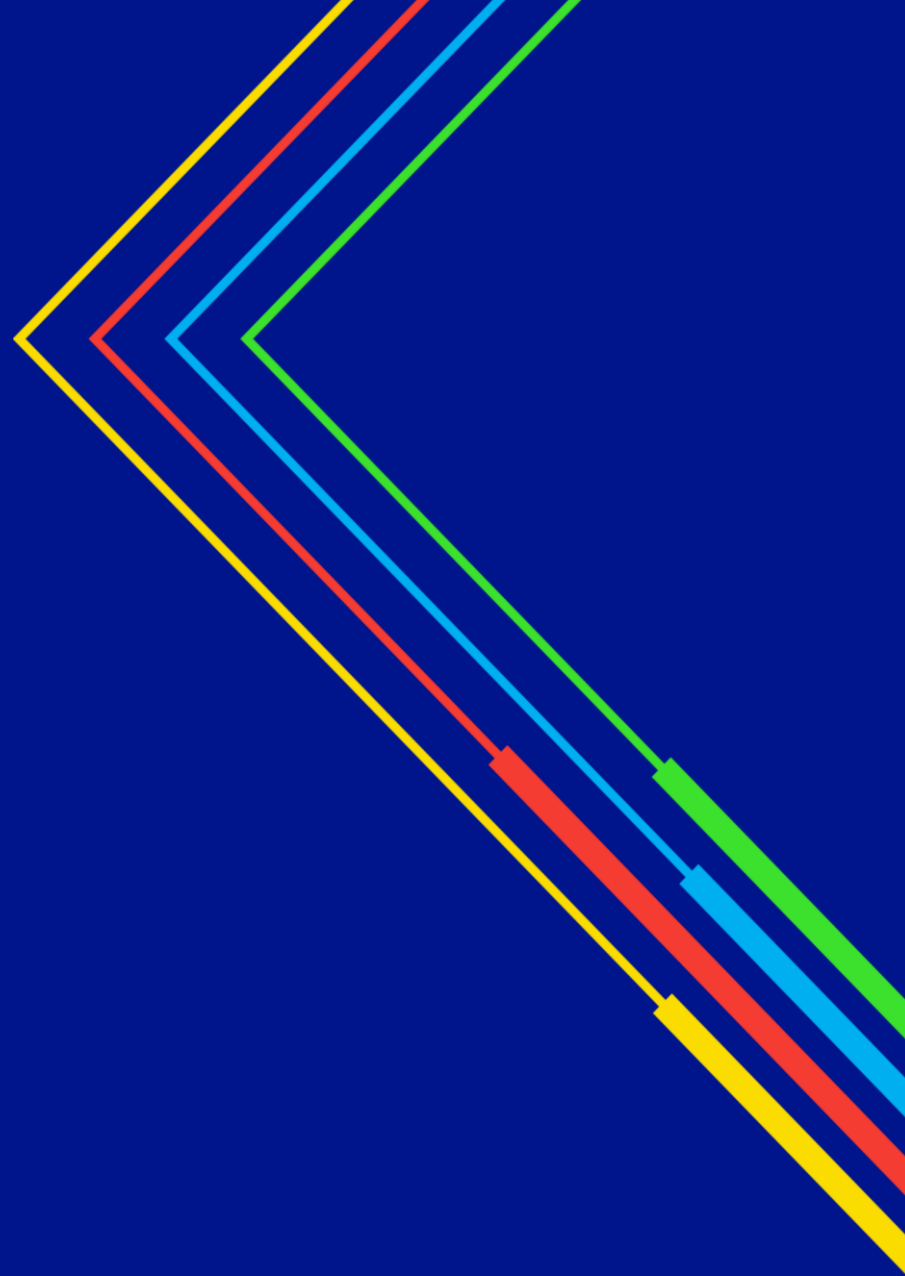


# Energy Efficiency Targets

**2021 – 2023**  
March 19, 2020

national**grid**



# Least Cost Procurement and Prudence and Reliability

## LCP Law:

**RI Gen L § 39-1-27.7** (a)(2) *“Least-cost procurement, which shall include procurement of energy efficiency and energy conservation measures that are prudent and reliable and when such measures are lower cost than acquisition of additional supply, including supply for periods of high demand.”* ([Link](#))

