

# Chicago Advanced Energy Q3 Stakeholder Breakfast

Phil Nevels, Exelon Utilities



# The three defining trends / durable trends are accelerating...



## Customer

### Demanding local control

*San Francisco may make a multibillion-dollar bid within months for some assets owned by...PG&E*

**Bloomberg**

### Entering the sharing economy

*Businesses are able to ...deepen their customer relationships... through Everything-as-a-Service (XaaS) model*

**Forbes**

### Increasing buying from legislative brands

*Nike sales surge 31% in days after Colin Kaepernick ad unveiled*

**The Guardian**

## Technology

### Decarbonization wins

*Established OEMs expected to launch ~400 new EV models through 2023; DG PV will exceed 4 GW/year*

**McKinsey & Company**

**gtm.**

### Digital wins

*Revenues for marketplace platform providers predicted to more than double from 2017 to 2022*

**RETAIL DIVE**

### Responsive/trustworthy/secure wins

*PG&E has agreed to pay \$1 billion to 14 local governments for the wildfire damage caused by its equipment and practices*

**npr**

## Social/policy zeitgeist

### Climate change: issue of the century

*Rep. Matt Gaetz (R-FL) drafts Green Real Deal resolution as a counter to Democrats' Green New Deal resolution*

**POLITICO**

### Anticorporate sentiment growing

*Under [Sanders' plan] ... a smart grid would distribute electricity, which will be publicly owned and managed*

**gtm.**

### Concepts of "social equity" now corporate

*181 CEOs commit to leading with stakeholders in mind, not just shareholders*







**BUSINESS INSIDER**

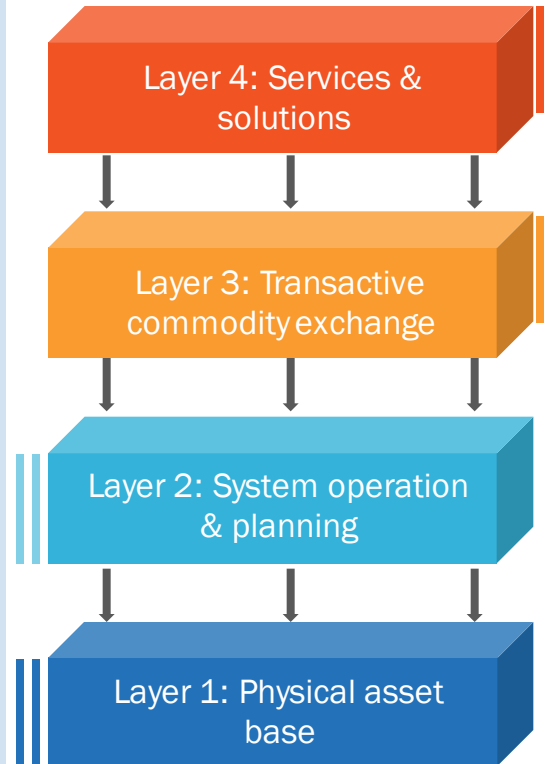
# Our Connected Communities strategy responds to these trends









# Key capabilities underlie our ability to achieve these outcomes

## Grid of the Future will be able to

-  Balance supply, demand, and new distributed resources – **integrate DER** while maintaining overall reliability
-  Predict how demand and DER are likely to evolve – make targeted investments that bolster **flexibility** and promote **electrified, clean** load
-  Identify and prioritize at-risk assets for hardening and targeted maintenance, **improving resiliency and reliability** during events
-  Provide enhanced resiliency for core customer groups (e.g., emergency response, low-income), **ensuring continuity of service** during events
-  Support an **increasingly electrified transport sector** (e.g., buses, cars) through a network of smart EV charging stations and supporting make-ready work
-  Support the development of **new smart city or connected community use cases** by leveraging grid infrastructure such as the digital communications network (e.g., smart water meters)



## Customer of the Future will be able to

-  Understand the set of **product and solution choices** available to them in a marketplace (Marketplace 2.0)
  -  **Customize choices** based on specific needs (e.g., projected bill impact) - for a “**segment of one**” - via an enabling digital analytics platform (DAP) that ingests internal and external data sources
  -  **Receive and act upon product and service recommendations** to realize value through all digital channels (e.g., SMS, mobile apps, smart home devices)
  -  **Resolve a wide range of inquiries** without any waiting time through text-based automated chatbots and advanced machine learning algorithms
  -  **Use the grid as a platform** to exchange a wide range of new services and enable automated demand response and load-balancing supported by new, flexible billing tools
  -  **Complete complex interactions** such as DER interconnections, new rates or peer to peer transactions fully digitally and in a matter of minutes

# Nothing happens without collaboration

## Think Tanks & Universities



## Environmental & Consumer Advocates



## Government



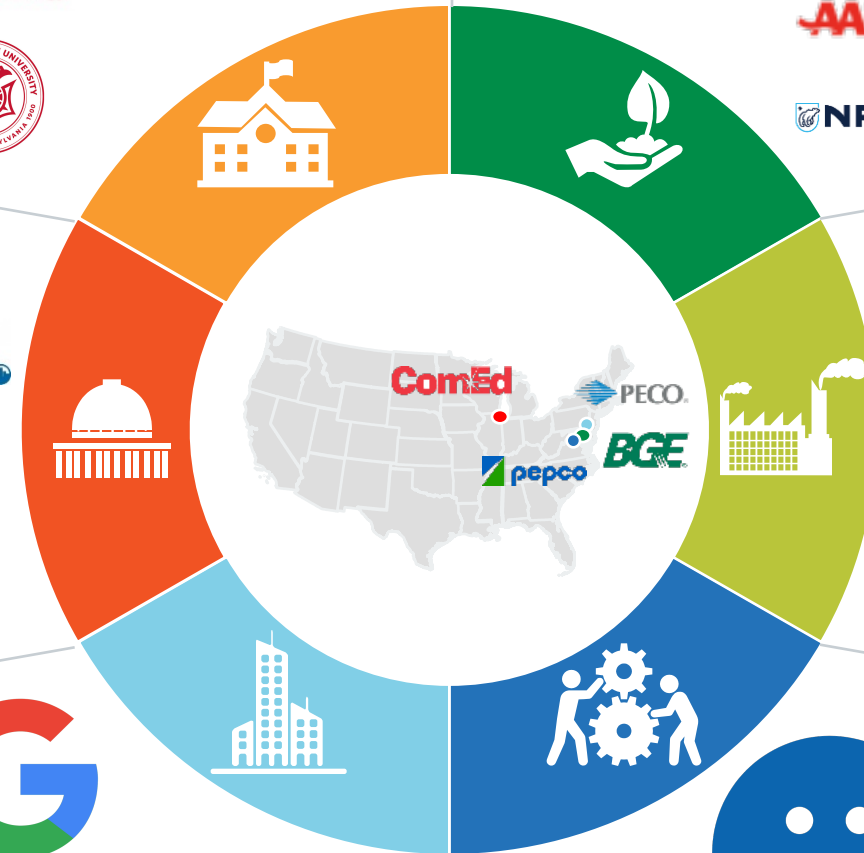
## Corporations



## Industry Groups



## Customers



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The critical obstacle/challenge preventing IoT, Innovation, and Technology from being the catalyst in supporting the achievement of Chicago's decarbonization goals is **lack of consensus on critical use cases and their value for customers.**