

# UIC Workshops on Beneficial Electrification of Transportation

*February 24 UIC EV Workshop on Consumers & Social Equity in Transportation Electrification*

Discovery Partners Institute (DPI), 200 South Wacker Drive, 4<sup>th</sup> floor, Chicago, IL [View Map](#)

1:00-4:00 PM on Monday, February 24, 2020

[Detailed Program Link](#)

## BREAKOUT SESSION NOTES

### **Residential and multi-unit dwellings – with and without dedicated parking (Red Group)**

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#### Challenges

- HOAs
- Majority of EV owners – higher incomes, SF homes, don't want to leave out people who haven't had access/disadvantaged communities
- Could be cost issue in larger buildings
- Making sure enough capability if multiple cars want to charge
- Safety
- Perceived messaging challenge – government questioning why have to update codes
- Retrofitting older buildings
- Feeders can only handle certain capacity (ComEd)

#### Resources

- Already have electricity access – protecting rights of all people to charge

#### Opportunities

- Right to charge – multiunit people not unreasonably prohibited – not ghosted, harassed by HOA
  - o What insurance, installation, removal
  - o Membership fee (bigger buildings) vs saying “this tenant – pays \$20/mo.”
- New homes – ability to charge EV – not a bigger cost in newer homes
- Involve others, like labor – know the issue
- \*Everyone has electricity in homes
- Cheaper for everyone – charge at night
- Education/awareness – how much to charge car

### **Breakout Session on Workplace, community and destination charging (Green Group)**

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#### Use Cases

- Workplace parking
- Utilities as workplace
- Municipal parking lots
- Street parking
- Multifamily parking regulations
- Commercial facility parking
- Other large users like airports

#### Assumptions

- Differentiated solutions
- Utilization of projections/market driven
- Cultural shifts/education and behavior changes
- P3 opportunity

For more information about the UIC EV Workshops, please contact the organizer, Dr. Elizabeth A. Kócs at [ekocs@uic.edu](mailto:ekocs@uic.edu) or 708.267.4097.

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## Opportunities

- Workplace
  - o Workplace polices for employees/location and priority of charging spots
  - o Building best practices for business and industry—utilities taking the lead as employer of individuals using EVs
  - o Incentives for workers
  - o Incentives for businesses (tax credits)
  - o Are charging stations at workplaces beneficial or detrimental?

## Municipal/community

- o Publicly owned facilities
- o Utilization of public funds to build capacity
- o Street parking (NYC model)
- o Developing model ordinances for municipalities
- o Opportunity charging vs. destination charging
- o Surface lots vs. multilevel parking lots
- o Public ROW and infrastructure development

## Stakeholders

- o Broadbased P3 Opportunity
- o Public sector
- o Private sector
- o Disabled community members

## Other notes from notetaker

- EV charging Installations in the Public Right of Way - EVCROW was discussed in community charging (It was lauded as a good program and needs a quantity increase to increase participation)
- Workplace EV charging stations in the Parking lot of Office buildings.
- Scenario Before: The EV charging stations in the parking lot were in prime locations like 100 or 200 meters from any of the functional entry or main entrance of the building.
- Scenario Current: The EV charging points are shifted to more farther locations within the parking lots.
- Inference: The prioritizing of the charge points has reduced with time for electric vehicles.
  - o One possible reason could be since there aren't increase in the EVs as much the infra planners would have expected most times the
- EV spots were vacant leading to empty spaces whereas the regular Fossil fuel cars users scrambled for spaces close to the functional or main entry of the building.
  - o The scarcity of the destination charging points in general public use places for electric vehicle owners was raised.
  - o The taxi / fleet service electric cars which had shortcomings for charging points in commute was also discussed.
- If there are any misinterpretations, I would correct it the next time. Looking forward to the next edition with more Inputs and participation.

## **Breakout Session on Public DC fast charging Infrastructure for specific use cases, i.e., TNCs, corridors, long-distance (Yellow Group)**

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### Challenges

- Encourage smart charging design
  - o More expensive
  - o Has public value

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- Understand charging behavior
- Own charging stations – school buses
  - Social equity
- Gentrification/Public Health
- Financial equity
  - Fossil fuels are more favorable and profitable – due to this, other resources towards sustainability are facing losses
  - Can be resolved
    - e.g. Iowa – 100% wind energy due to carbon tax

Many investors are going towards sustainable resources than fossil fuels – shows change

- (1) Residential, (2) Public infrastructure, (3) Multi-units
- Streamlined process moves much quicker than utilitarian approach
- Utility ownership – at the beginning v. imp
- Portfolio Approach – most effective

## **Breakout Session on Medium- to Heavy-duty vehicles – CTA, School buses, Proterra, Amazon, FedEx, UPS, etc. (Blue Group)**

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### Challenges

- Distribution/Delivery
- Trip Duration
- Recharging on route
- Upfront costs
- Use existing transformers or need additional transformers
- Existing technology

### Opportunities

- Managed charging
- Chargepoint and other EV charging stations
- Communicate as an improvement
  - Education & outreach
  - Incentives
  - Planning
- Bulk acquisition
- Workforce development
  - Manufacturing
  - Retraining

### Resources

- Driving a Cleaner Illinois Program
  - IL EPA
- EV state capital budget

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