



### Effective EV Programs to Make Change Happen

ACEEE Summer Study August 22, 2022

### Introductions



#### **Katie Parkinson**

VP of Utility Services MSC, London School of Econ







#### **Brian Kirchman**

Senior Manager of Innovation and New Programs *BS, Depaul University* 



### **EVs as a Resource**



# **Charge Management Interventions**

#### **Behavioral (or Passive)**

Using incentives or nudges to encourage desired charge schedules



#### Active





## **Active Interventions**



#### **Demand Response Events**



 $(\mathbf{f})$ 

## Choices, Choices...

- High customer acceptance
- ✓ Low customer risk
- More customer engagement
- Less certainty of load shifting





- High load certainty
  - Less customer
     engagement
     required
- Potentially lower customer adoption

## **ComEd: Introduction**

#### **Objectives:**

- How viable is a software-based solution?
  - What value do these offerings provide for ComEd customers?
  - What are the advantages, if any, for this solution?

#### 2022 Timing:



# **ComEd: Recruitment**

- Email based recruitment
- 4,525 Self-reported EV owners
- No monetary incentives offered
- Call to action: Enroll your car
- Goal: 100 cars





Welcome to EV Companion, the new online tool that helps you understand your EV habits and helps you save, too.

Register your electric vehicle now and you'll receive **MyCharge Report**, a monthly, customized report that outlines your charging details.

• Personalized information includes your detailed EV charging times and percentage of your monthly bill that accounts for EV charging.



- Learn how your EV charging compares to gas usage equivalent and your carbon emission reduction based on your EV use.
- Explore ComEd's Hourly Pricing and Peak Time Savings program to see if you could save by charging your EV outside of peak demand times.
- Get the most out of your EV by exploring ComEd's EV toolkit and resources.

How and when you use energy can help you save with Hourly Pricing and Peak Time Savings

#### EV COMPANION - ENROLL NOW!

To help with the registration process please have your car brand information handy.

**EV Companion is a tool** from Rolling Energy Resources that ComEd is offering to customers as a year-long trial program. Use it to help you better manage and control your energy use so you can save more and leave a cleaner world for future generations.

Check to see if your car model is eligible here or visit our FAQs for more information.

## **ComEd: Enrollment Process**

ROLLING ENERGY RESOURCES	Sign in with Tesla	
Sign Up	someuser@gmail.com	
Welcome! Let's connect you to your electric vehicle charging data.		PERMISSIONS
Email 🧿	Reset password	lake, model, year
		# VIN
First Name		EV battery level
		4 Charging status
By checking the box below, you consent to the <u>privacy policy</u> and agree		Ocharging location
to the <u>terms of service</u>		Stop/start charge
□ I have read the privacy policy and I agree to the terms of service.		Allow
Connect My Vehicle		

 $(\mathbf{f})$ 

## **ComEd: Recruitment Results**

Car Make	Participant Cars
Audi	5
BMW	7
Chevrolet	26
Chrysler	2
Ford	8
Hyundai	1
Jaguar	3
Jeep	1
Nissan	4
Tesla	212
Volkswagen	2
Volvo	1
Total	272



PTS participant			
Rate	Yes	No	Total
Flat Rate	3	6	9
Hourly Pricing	98	145	243
Time of Use	7	5	12
Total	108	156	264

### **ComEd: Interventions**

Mini-MyCharge

	ROLLING ENERGY RESOURCES	glives 20 <sup>0</sup>	harge® Report April, 2022 18, Chevrolet, Bolt ev
		📑 Gas Comparison	
	You saved <b>\$180.24</b> this month by driving an	<b>You paid:</b> To charge at home - \$ 38.52 To charge away from home - \$ 15.07*	\$ 53.59
	a gas-powered car.	You would have paid: To fuel a similar gas-powered car	\$ 233.83
rents		You paid the equivalent to: Per gallon	\$ 1.01
		Your avoided emissions thi equivalent to planting	is month are 24 trees

