

***Transforming the Power Sector:
Customer Choice in a Changing Energy Landscape
A (Municipal) Utility Perspective***

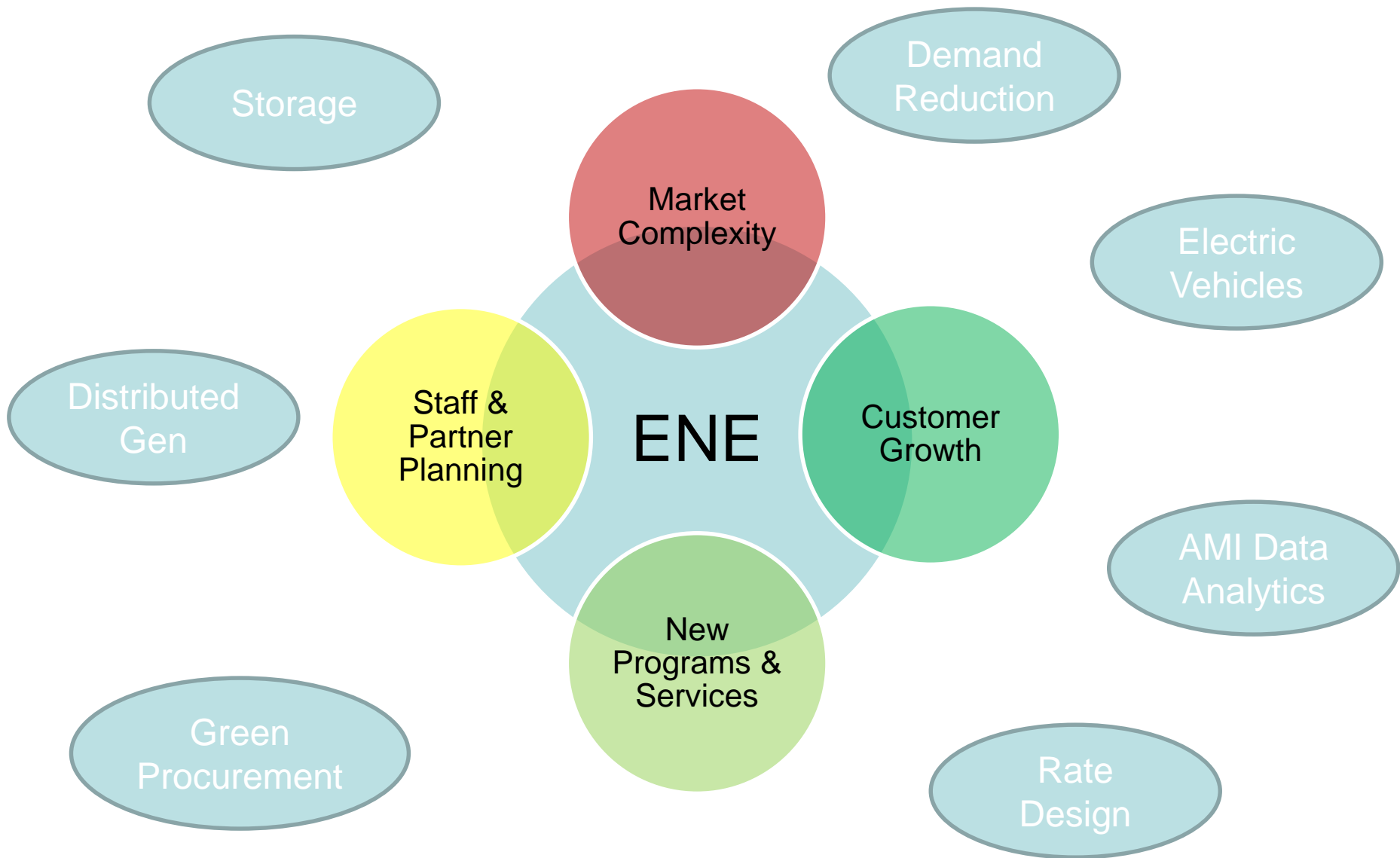
New England Consumer Liaison Group
March 14, 2019



