# green town

Sarah Edwards, Cook County

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# **Transportation: The Emergence of the Electrical** Vehicle World







## Contact Information





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#### \$1.7 BIL Energy Saving Projects

## 1,000sBuildings Optimized







#### 600 +Veregy Professionals

8 BIL kWhs of Energy Saved

20 BIL Gallons Water Saved

12.4 BIL Carbon Dioxide Pounds Reduced





## **OUR HOLISTIC APPROACH**







# **EZ BUTTON TO EVS**

## Veregy simplifies the process of transitioning to Electric Vehicles

Administrative/Consulting Services:

- Fleet Transition & Infrastructure Planning
- Grant Writing

Turnkey EV Design Build Services:

- EV Charger Solutions & Designs
- Electrical Infrastructure Assessments & Upgrades
- General Contracting and Construction Management
- **Operations and Maintenance**
- Software Platform Integration
- EV Charging as a Service Financing Models

Grid Resiliency Solutions:

- Solar
- Battery Storage
- Microgrids





PAGE 6



# **START THE PLANNING PROCESS NOW!**

- Fleet & Operations Information
- Infrastructure Assessments
- Identification of Potential Funding Sources
- Goals & Timeline for Fleet Replacement
- Infrastructure & Charging Designs
- Cost Estimates
- Phased Implementation Plan





