

Sustainable Communities
Conference and Trade Show



Conférence et salon professionnel
sur les collectivités durables



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ÉNERGIE VERTE BENNY FARM

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Outline

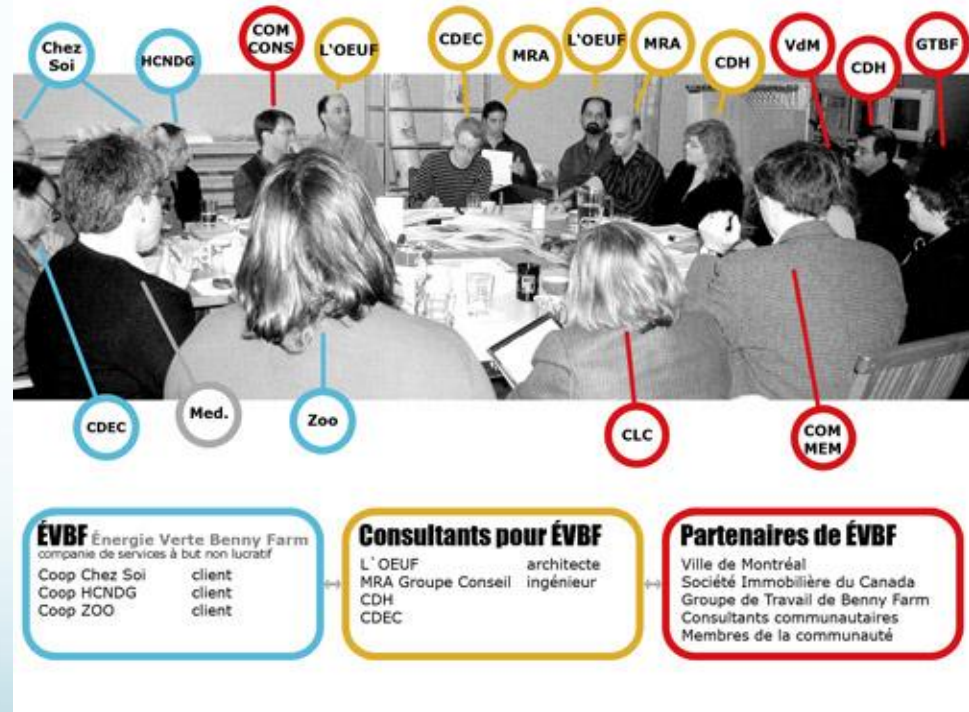
- Introduction to Benny Farm and EVBF
- The Greening the Infrastructure at Benny Farm Project
- Installation of the integrated energy systems
- The challenges faced
- Lessons learned
- Final outcomes