Navigating the energy economy.™

ENE Overview

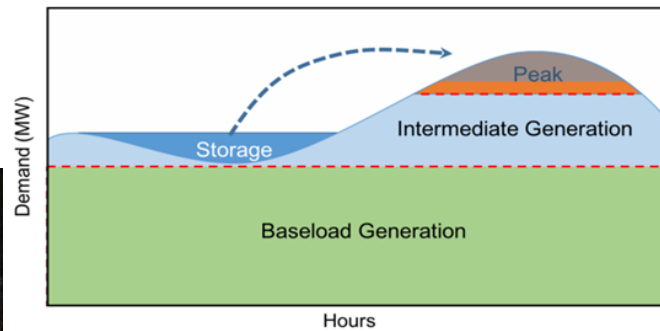
- Wholesale Power Supply
 - 23 Portfolios 1,200 peak MW 5 MM MWH/year
- ISO NE market services
 - Load & Generation Management
 - Regulatory / Stakeholder process representation
- Peak load, Distributed Gen, Storage management
- Residential Conservation: +/-1,500 audits/year
- EV Program
- ENE Strategies
 - Lobby and Legislative Advisory Services to 21 MLP's



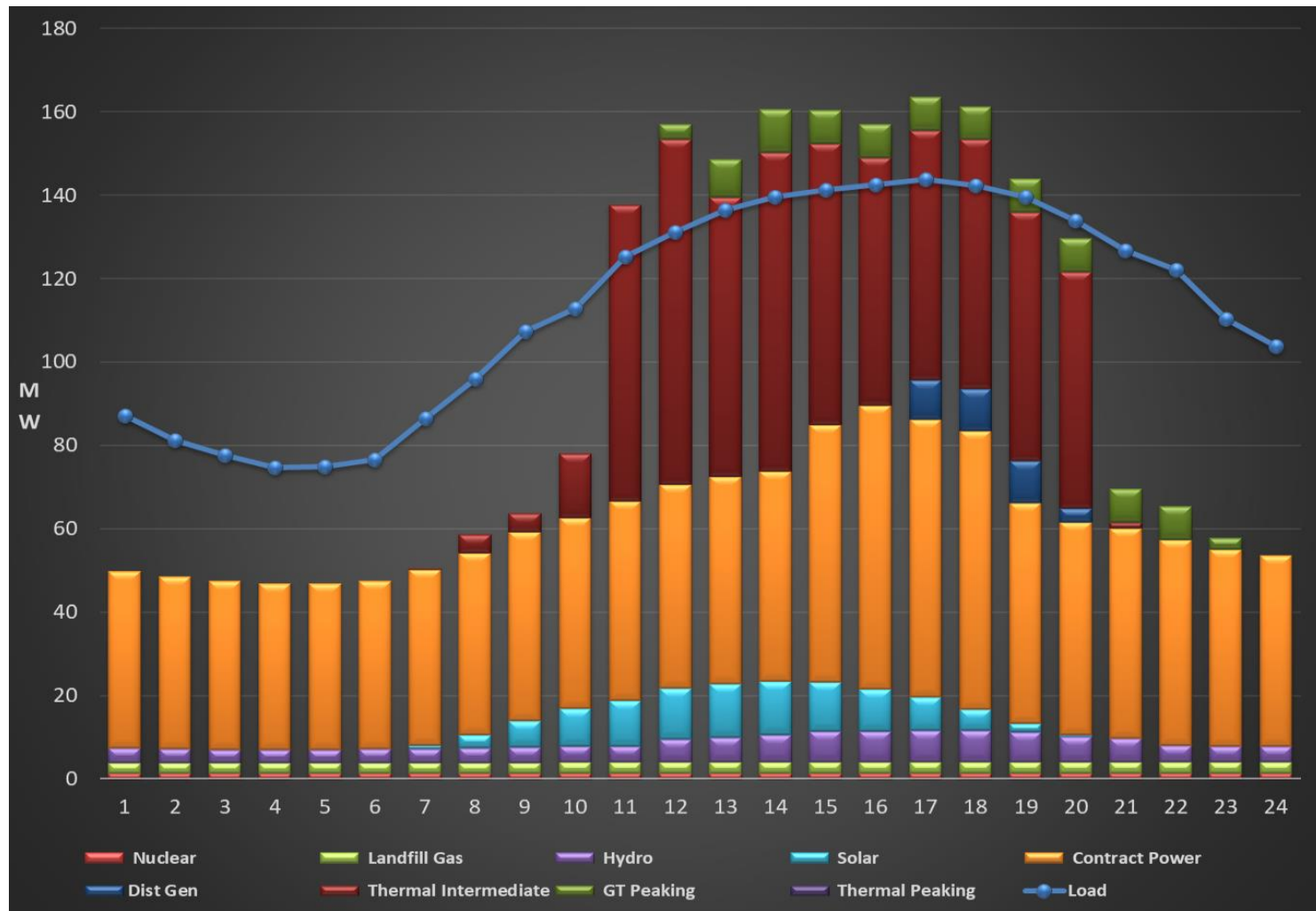
Changing Portfolio Planning

- Generally no regulatory mandate, but be proactive, develop plan, execute, communicate
- Balance RPS “Compliance” **and** “Non-compliance” resources
 - Green portfolio, reduce C intensity and manage ratepayer impact
- Spread Class I purchases across technologies
 - Onshore wind – new & existing
 - Offshore wind
 - Solar – ground mount, rooftop, parking lot, floating (?)
 - Biomass
- Non-compliance purchases – lower pricing, support existing clean / renewable resources
 - Existing hydro, landfill gas