## **ComEd: Interventions**

#### June MyCharge® Score Ø **Full MyCharge Home Charging Profile** $(\Box)$ 40 **Congratulations!** You charged 100% of the time during off-peak 30 hours, helping your community keep a resilient grid. You received 0 Peak Period Alerts between Jun 1 and 20 Jul 1, 2022. Keep up the good work! Your ch 10 2 ar 2 ar 1 ar 6 ar 8 ar 10 ar 2 pr 2 pr 4 pr 6 pr 8 pr 10 pr

Demand Response Events



One kilowatt hour of charging



## **ComEd: Interventions**

#### Mini-MyCharge

#### Full MyCharge

#### **Demand Notifications**

#### **Demand Response Events**



#### **Charging Alert**

#### Dear Tom,

We have noticed that you are charging your registered EV during an Hourly Pricing Event. You may have received an Hourly Pricing Alert yesterday as a reminder, reducing your energy consumption during this period will help you save on future energy bills. Please select a timeframe outside of the event window to charge your vehicle. Visit the Hourly Pricing program page for more information.

If you have any questions, please email us.



### **ComEd: DN Events**

#### **Hourly Pricing Alert**



Heads up! Hourly Pricing Alert for Tomorrow, 08/23/2021

Make sure to reduce your energy use tomorrow from 4 PM - 5 PM

Add to Calendar

**Results:** 13 events called so far this summer.

Of the **~265** cars in each event; only **4** (on average) charged at home.



#### **Charging Alert**

Dear Tom,

We have noticed that you are charging your registered EV during an Hourly Pricing Event. You may have received an Hourly Pricing Alert yesterday as a reminder, reducing your energy consumption during this period will help you save on future energy bills. Please select a timeframe outside of the event window to charge your vehicle. Visit the Hourly Pricing program page for more information.

If you have any questions, please email us.

## **ComEd: Charging Statistics**

BEV

In an average month, an average car...

18 Charges
78% at home
395 kWh
3.5 hours/charge
24.7 kWh/Charge

19 Charges
67% at home
206 kWh
5.7 hours/charge
10.3 kWh/Charge

PHEV

### **ComEd: Load Shapes**







 $(\mathbf{f})$ 





# **Questions?**

Thank You! Katie Parkinson (<u>katie.parkinson@rollingenergyresources.com</u>) Brian Kirchman (<u>brian.kirchman@comed.com</u>)

C comed <sup>™</sup>	powering lives	Outage   Pay Bill	Moving   Español	Contact Us	Search (
My Account	Outages	Ways to Save	Smart Energy	Safety	& Community
	Home > Sma	rt Energy: Innovation & Technolog	y > Electric Vehicles > EV	Companion	
Smart Grid & Smart Meter	+ Vour	Personaliz	ad EV Cor	mnanio	n
Innovation & Technology	- 1001	r ei sonalizo		пратно	
Electric Vehicles	-	T		-	
Savings, Benefits & Incentive	25			-	And a
Find a Public Charger				-	10 1
Find Vehicles & Chargers			Nev.		- 40
Register Your Vehicle			E.	- Tan	
Rate Options	1235	R.S.		1	
EV Charger Readiness		PAR		-	
EV Companion	The EV Con	nnanion is a tool from Dolling I	Energy Desources Inc.	that we're offering	for free to customers
Test Bed	+ as a year-lot monthly cus	ng trial program. Register your	r electric vehicle and yo	u'll receive a MyCl e it to help you be	harge Report, a
Anonymous Data Service	+ control your	energy use so you can save r	more and leave a cleane	er world for future	generations.
Green Button	+ Apply	now			
Emerging Technologies	To register fo	or EV Companion, please ema	ail <u>EVcompanion@Com</u>	Ed.com and our te	eam will provide you
Reliability Improvements	+ with a regist	ration code to enroll your vehi	cle. For more information	on, visit our <u>FAQs</u> .	

17	111