

DIRECT ENERGY CENTRE



Project: Direct Energy Centre (DEC) lighting retrofit

Location: Toronto, Ontario

Owner: City of Toronto

Contractor: Direct Energy Business Services & ShowTech Power and Lighting

Consultants/designers: Lighting Technical Design and Project Services Group

At over 1,000,000 ft², the Direct Energy Centre is the largest tradeshow facility in Canada. Located on Exhibition Place grounds, just inside the Princes Gate, the facility is host to 180 shows annually.

Exhibition Place Operations staff needed to upgrade the lighting to resolve the increasing ballast failures of the existing lighting systems in all exhibit halls. The ballasts were difficult to replace because of the height of the fixtures.

Staff requested a lighting systems solution that would save energy and have easily available replacement parts.

After careful consideration of available options and technologies, the lighting system was redesigned with over 500 kW of electrical demand savings.

Project Summary	
Project completed:	January 2007
Total implementation costs:	\$800,000
Cost savings per year:	\$288,000
Annual energy savings:	2,200 MWh
Simple payback period:	2.8 years
Estimated CO ₂ emission reduction:	2096 tonnes

“Our consultant came up with a perfect solution for us, this retrofit has reduced noise, increased the quality of light and we’re saving \$288,000 a year in addition to maintenance savings”

Mark Goss, General Manager,
Operations, Exhibition Place.

In this upgrade, 880, 1000W Metal Halide fixtures were replaced with energy efficient, 400W fixtures to exactly suit the DEC and the specialized requirements of exhibitors and national trade shows.

The project was funded through the City’s Energy Retrofit Program (ERP). The ERP provides loans which are repaid through the energy savings generated.