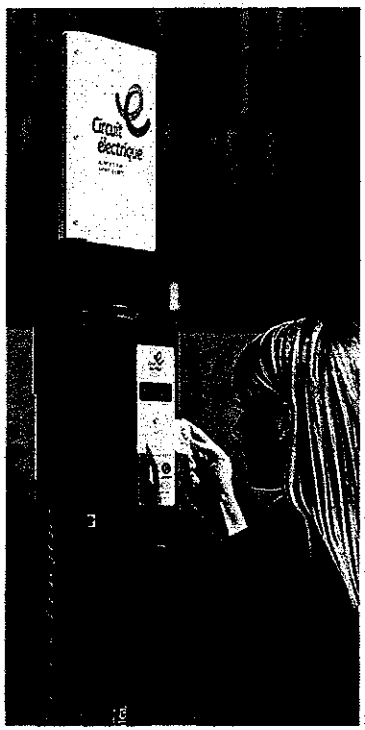
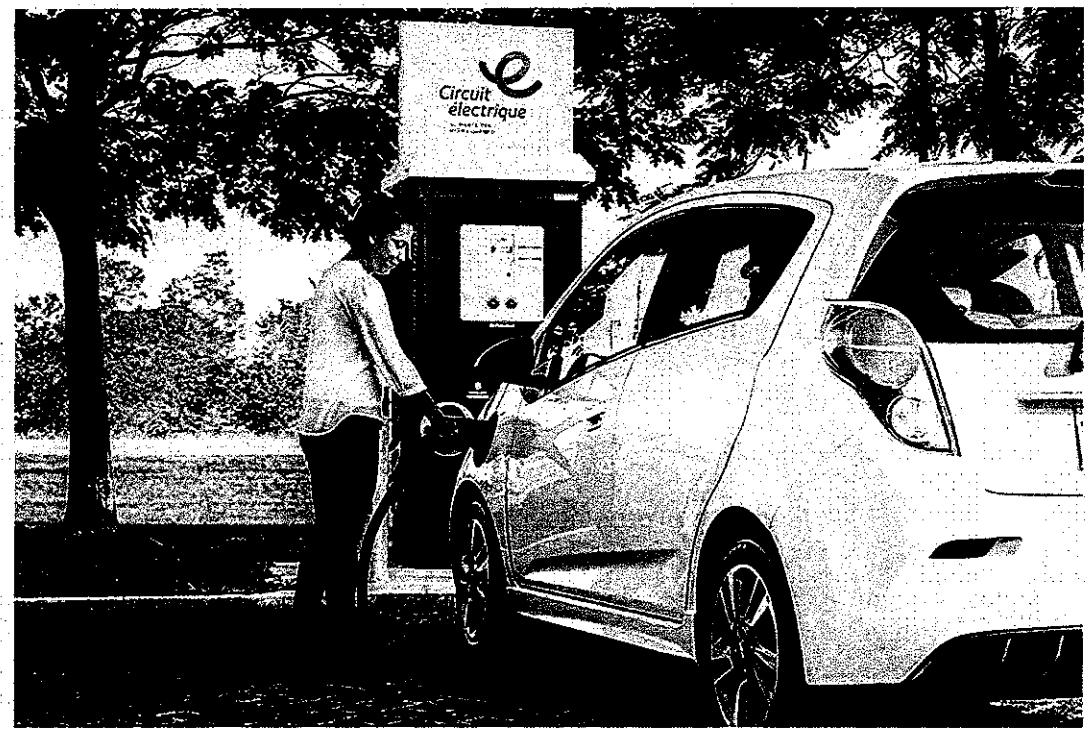
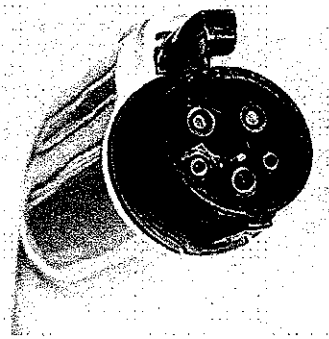
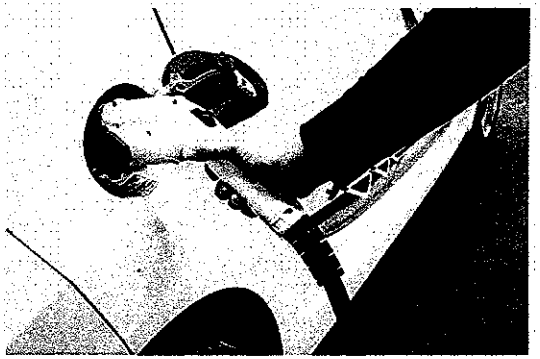






