

The Energy Future in Connecticut

Patrick McDonnell, VP for Regulatory Affairs

February 5, 2019 – Energy & Technology Committee





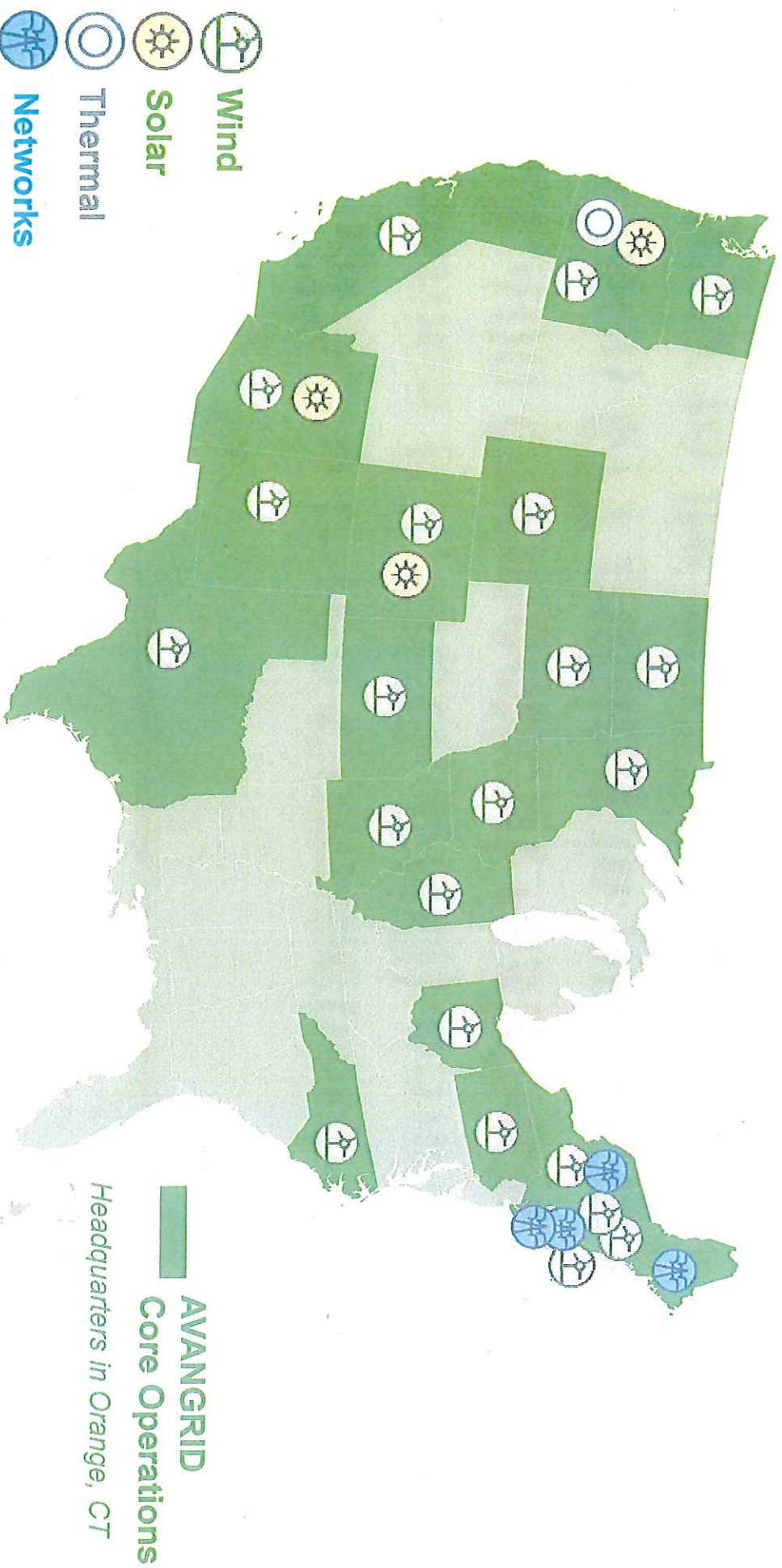
Headquartered in Orange CT, **Avangrid Networks** owns eight electricity, natural gas or combination utilities in the Northeast, including three in Connecticut.

These companies serve 2.2 million electricity customers and 990,000 natural gas customers.

Our companies are recognized for safe, reliable energy delivery, excellent customer service and a commitment to the community and environment.

AVANGRID Geographic Presence

Assets with operations in 24 states
3rd largest wind operator in the U.S.
6.6 GW Wind & Solar in Operation





AVANGRID's three Connecticut-based companies (UI, SCG, CNG) employ more than **1,400 Connecticut residents** paying more than **\$77 million** in property taxes each year to its municipalities.



The United Illuminating Company (UI) - **established 1899**

- Operates approximately 3,500 miles of electric distribution lines and 139 miles of transmission lines and serves 335,000 customers in the greater New Haven and Bridgeport areas.



