



***2017 Natural Gas STAR Annual
Implementation Workshop in Houston, TX***

Con Edison service territory



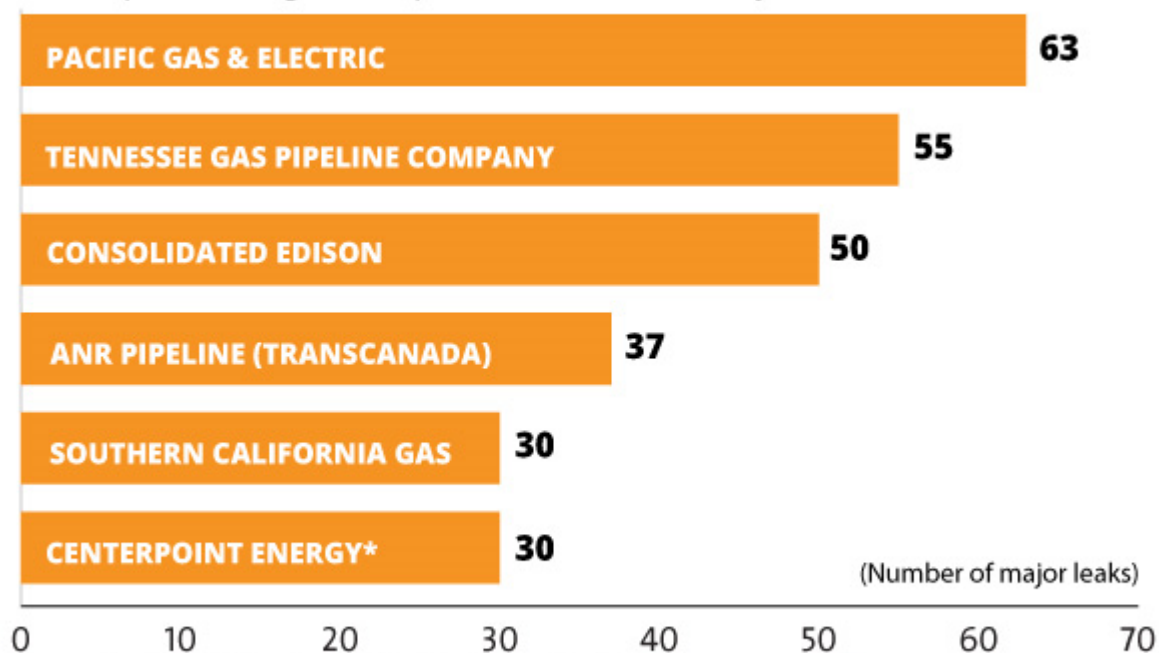
Methane Challenge – why participate?

- CECONY has been a participant in the Natural Gas STAR Program since 1993
- Natural Gas STAR program is a voluntary commitment to reduce and report on natural gas emissions
- The Methane Challenge is an enhanced voluntary partnership between EPA and the natural gas industry that includes long term goals for emission reductions

Stakeholder interest in emission reductions

LEAKY OPERATORS

The top leakiest gas companies in the last five years (2009-2013)



Source Pipeline & Hazardous Materials Safety Administration: combined gas gathering, transmission and distribution incident data

*Includes one incident on an Enable Gas Transmission, LLC, pipeline, which is operated in limited partnership with Centerpoint.



BMPs: Cast Iron & Unprotected Steel Mains

- Replace CI mains with plastic or cathodically protected steel
- Replace or cathodically protect steel mains
- Rehab CI or unprotected steel mains with plastic pipe inserts (slip-liners, u-liners or cured in place liners)
- Metric: minimum replacement rate based on a tiered approach (*next slide*)