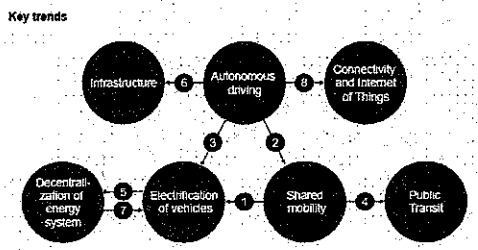


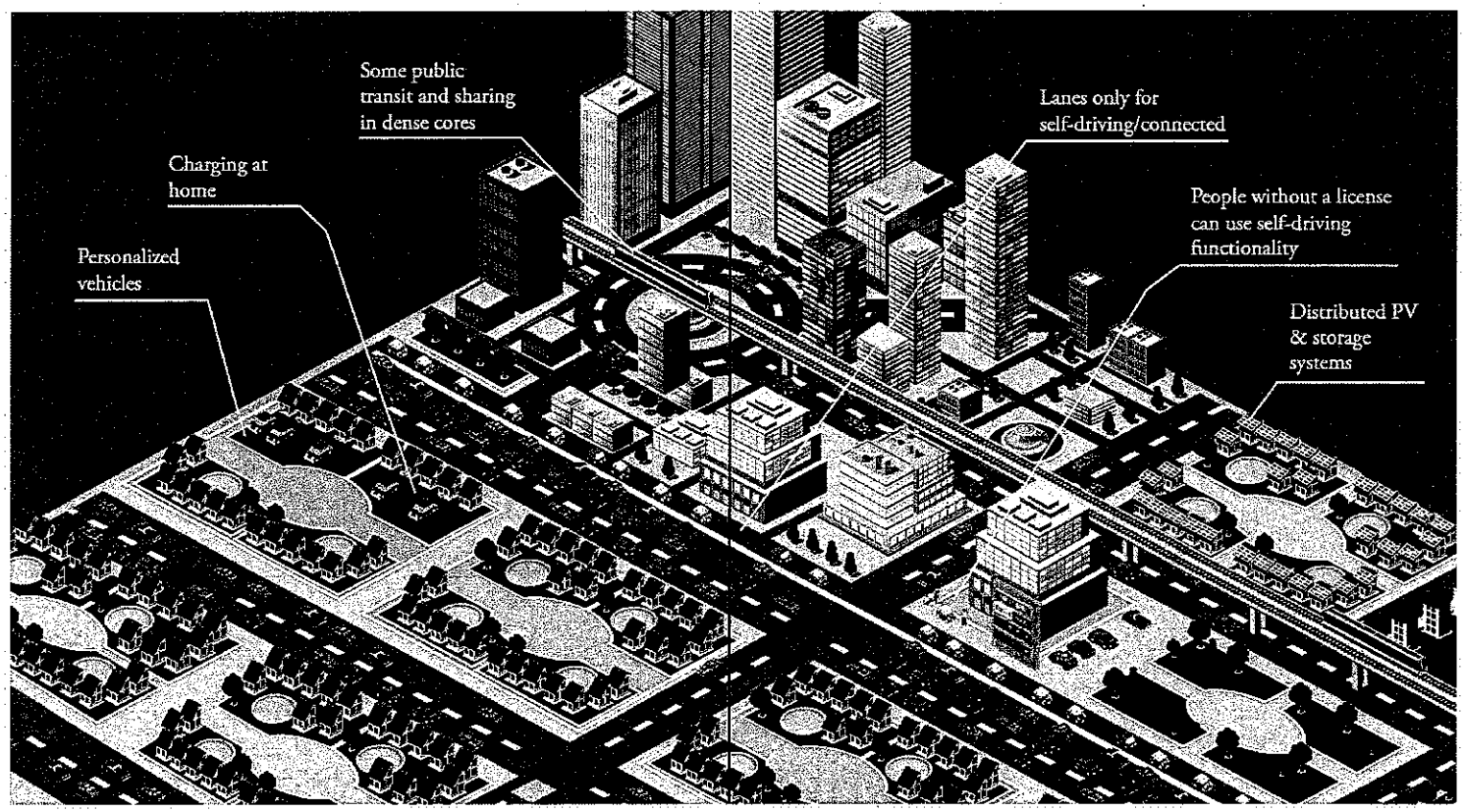
WHAT IS HYDRO-QUÉBEC DOING IN TRANSPORTATION ELECTRIFICATION?

