

Save Energy. Save Time. Save Money



## INTELLIGENT LIGHTING SOLUTIONS FOR COMMERCIAL & INDUSTRIAL APPLICATIONS

COMBINING SMART LIGHTING, IOT & APPS



#### **AGENDA**

- **Evolution of Lighting**
- Turnkey Solutions
- Smart Lighting Why / When?
- Case Study Abbott Pharmaceuticals
- Smart Lighting How?
- Hands On Experience
- Available Funding
- Q&A



# **Evolution** of Light



LED

Fluorescent



Incandescent



Kerosene lamp



Candle







#### A TURNKEY LIGHTING SOLUTION

- Light Design Validation: Software & Photometry
- Energy Consumption & Savings Analysis
- Trials & Equipment Validation
- Energy Star / DLC & cUL / cETL
- Installation / Electrical & ESA
- Phased Approach
- Custom Subsidy Procurement
- Recycling (Take Back The Light RCO)
- Warranty
- Online Web-profiling, Social Media Campaigns



#### SMART LIGHTING – WHY? WHEN?

- Enhanced Energy Efficiency
- Occupancy / Vacancy
- Daylight Harvesting
- Dimming
- Data / Analytics
- Wayfinding
- Colour Control
- Personalized Lighting
- Future Proof



#### Benefits

#### **Property Managers**

- Energy Savings
- Lower Total-install Cost
- Lower Capital Cost
- Easy Administration

#### **Tenants**

- Ease of Use
- Energy Savings

#### **Operators**

- Ease of Use
- Easy Upgrades
- Expandable

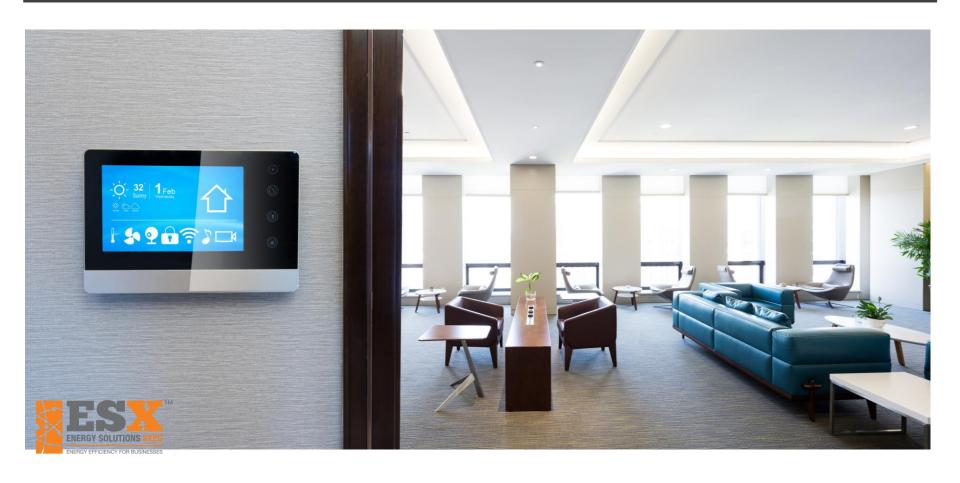








### SMART LIGHTING - HOW?



#### **IDEAL** Goals



Additional energy savings of up to 50%, with an intelligent lighting controls system that is adaptable, flexible, and maintenance free.



Simplicity to install, operate, and minimal maintenance



Offers you the greatest labour savings in the installation of a lighting control system today.