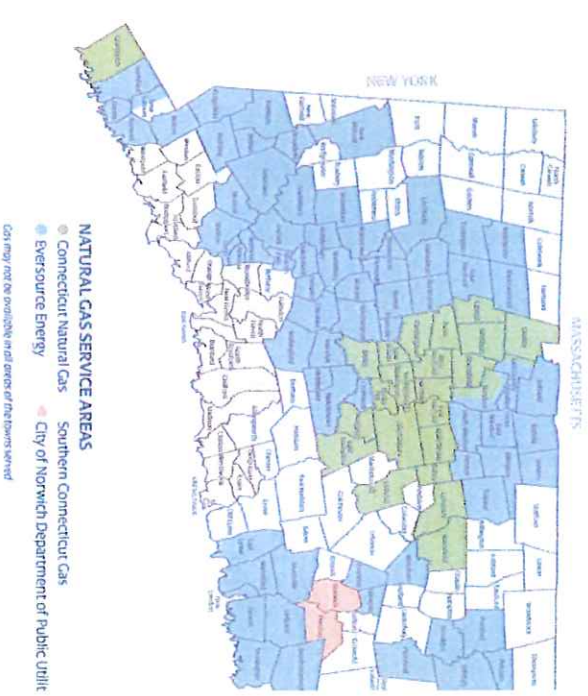


Southern Connecticut Gas Company (SCG) - **established 1847**

- Operates approximately 2,500 miles of natural gas distribution pipelines, serving approximately 197,000 customers in the greater New Haven and Bridgeport areas of Connecticut.

Connecticut Natural Gas Corporation (CNG) - **established 1848**

- Operates 2,160 miles of natural gas distribution pipeline, serving approximately 177,000 customers across 26 communities in the greater Hartford-New Britain area, and Greenwich.



Our Mission

- Safe delivery of electricity and natural gas to our customers.
- Subject to the regulation of rates charged to customers, accounting practices and other matters by the Public Utility Regulatory Authority (PURA).
- Energy supply providers for both electric and natural gas supply are not regulated in CT (as per PA 98-28).
 - <https://www.energizect.com/compare-energy-suppliers>
- We are the region's partners in clean energy development and supply with significant unregulated clean energy development portfolios.



Electric Bills

“All-in” Component Price as of January 2019 (23.8 cents/per KWh)

- Energy Supply Cost represents 50% of the bill*
- Use of the Grid represents 40% of the bill
- State Energy Policy/Legislative Mandates Cost represents 10% of the bill

* Connecticut's EDCs and their customers bear the costs associated with long term energy contracts that result in the development of new large scale renewables such as offshore wind and grid-scale solar and new, cleaner burning natural gas generators.



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**JANE DOE, 5 AVE
BRIDGEPORT CT 06610**

01000014600170000135970000171070000307097

010-0009999-5099 **5/16/18** **\$ 307.04**

Please indicate Amount Paid

THE UNITED ILLUMINATING COMPANY
CHESBURY MA 02153-0230

Account Information
Customer Name Key: DOE
Account Number: 010-000999-5099
Billing Address: 5 AVE
Billing City: BRIDGEPORT CT
Billing State: CT
Billing Zip: 06610
Billing Phone: (203) 333-3333
Billing Email: jane.doe@ui.com

Service Charges & Credits

Amount or Reason for	Amount	Balance
Previous Reading	320.78	171.67
Amount of Previous Bill	171.67	171.67
Current Reading	320.78	171.67
Amount of Current Bill	171.67	171.67

New Charges & Credits

Amount or Reason for	Amount	Balance
Previous Reading	320.78	171.67
Amount of Previous Bill	171.67	171.67
Current Reading	320.78	171.67
Amount of Current Bill	171.67	171.67

Amount Now Due: \$ 307.04

Due Date: 05/16/2018

Payment Information
Payment Method: Credit Card
Payment Amount: \$ 307.04
Payment Due Date: 05/16/2018

Service Information
Service Type: Residential
Service Address: 5 AVE
Service City: BRIDGEPORT CT
Service State: CT
Service Zip: 06610
Service Phone: (203) 333-3333
Service Email: jane.doe@ui.com

Notes
Please pay this bill by the due date to avoid late fees. If you have a question, please call (203) 333-3333.

