

FEATURE

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In your backyard

Human ingenuity is pervasive in engineering – it's at the heart of what engineers do. But you'll also find it in everyday life. We found people throughout Calgary, Alberta, applying creative solutions to energy and environmental problems – right in their own backyards.





a straw bale home

and its “truth window” on an acreage near Okotoks, Alberta. The owners say they notice a significant difference in their heating bills.

Photos by Maureen Evans



a solar community

of 10 homes in southeast Calgary. Each home has two solar collectors that can heat about 55 percent of the water needed by a typical family of four.

Photo courtesy SkyFire Energy





Performance monitoring of the home's solar electric system is available to the public at <http://enlighten.enphaseenergy.com/public/systems/9jZp13218>

Photos courtesy of Canada Mortgage and Housing Corporation (CMHC). Source: Echo Haven EQUilibrium™, Calgary, Alberta is one of CMHC's EQUilibrium™ demonstration projects.

a net-zero home

in northwest Calgary. Solar electric and solar thermal systems produce enough energy to meet 100 percent of the home's electrical, space heating and hot water heating needs. Even the construction was powered by an off-grid solar trailer.





net-zero mechanical room



Heat recovery ventilator

Flow metre

Pressure tank

Grey water heat recovery

On-demand heater

Insulated, single coil
storage tank



- Booster fan
- Drivers for LED lighting
- Solar thermal controller
- UV filter
- PV junction boxes
- Particulate filter
- Rainwater holding tank
- Pump for rainwater