

Municipal Streetlight Ownership



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Presentation outline:

- Quick background
- Differences in projects
- Finances and ROI
- Control system advantages
- Where we are today

Background

- Started in 2002 in Kennebunkport wanting a different bulb
- 2003-2013—4 attempts to change state law
- 2013-2016—PUC process rule making

New law expands to three options –

- 1. Status quo – lease lights from utility**
- 2. Municipal ownership of lights with utility providing the maintenance**
- 3. Municipal ownership and maintenance**



Differences in Projects



Falmouth

- Real Term Energy (RTE)
- 500 cobras, 90 post tops
- Discrepancies in CMP inventory ahead of project (<5)
- Acuity fixture
- CIMCON advanced controls

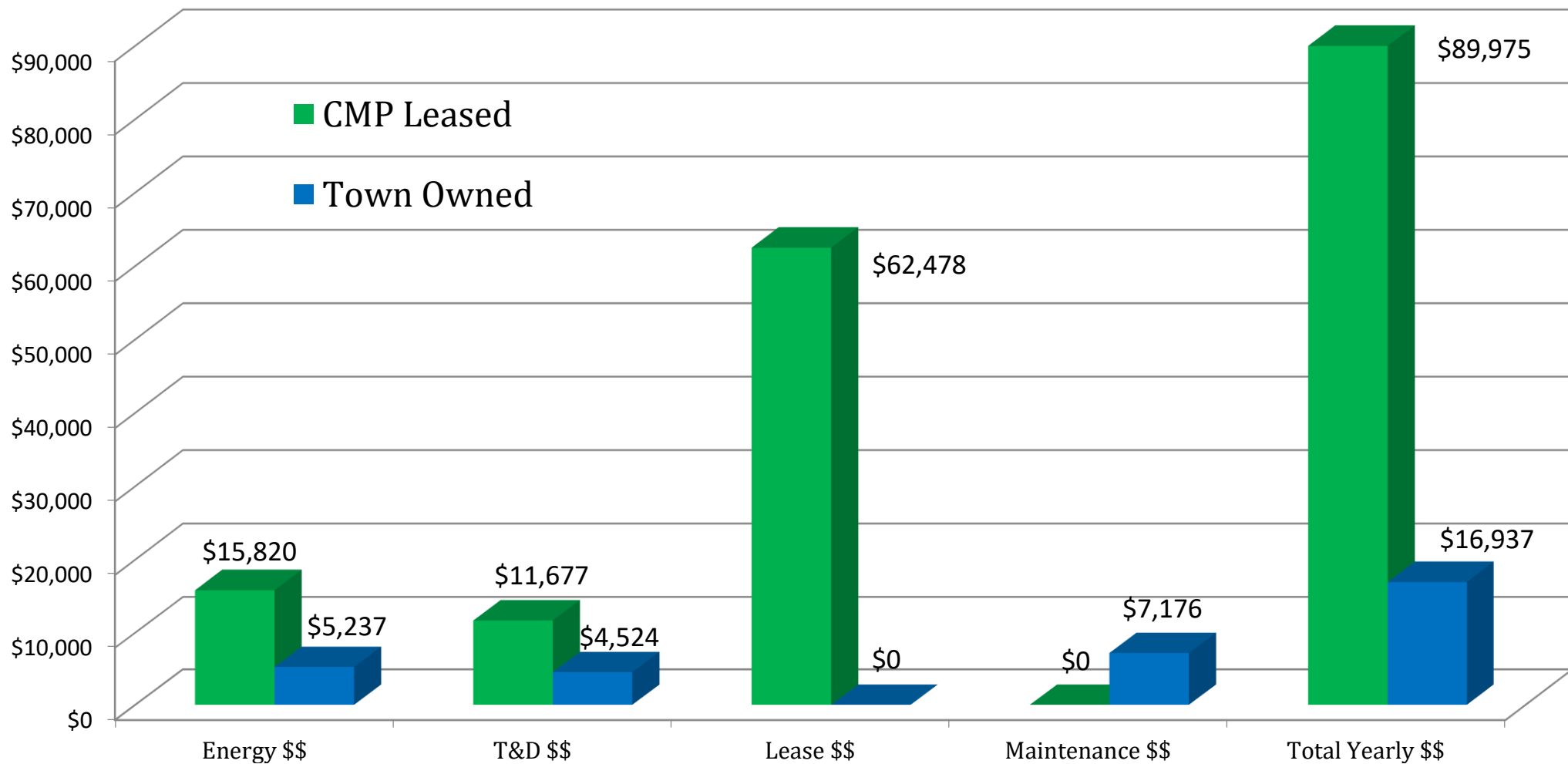


Portland

- The Efficiency Network (TEN)
- 5,129 cobras
- Discrepancies after project (350)
- Cree fixture
- Echelon advanced controls