Modern Rate Designs

Rate Decoupling

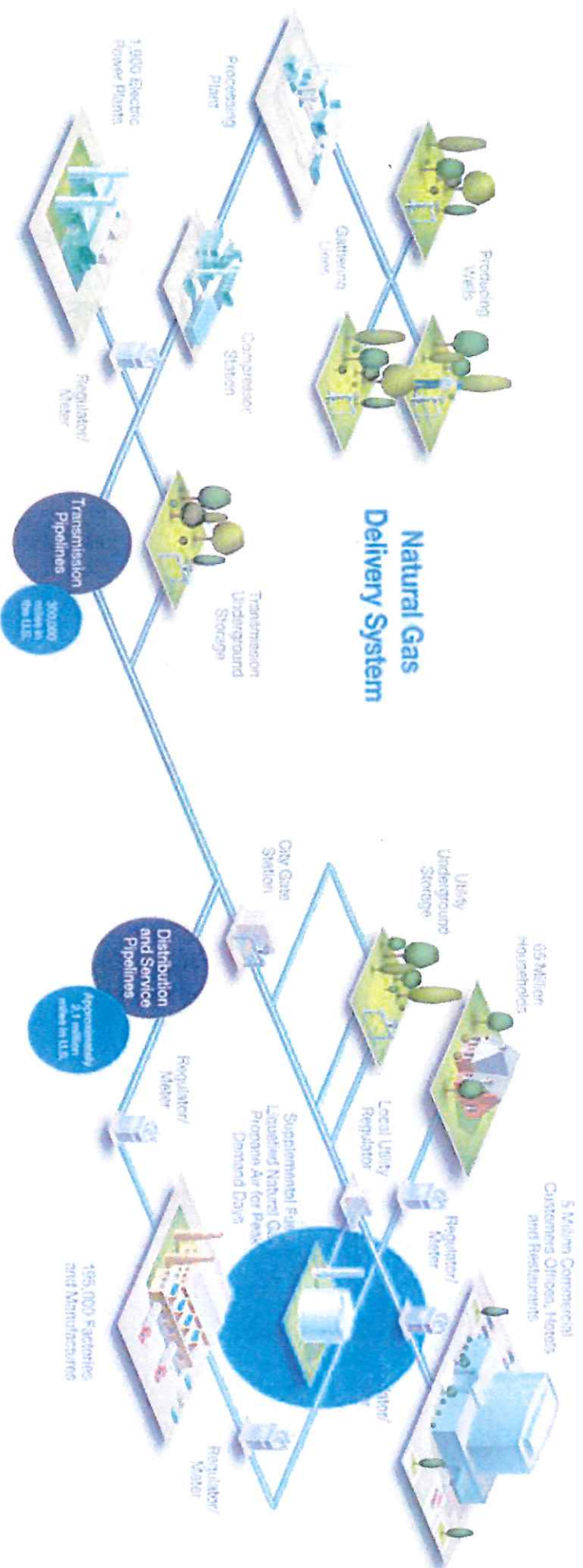
- PURA approves the revenues required to run the electric and distribution system
 - Rates are designed to collect that revenue
 - The decoupling adjustment is used to adjust over/under collections of revenue

Time of Use Rates

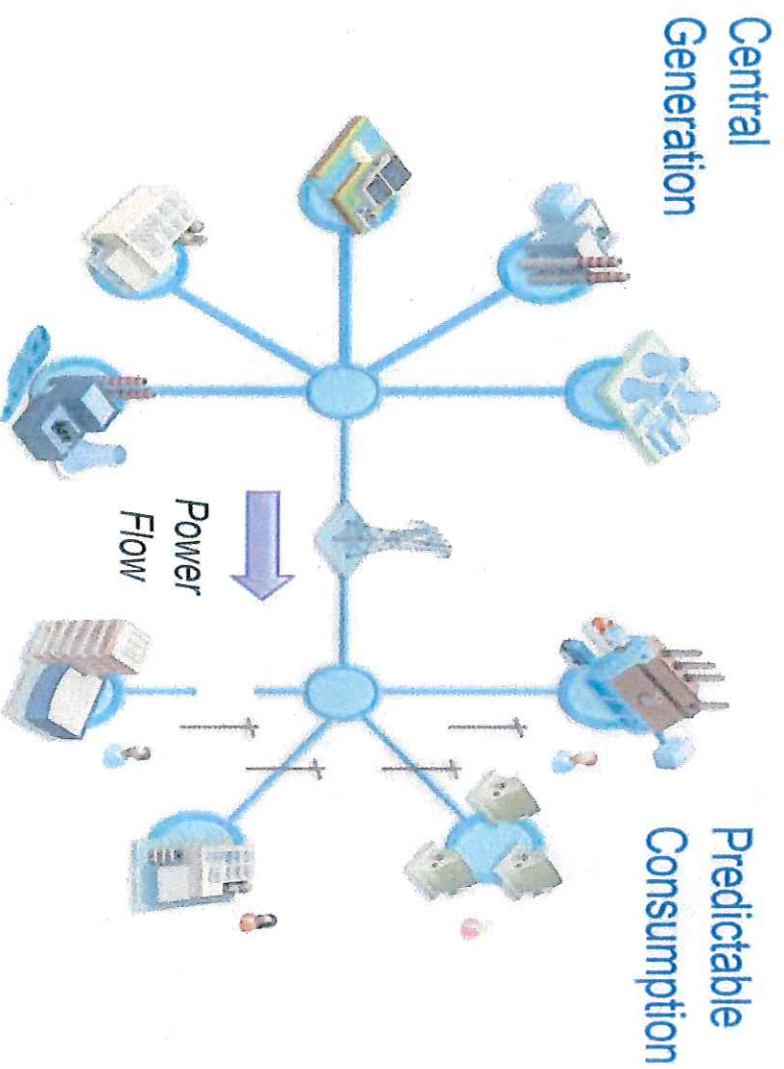
- 25% of UI's residential customers utilize a "Time of Use" rate
 - On-Peak noon-8:00 P.M. Monday-Friday
 - All other hours are off-Peak
- Technology agnostic-based on usage