A vision for a sustainable community

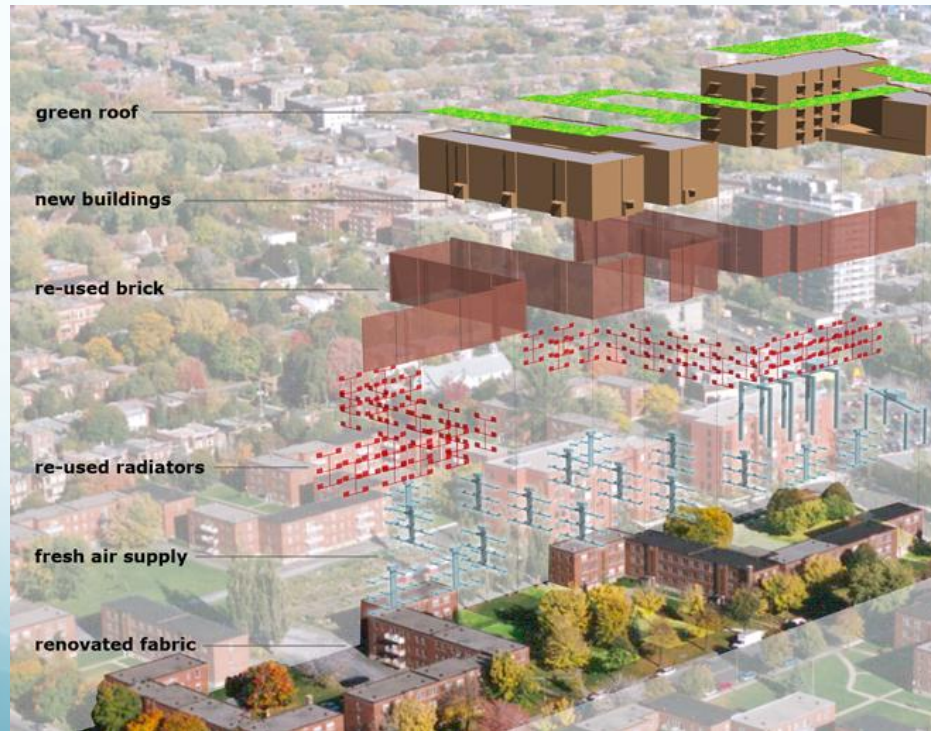
Benny Farm
Redevelopment

EVBF, a community-
owned energy company

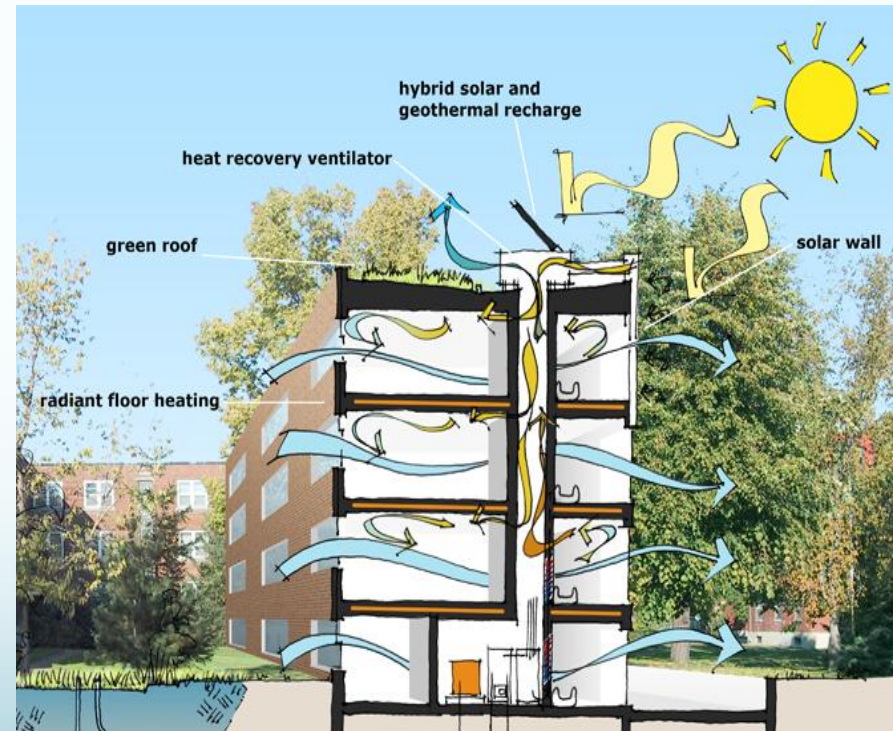


Greening the Infrastructure at Benny Farm

Salvaging Buildings



Conserving Energy and Water



Initial Optimism

Award-winning design –
Holcim Foundation

Energy services company
as a model for long term
sustainability

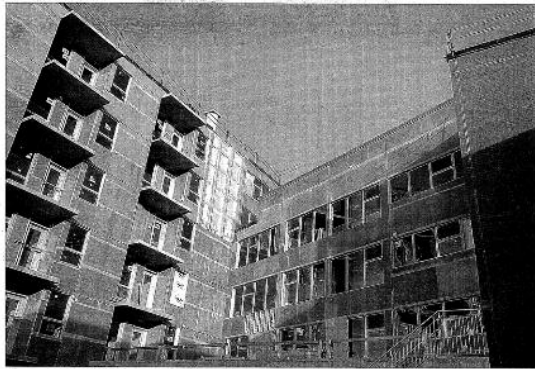
CITYSPACE

Quelle surprise! Uber-building shutout

A low-income housing project in Montreal has won a prestigious prize, writes **LISA ROCHON**

Here's a head-scratcher: A disappointed jury, a wealthy Swiss foundation dedicated to sustainable architecture and an upset decision during the first North American competition — the 100,000 Cdn. gold prize of the Holcim Awards has gone to a low-income housing project in Montreal.

If this were Germany or Holland in the 1920s, the privileging of the mass might be naturally inevitable. But not now. Not in the age of architecture as spectacle in which cities are chosen over-kill-ledge means to be consumed in the speed of a dizzy, dead rat. The winning project is a labour of love that extends back over the last 25 years. By resisting rather than conforming, a small architecture studio that calls itself COEUF has raised the question of whether sustainable architecture is necessary. How do you know if there could be anything but sustainable?



Architects at Montreal's COEUF studio reimagined the Benny Burn development to incorporate energy-saving and recycling design elements.

for Benny Burn in the early 1980s and there was no money for anything but a bare building budget. When completed the architect's work was "impossible" simply because of the community in Montreal's west end. Several housing units were demolished for the poor.

Together with the community, the architect screened for money. "Obviously, what was of value, they found nearly 14 million. It was enough to substantially increase the budget assigned to each of the 30 units for social classes

and families. The architect made something more intelligent of the apartment, designing roof gardens into the scheme as well as adding floor heating, operable windows and, because of a municipal heating system, communal energy savings. Grey water and soot water are also being recycled for grey water irrigation as part of the pilot project.

