



An Exelon Company

# **Beneficial Electrification: A Critical Strategy to Secure Illinois' Future**

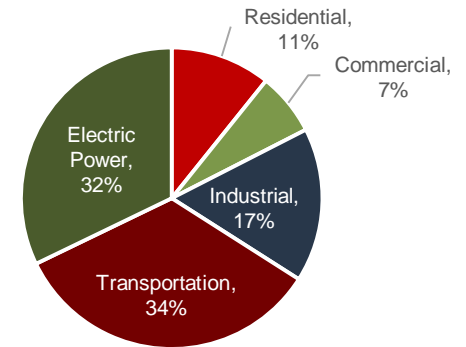
**Philip Roy**

Manager, Energy Policy

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# Why Beneficial Electrification?

- Thanks to our energy efficiency and clean energy efforts, **the electric power sector now represents under 1/3rd of Illinois' CO2 emissions**
- The other 2/3<sup>rd</sup> of emissions are from the **transportation sector** and other commercial, industrial, and home processes
- Emissions from transportation and other technologies **are major contributors to climate change and local health issues in our communities**
  - These health impacts and costs **disproportionately fall on low-income communities and communities of color** – a reality that has been laid bare by the COVID-19 pandemic



Illinois CO2 Emissions (2017)

Illinois should **leverage our clean energy advantage to reduce emissions** in these sectors by shifting their energy use from fossil fuels to electricity. Doing so would reap benefits for our communities and businesses.



**Environmental & Health Benefits**

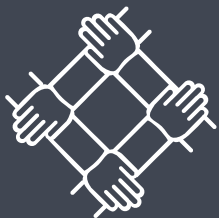


**Grid & Clean Energy Benefits**



**Economic Benefits**

**ComEd looks forward to working with stakeholders to pursue beneficial electrification strategies that:**

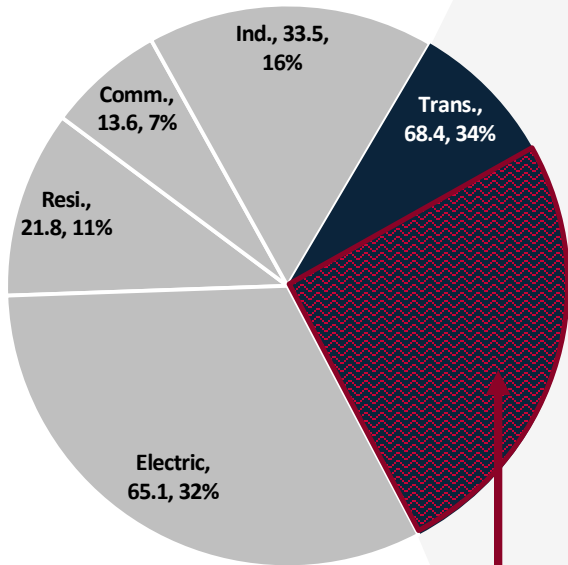


- (1) put Illinois' clean energy to work to further reduce emissions and improve health and air quality in our communities;
- (2) reduce barriers to adoption of beneficial electrification technologies for families and businesses; and
- (3) prioritize inclusion of, and targeted benefits for, low to moderate income communities.

# The Near-Term Opportunity: Transportation

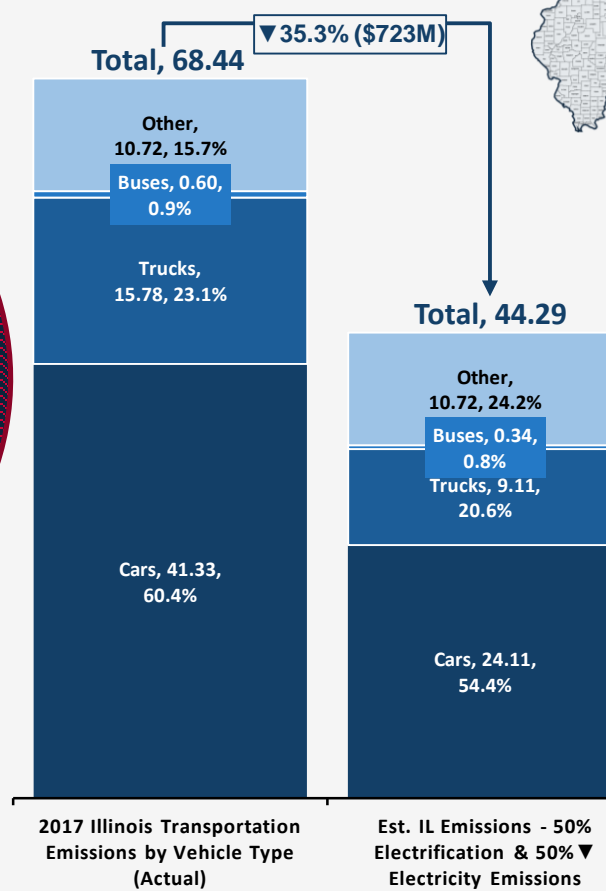
Transportation is responsible for the most GHG emissions of any sector in Illinois and, thanks to technology maturity and favorable economics, offers the biggest near-term opportunity for beneficial electrification in Illinois