Gas Operational Safety, Compliance & Expertise

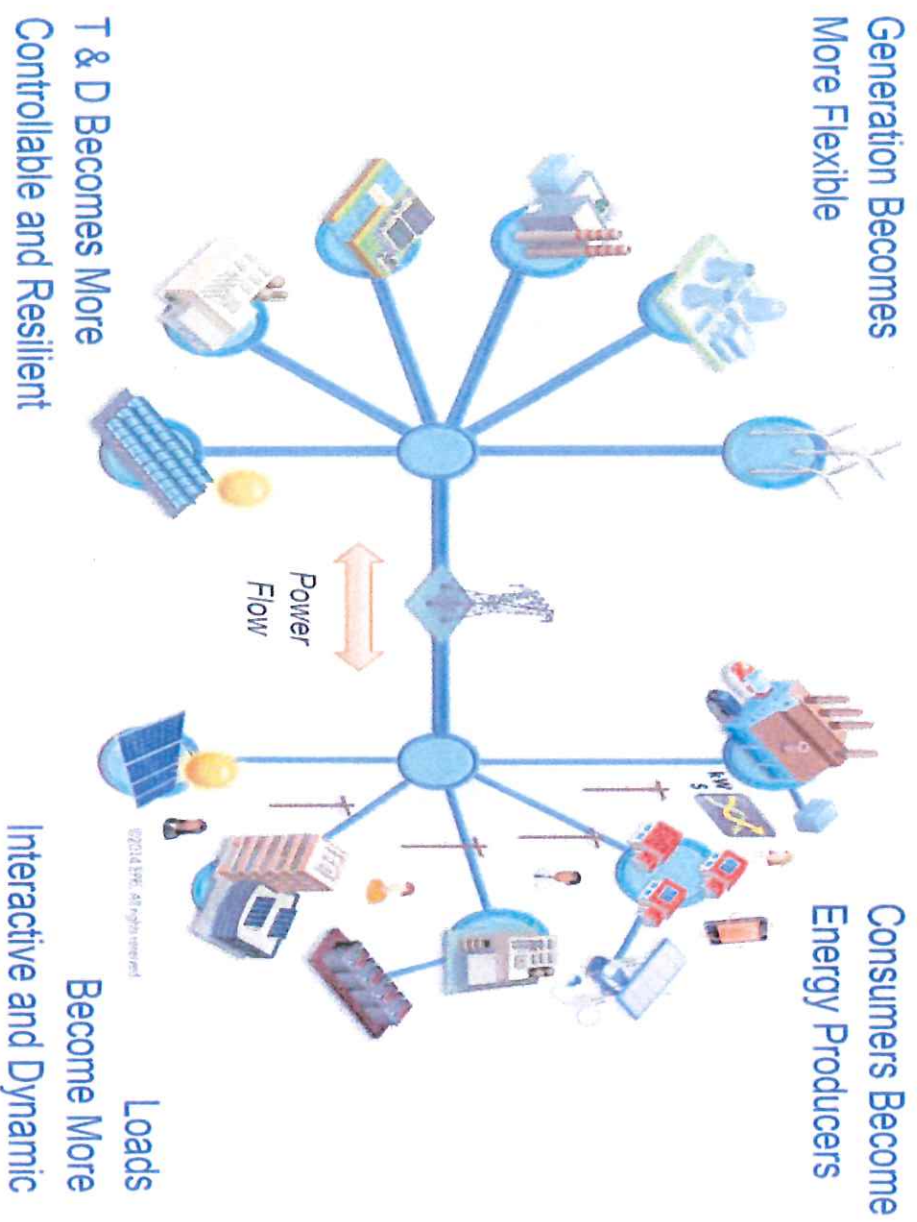


The “Traditional” Distribution Grid

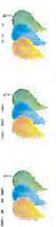


Utility of the Future > Flexible, Resilient, Dynamic

Distribution Grid “Modernization”

