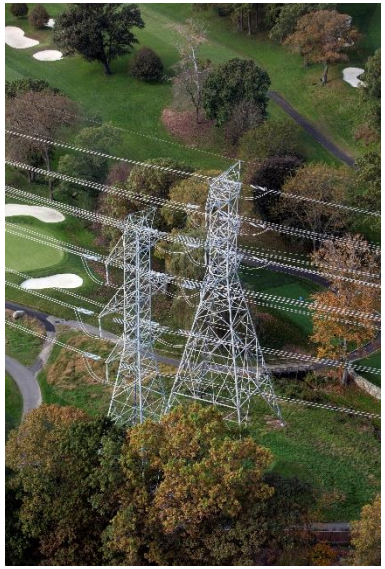

Changes in the Utility Business

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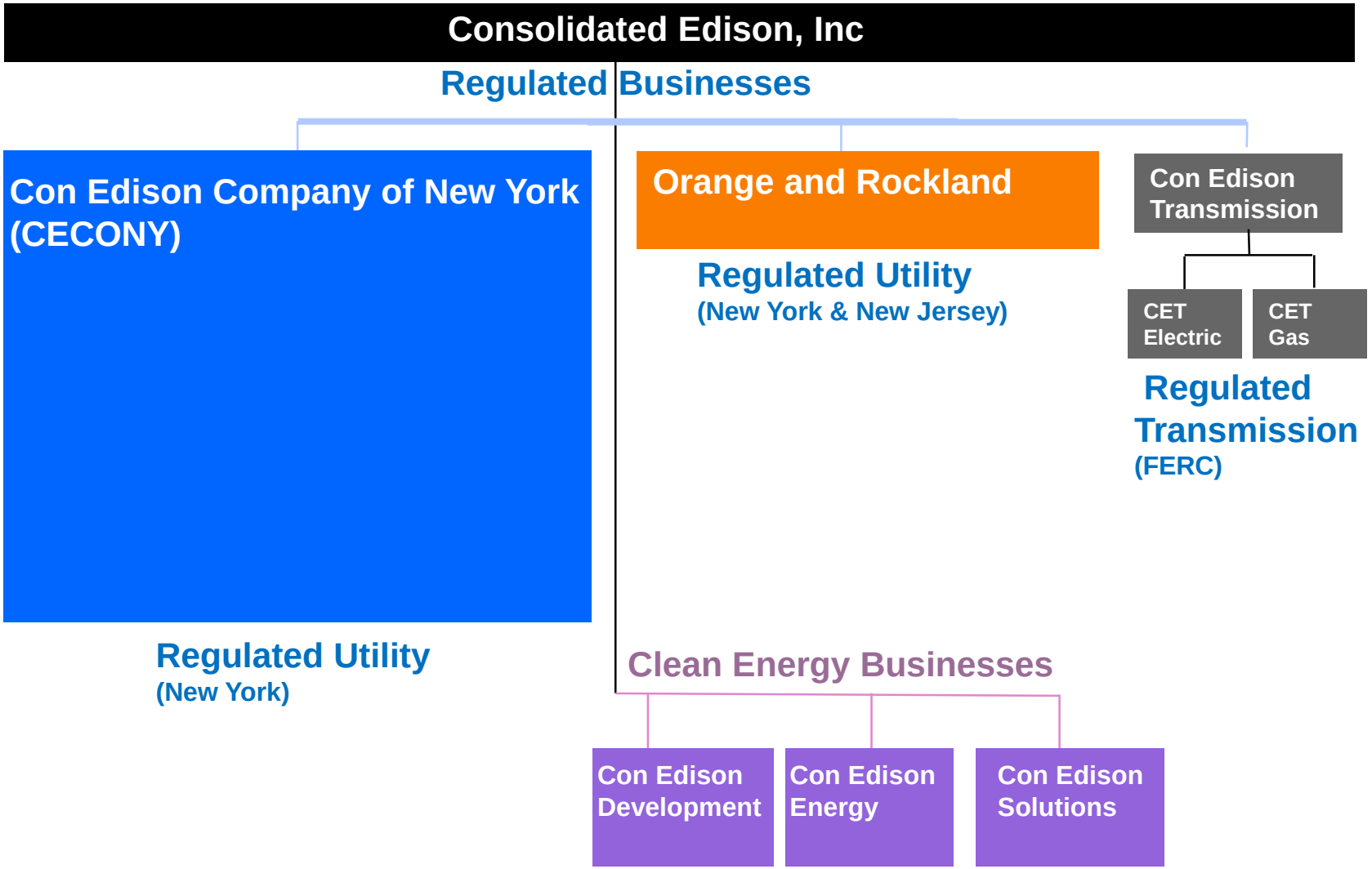
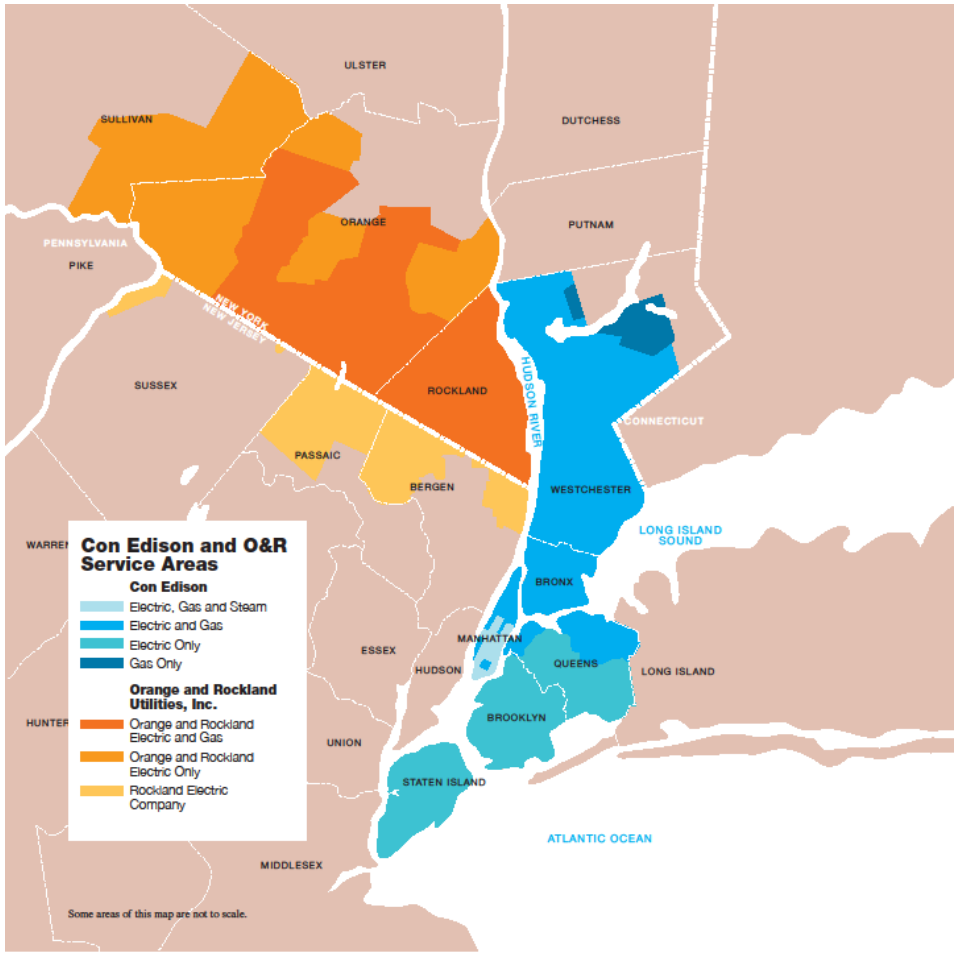
March 6, 2019

