

Biogas Plant at Toronto Zoo Turning Zoo Manure and Food Waste into Power

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It took 11 years, but a working biogas plant beside the Toronto Zoo is finally running, turning zoo manure and grocery store waste into liquid fertilizer and power.

ZooShare, a community co-operative headed by Torontonian Daniel Bida, [pitched its proposal to zoo officials](#) in October 2010.

The concept then had worked in Munich, but had not been tried in North America.

Getting ZooShare's digester built and a contract to feed Ontario's electricity grid took longer and was more challenging than Bida realized.

But on May 7, the co-operative told its patient members and investors it had been producing power since April 1, reaching its 500-kilowatt capacity, enough to power 500 homes, on April 12.

"It's surreal, to be honest with you," Bida said in an interview.

There were delays even after ZooShare broke ground on one of the zoo's overflow parking lots in 2016.

The co-op "definitely had a lot of nervous conversations, uncomfortable conversations" with bondholders and investors, said Bida, ZooShare's executive director.

"It wasn't quite clear we were going to get across the finish line."

In 2017, the project "kept hitting a wall," and Bida felt like he was at the end of his rope. He expected some bondholders at ZooShare's annual general meeting would ask for their money back.

That didn't happen; the investors wanted to keep going rather than get back 80 cents on the dollar. When ZooShare's first bonds matured in 2010, 70 per cent of bondholders signed up for a new issue.

When the concrete digestion tank was built last summer, Bida would drive to the site — quiet except for hikers passing through Rouge National Urban Park — from Peterborough, where he now lives, and marvel that the project was coming together: “There it is, after all these years, it’s finally a thing,” he said he thought.

By then, Detroit’s zoo had beaten ZooShare to the punch, its biogas plant completed years before, but the plant in Scarborough is still a Canadian first.

Bida, whose company ReGenerate Biogas Inc. consults on developing other biogas projects, is still excited about turning 2,000 tonnes of zoo manure and 15,000 tonnes of grocery store organic waste each year into useful things instead of landfill.

He can’t say publicly which chain supplies the food waste, but he started taking deliveries in mid-March, and ZooShare was producing biogas before power.

A virtual ribbon-cutting is planned for July.

Both the zoo and ZooShare plan to make the most of the plant, which is near Parks Canada’s future welcome centre for the park, as an opportunity to showcase alternative energy.

The plant, which under a 20-year agreement will provide 10 per cent of profits to the zoo, is “an important lesson for all of us,” Zoo CEO Dolf DeJong said.

ZooShare will reduce the environmental footprint of the zoo, which used to lay out its manure in windrows on a nearby field.

“We’re really excited to see this new technology spun up and working,” said DeJong in an interview.