LOUIS BEAUCHEMIN
SENIOR DIRECTOR – SUBSIDUARY MANAGEMENT
FRANCE LAMPRON
DIRECTOR – TRANSPORTATION ELECTRIFICATION

Hydro Québec

MOBILITY IS CHANGING. COMPLETELY.





Source : An Integrated Perspective on the Future of Mobility, McKinsey & Company, Bloomberg New Energy Finance, October 2016

One constance: mobility will be electric

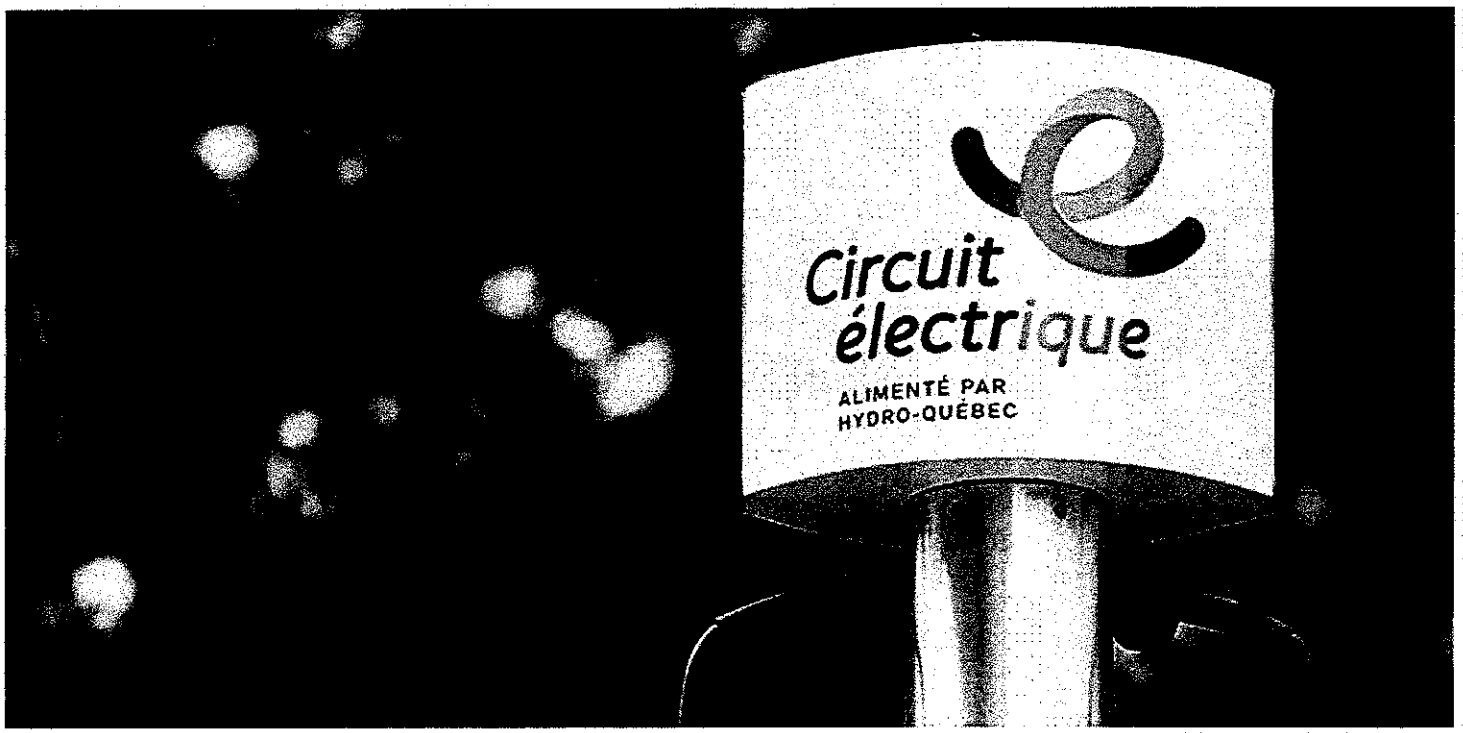
SIGNIFICANT PRICE DIFFERENCE BETWEEN ELECTRICITY AND GAS