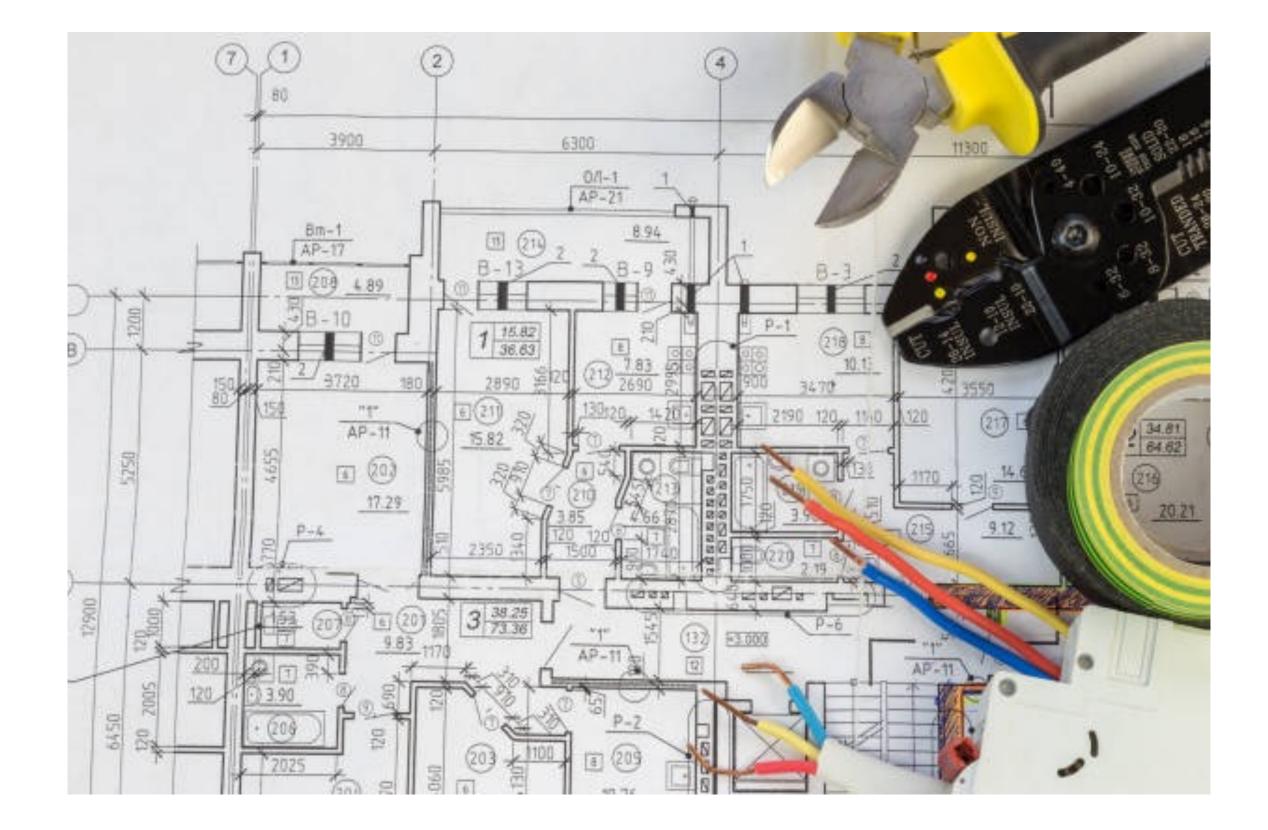






# **INFRASTRUCTURE PLANNING**

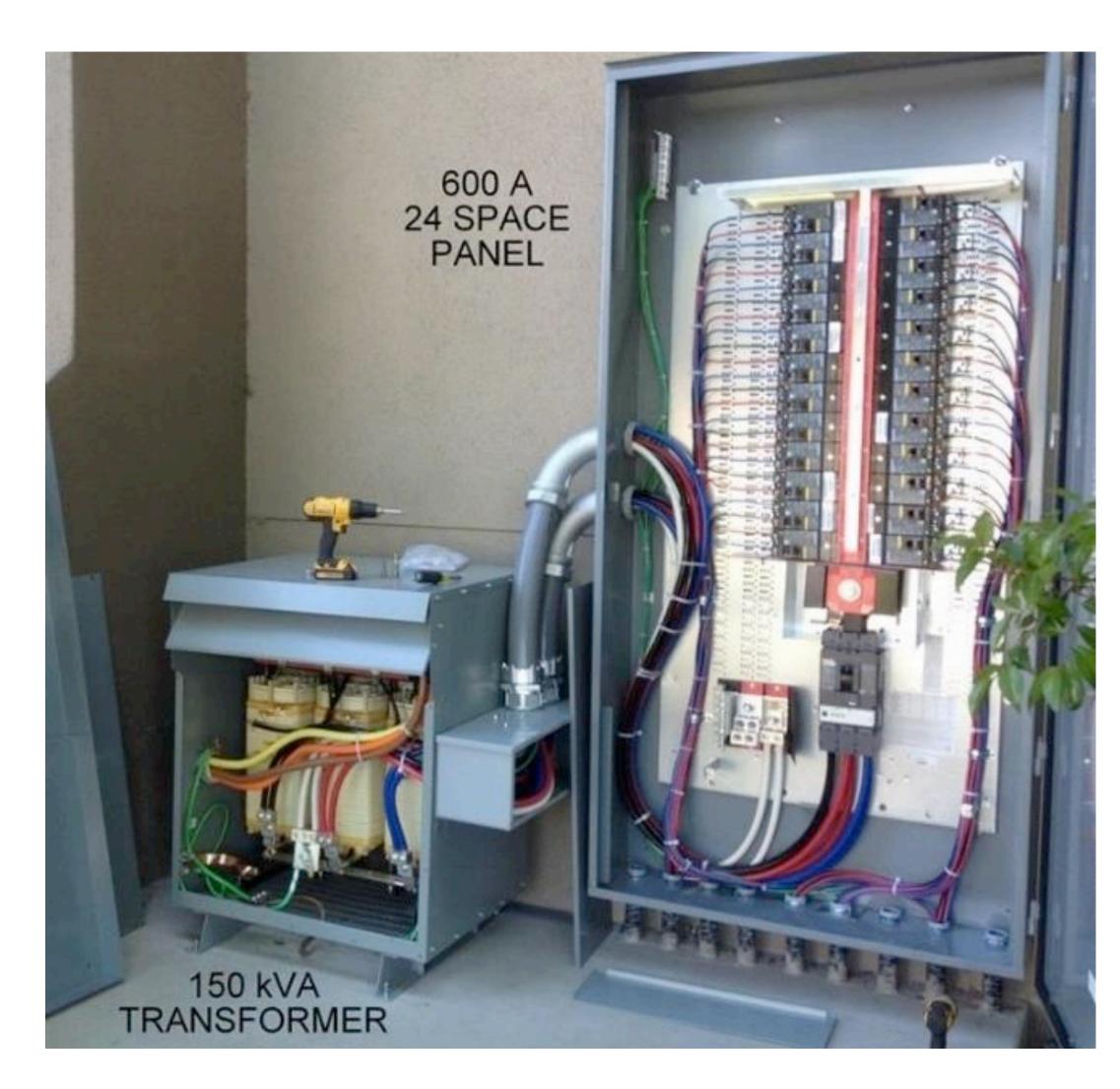
- Start infrastructure phase before you order vehicles
  - Allow a minimum of 9-12 months from contract award to completion
- Steps include design, geotechnical reviews, bids, permits, utility coordination, construction, and commissioning
- Make sure your plan includes operator and mechanic training
- Completion of project should align with arrival of first ZEV



















# **EV CHARGER OPTIONS**

## Level 2 (AC) Chargers--\$5,000 to \$11,000 MSRP Workplace, retail, parking lots, fleet & bus depots

- Single or dual port dispensers
- 7.2kW to 19.2kW charging loads
- Each port requires 30A to 100A branch circuits
- 208 V / 240 V 1-Phase AC
- 480 V service requires transformer to step down power
- 10 to 25 miles of range per charge hour

## Level 3 (DC) Fast Chargers--\$50,000 MSRP **Public charging stations, bus & truck depots**

- Single or dual port dispensers
- 60kW to 200kW
- Each port requires 100A to 200A branch circuits
- 480V 3-Phase AC
- 60 to 150 miles of range per charge hour









PAGE 10

# **SOLAR OVERVIEW**

- Solar array can provide a large percentage of energy needed to electrify buildings and future EV Fleets
- Clean form of renewable energy source
- Multiple financing options available to municipal customers









# **GRID RESILIENCY OPTIONS**

Microgrids are independent energy systems that combine an off-grid system, an on-grid inverter system, and battery backup (for peak demand, nighttime and/or off-grid use).

They're designed to operate either in grid-connected or off-grid mode.

Grid-connected microgrids can also disconnect themselves completely during utility disturbances, a feature called "island mode."



