

# Fleet Management – EV Charging, Done Right!

CIPMM Fleet Management Workshop



# Agenda



- 1. Introduction Sandra Rodrigue
- 2. EV Deep Dive Yannis Chabane
- 3. Solution overview Sandra Rodrigue
- 4. On the GO! & software Tina Soulahian
- 5. Q&A





# FLO pursues its mission

- 15+ years in EV charging
- 120,000 chargers installed in North America (95, 000 publics)
- Manufactured in Canada & USA
- About 2M sessions per month



# A whole team of experts

flo

We are your main contacts at FLO

### Sandra Rodrigue

Major Accounts Manager, Customer Success, FLO

#### Tina Soulahian

Major Accounts Manager, Customer Success, FLO

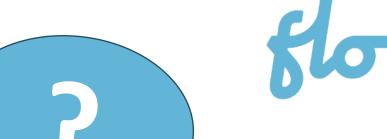
#### Yannis Chabane

Application Engineer, FLO

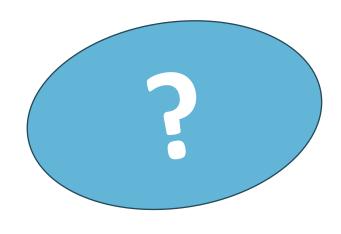




### Fleet Electrification

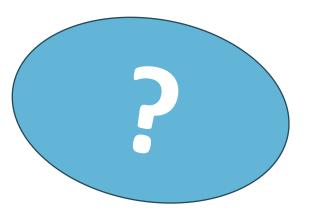






> Who can I talk to?

➤ I need help!!!









EV deep dive





# Complete range of EV Offerings



### Passenger and medium duty EVs are becoming mainstream











Chevrolet Bolt EV

Tesla Model 3

Ford F150 Lightning

Mercedes eSprinter

**GM** Brightdrop

Passenger





400V vs 800V battery architecture



Different range offering



How temperature affects EVs



Charger port location and type



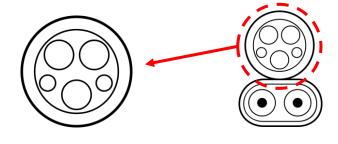


# Types of charging connectors



Connectors standards are evolving







Connector	CHAdeMO	J1772	CCS1 Combo	NACS / J3400		
OEM adoption	Nissan	All oth	er OEMs	Tesla		
Level 2	X	✓	X	✓		
Level 3	✓	X	✓	✓		
Status	Phasing out	Most common		Trending		

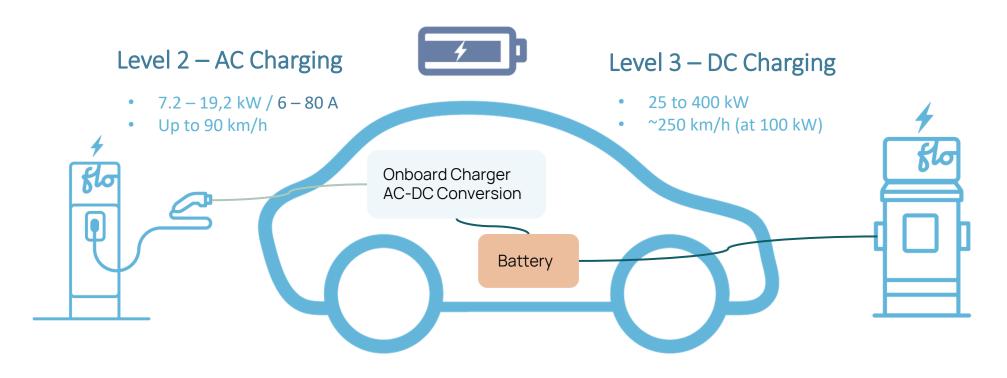














# Types of charging stations

flo

3 Levels, 3 speeds

Level 1 AC charging	<b>Level 2</b> AC charging	Level 3 DC Fast Charging
Wall socket	810 Blo	A1 Blo A2
1.4 kW	7.2-19.2 kW	25-400 kW
Up to <b>6 km</b> per hour of range added*	Up to <b>25-75 km</b> per hour of range added	Recharge from <b>20-80%</b> in under 40 minutes
2-3 days to recharge from 0-100%	6-12 hours to recharge from 0-100%	~1 hour to recharge from 0-100%



# Solutions by Use Case



### The right charging station for the right application

At Home

At Work

On The Go



- Single-family homes
- Multi-unit residential buildings (MURB)