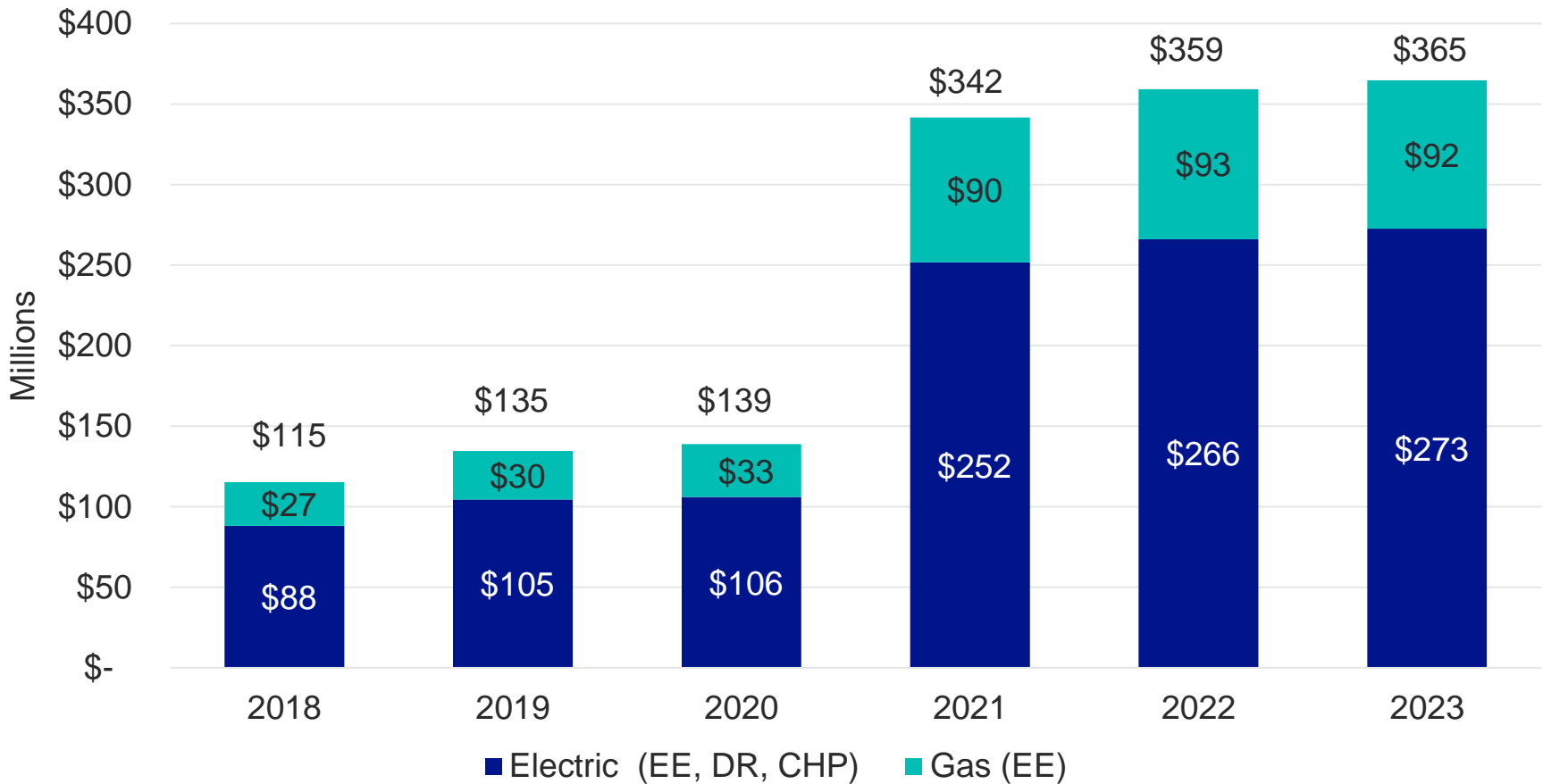
## Current LCP Standards:

Does not clearly address how the Council’s Targets should incorporate prudence and reliability, however past targets have been built from bottom up and implicitly taken into account cost and other factors. National Grid’s plans must include prudence and reliability. ([Link](#))