#### ECTRIC VEHICLE INFRASTRUCTURE PLANNING.





**PAGE 12** 



# SELECT VEREGY AS YOUR EV INFRASTRUCTURE PARTNER **Contracting options to move projects forward!**

- Consulting agreements
  - EV Infrastructure and Fleet Assessment Planning
  - Grant Writing Services
- Request for Proposal-Performance Contracting
  - Design and implement EV charging
  - Design and implement solar array to offset energy demands & costs
  - Identify fuel/energy/maintenance savings options
  - Identify energy savings projects within facilities
- Cooperative purchasing agreements (1GPA; META; etc.)

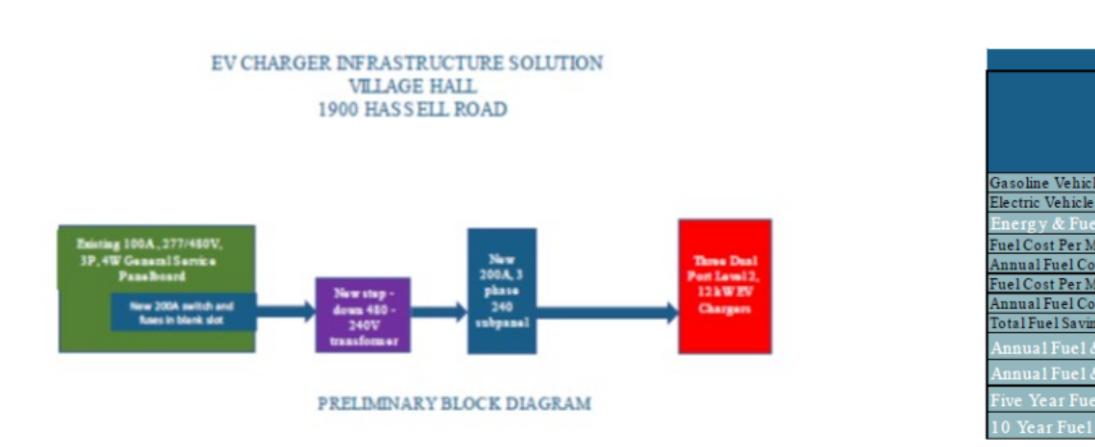






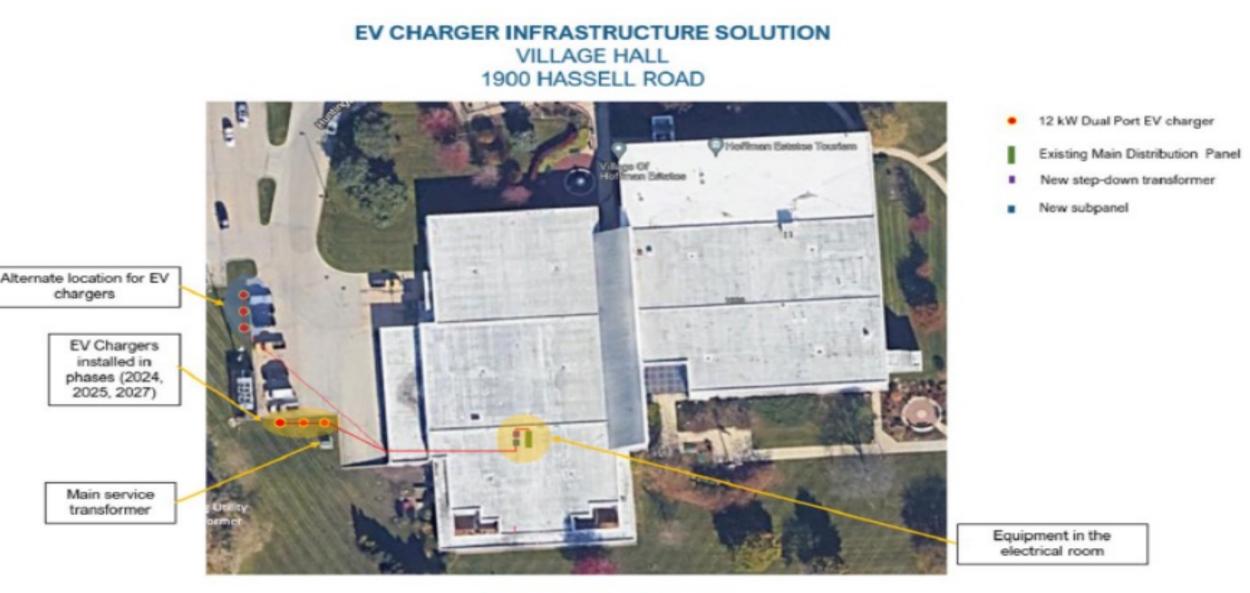
## **NEXT STEPS**

- Follow up meeting to determine approach and project scope
- Execute Consulting Agreement
- Complete Questionnaire
- Collect Interval Utility Data
- Fleet Inventory
- Site Visit