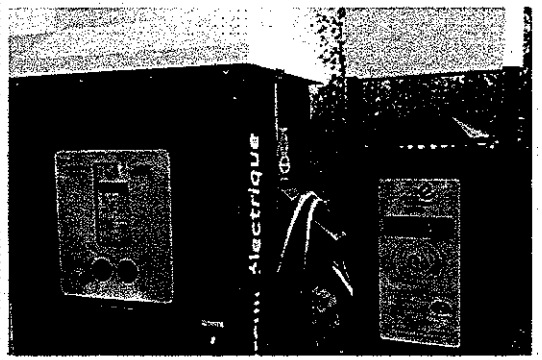
	CONSUMPTION PER 100 KM	PRICE	COST	100 KM	CO_2 PER YEAR [1]
	8.2 liters	X $1.18 / liter	= $9.67		3.5 tons
	20 kWh	X $0.0989 / kWh	= $1.98		negligeable

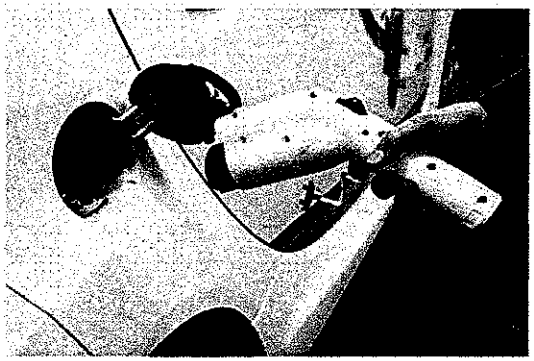
ANNUAL SAVINGS OF

$1,500 TO $2,000

1. For 20,000 km per year







WHAT'S NEXT?

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TOMORROW'S GRID – POWER EXCHANGE