The jury voted in neighbourly. Policy-making should aim at covering flexible places to give people a chance to become neighbours again," says COEUF's Pierre

And the architect took the time to listen in the streets of the neighbourhood, even when there was tremendous pressure from the city of Montreal, which wanted more social housing put up quickly to make up for its previous failure. The second-prize winner in the Holcim Awards went to the 340,000-sq-ft New Sustainable California Academy of Sciences (nasa) public building, by San Francisco designer the architect/urban architect Remo Piva. The jury included Adriaan Geurts, director

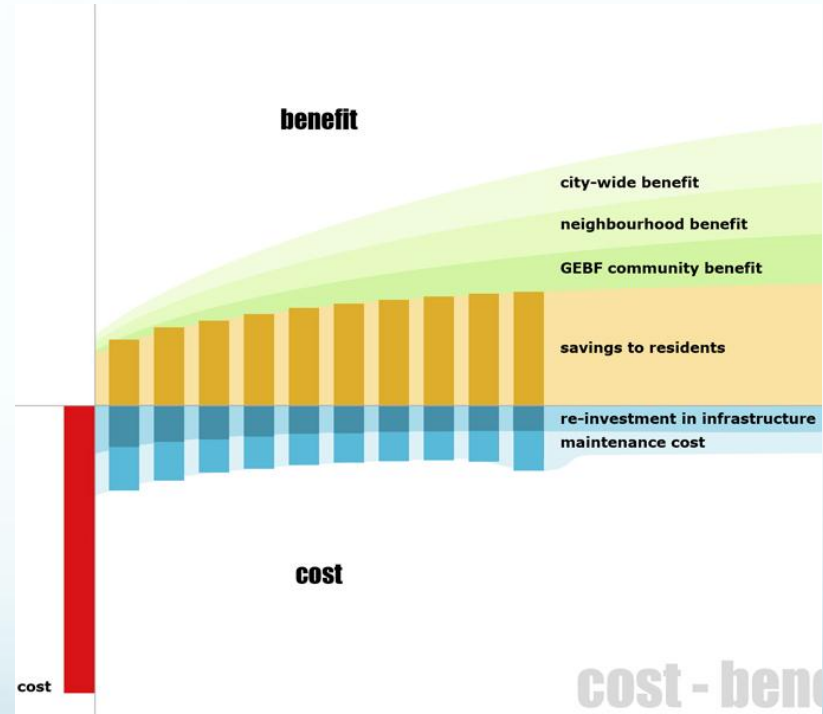
of the School of Architecture and Planning at the Massachusetts Institute of Technology, Los Angeles architect Thom Mayne and Montreal architect Gilles Sauter. The Holcim Awards are presented in Africa, the Middle East, Asia Pacific, Europe, Latin America and North America. Each competition is judged separately. In 2014, the winners, one of the world's largest cement companies employing 61,000 people, received some of over 15 billion Swiss francs (about \$15 billion).

Canadian distinguished themselves in the Holcim competition. Perhaps these are the kind of rewards we can expect for signing the Kyoto agreement. Third prize went to Mark Weitz, a University of Toronto associate professor for introducing a flexible kind of formwork for concrete construction. Most formwork, for poured in place concrete, whether wooden or metal, is thrown away after being used. But Weitz proposed a geotextile formwork made from a product made available around the world, and recyclable.

One of the honorable mentions of Acknowledgment notes went to Tropic Architects of Toronto for its design of the BC or at Vancouver's Langara College. Rather than building a conventional air conditioning system, the facility is designed with a wind-powered system to increase the velocity of crosswind flowing across it. But the architect noted it not a purely aesthetic concern: the wind currents are captured within a cone tower to facilitate cooling in its building.

The reason for sustainable design is to make a better life for people," says Sauter. "The Swiss Jury picked out about the best the architect recognized. People were not talking about take on solutions, they're really involved in their community — and we feel that as a jury, we have to put forward environmental issues — but it's not so easy to involve people, and to give back some thing that is really 'open-space'."

The Globe and Mail, 8 October 2005



Globe and Mail, September 2005

Renewable energy systems

Ground exchange heat pump loops



Solar water heating and make-up air preheating



The cold slap of reality

Renovations and lowest cost contracting lead to significant deficiencies

Innovative infrastructure faulty: needed redesign and rebuilding

Harsh reality of a green plan

Building green might be all the rage, but living green has turned into struggle for residents of two environmentally sustainable housing projects at the Benny Farm site in Notre Dame de Grâce.

BY THE GAZETTE (MONTREAL) SEPTEMBER 4, 2007 BE THE FIRST TO POST A COMMENT

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Building green might be all the rage, but living green has turned into a struggle for residents of two environmentally sustainable housing projects at the Benny Farm site in Notre Dame de Grâce.

One year after architectural firm L'OEUF and engineers

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Montreal Gazette, September 2007



Affordable housing a service not just a commodity

Technical complexity
requires highly skilled
maintenance capacity

Invest upfront AND in
maintenance to keep
energy bills affordable



Green buildings - innovation

Building innovation projects require significant “rebuild” contingencies



ESCO and district heating models are promising, but require the right players



Final Outcomes

EVBF involvement created new opportunities to improve life for the residents



EVBF project important to furthering knowledge about green building technology in Quebec.





Thank You!

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