# Lighting Controls – Design Objectives

- Simple to install
- Simple to configure
- Simple to operate & maintain
- Scalable
- No ongoing software costs
- Multiple levels of security
- System flexibility
- Cloud-based system





# INDOOR & OUTDOOR LIGHTING CONTROL

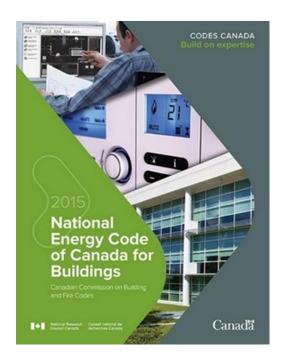
Use on Linear Fluorescent & LED Troffers, Can/Down-lights, Incandescent, and Dimming Options

- Non-disruptive/non-destructive quick installation
- Custom control for individual light fixtures (Dimming for each individual fixture)
- Scene Control
- Integrates with existing Building Automation Systems





# Controls: Regulatory and Code COMPLIANCE

















## OPTIMIZED FEATURES

- Incorporates all Lighting Control Strategies
- Interfaces with PCs, iPhone, and iPad mobile devices (Internet) – IoT Support
- Integrates with Building Automation Systems (BMS/BAS via BACnet, Modbus, LonWorks, etc.)
- Software and IoT Security

- Proven passive infrared and ultrasonic technology
- Reliable Frequency of Operation
- cUL/UL
- Contractor-friendly Installation
- Design fits with all commercial decor



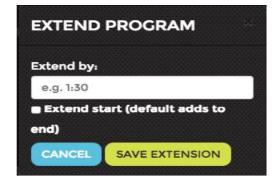


Save 50+% with Intelligent Controls

#### **ADVANCED SCHEDULING**









## OCCUPANCY/VACANCY CONTROL







- Ceiling or Wall-mount
- Indoor and Outdoor Motion Sensors





#### **SWITCHES & SENSORS**

Dual-Technology Sensor





- UP TO 25-YEAR BATTERY LIFE USING EXCLUSIVE LOW-POWER TECHNOLOGY
- SWITCH SENDS OCCUPANT ON/OFF/DIM OVERRIDE









 SENSORS TRANSMIT OCCUPANCY/VACANCY, LIGHT LEVEL DATA TO GATEWAY













#### **SWITCHING**



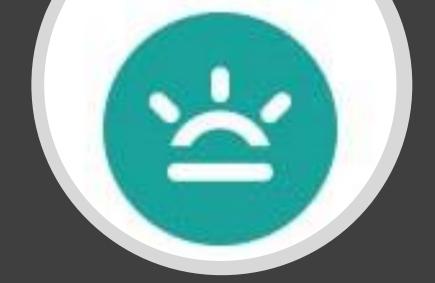












#### LIGHT HARVESTING





# PLUG LOAD CONTROL







 Optional and can be added in the future.

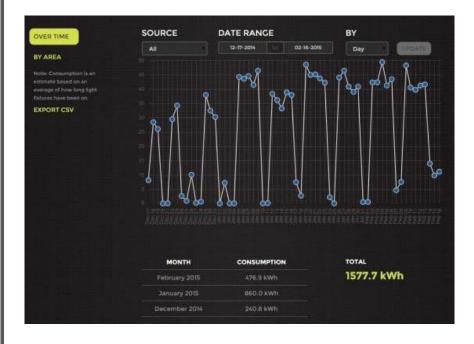




## Data Recording and Cloud Reports



ENERGY EFFICIENCY FOR BUSINESSES



# HANDS ON EXPERIENCE



# AVAILABLE FUNDING



#### Why Funding?

- Funding is available through several provincial and federal streams
- Available for both lighting AND lighting control projects
- Puts money back in your pocket and help reduce the payback time for a project by funding between 25% to 50% of a project



#### SaveOnEnergy

- Funding available for up to 50% of a project cost
- Managed by the Independent Electricity System Operator (IESO)
- Stream of application available through a prescriptive or custom track
- Interim framework is set until the end of 2020 with an allocated budget of \$141 million





#### Climate Action Incentive Fund

- Announced in July 2019 by the Government of Canada with \$218 million available in Saskatchewan, Manitoba, Ontario and New Brunswick
- SME Funding available for up to 25% of a projects total eligible cost for a minimum of \$20000 and no more than \$250000
- Can be stacked with the IESO funding
- MUSH and Rebate stream to be announced soon







## QUESTIONS?

