

ZOOSHARE

an investment with
potential

The Company And the Project

ZooShare Biogas Co-operative Inc. is a non-profit renewable energy co-operative developing a 500 kW biogas plant on the grounds of the Toronto Zoo. The plant will turn the Zoo's annual manure output and food waste from local grocery stores into electricity, heat, fertilizer and cash for the Zoo, and for our primary investors, individual Ontarians.

Community Bonds will be available (paying 7% annual returns over 7 years) to members of the co-op; creating an opportunity for you to make money, improve the local environment, and support the Zoo.

ZooShare's mission is to be a catalyst for the growth of community-owned biogas plants through education and investment.

We strive to encourage investment in community-owned biogas projects across North America, in order to significantly reduce emissions, improve local economies and cause a shift in the way people see their waste.



ZOOSHARE
biogas co-operative

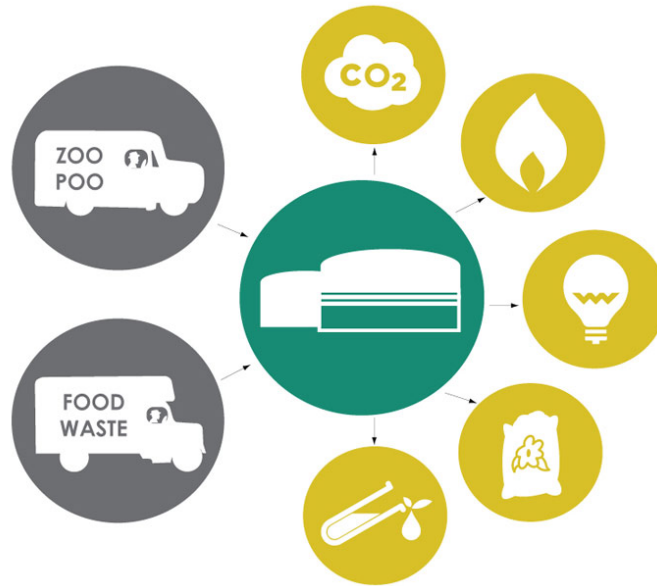


Figure 1 ZooShare's business model

ZooShare is planning to invest **\$5.4 million** to design, develop and build a biogas plant at the Zoo. The plant will accept manure and food waste, which will be heated and stirred in an anaerobic digester for about 50 days, and produce biogas and fertilizer. The biogas will be burned in a generator to produce the 500 kW of electrical power, and an equivalent amount of thermal energy and carbon dioxide (CO₂) – both of which could be used to improve the viability of a future greenhouse operation at the site.

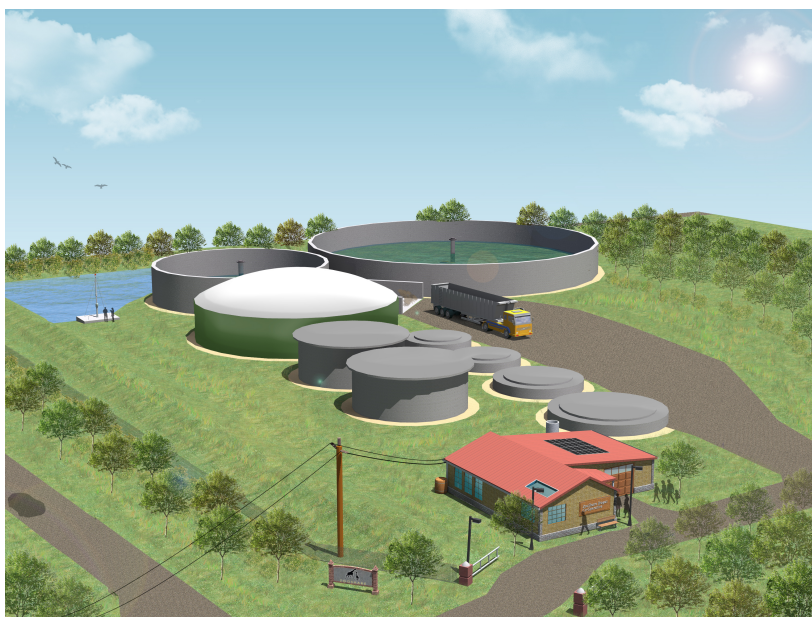
Revenue comes from three different sources in the above diagram: 1) Tipping fees for accepting food waste from GTA-based grocery stores; 2) Power sold to the Ontario Power Authority (OPA); and 3) the sale of fertilizer at local garden centres.

Key Strengths

Sustainable business model: The result of strong revenues from two very sizable and credible customers, signed to long-term contracts, which create a healthy annual surplus that will be used to realize ZooShare's education and investment goals. Funded primarily by Community Bonds, ZooShare's first plant at the Toronto Zoo will provide an above average return to Zoo members and individuals, while providing a 20-year cash flow to the Zoo.

Scalability and reach: With an open-access development model, a focus on education, a strong web presence and a high-profile location, ZooShare could potentially help millions of people each year learn more about the value of their organic waste and the potential of community-owned biogas.