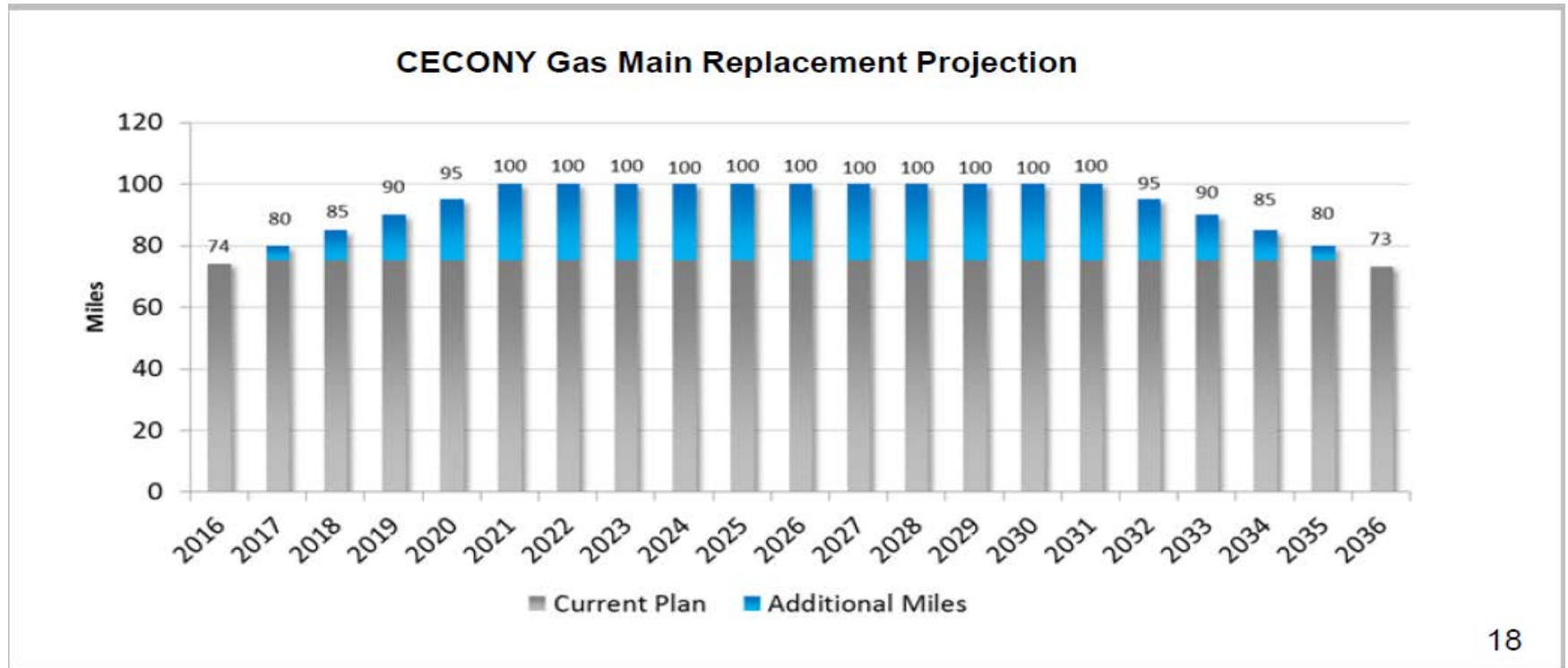
Minimum main replacement tiers to participate in the Methane Challenge

Tier	Inventory of Cast Iron¹⁶ and Unprotected Steel Mains¹⁷	% Minimum Annual Replacement/Repair
Tier 1	<500 miles	6.50%
Tier 2	500-1,000 miles	5%
Tier 3	1,001 – 1,500 miles	3%
Tier 4	1,501 miles – 3000 miles	2%
Tier 5	>3000 miles	1.5%

BMPs: Cast Iron & Unprotected Steel Services

- Replace services with copper, plastic, or protected steel
- Rehabilitate CI and unprotected steel services with plastic pipe inserts or liners.
- Minimum commitment: replace/rehab services when a main is replaced or rehabilitated
- Not eligible for a stand-alone commitment but as an optional addition to the mains BMP

Current plans on mains replacement meet the EPA's BMPs



BMP requires 2%, or ~40 miles. CECONY commits to 4% by 2017 and 5% by 2021.

Miles of leak-prone pipe versus replacement rate targets

2015 YE Inventory per 2015 DOT Report	2067	% Replacement
Planned 2016 Replacement	74	3.58%
Remaining Inventory at YE 2016	1993	
Planned 2017 Replacement	80	4.01%
Remaining Inventory at YE 2017	1913	
Planned 2018 Replacement	85	4.44%
Remaining Inventory at YE 2018	1828	
Planned 2019 Replacement	90	4.92%
Remaining Inventory at YE 2019	1738	
Planned 2020 Replacement	95	5.47%
Remaining Inventory at YE 2020	1643	
Planned 2021 Replacement	100	6.09%
Remaining Inventory at YE 2021	1543	

Summary

- Con Edison is committed to reduce emissions through a long-term main replacement program
- Current plans represent an accelerated time frame for replacement under challenging conditions
- Voluntary participation in programs like the Methane Challenge demonstrates good faith effort to outside stakeholders
- Methane Challenge partnership is consistent with Con Edison core values of *safety, operational excellence* and *customer experience*