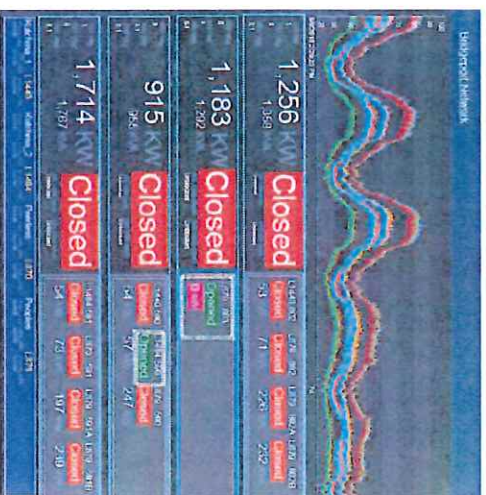


Hosting Capacity Map



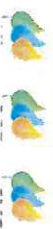
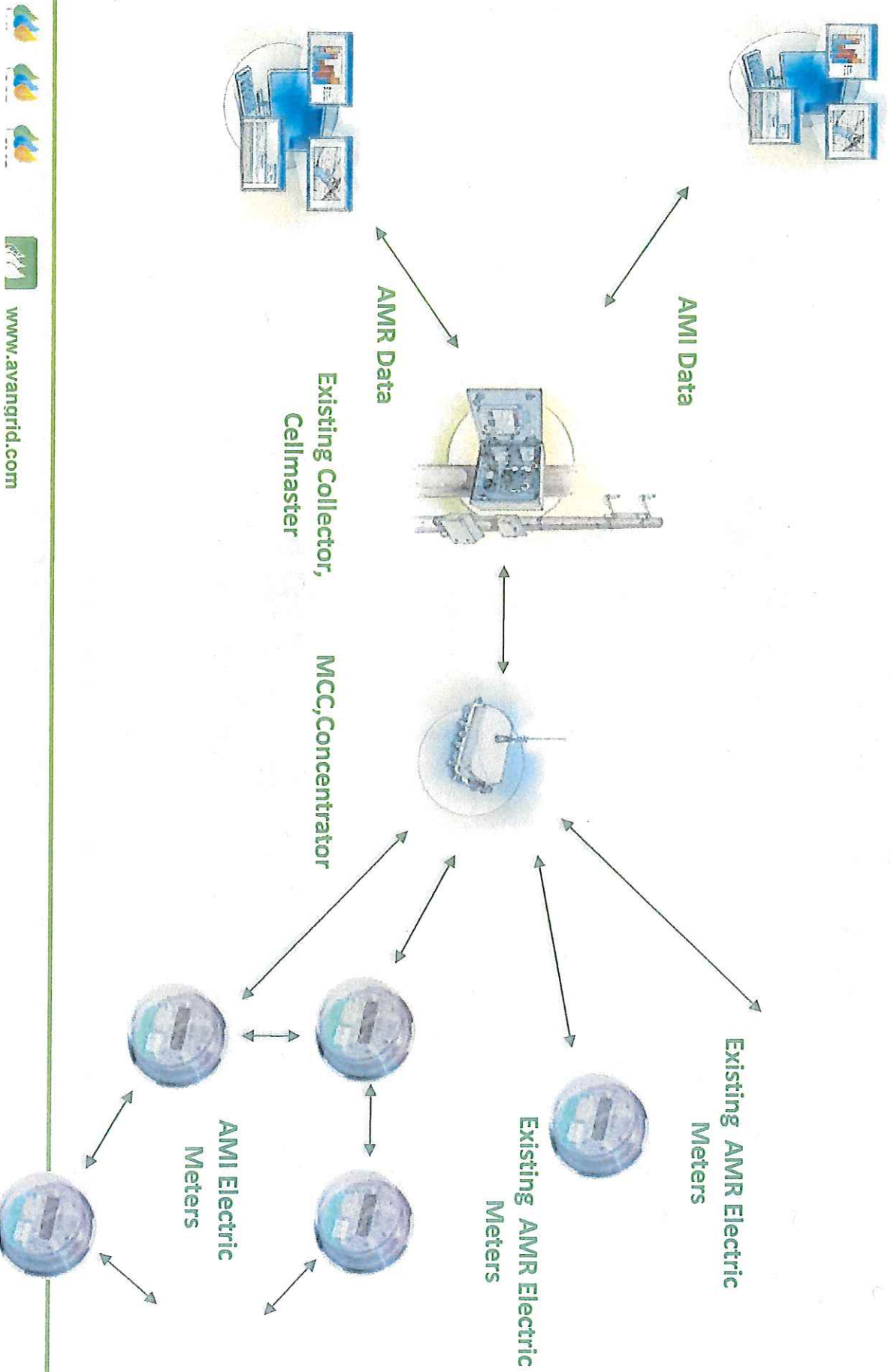
Distribution Grid Modernization

VISION: *Manage, maintain, and operate a “more intelligent” electric power system, while providing safe, reliable, and cost-effective service.*