Overview: Structure of Con Edison



Overview: Our Regulated Utility Business



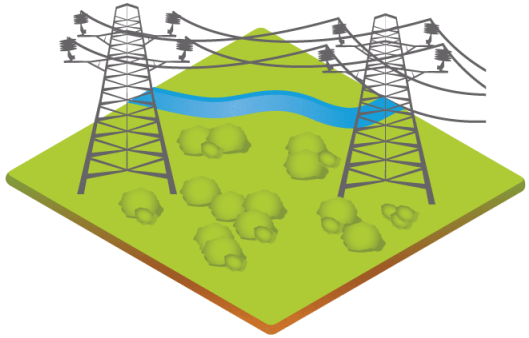
CECONY

- 3.4 million electric customers
- 1.1 million gas customers
- 1,700 steam customers
- 724 MW of regulated generation

O&R

- 0.3 million electric customers
- 0.1 million gas customers

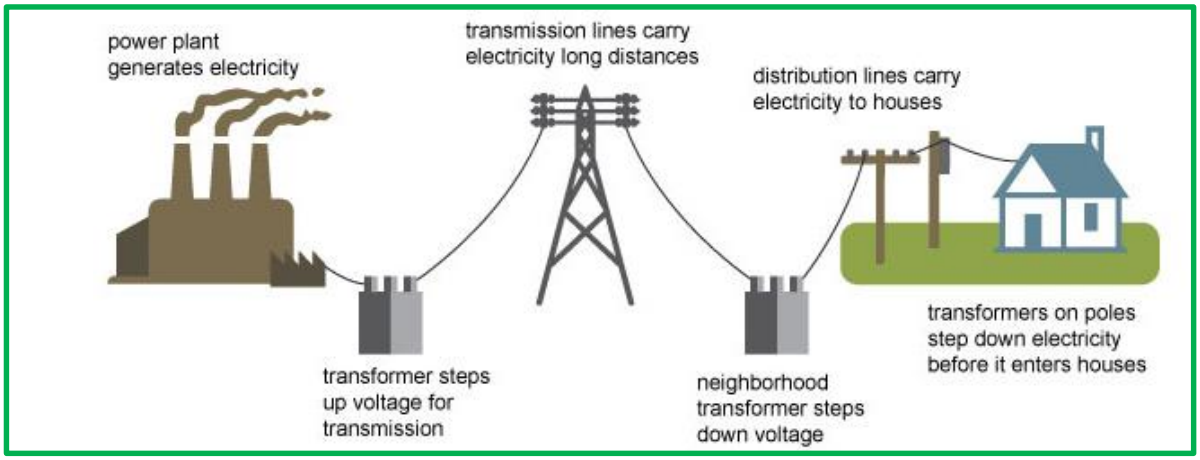
Regulatory Overview



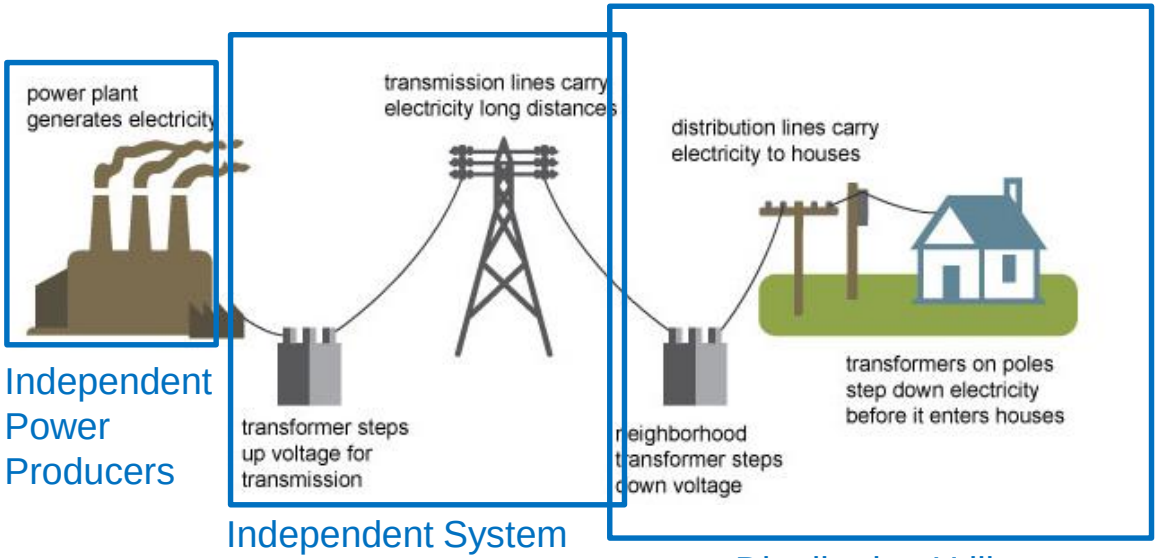
Generation	Transmission	Distribution & Retail Customers
Federal Energy Regulatory Commission (interstate, wholesale)		State Public Utility Commissions (in-state, retail)