#### **EV Infrastructure Assessment**

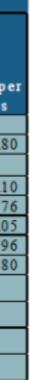




PRELIMINARY SITE PLAN

#### Appendix A - Fuel and Maintenance Savings Models

	Fuel	land Maint	enance Es	timates for S	tandard F	leet Vehicle	S					
	Potential Quantity of Electric Vehicles	Average Miles Per Vehicle		Average Annual Miles	Total Fleet Miles Driven		Gallons vs. eGallons Per Year Per			Cost Per		-
Vehicle Type	Used Daily	Daily	Day	Per Vehicle		MPG/MPGe	Vehicle	Vehicle	Vehicle	Gal/ kWH	100	) Miles
cle Usage Statistics	6	60	360	15,600	93,600	22	709			\$ 4.00		
e Usage Statistics	6	60	360	15,600	93,600	76	205	48	7,488	\$ 0.10	\$	4.8
el Comparisons					Maintenance Comparisons							
Mile for Gasoline Powered Vehicle \$ 0.18				Maintenance Cost Per Mile for Gasoline Powered Vehicle							0.1	
ost for a Gasoline Powered Vehicle \$ 2,83			\$ 2,836	3333333333333333	Annual Maintenance Cost for Gasoline Powered Vehicle							1,570
Mile for Electric Vehicle \$ 0			\$ 0.05		Maintenance Cost Per Mile for Electric Vehicle							0.0
ost Per Electric Vehicle \$			\$ 749		Annual Maintenance Cost for Electric Vehicle \$							790
ings Per Electric Vehicle \$ 2,08			\$ 2,088		Total Maint	enance Savin	gs Per Electri	c Vehicle			\$	78(
& Maintenance Savings Per Vehicle				\$ 2,868								
& Maintenance Savings For Fleet of 6 Vehicles				\$ 17,205								
el & Maintenance Savings Per Fleet of 6 Vehicles				\$ 86,027								
1 & Maintenance Savings Per Fleet of 6 Vehicles				\$172,054								





# **VEREGY CONTACTS**

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democratizing charging access



The top electric car adoption barrier for drivers is the lack of charging.

1%

60%

50% City drivers do not have private garages.

Charging is scarce and inconvenient.

Cars on the road today are electric.

Cars sales must be electric by 2030.

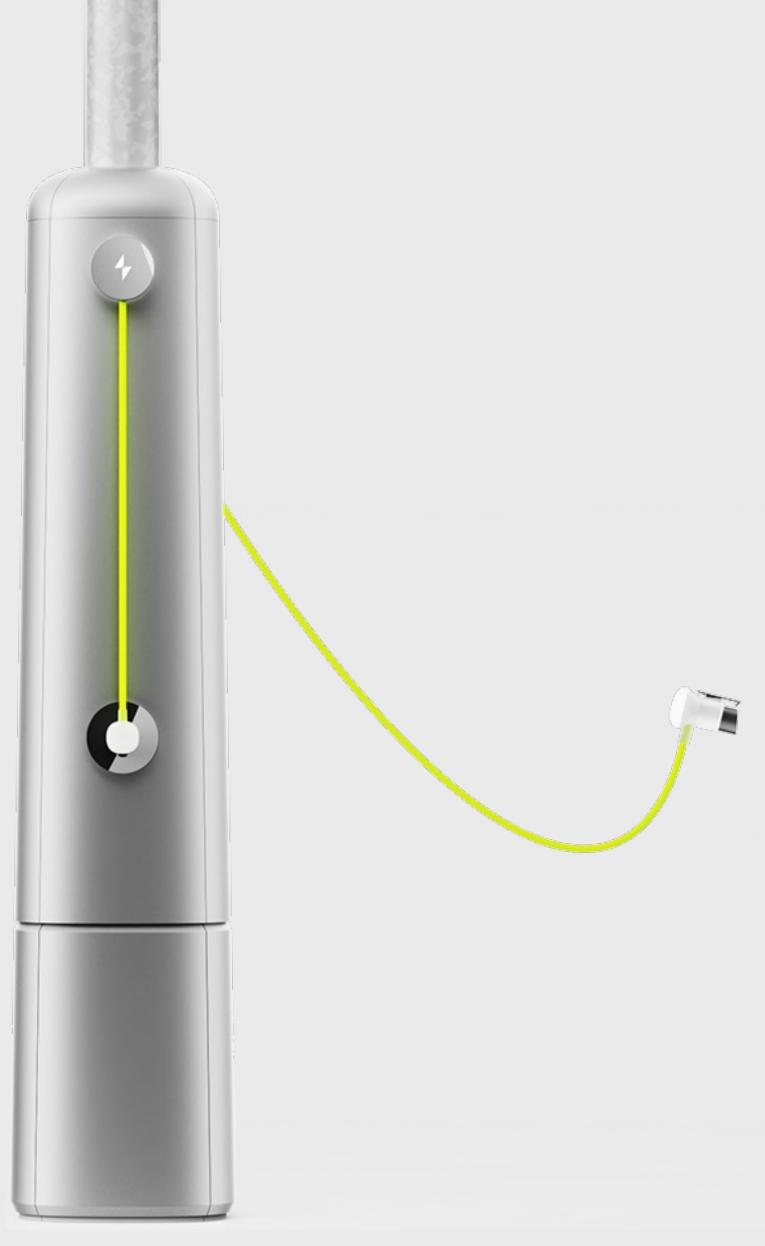


# voltpost

the retrofit lamppost charger.

increasing public charging access to spur electric vehicle adoption.

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# Voltpost provides drivers with the best charging experience.

Features: Weatherproof, utility meter, integratedcable, mobile connection.Modular: Rapid, inexpensive deployment,streamlined O&M, upgrade ready.