Real environmental improvements: The production of biogas captures and destroys methane, eliminates pathogens and odours, and creates a high-quality fertilizer. ZooShare's 500 kW biogas plant at the Toronto Zoo will reduce annual GHG emissions by over 12,000 tonnes – the equivalent to taking 2,100 cars off the road - while producing enough renewable power for approximately 500 homes.



ZooShare's customers include the Ontario Power Authority for the power and a major Canadian grocery retailer for tipping fees and fertilizer sales.

The **market opportunity** in Ontario and across North America is quite large as for the most part, all organic waste produced here is either sent to landfills or compost facilities, and almost all livestock manure is being scattered on fields without any processing. Biogas is still relatively new to North America, but it is moving into the 'late adopters' phase of its growth cycle as there are now around 40 operational digesters in Ontario and over 300 across North America. For every tonne of waste processed in an anaerobic digester, greenhouse gas (GHG) emissions are reduced, groundwater contamination risk is reduced and renewable energy is produced. Therefore there are significant societal benefits of biogas over other waste disposal methods.

Based on recent projections from the Ontario Ministry of Agriculture (OMAFRA) and the Biogas Association – there is approximately **250 MW of potential** biogas power that could be produced from livestock manure and commercial food waste in Ontario. When household organic waste and energy crops are included the potential total increases to around 1,000 MW.

The Ontario biogas market has thus far been largely based on farms, co-digesting dairy manure and food waste. Based on the above projections, the **demand and competition for food waste (a high energy value feedstock) will increase as the number of plants increases**. This increasing demand estimate is the reason for the declining tipping fees to be received from the grocery retailer for accepting food waste.



Financials

ZooShare will be financing the \$5.4 million cost with a combination of Community Bonds, grants and low-interest loans.

Revenues in the first full year of operation are expected to be over \$1.3 million, and then stay flat before declining every five years in step with an expected reduction in tipping fees. Earnings before interest and taxes in that year are expected to be \$1 million, also declining every five years. The internal rate of return (IRR) of the project over the 20-year FIT contract is expected to be approximately 12%.

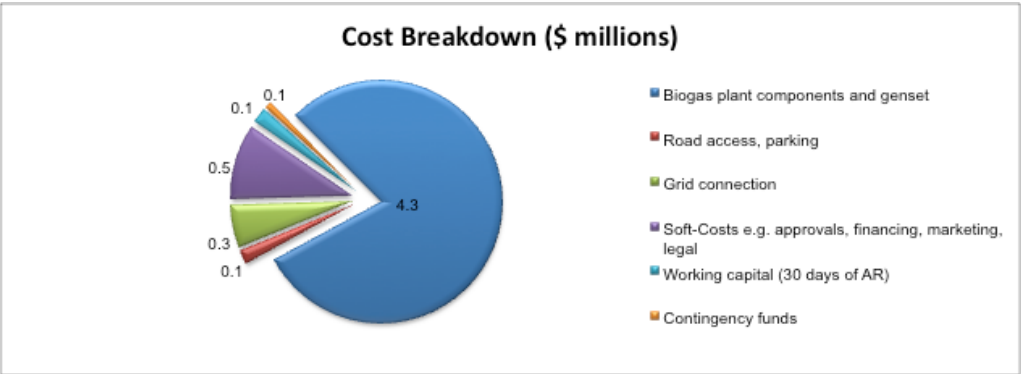


Figure 2 Budget breakdown for capital expenditures

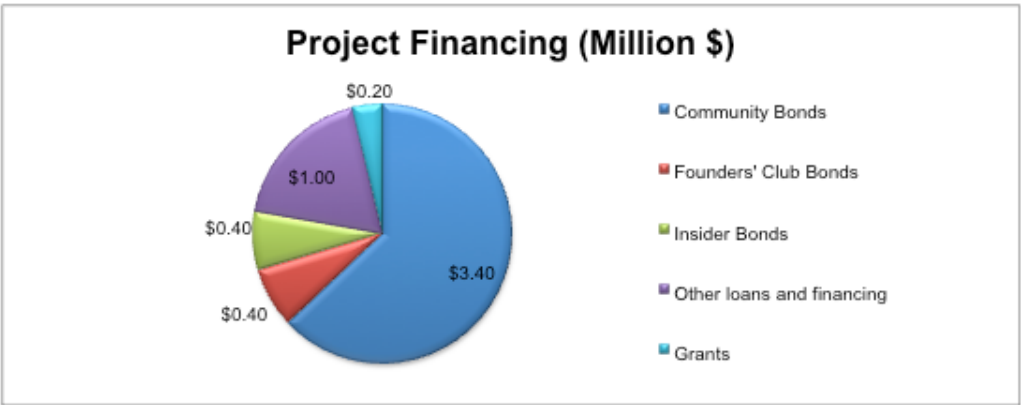


Figure 3 Financing of ZooShare Biogas Co-op

This project has received funding support from the Ontario Power Authority through the Community Energy Partnerships Program. Such support does not indicate endorsement by the Ontario Power Authority or the Province of Ontario of the contents of this material. The project has also received funding support from the Toronto Community Foundation.