Traditional vs. Restructured Industry

All assets owned by one company (integrated utility)



Vertical integration
(1880s – 1990s)



Independent Power Producers

Independent System Operator, 'open access'

Distribution Utility

Industry Restructuring
(1990s – Today)

New York Utility Industry Characteristics

- Restructured industry
  - Electric utilities are distribution companies and earn profit on distribution function
  - 'Exempt' wholesale generation; profits based on selling 'capacity', energy and ancillary services
  - Independent transmission operation with open access (NYISO)
  - Full retail access for supply, many 3rd party suppliers; utilities can provide supply, but at cost
- Regulatory compact for distribution utilities (monopoly service, regulated profit)
- Private ownership of distribution utilities (except LI, small munis) and most generation
- State ownership of some generation (hydro and conventional), some HV transmission
- Encouragement for distributed resources; net metering of customer renewables
- Transmission constraints – and challenging to site electric or gas transmission
- Relatively clean conventional generation fleet
- Very active efforts to achieve state environmental goals
- Support for upstate nuclear plants; agreement to close Indian Point
- Growth in natural gas for heating, generation; natural gas the 'fuel on the margin' for generators

New York State Energy Plan for 2030

Headline Targets

40% reduction in Greenhouse Gas (GHG) emissions from 1990

50% of electricity generation from renewable resources

600 Trillion BTU increase in statewide energy efficiency

Guiding Principles

- Market transformation
- Community engagement
- Efficiency
- Private sector investment
- Innovation and technology
- Customer value and choice

Regulatory Mechanisms

- **Reforming the Energy Vision (REV)**
- Clean Energy Standard

REV Presents Opportunities as Industry Evolves

Track One: Implementation Order issued February 2015

- Use of Distributed Energy Resources (DERs) to defer traditional transmission and distribution system investments
- Establishes utility role to develop distribution-level markets and technical platforms, and integrate system planning & operation

Track Two: Regulatory & Ratemaking Order issued May 2016

- Includes Earnings Adjustment Mechanisms, sharing of net benefits when DER defers traditional investments, and ability to earn on customer incentives within utility ratemaking design

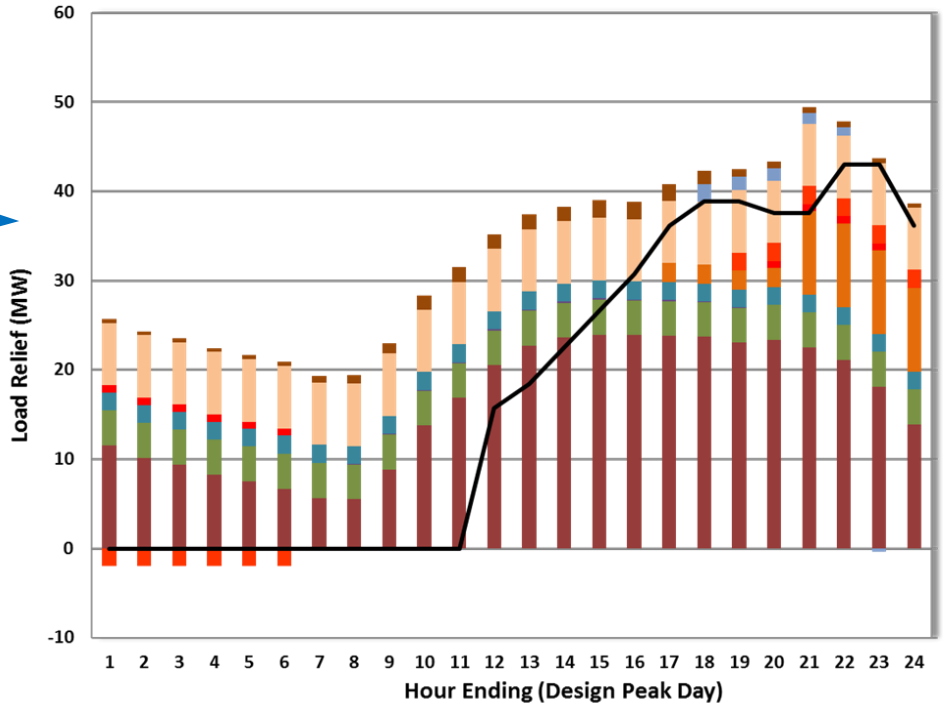
Track Three: Large Scale Renewables Order issued August 2016