# Voltpost provides drivers with the best charging experience.

App: Charger discovery, status,billing, parking, and impact features.Dashboard: Charging utilization, insights, andbenchmarking.



## Voltpost has a pipeline of 100+ opportunities.



## New York





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## Voltpost is a scalable and cost-effective platform loved by New Yorkers.

Project stakeholders and drivers agree this is an essential solution.

#### **Differentiators**

Retrofit: No construction or trenching.

Safety: Integrated cable and low profile handle.

Modularity: Enables smart city services.

Serviceability: Quick and low cost maintenance.

Upgradability: Future proofing.

#### NYC DOT:

- Appreciated modularity to maximize uptime and lower O&M.
- "Super easy to use" and preferred by DOT staff instead of the other chargers.
- Liked quick installation.ConEd:
  - Appreciated that we can integrate their meters.
  - Expressed support for refit test.

#### Entrust:

• 3rd party engineering agency validated interconnection.

#### **NYC Driver Testimonials**

"These chargers enable prolific deployments for curbside charging this is by far the best solution."

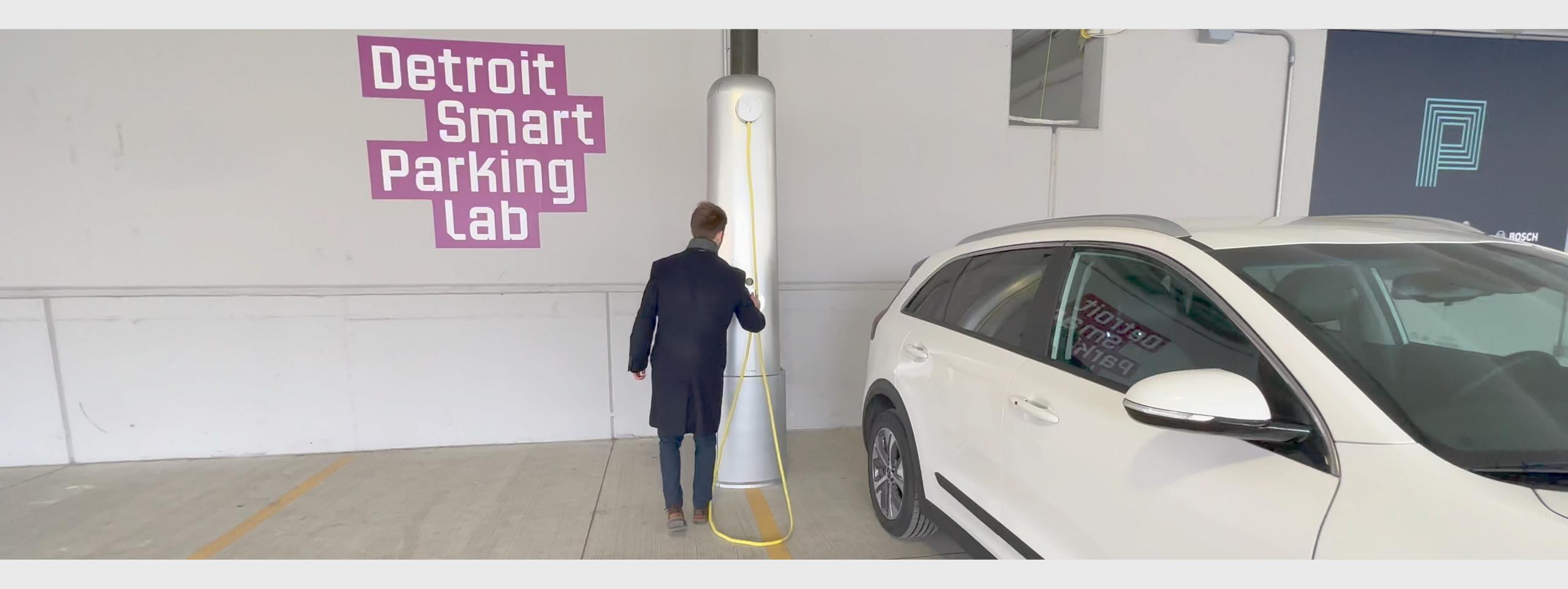
"I think the concept is genius! The design is really modern."

*"It will be convenient to have this on my street and everywhere in the city!"* 

"I enjoyed the aesthetic nature of the product and charging handle."