Lease to Own, Falmouth



Falmouth Finances & ROI

	Pre Retrofit	Post Retrofit	Savings
Cobras	\$75,672	\$13,461	\$62,211
Post-tops	\$16,427	\$3,476	\$12,951
			\$75,162


CMP Acquisition	RTE Fees (17% margin and \$10.80/pole data collection)
\$42,618	\$44,748

Fixture	Qty	Material (\$)	Installation (\$)	Total (\$)	Total Costs	ROI Payback
Cobrahead	500	86,410	129,846	216,256		
Post-tops	98	42,247	20,701	53,777		
Totals	598	191,486	131,917	\$270,033	\$357,399	4.75

Gathered public input with pilot projects



*Both municipalities
chose 3,000K
dark sky compliant fixtures*



COMING SOON TO YOUR NEIGHBORHOOD: INCREASED EFFICIENCY & SAFETY


As a way to become more energy efficient, the City of Portland is converting its streetlights from metal halide and high pressure sodium to LED. Starting January 29, 2018, we'll be making our way around the city installing 250-350 LED lights each week.

LED streetlights offer several advantages over older lighting technologies:

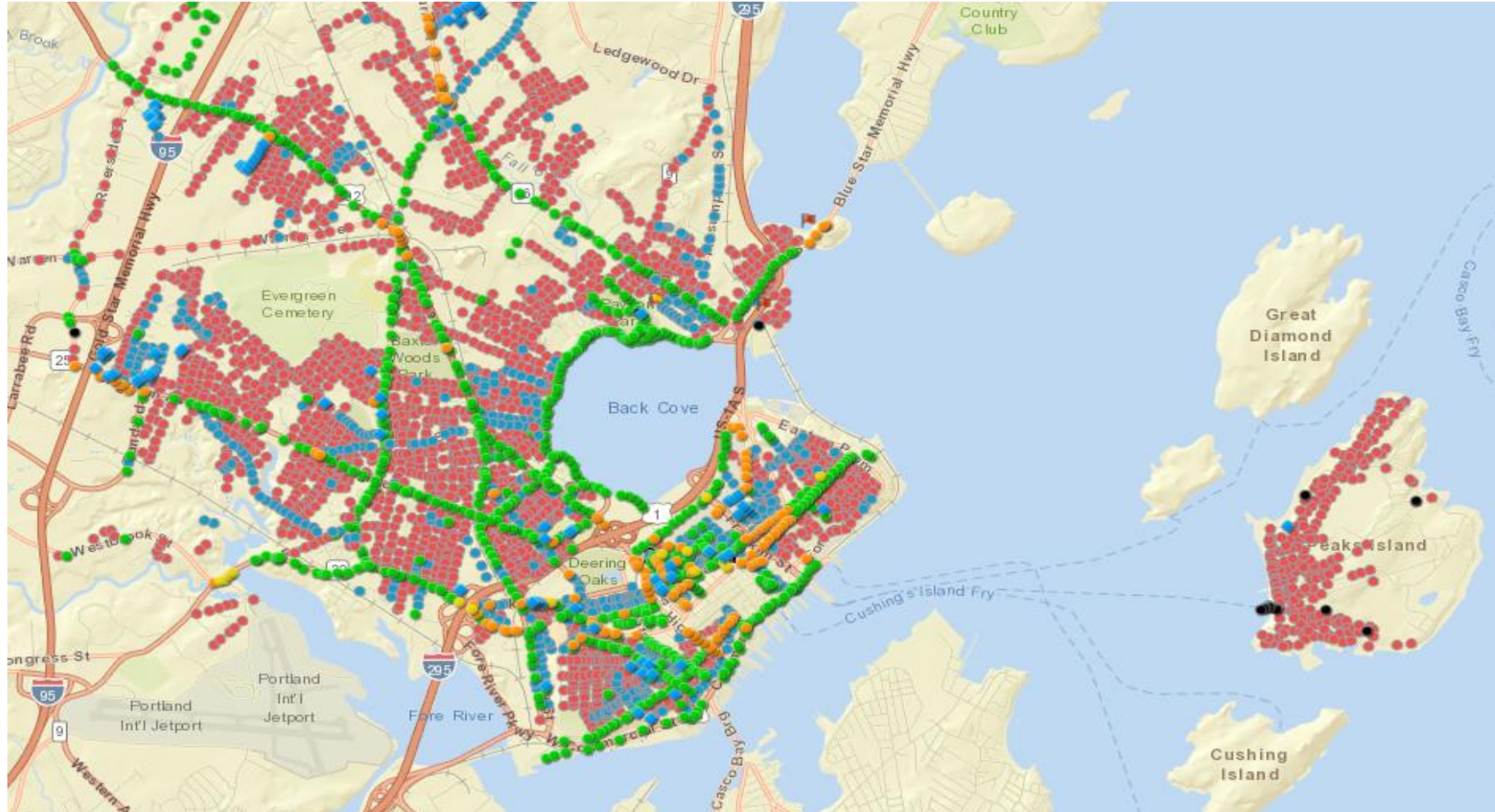
- Energy Efficient -- LED lights can reduce energy consumption for street lighting by 75%.
- Better Light -- LED lighting allows people to see colors more clearly, which makes it easier to recognize people and objects on the streets and sidewalks.
- Reduced Glare -- It is easy to aim LEDs to shine light where it should be and to avoid shining it where it is unwanted.
- Long Life -- LED lighting has an extremely long life which reduces overall maintenance costs.