- Promotes carbon reduction and establishes 50% renewable goal by 2030 within NY's Clean Energy Standard
- Expanded for ZECs to upstate nuclear units and 2,400 MW offshore wind target

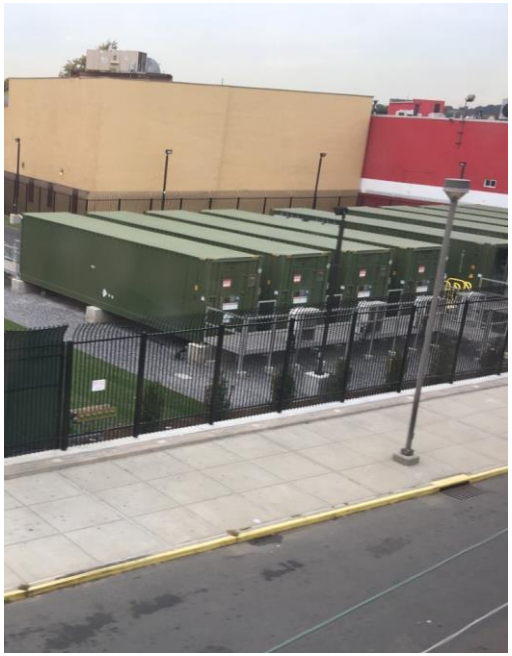
Non-wires Solutions

Defer $1BN infrastructure with DER

Portfolio of DER to meet customers needs