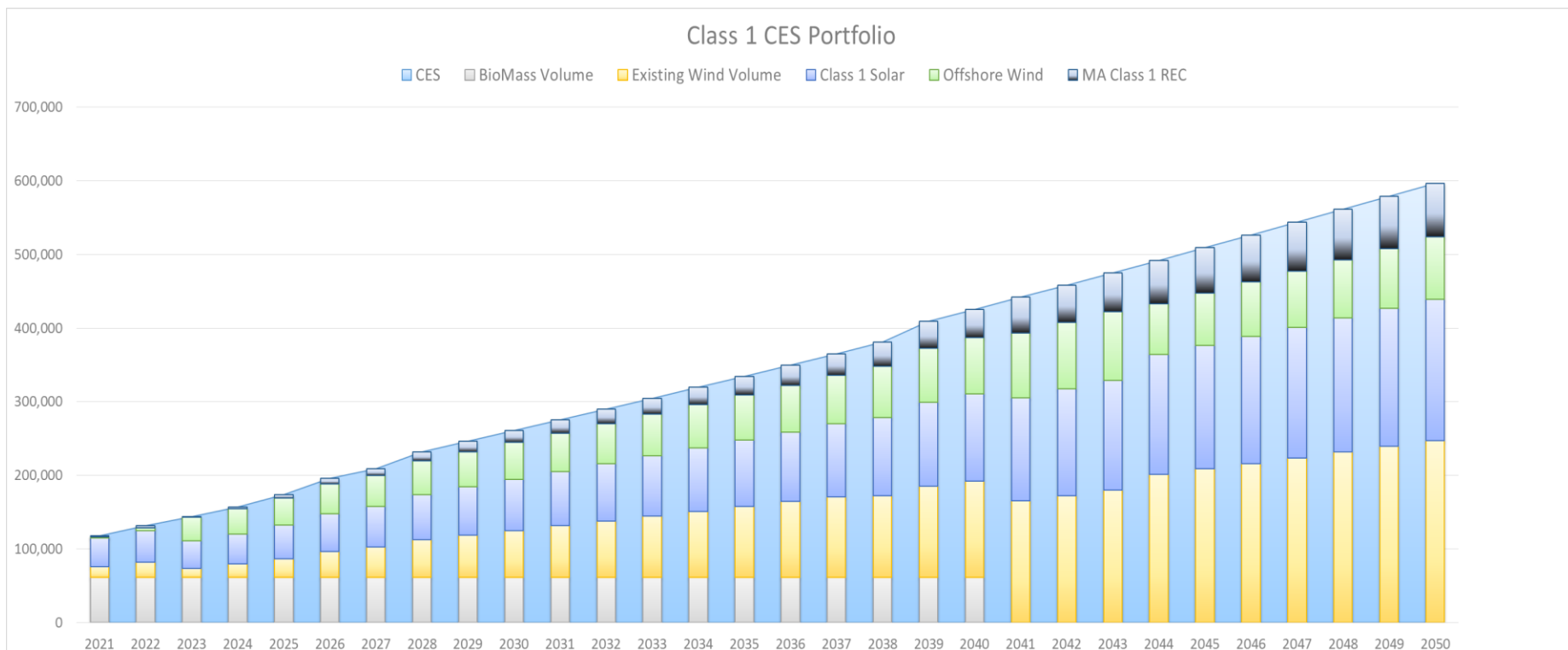
Economics & Resiliency



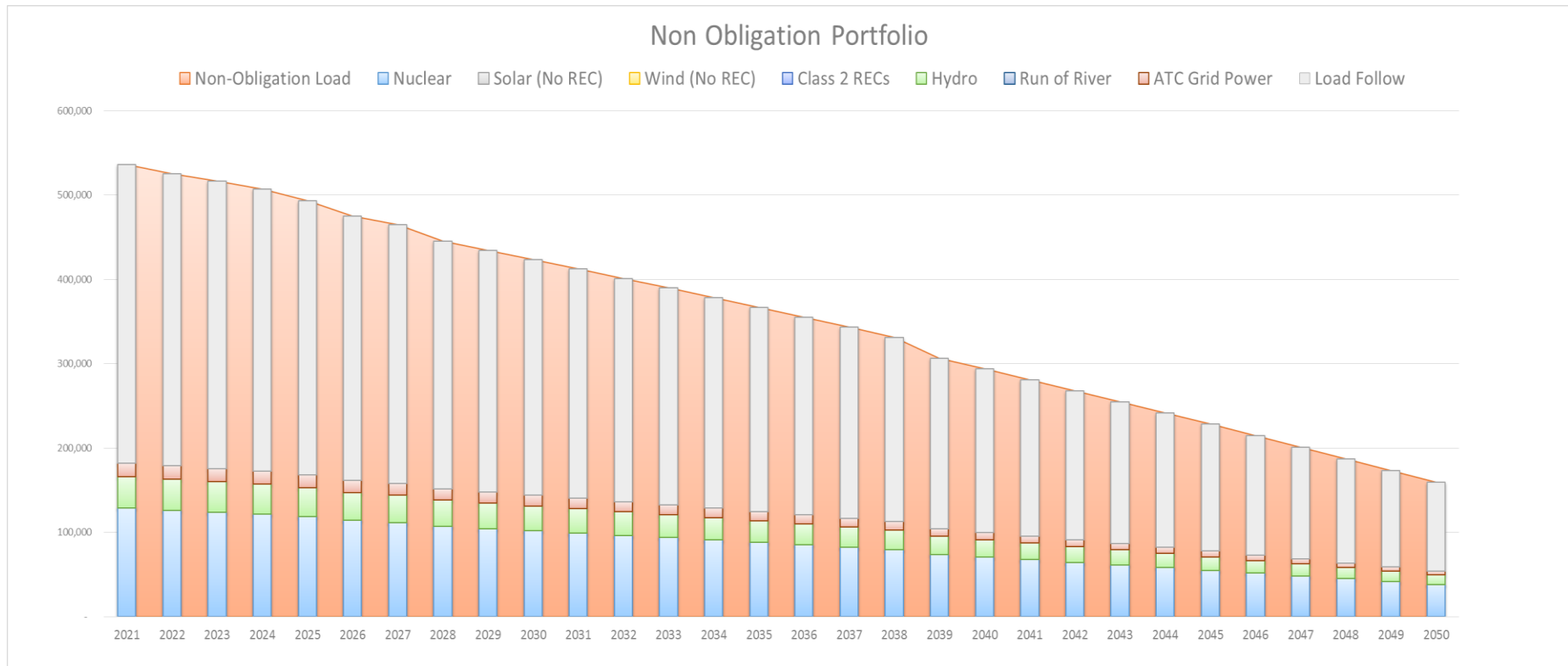
Born on the 5th of July...2018



CES / RPS “Class 1” Portfolio



Carbon Free / "Non-Obligation" Portfolio



Conservation Program Updates



Customer Communications:

- ✓ Update customer communications
- ✓ Post audit Survey

Customer Education and Resources:

- ✓ Website
- ✓ eCommerce

Rebate Processing:

- ✓ Improved Process
- ✓ Quality Control
- ✓ Rebate Analysis/Recommendations

Home Energy Assessment:

- ✓ SnuggPro
- ✓ DOER Home Energy Scorecard
- ✓ Update Direct Install Measures
- ✓ Advisor training

Marketing:

- ✓ Marketing Repository
- ✓ Seasonal campaign materials

Procedures:

- ✓ New Operational Procedures

EV Awareness Program



ENE Drives Electric

- **EV Programs Underway:**

- Braintree
- Rowley
- Middleton
- Middleborough
- Danvers
- Concord
- Taunton

- **Offering:**

- Website
- Informational Call Center
- Marketing Plan and Strategy
- Community Outreach
- Event Management
- Dealership Outreach and Education
- Partnership Development
- Consulting – Fleet Management

The Utility as the ‘Trusted Advisor’

- Utility = “fuel source”
- Raise Awareness
- Provide factual education
- Provide relevant and local information
- Provide convenience
- Relay opportunity to save money *more with MLP rates
- Build Community



ENE Drives Electric



Braintree Drives Electric
BraintreeDrivesElectric.com



Grow Load – push the adoption curve

Example case:

Est. load increase / vehicle / year = 3,528 kWh (+40% on 750 kWh/mo)
= \$521 / year / vehicle increased revenue

Assumptions:

- Average miles/year in Mass = 11,759
- 3528 kWh/car/year
- Residential retail rate = \$.1594 kWh
- C&I retail rate = \$.165 kWh
- Average resi kWh sales 2017 = 8,845/year
- Average resi revenue/customer = \$1,398
- 85% home charging and 15% public charging

Declining Load Growth



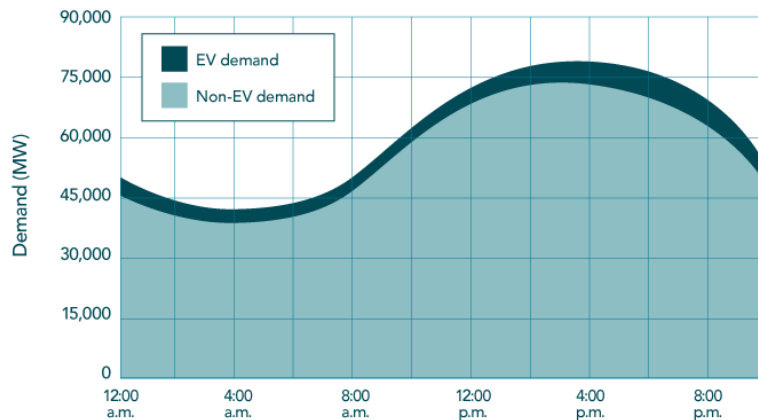
Manage On-peak Charging

- Enables better grid management
- Saves consumers and utilities \$
- Reduces GHG impact

- Shifting system load from on-peak to off-peak lowers the total cost to procure power
- Increased load factors will lead to lower T&D costs

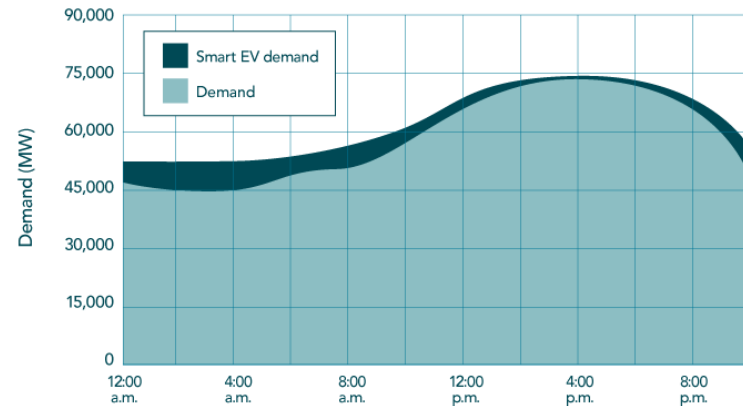
Uncontrolled EV Charging

Projected ERCOT demand with 23% EV penetration and uncontrolled EV charging



Optimized EV Charging

Projected ERCOT demand with 23% EV penetration and optimized charging



In Summary...

- Mission creep - reliability at the lowest reasonable cost - in a fast changing, greater choice environment
- Ratemaking!
- MLPs can be local ESCOs of choice
 - Great local brand recognition & reputation
 - Strong residential, C&I, institutional relationships
 - Small but nimble
- Uniquely positioned to quickly deliver new services
- Green portfolio, Efficiency, Peak/Demand Charge management, EVs, Solar, Storage, RECs