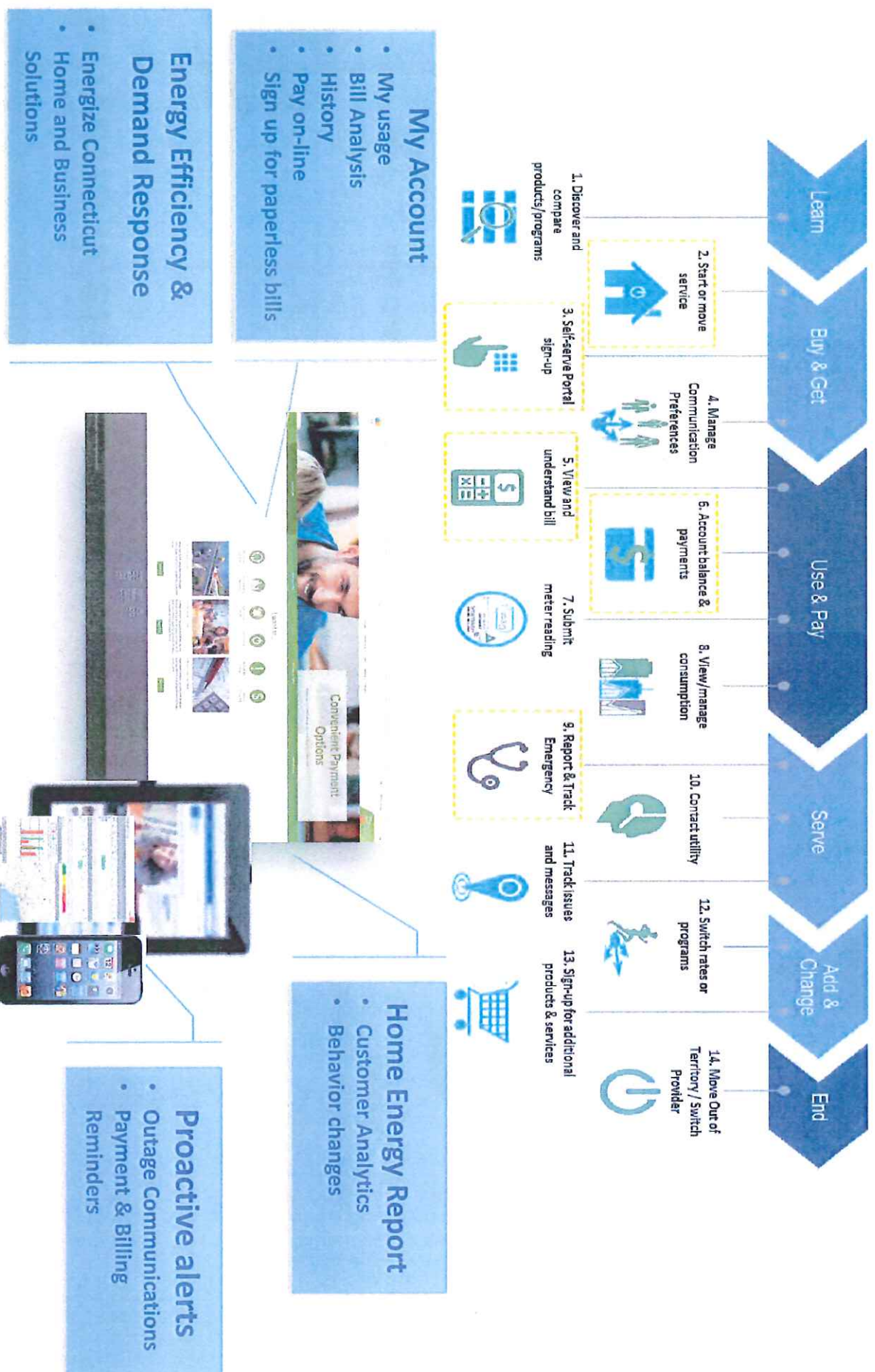
Information Makes the Grid Better

UI's Hybrid Metering Network



U's Digital Customer Experience

How customers benefit from AMI



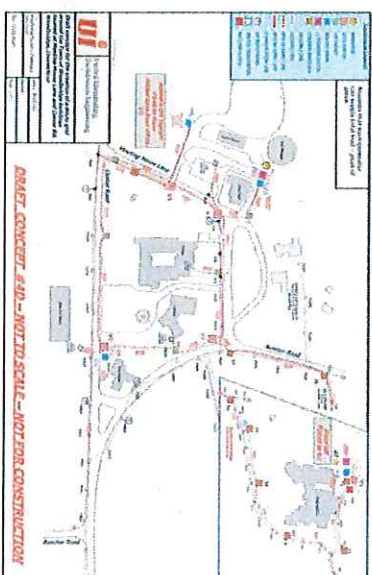
A Leader in "Cost of Service" Distributed Generation

UI's Solar, Fuel Cell and Peaking Facilities

Bridgeport Solar



GenConn peaking facility - Milford



Bridgeport Fuel Cell

GenConn peaking facility - Middletown

New Haven Fuel Cell



Woodbridge (Amity HS) fuel cell



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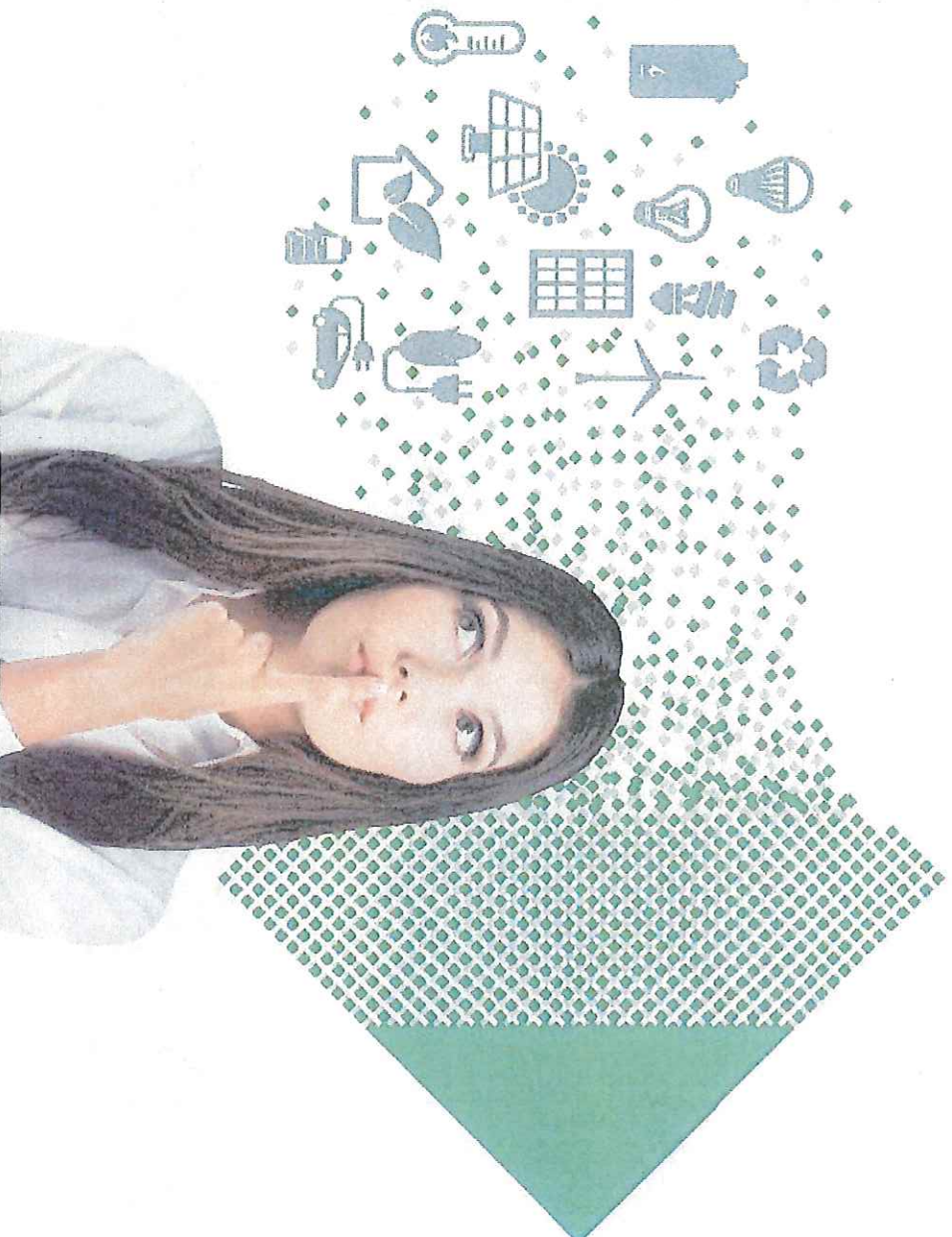
Distribution System Storm Resiliency – Ongoing Commitment