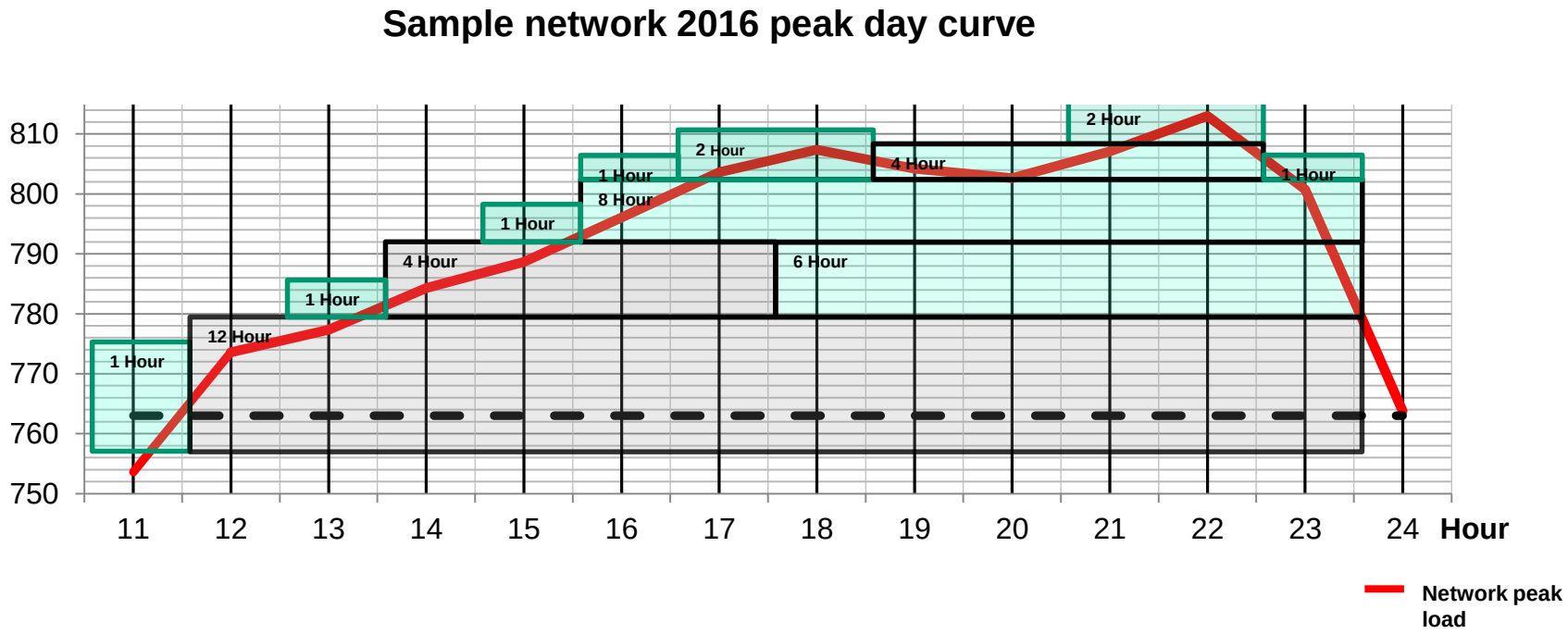


Non-wires Solutions



As DSP, utility needs to strategically compose and dispatch non-wires alternative portfolio

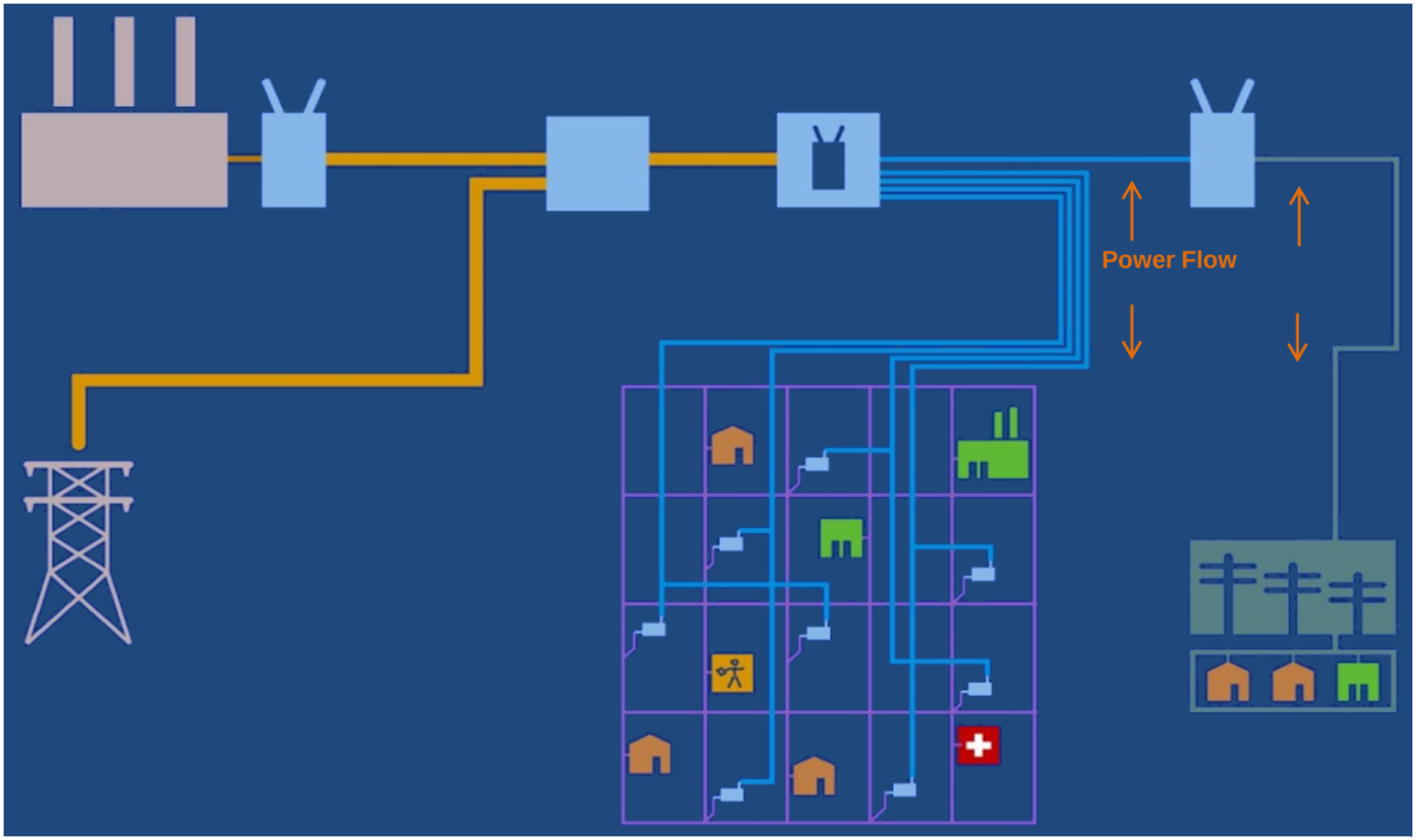
Resource portfolio based on customer, technology, and load curve characteristics in target network