## Voltpost has a pipeline of 100+ opportunities.



## Michigan 🛛 NEXTENERGY 🤇

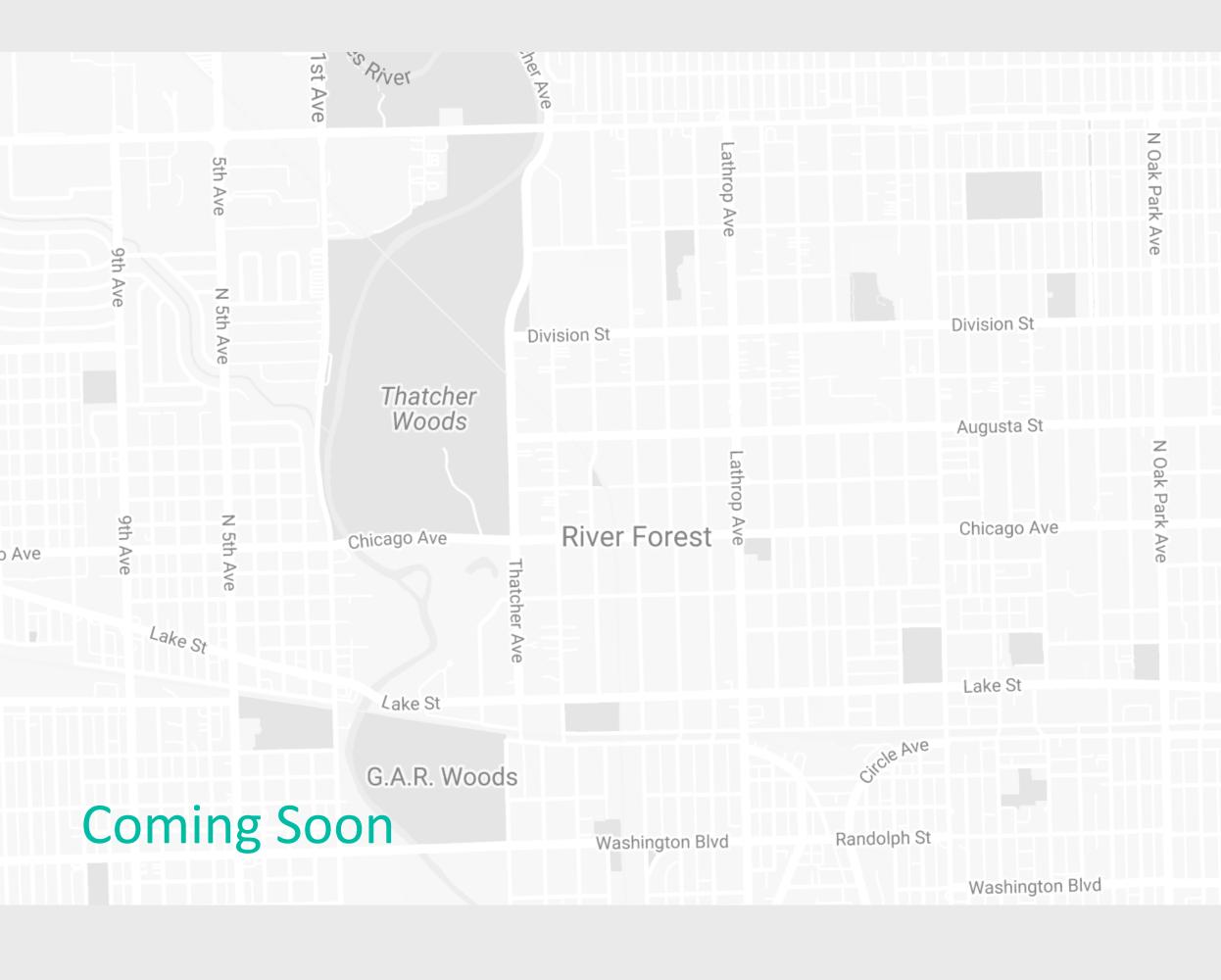


Detroit

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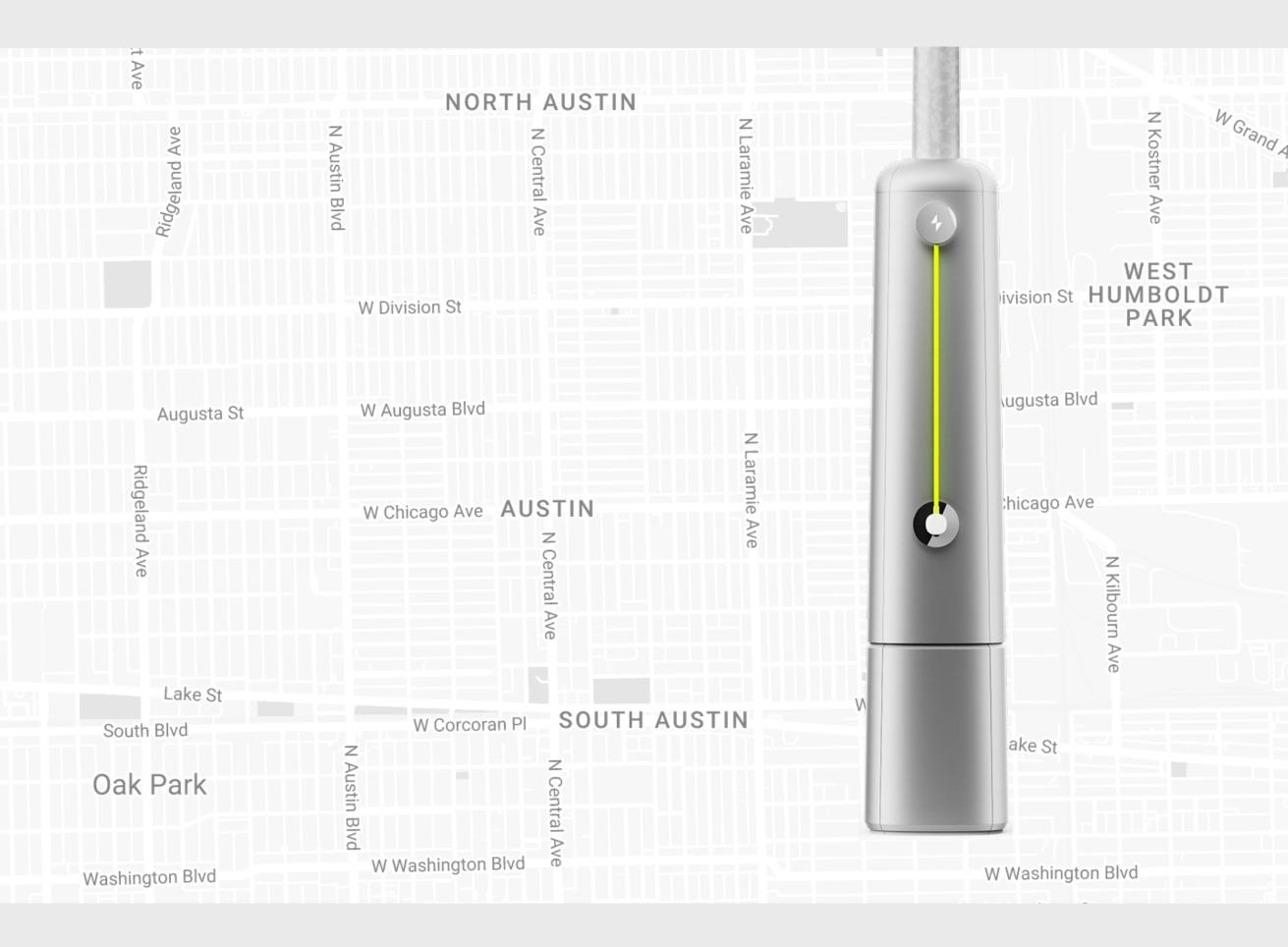


