



# Plug-in Vehicle Infrastructure

Atlantic City Electric

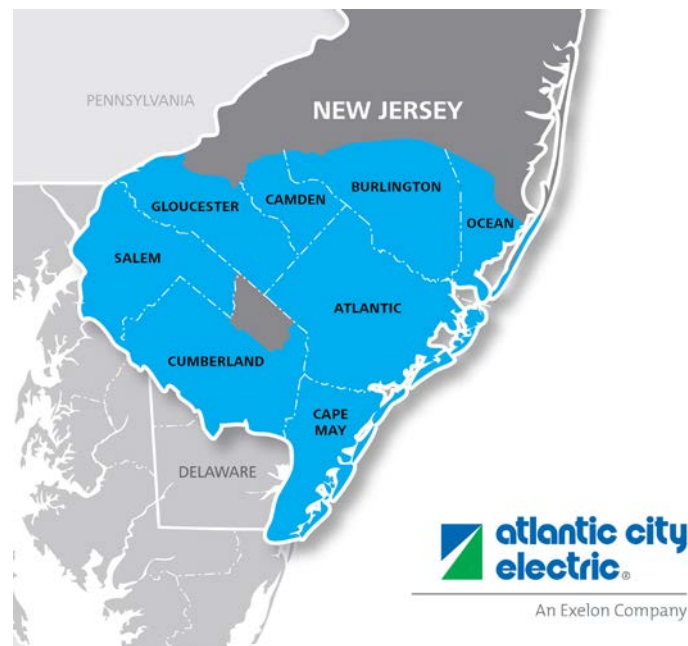
October 16, 2017



An Exelon Company

# Atlantic City Electric Quick Facts

- First incorporated in 1924
- Service territory:  
2,700 square miles
- Customers served:  
547,000
- Employees: approx. 1025
- Facilities: 8
- Substations: 90



# Utilities' Essential Role in the EV Infrastructure

Atlantic City Electric is uniquely positioned to keep New Jersey on the forefront of this EV revolution

## Manage charging load

on the grid to ensure power reliability and stability

## Enhance Charging Infrastructure

to help increase access to electricity as a transportation fuel



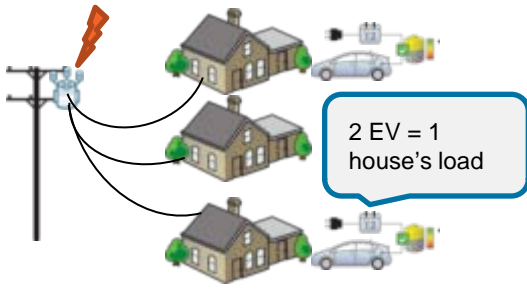
## Develop Innovative Rate Options

to maximize fuel savings for customers

## Educate Customers

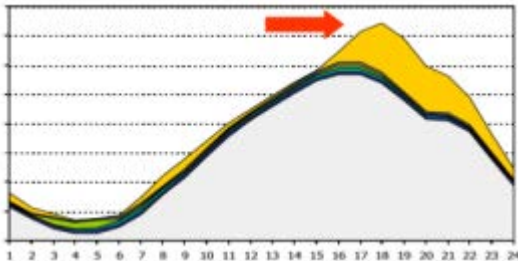
about EVs, options and benefits

# Managing Vehicle Charging to Benefit Customers



## Impact on the local Distribution System

- EV load is equivalent to  $\frac{1}{2}$  to full home load, so adding EVs may overload local transformers
- Neighborhoods with clustering PIVs may be at risk for decreased reliability



## Peak Load Increase

- Most drivers will return home and plug in between 4-8 PM, resulting in an increased afternoon peak
- Uncontrolled charging will create need for additional Infrastructure and result in longer and higher peak demand
- Impact to State energy efficiency goals
- Increase cost to customers



## Operational Needs

- Metering EVSE as separate load for billing
- DR events to manage EV Charging during peak hours.

# Why Atlantic City Electric Needs to be Involved

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**Our infrastructure** has to support charging needs. We have a **responsibility to meet our customers' needs and deliver reliable energy service**

**To leverage our knowledge and experience** - - we serve 124 municipalities in southern NJ and **we already serve current and future EV customers in Southern New Jersey**

**EVs bring environmental benefits to all New Jersey residents** – including reductions in emissions from mobile sources in support of NJ goals



# Potential Program Offerings

## Inclusive, Innovative and Customer Focused



### Homes

- Incentives:
  - Whole House (TOU) for residential customers
  - Plug-In Vehicle rate (TOU)
  - Renewable adder
- Installation of Smart Level II chargers for qualified customers



### Multi Dwelling Units

- Incentives for Level 2 chargers for qualified condominium and/or apartment buildings



### Public Places

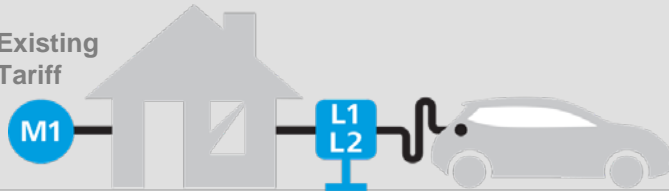
- Installation DCFC chargers
- Installation of curbside Level II

# Residential Offerings & Benefits

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## Whole House TOU

Existing  
Tariff



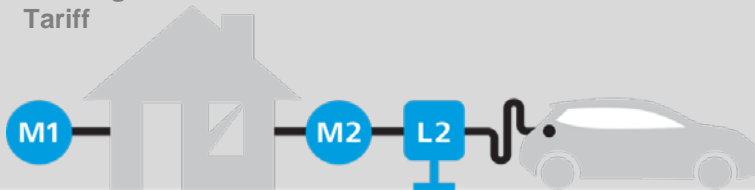
### Benefits

- ✓ Save\*\* by charging during off peak hours
- ✓ Number of participants may be limited

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## PIV Only Rate TOU

Existing  
Tariff



### Benefits

- ✓ Save\*\* by charging during off peak hours
- ✓ Number of participants may be limited

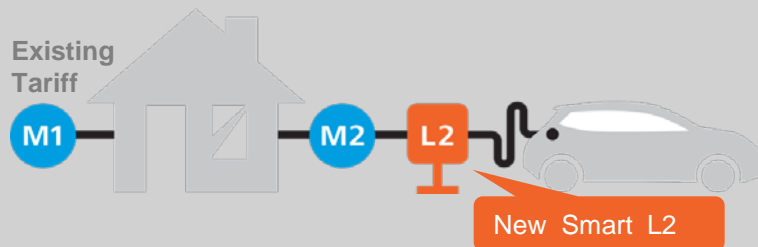
### PIV Green Adder

- ✓ Option to purchase renewable and claim zero emissions

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## PIV Only Rate TOU + EVSE

Existing  
Tariff



### Benefits

- ✓ Share cost of EVSE and installation (limited number)
- ✓ Save\*\* by charging during off peak hours
- ✓ Number of participants may be limited
- ✓ DR Events (Demand Management for EV)

### PIV Green Adder

- ✓ Option to purchase renewable and claim zero emissions

\*\*As compared to the current SOS rates

# Non-Residential Offerings & Benefits

## Multi Dwelling Unit

Limited number of smart Level 2 for qualify MUDs ( apartment buildings, condos)



## Public Places

DCFCs and curbside Level 2





# Questions ???