Most of the lights we're using range from 23 watts to 50 watts. They emit a warm, yellow light at 3000K and are *Dark Sky* compliant.

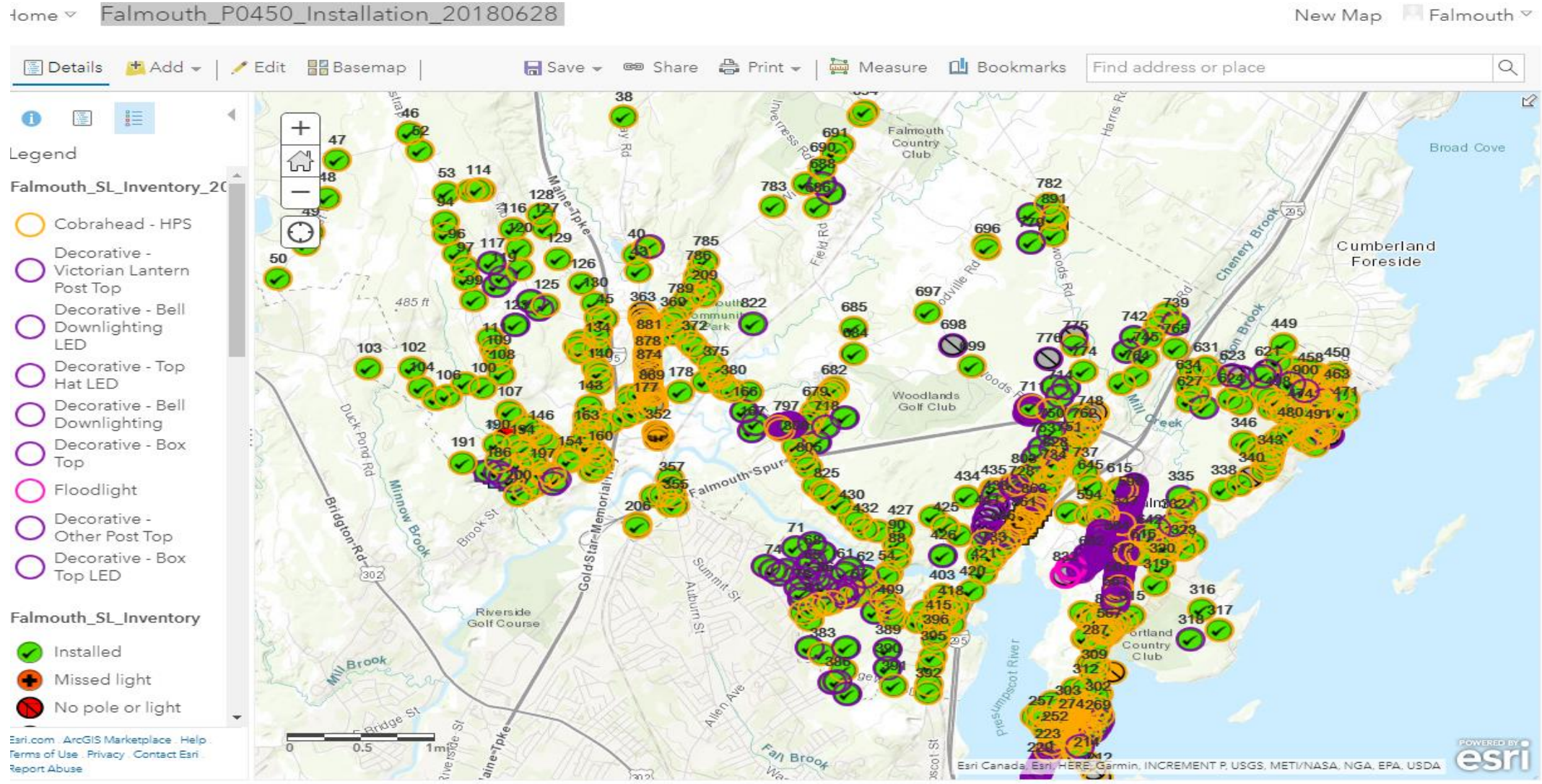
WWW.PORTLANDMAINE.GOV



City of Portland Streetlight Installation



Falmouth Street Light Installation



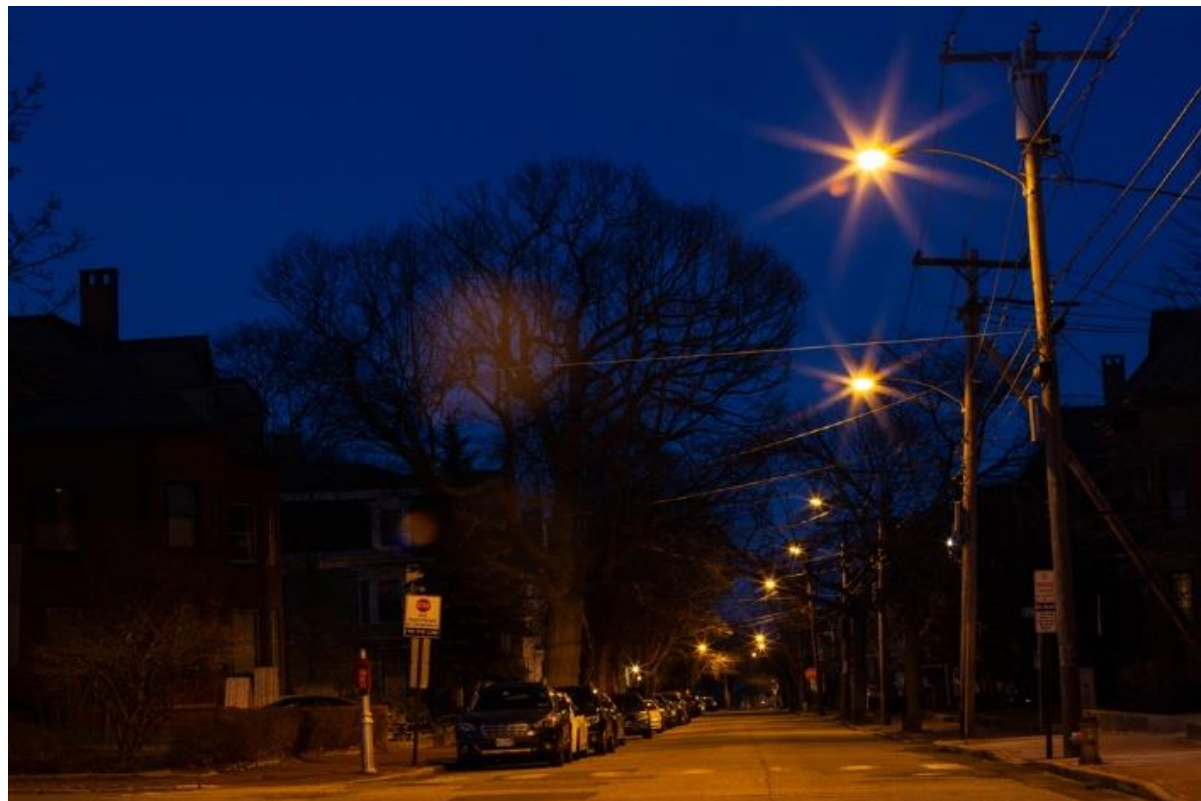


Before



After

Emery St., Portland



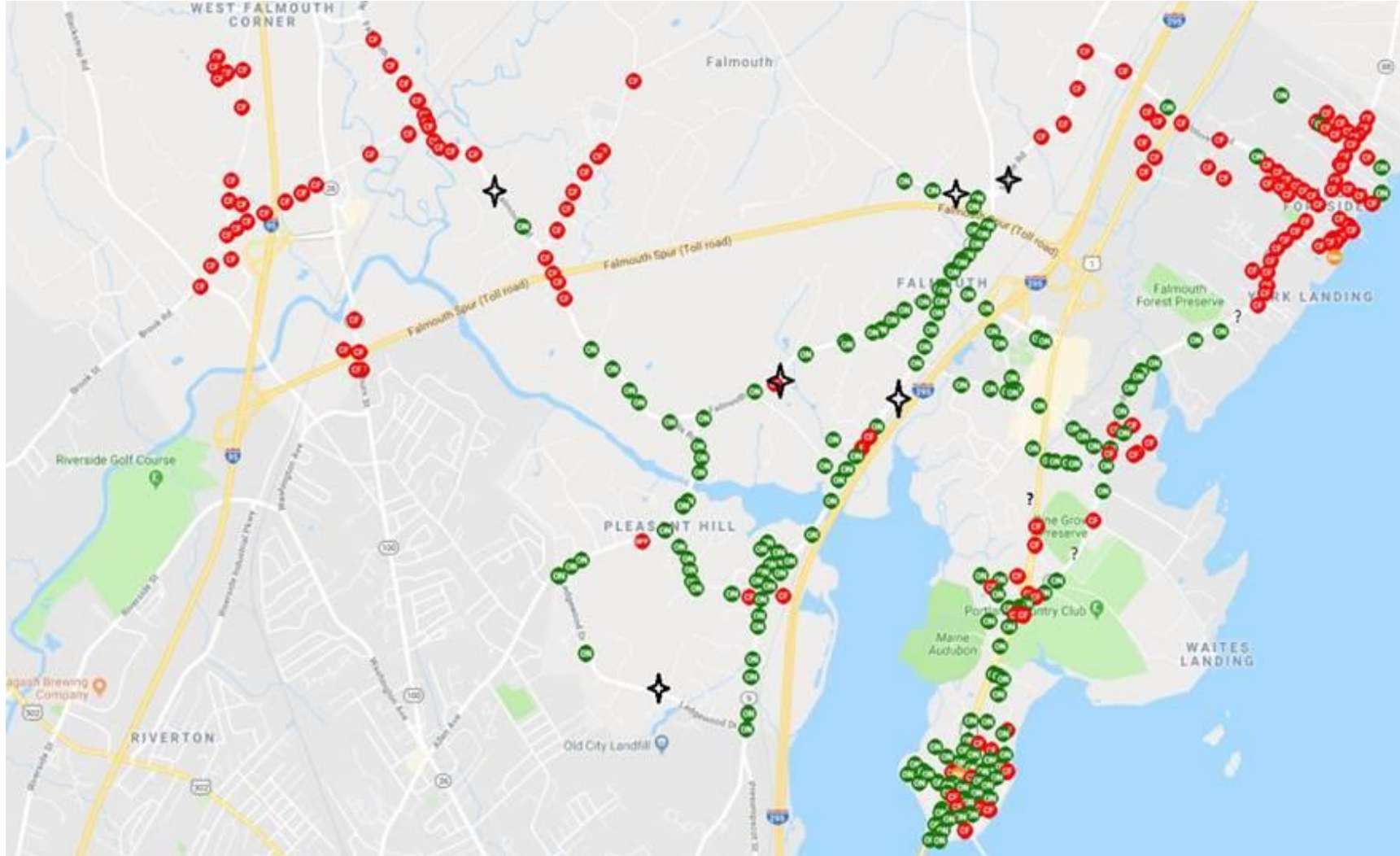
Before



After

Spring St., Portland

Advanced Controls, Falmouth



- CIMON controls work as a mesh network
- 2/3 of lights are communicating to gateway
- 1/3 are not because of communication gaps >1,700 ft. (stars on the map)
- Repeaters will address the communication gaps, still work in progress
- Have dimmed down lights in parts of Town to assist in establishing policy going forward

Advanced Controls, Public Wi-Fi Portland



Pilot Program

Two locations in the heart of the Old Port

Morrill's Corner Surtrac Traffic Control, Portland



- Main bottleneck for east/west commute
- System sits on top of existing control and sensor equipment
- Wait time at signals reduced by more than 20%
- Will be deploying along the Forest Ave Corridor

City Hall LED exterior lighting







Questions?