

LAVAL, CANADA • 2021

Laval: 37,000 streetlights on one integrated platform

Laval converted 37,000 street lighting fixtures under a \$34.5 million contract and connected the lighting platform to the asset management, traffic and GIS systems the City already ran.



PUBLISHED OUTCOMES

\$2.75M

ANNUAL SAVINGS (CAD) [↗](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/)
([HTTPS://ELECTRICALINDUSTRY.CA/CHANGING-SCENES/8010-LAVAL-SELECTS-DIMONOFF-FOR-ITS-INTELLIGENT-STREETLIGHT-CONVERSION-PROJECT/](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/))

15M kWh

ELECTRICITY SAVED PER YEAR [↗](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/)
([HTTPS://ELECTRICALINDUSTRY.CA/CHANGING-SCENES/8010-LAVAL-SELECTS-DIMONOFF-FOR-ITS-INTELLIGENT-STREETLIGHT-CONVERSION-PROJECT/](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/))

10,607 t

CO2 AVOIDED PER YEAR [↗](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/)
([HTTPS://ELECTRICALINDUSTRY.CA/CHANGING-SCENES/8010-LAVAL-SELECTS-DIMONOFF-FOR-ITS-INTELLIGENT-STREETLIGHT-CONVERSION-PROJECT/](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/))

5 years

RETURN ON INVESTMENT [↗](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/)
([HTTPS://ELECTRICALINDUSTRY.CA/CHANGING-SCENES/8010-LAVAL-SELECTS-DIMONOFF-FOR-ITS-INTELLIGENT-STREETLIGHT-CONVERSION-PROJECT/](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/))

The situation

Laval operates a street lighting network of 37,000 fixtures. By 2021 a significant share of that network had reached the end of its life cycle and was due for replacement. The City chose to treat the replacement as more than a hardware exchange.

The problem it wanted to solve was not only the age of the fixtures. Lighting sat apart from the rest of the City's operations. Work orders lived in one system, traffic equipment in another, asset locations in a third. Replacing 37,000 fixtures without addressing that separation would have produced a newer silo rather than fewer silos.

The contract, valued at \$34.5 million, was awarded in March 2021. Dimonoff supplied the controllers and the management platform.

Pierre Brossard Ltée, a Black & McDonald subsidiary, and Trafic Innovation carried out the field work.

What was deployed

Each of the 37,000 fixtures received an intelligent lighting controller that reports status, consumption and faults. Eighty-eight gateways collect that traffic, using a mix of cellular links and the City's own municipal network, so coverage does not rest on a single carrier.

The controllers and gateways feed the Dimonoff | SCMS platform. What distinguishes Laval is what sits on the other side of that platform. SCMS was integrated with Oracle E-Business Suite for enterprise asset management, with Intelight MAXVIEW 2.0 for traffic, and with ArcGIS Esri for the City's geographic information system.

The practical effect is that a lighting fault becomes a record in the systems crews already use. A failed fixture raises a work order in Oracle. Its position is the same Esri feature that every other municipal asset is mapped against.

Results

The City set out savings of up to \$2.75 million a year, 15 million kWh of electricity saved annually, and 10,607 tonnes of CO2 avoided each year. The stated return on investment is five years.

Why it matters for your network

Most lighting conversions are evaluated on the fixture and the controller. Laval is the precedent for the layer above them. If your city

already runs an ERP for asset management, a traffic management system and a GIS, the question is not whether a lighting platform can report a fault, but whether that fault reaches the systems your crews open every morning. In Laval it does, and the integration work was part of the original scope rather than a later project.

This project comes at a good time: a significant portion of the lighting network has reached the end of its life cycle and must be replaced.

Marc Demers, Mayor of Laval <https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/>

DEPLOYMENT

Platform	Dimonoff SCMS
Gateways	88, cellular and municipal network
Integrations	Oracle EAM, Intelight MAXVIEW 2.0, ArcGIS Esri
Contract	\$34.5M CAD

PARTNERS

- Pierre Brossard Ltée
- Trafic Innovation

SOURCES

- [Electrical Industry Canada - Laval selects Dimonoff for its intelligent streetlight conversion project](https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/) (<https://electricalindustry.ca/changing-scenes/8010-laval-selects-dimonoff-for-its-intelligent-streetlight-conversion-project/>)
- [Dimonoff - Laval case study \(self-reported\)](https://www.dimonoff.com/resources/case-studies/urban-transformations-centralized-smart-city-management-system-laval/) (<https://www.dimonoff.com/resources/case-studies/urban-transformations-centralized-smart-city-management-system-laval/>)