What is Con Ed's product? What do we sell?

?

What is Con Ed's product? Access to a network....



How does Con Ed make money in a REV world?

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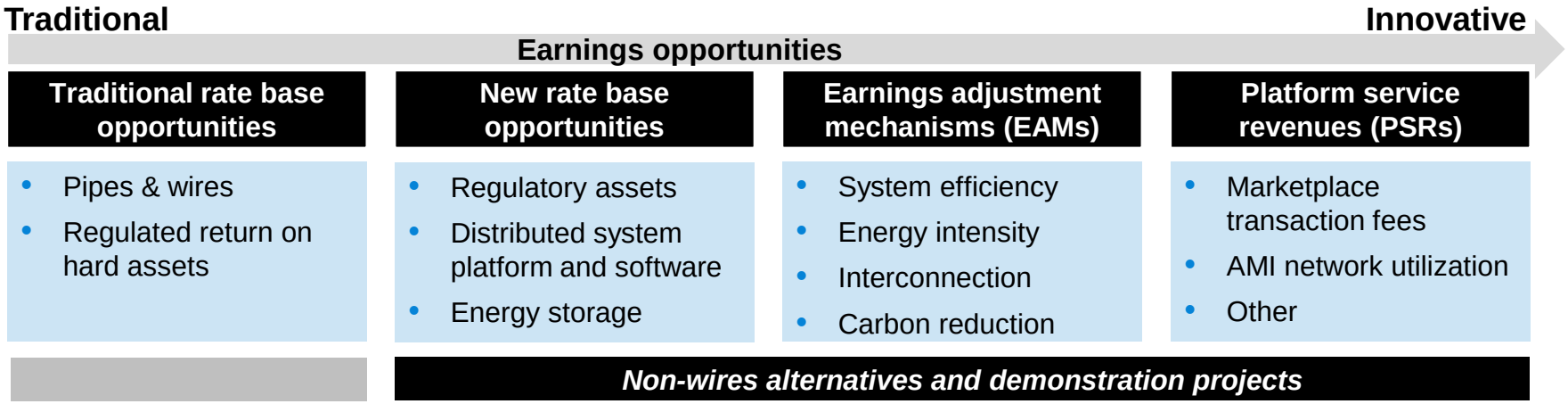
How do we make money in a REV world



