will their adult leaders. This also involved municipal staff volunteering, so they also learn and engage in the community.

The media is also recognizing the importance of planting urban trees, and with the continued development of urban lands and subdivisions, with the particularly huge growth in this area right now, this is one of the best uses of corporate funding to reach the most people in the community.

The continued support of this program has allowed us to plan for this tree sale year to year and allows us to focus on the program development and less on fundraising. We can maximize our time in developing and implementing these programs with ongoing financial support, get the most from our volunteers, and create a strong sense of community. We also have a unique opportunity with local tree grower, JD Everest, which adds a lot of value to the program, since surplus trees are discounted for the sale.

We also have submitted a grant to the EcoAction program to develop the program as a template for communities across Canada to use for their own sale, to reach more people in our region, including indigenous communities. This included a partnership with the Climate Reality Project Canada and the Bagida'waad Alliance, a new group of indigenous fishermen who are doing climate monitoring of Lake Huron in their traditional territory. If we receive the funding from this grant, we would be piloting the tree sale at Neyaashiinigiing and potentially at Saugeen First Nation as well.

Overall, SauGreen has organized almost \$1.5 million in value of programs and services in the area, and Bruce Power's continued support has been important to our success. Our cash funding is only 31% of the total value of our programs. Contributions from funders like Bruce Power have allowed us to have low funding input from local governments (5% of total value from 2010-2018) to plant a lot of trees in public spaces and to increase the tree canopy in our area. In particular with the emerald ash borer devastation recently, tree planting is even more important to our community's wellbeing.



Bruce Power has generously supported many programs that have developed by the communities with funding and support of staff without interference in the running of the programs themselves. This type of support has been beneficial for the continuance of these successful programs and has built trust in the communities near Bruce Power due to its clear support of grassroots initiatives. We are grateful to Bruce Power for its continuing support, and look forward to hearing of the renewal of its license to operate for another 10 years.

Thanks,

A handwritten signature in purple ink that reads "Tracy L. Lambert". The signature is written in a cursive style with a long horizontal line extending from the top of the first letter.

Tracy Lambert
President, SauGreen for the Environment Inc.

A handwritten signature in black ink that reads "Victoria Serda". The signature is written in a cursive style with a long horizontal line extending from the top of the first letter.

Victoria Serda
Treasurer, SauGreen for the Environment Inc.



TD Economics “Urban Forests: The Value of Trees in the City of Toronto”

The report found that the urban forest was worth \$7 billion and residents receive from \$1.35 to \$3.20 in benefits for each dollar spent on forest maintenance.

<https://www.td.com/document/PDF/economics/special/UrbanForestsInCanadianCities.pdf>

Professor Emeritus RC Tennyson report: Ontario Trees That Sequester Carbon Dioxide and Other Atmospheric Pollutants

Table giving ranges of carbon sequestration of 25cm

<http://www.toronto.ca/legdocs/mmis/2014/pe/bgrd/backgroundfile-70898.pdf>

Climate Ontario goals of Provincial government

The role of afforestation in mitigation efforts is comparatively larger when examined in terms of its intended potential contribution to meeting provincial GHG emissions reductions targets. Ontario has committed to reducing total GHG emissions by 139.2 Mt CO₂ e by 2050 (i.e., 80% below 1990 levels of 174 Mt CO₂ e) (Government of Ontario 2007, Environment Canada 2008). The creation of new forests is one of many actions proposed to meet these targets. From 2045 to 2055, an average of 0.25 Mt CO₂ e per year was stored in 27,326 ha of red pine planted from 2008-2020, or less than 0.2% of the reduction target for 2050. If over this same period 300,000 ha were planted to red pine, the average of 2.69 Mt CO₂ e stored per year represents about 1.4% of the emissions reduction target.

http://www.climateontario.ca/MNR_Publications/276933.pdf



Benefits of Urban Forests

from Tree Canada: <https://treecanada.ca/en/programs/urban-forests/benefits/>

Urban forests provide a broad array of well-known environmental, economic, and social benefits to these Canadians. For example:

- Sequestering of gaseous air pollutants and particulates.
- Energy conservation through transpirational cooling, shade, and wind reduction
- Storm-water attenuation.
- Noise buffering
- Provision of wildlife habitat
- Increased property value
- Improved aesthetics, and
- Psychological well being

The economic value of these benefits is enormous. Based on a recent analysis in the City of Toronto, with a canopy cover of 21%, very close to the average for eastern North American cities residential areas have approximately one tree per person. Based on an average Council of Tree and Landscape Appraisers (1992) value of \$700 per tree this would make an approximate replacement value of the urban forest at over \$16 billion. Similarly, the replacement value of the municipally owned street trees would be in the order of \$3 billion. The reader is cautioned that this value represents the replacement cost based on species, size, location and condition and does not reflect the monetary benefit to society.

Clearly, urban forests have a substantial monetary benefit to the municipalities, provincial and federal governments (storm water attenuation, air quality mitigation, tourism, health care costs, etc.), to residents (property value, energy conservation, etc.) and business (tree care companies, nursery industry, aesthetics of retail areas). Internationally, many cities are recognizing that their urban forests will play an important role in their competitiveness to attract business and industry.

The benefits listed above accrue not only to the owners of the trees and forest but also to the entire community. While the same can be said for the wildland forests of Canada, the connection in the urban forest is much more obvious and dramatic because the beneficiaries live within it. A recent trend has been to evaluate trees, shrubs and greenspace by applying economic models to what is increasingly known as "green infrastructure".



Submitted by:

Tracy Lambert
President, SauGreen
Port Elgin ON N0H 2C5
lambertgt@bmts.com
519-832-9976

Victoria Serda
Treasurer, SauGreen
530 Elgin Street, PO Box 718
Port Elgin ON N0H 2C0
torpace@gmail.com
519-389-8410