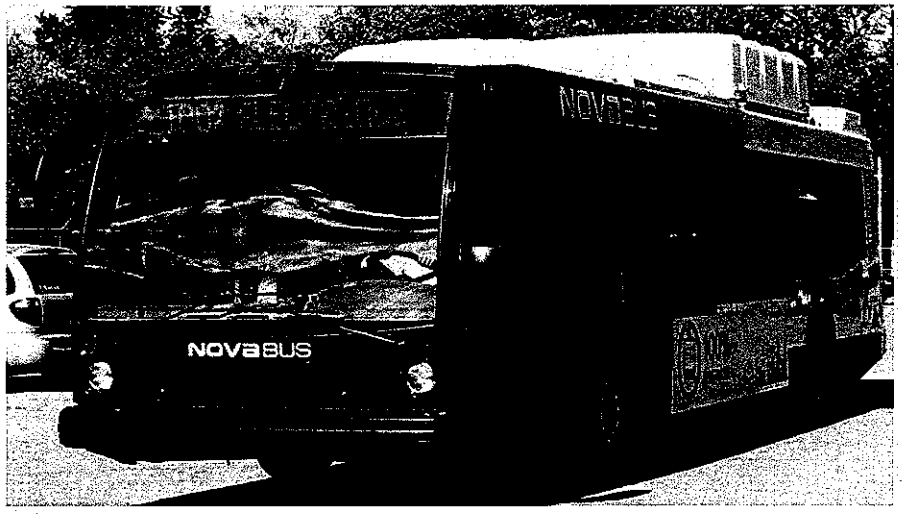
EXPERIMENT USING ENERGY IN BATTERY WHEN VEHICLE IS PARKED AT HOME

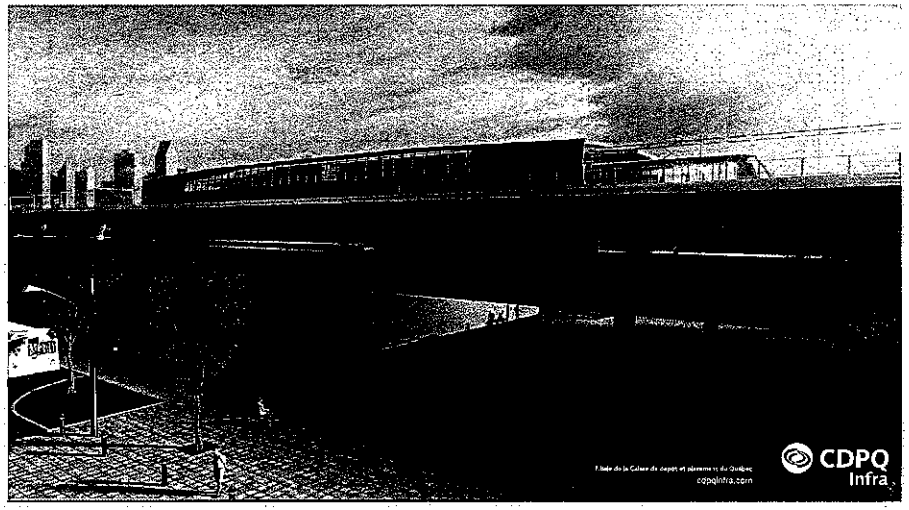
- Interrupt or reduce charge (Demand response – V2G)
- Supply part of home in case of power failure (V2H)
- Supply power grid during peak hours (V2G)

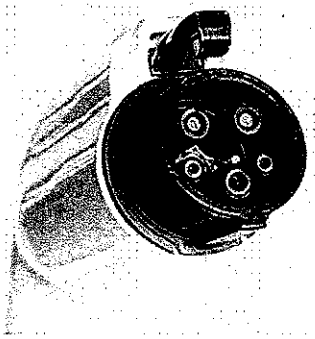
EV CARS MAY BECOME AN OPPORTUNITY RATHER THAN A THREAT FOR THE GRID

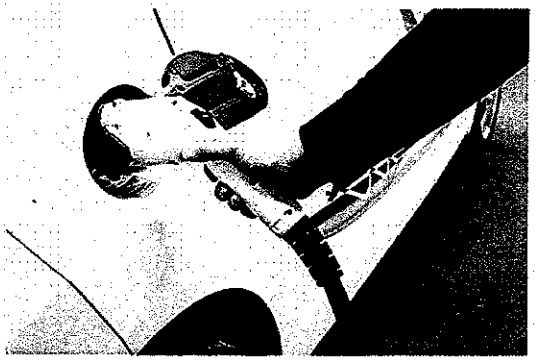
PUBLIC TRANSIT

- **Contribute financially to electrify public transit**
  - Quick-charge all-electric buses – STM in Montreal
  - Quick-charge plug-in hybrid buses – STL in Laval
  - Analysis of various electric solutions available for public transit – AVT
  - 67-km light electric train – CPDQ Infra
  - In China, 6,000 electric buses equipped with TM4 motors









THANK YOU!

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