How do we make money in a REV world

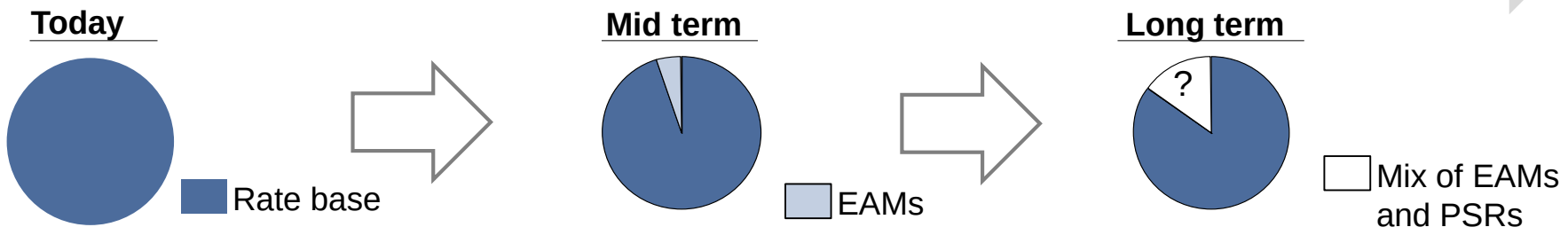
Traditional → Innovative

Earnings opportunities

Traditional rate base opportunities	New rate base opportunities	Earnings adjustment mechanisms (EAMs)	Platform service revenues (PSRs)
• Pipes & wires • Regulated return on hard assets	• Regulatory assets • Distributed system platform and software • Energy storage	• System efficiency • Energy intensity • Interconnection • Carbon reduction	• Marketplace transaction fees • AMI network utilization • Other

Non-wires alternatives and demonstration projects

Regulated electric earnings mix over time



How do we pay for this?

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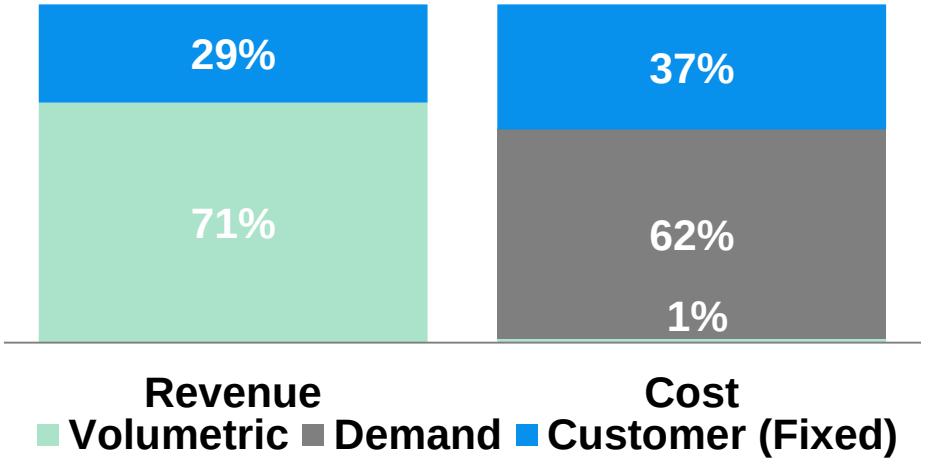
Current mass market rates do not work in DER future

Under current mass market rate structures, there is a misalignment between revenues and costs

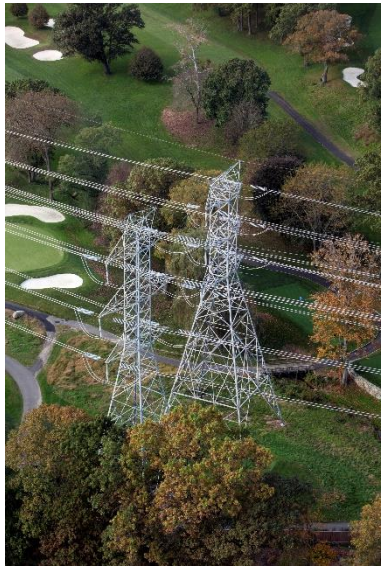
Delivery Revenues vs. Costs
(Residential)



Why Do We Care?

- Delivery costs are mainly fixed/demand related, but a significant portion of delivery costs are recovered through volumetric charges
- Critical to shift delivery rate design to a more cost-based rate structure to drive efficient customer behavior

But change is not easy.....



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