

Case Study: Remote Research Station



Factory-built
Transportable
Infrastructure
Appliance

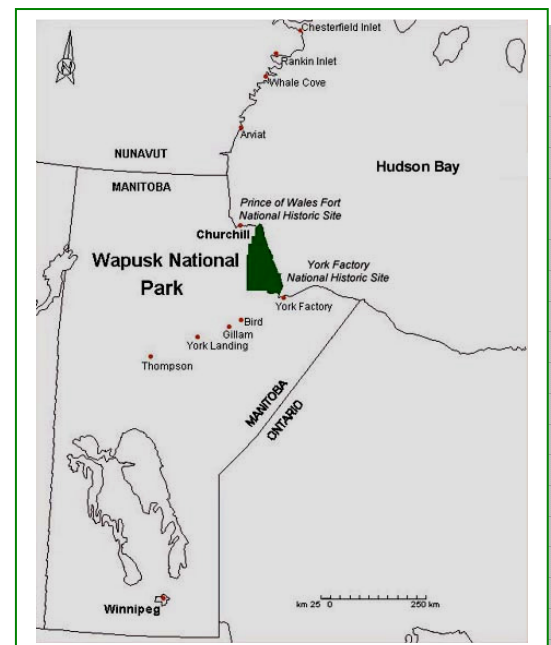
The **Nestor 1 Wildlife Research Camp** is a field research station located in Wapusk National Park; a 33 minute helicopter flight east of the Town Of Churchill – approximately 2 kilometers west of the Hudson Bay shoreline.

The research facility provides seasonal accommodation for a staff of 8 to 20 person; the facility will mainly be used from May to September.

The EcoNomad utility appliance was skidded from Churchill over a frozen tundra trail in winter 2008 and commissioned for operation in summer 2008.

The utility appliance provides all infrastructure services for this remote research station:

- power generated by renewable energy systems (solar PV)
- back-up micro co-generation engine
- potable hot and cold water (filtration & disinfection) and
- environmentally benign on-site wastewater management.



The EcoNomad Utility appliances have been manufactured since 2003 and provide an environmentally friendly solution to temporary and permanent installations requiring a reduced environmental footprint.

Ideally suited for installations such as:

- Spill clean-up sites, environmental remediation sites
- Temporary construction sites or winter road construction
- Fire fighting camps, tree planting or disaster relief camps
- Remote tourist establishments, lodges, outpost camps
- Single family residential housing & subdivision developments



CONVENIENCE:

- To facilitate easy transport by road, rail, water or air to any location in the world, the technology is housed in a standard 8’ by 20’ or 40’ ISO shipping container. The unit can be insulated to allow for operation in the harshest climates.
- The technology is designed as a modular system; equipment and components can easily be exchanged, deleted or upgraded at any time without significantly affecting the overall operation of the core technology.
- The most innovative feature of the EcoNomad™ is the optimization and integration of each component to maximize operational efficiency, minimize interference and to take advantage of mutually beneficial interactions.
- To assure best operation, critical components and equipment are sourced from well known global suppliers such as: General Electric, Kubota, Izuzu, Honeywell, Omron, SJE Rhombus and Johnson Controls.

For installations in remote locations these two models are available:

Unit	Occupancy Examples	Capacity	Dimension	Septic tank Capacity	Potable water storage system	Power Supply
EN 20/8	Temporary, semi permanent work camp	8 to 10 person	20’ ISO container	3700 liter	1500 liter	60 Amp 110 / 220 VAC
	Remote Research / Ranger Station					
	Public Park (toilet only / no shower)	90 visitors/day				
EN 40/20	Remote tourist resort / “EcoLodge”	15 person	40’ ISO container	6400 liter	3000 liter	100 AMP 110 / 220 VAC
	Airport passenger lounge (incl. offices)	100 pass’ger per day				
	Public Campground (inc. toilet & shower)	64 person				

Based on the modular design of the utility appliance, additional configurations can be supplied upon request.

TECHNOLOGY:

The EcoNomad utility appliance technology was developed between 1999 and 2003 – partially supported by Canada Mortgage and Housing Corporation (Research Division), Industry Canada and the National Research Council.

- In 2000, the EcoNomad™ utility appliance technology was chosen for the Canada Mortgage and Housing Millennium Housing Award (Technology Category).
- In 2007 the technology was selected as the national winner (Canada) in the international “Energy Globe” sustainable technology competition.

CONTACT:

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