**Total 2017 IL CO<sub>2</sub> Emissions By Sector**  
(in million metric tons and % of total)

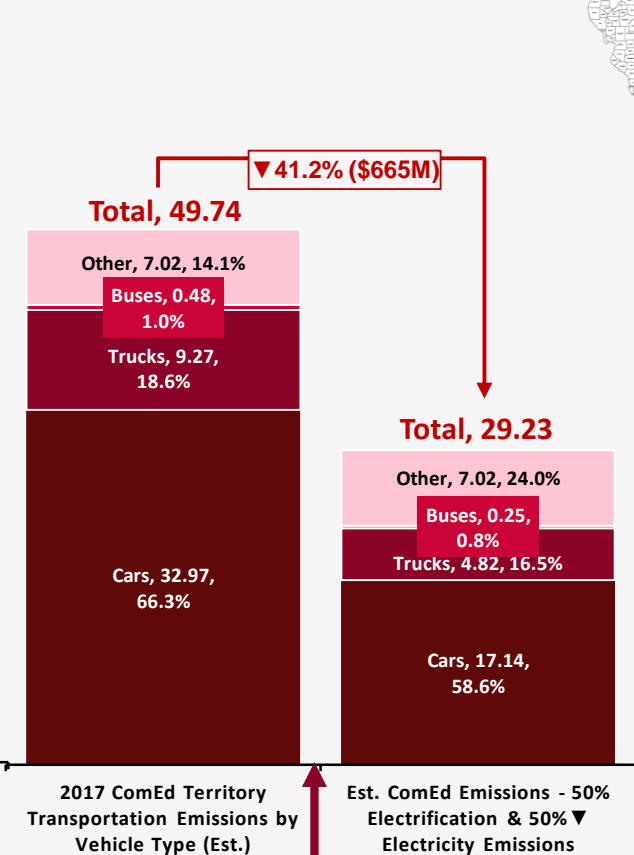


Approximately 73% of vehicles are registered in counties in northern Illinois, where electricity generation is cleanest, and the electrification benefits will be greatest.

**2017 IL CO<sub>2</sub> Transport Emissions & Est. Savings**  
(in million metric tons and % of total)



**2017 ComEd Territory CO<sub>2</sub> Transport Emissions & Est. Savings**  
(in million metric tons and % of total)



*With electrification of road transport and concurrent decarbonization of electric power, IL can reduce emissions from transportation by 35%; in the northern part of the state, this could be more than 40%.*

# Beneficial Electrification Policy Approach

Upfront costs are the primary barrier to adoption, but education/awareness, and availability of charging infrastructure are also key drivers. The following policy levers/approaches can be considered to address those barriers:

- **Support customer adoption of electrification technologies through reductions in upfront costs** (incentives/subsidies) that recognize environmental benefits
- **Address upfront costs associated with private charging stations**, and leverage program design to **encourage off-peak charging** to limit grid impacts
- **Support investment in public charging stations** that meet driver needs and ensure charging availability in underserved communities
- Craft specific incentives and programs that **create pathways to adoption for low to moderate income customers**
- **Prioritize funding for electrification of public transportation and school buses**
- **Educate customers** about the economic, environmental, and health benefits of transitioning to electric



# Putting Our Clean Energy To Work: Ongoing Efforts

## Leading by Example: Reducing Our Emissions & Electrifying Our Fleet

- Exelon Utilities committed to a collective goal of electrifying 30 percent of our vehicle fleet by 2025 and 50 percent of our vehicle fleet by 2030

## Supporting our Customers: Education & Technical Support

- ComEd will launch a web-based Electric Vehicle (EV) Toolkit to educate customers on the upfront costs, ongoing use and maintenance, and environmental impact of EV ownership
- Assessing tools to support customers interested in electrifying their fleets
- Working with customers to learn more about other costs associated with installing chargers (i.e., “make ready” work) and exploring ways to address those costs

## Testing & Innovating: DOE-Funded Technical Demonstrations

- Testing and demonstrating cyber-secure extremely fast charging (XFC) EV stations within the Bronzeville Microgrid
- Addressing barriers to multi-unit dwelling (MUD) and curbside residential plug-in EV (PEV) charging through a toolkit to evaluate and implement innovative, cost-effective, and flexible charging solutions that can be expanded to enhance residential MUD and curbside PEV charging system

# Conclusion

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**Illinois has made great progress in its clean energy transition. It is imperative that we act now to build on those efforts, through beneficial electrification, to secure Illinois's future and create a model of comprehensive climate policy.**

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