- **Vegetation Management**
 - Utility Protection Zone
 - Balancing customer demand for reliable service with environment benefits of trees.
- **Infrastructure resiliency**
 - Replace aging infrastructure - poles & wires
 - Increase system back-up capability (Perimeter Feeder ties)
 - Flood mitigation (coastal substations)
- **Evaluate and Leverage new technology**
 - Focal Point upgrade, use of Drones, Distribution Lidar, Grid Analytics, etc.
- **Post-Storm “System Inspections”**



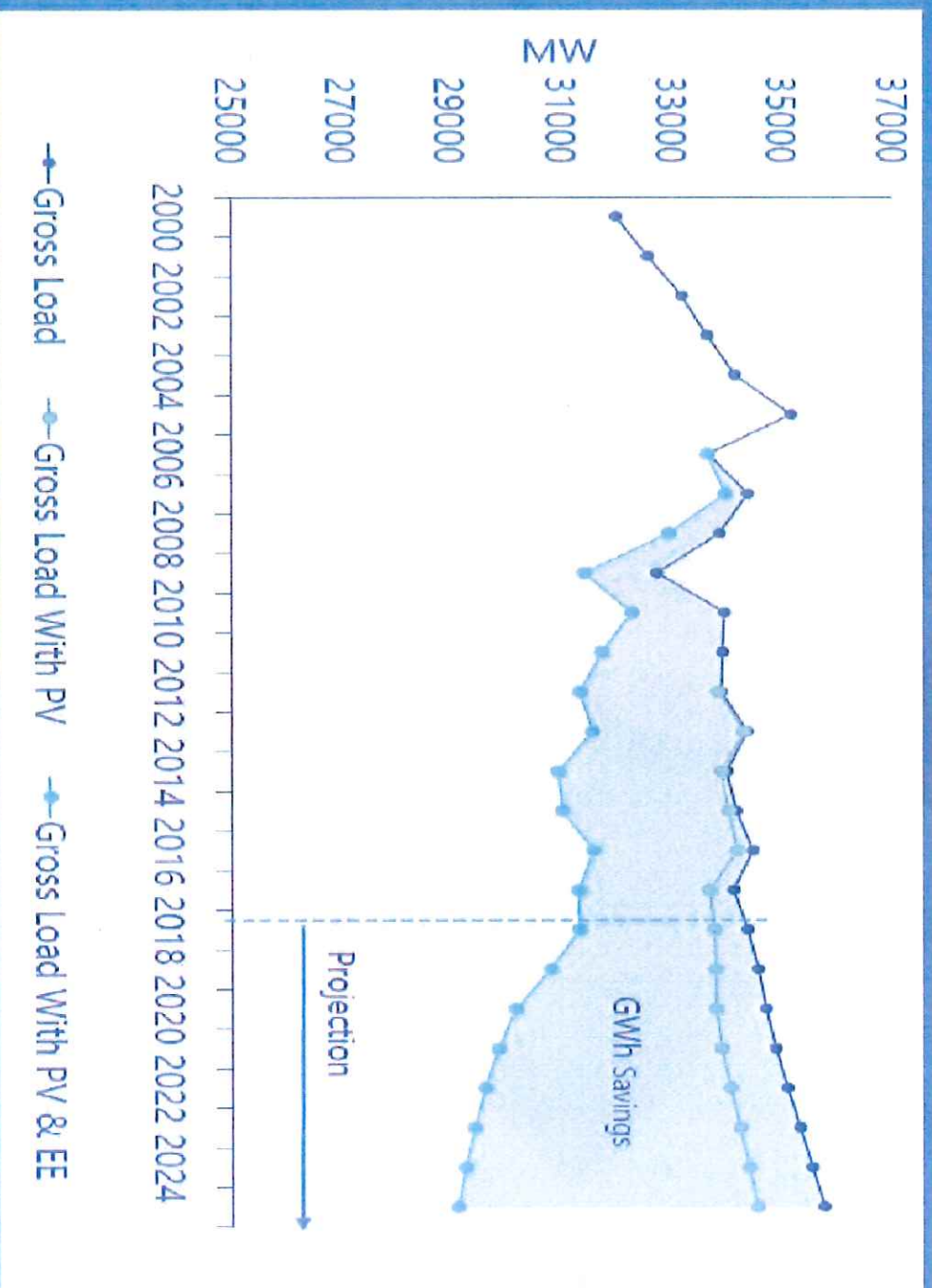
Helping Customers Make Informed Energy Decisions

