

## Holland College

## Charlottetown P.E.I.



Certified April 2012

Designed by North 46 Architecture

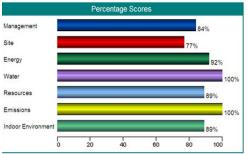
## **Holland College Centre of Applied** Science & Technology (CAST)

Holland College Centre of Applied Science offers a finishing touch. &Technology (CAST) in Prince Edward In addition to serving as a beacon does not have to look out of place.

of the layout, orientation and natural the facility. resources on the site, the design team was able to create a building shell that would harness and retain heat in winter Management and avoid excessive summer heat gain. Site This was complemented by passive energy Energy features including a large solar wall and Water geothermal heat system. An innovative Resources photovoltaic array supplies much of the Emissions building's lighting load, while also acting Indoor Environment as an interactive classroom, offering

One of few facilities to score 100% on students a real-world example of just how their Green Globes energy analysis, much energy can be harnessed. A green roof

Island shows that energy responsibility of sustainability for the surrounding does not need to come at a cost that is out community, this state of the art college of reach for the majority of buildings. The building is also a living lab for students building also fits in with the colonial style of studying renewable energy technology and the campus, showing that new technology environmental science. These students have access to a dazzling array of technologies By following integrated design principles, integrated into the structure that allow them and incorporating cutting edge energy to participate in ongoing measurement & and construction technology strategies, verification as well as the maintenance and the project team was able to combine customization of building systems. This elements in a way that is only possible enables them to quantify the emissions when an entire build team works together of the structure and develop methods to for a common goal. By taking advantage further reduce the environmental impact of •





## Project Highlights

- Solar wall & PV Array
- Green roof
- Geothermal system
- Maximized passive heating & cooling
- High performance glazing
- Water use at less than 1.5 m<sup>3</sup>/m<sup>2</sup>/year
- Rapidly renewable building materials
- Energy-efficient lighting fixtures, lamps and ballasts
- Public transport is easily accessible
- Water-saving devices or proximity detectors included on urinals, toilets, shower heads, and faucets
- Rainwater runoff reduction strategies integrated, utilized as greywater
- Flexible, scalable learning and meeting
- Daylight harvesting in all learning
- Real time energy systems management displays throughout the building
- Weather station