#### Workplace Fleet

- Commercial properties
- Workplace and fleet parking

#### Public Destination

- Retail stores and shopping centres
- Hotels & restaurants



- Cities
- Municipal administrations





- Rest areas and gas stations
- Shopping centres

Level 2 Chargers



Affordable residential use chargers



Medium duty feature rich chargers



Heavy duty charger for urban deployment

#### Level 3 Chargers





Fast chargers, closest thing there is to a conventional gas station



Solution Overview



### Customer experience



#### 1. Plan

- -What type of chargers
- -Site needs & preparation



### 2. Deploy

- Installation & commissioning



### 3. Operate

- Usage
- & performance
- Energy consumption
- Uptime
- Find, charge & Pay



### 4. Support

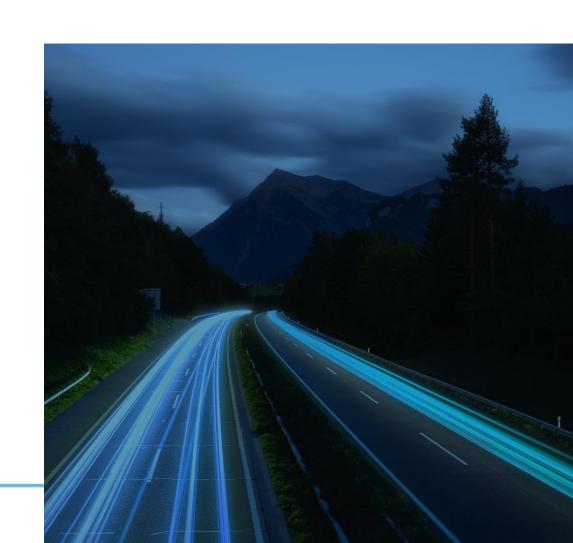
- Network monitoring
- Preventative monitoring
- 24/7 support
- Remote troubleshooting
- Road assistance



### When selecting an EV charging partner

#### Plan

- When will we get the EV?
- What type of charger do I need?
  - What type of EV?
  - What is the usage of the EV?
  - Where and when will the EV charge?
- Do I have enough electric capacity?

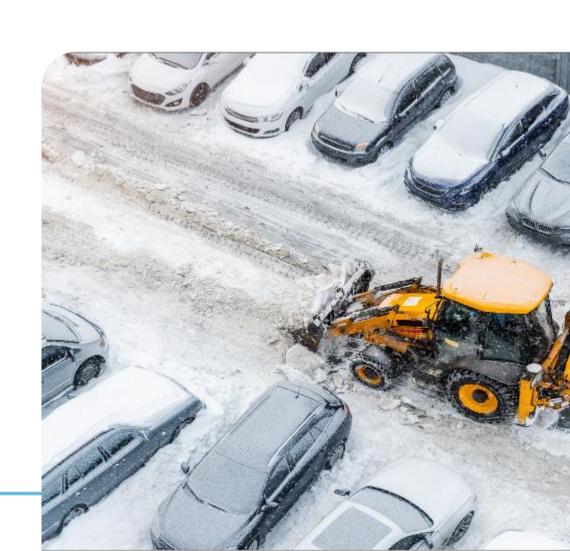




### When selecting an EV charging partner

#### Hardware

- Can my supplier cater to all of my different charging needs?
- Will the chargers be able to withstand a harsh environment?
- Are units serviceable on-site?
- How can I optimize the energy available?
- How to avoid stranded assets?





### When selecting an EV charging partner

#### **Network**

- How reliable is the network?
- How reliable are the chargers?
  - How often will my chargers be down?
- How much will my network fees cost?

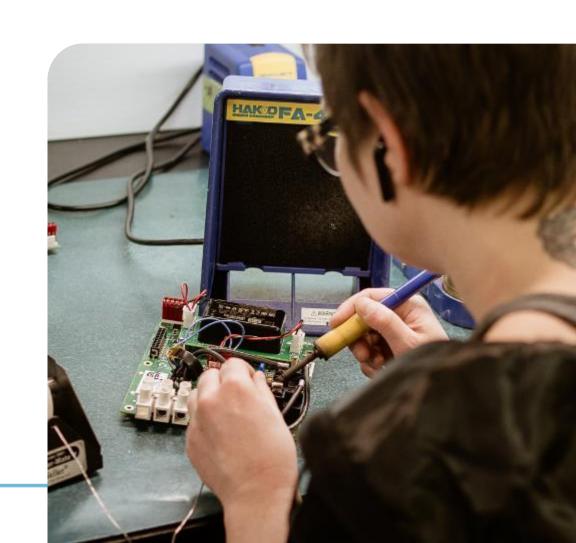




### When selecting an EV charging partner

### Service & Support

- Do I have a contact to reach out to when needed?
- Can I easily get aftersales service?
- Are my chargers remotely monitored on a regular basis?
- Will I have local support and service technicians?





On the GO!





# Charging on the public network

### **Key considerations**



**Complete solutions** 



Integrated payment system



Session authentication options



Roaming services



**Charging Network** 



Owner web portal



Reliability



24/7 driver support



Roaming





# Key questions to ask

### Roaming on the public network

#### Network

- Does my supplier have a strong presence on the public network?
- Do they offer an extended network coverage with other network partners?
- How will my drivers find and access public chargers?
- Are they integrated with major map services like PlugShare?

#### Service & Support

- Is their network a reliable one?
- Do they offer 24/7 driver assistance?
- Can I track the charging sessions of my fleet on the public network?
- What are the options (RFID cards, app, etc) they offer to my drivers to charge on the public network?





Network management & owner portal









# Intelligent Management Do they offer?

- Owners web portal?
- Are accesses to portals licensed based?
- Are there different levels of accesses for different users to the portal?
- Data and network reporting?
- · What kind of reporting?
- Flexible billing & security?
- What are the associated costs?

Charging Point Operator (CPO)

# Driving Facing Software Do they offer?

Find & locate chargers via realtime mapping?

 Identify cost and access arrangements?

 Navigate to the charging site via Google and Apple Maps?

Activate and pay for a charging session securely?

Track session activity data on the go (seeing real time status of the session)?

Carplay and Android auto support?

Electric Mobility Service Provider (eMSP)





# Questions?





### Sandra Rodrigue

Major Accounts Manager, Customer Success, FLO

#### Tina Soulahian

Major Accounts Manager, Customer Success, FLO

Yannis Chabane

Application Engineer, FLO