- Award-winning Conservation & Load Management programs
- *It is not just light bulbs and caulking...*



Award-Winning Energy Efficiency Programs in Action

Connecticut Annual Energy Demand With and Without Energy Efficiency (EE) and Solar (PV) Savings



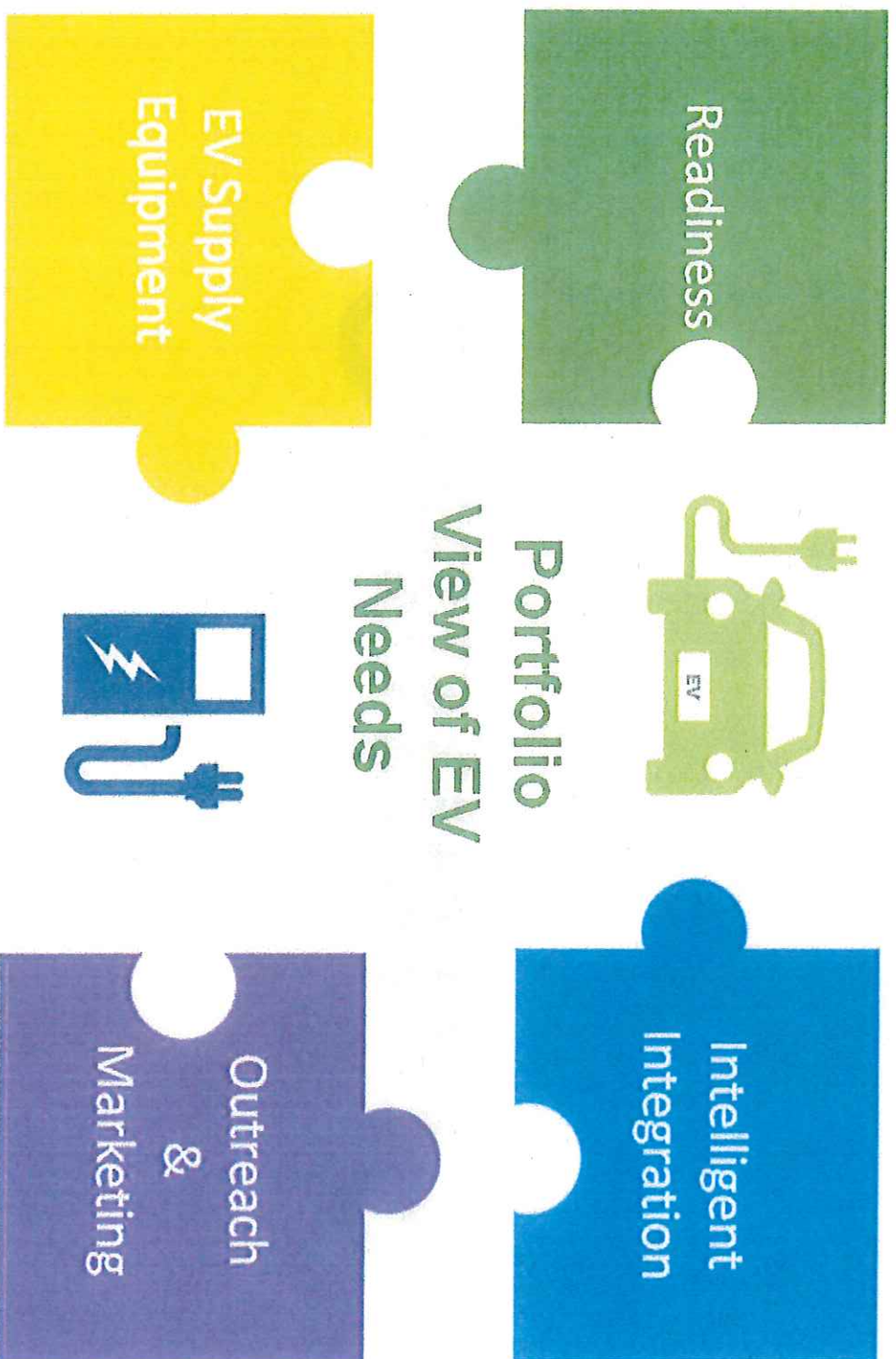
Source: ISO New England, Final Energy-Efficiency Forecast for 2021-2026 and Final 2017 PV Forecast (May 2017)



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Electric Vehicle Roadmap Goals

- *Active participant in DEEP's EV Roadmap development.*
- *Work with municipalities to create an environment where electric vehicle deployment can thrive.*



Questions?