## Voltpost has a pipeline of 100+ opportunities.



Chicago







#### MARKET



## \$115 billion in charging revenue projected globally by 2027.

## \$7.5 billion

US charging budget. \$2.5 billion for communities.

## 26,000,000

Lampposts in the US today.

#### 2%

Lampposts achieve US charger targets.



## Experienced team with proven track record of success across product, business, and policy development.

TEAM



JEFF PROSSERMAN Founder, CEO

Columbia University SAMSUNG



ALEJANDRO VALLEJO Director, Hardware Engineering SAMSUNG



**JOERN VICARI** Co-Founder, CCO

SAMSUNG



JOHN BINDEL Director, Software Engineering match. Omindbody

Smart

Design





LUKE MAIRO Co-Founder, COO



**ADITI DESAI** Director, Partnerships



#### **ADVISORS**



LAURA FOX General Manager, Citi Bike, Lyft





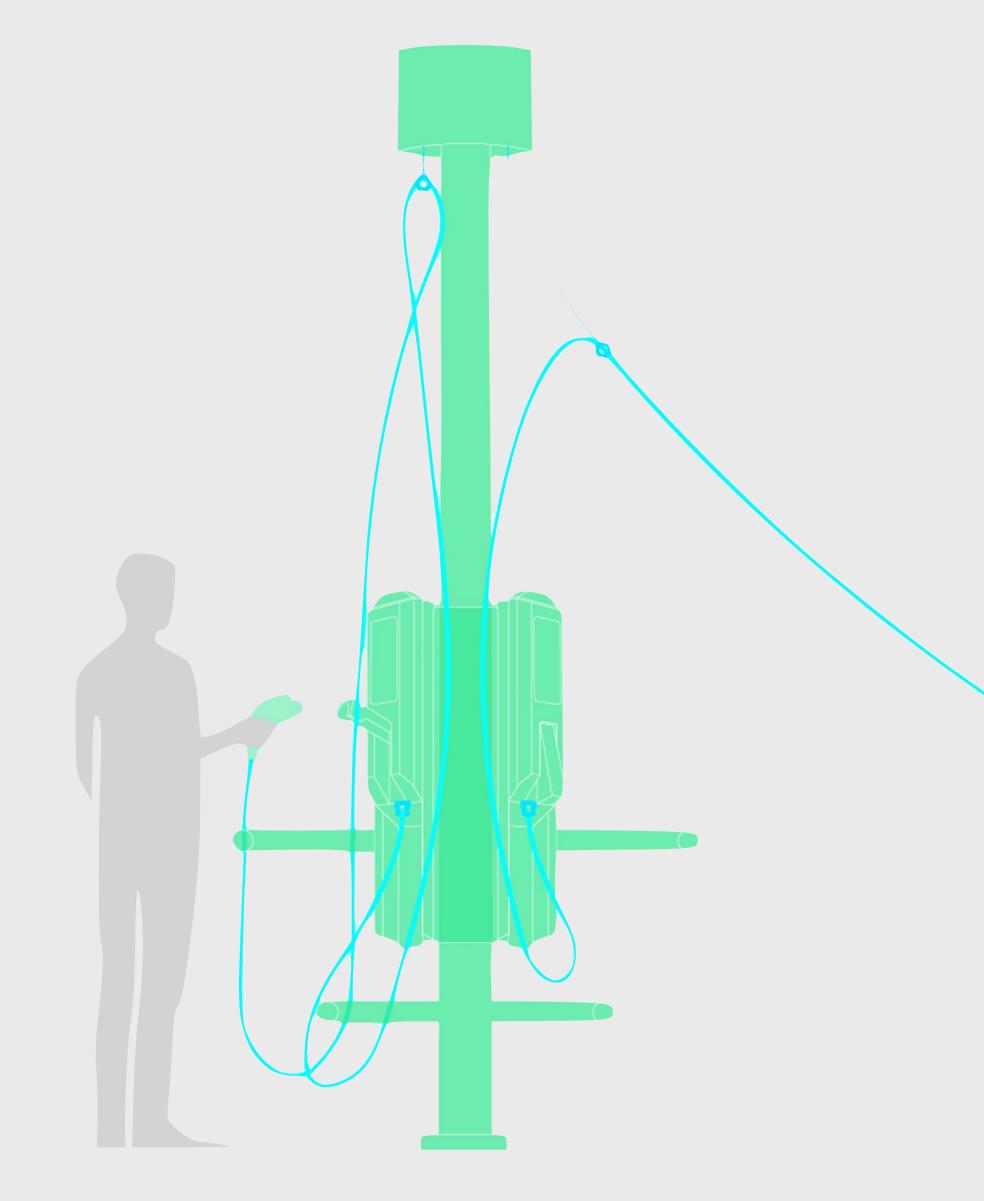
**CHEIKH DRAME** Manager, Market Growth







#### ADVANTAGE



Competition

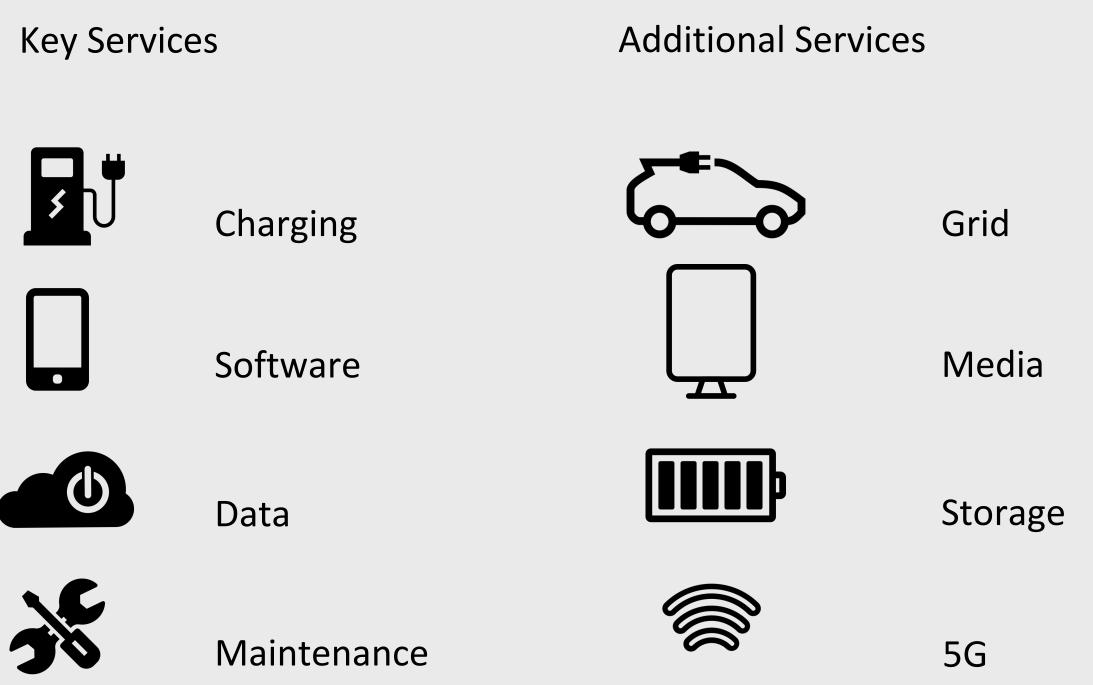
The Voltpost platform is modular, upgradable, and construction-free.



Voltpost unlocks exponential value via network effects.



## Hardware-as-a-service is a profitable and scalable business model.



#### Partners set charging pricing to earn revenue and offset annual fee.



MODEL



Voltpost aligns with grants, incentives, and loan programs.

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Voltpost leverages non-dilutive financing to minimize project cost and build asset value.



# Voltpost supports the National Electric Vehicle Infrastructure program with our convenient, accessible, and reliable chargers.



CARBON

BB

COMMUNITY

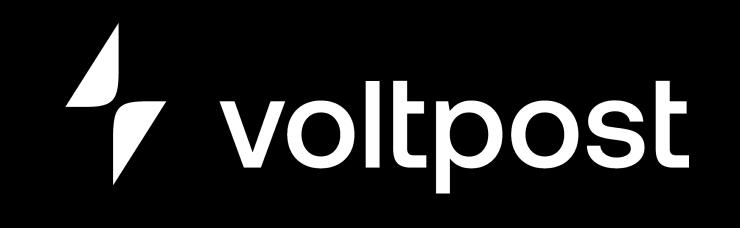
Voltpost will increase public charging access to reduce carbon and air pollution. Voltpost builds stronger communities with inclusive and equitable planning.



JOBS

Voltpost creates local jobs and increases skills for workers in low to moderate income communities.





#### gozero@voltpost.com

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