## PUC Staff Proposed Revision to the LCP Standards:

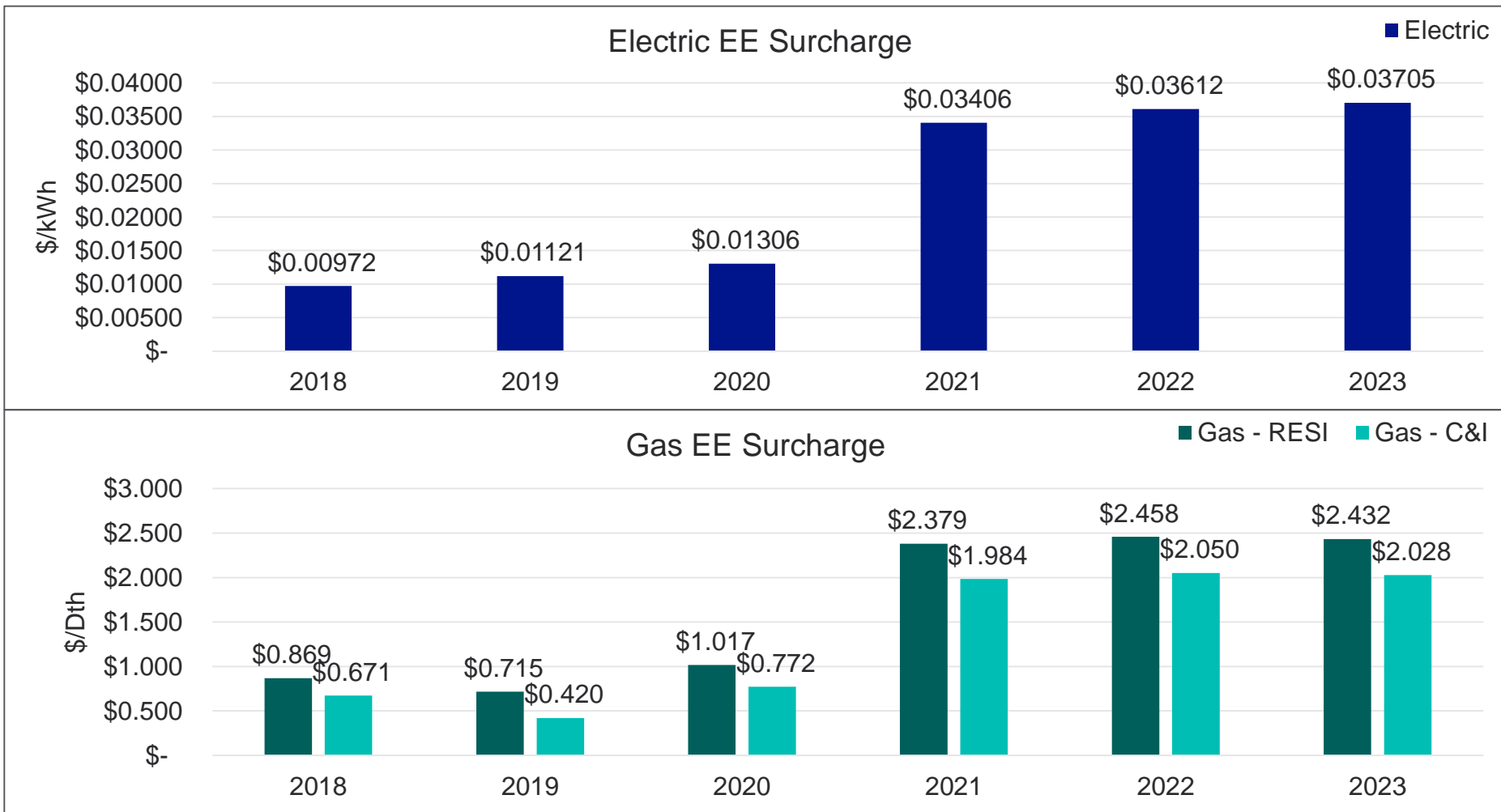
Chapter 2 Three-Year Least-Cost Procurement Report, Energy Efficiency and Conservation Procurement Targets (2.3 A. i.): *“The Report shall provide discussion of how the savings targets are cost-effective, reliable, prudent, environmentally responsible and less than the cost of supply.”* ([Link](#))

# Historical Budgets and Dunsky Max Budgets



**All-in budgets (EE, DR, CHP) projected to increase 246% from 2020 to 2021 in Max Scenario**

# Historical EE Surcharge and Dunsky Max

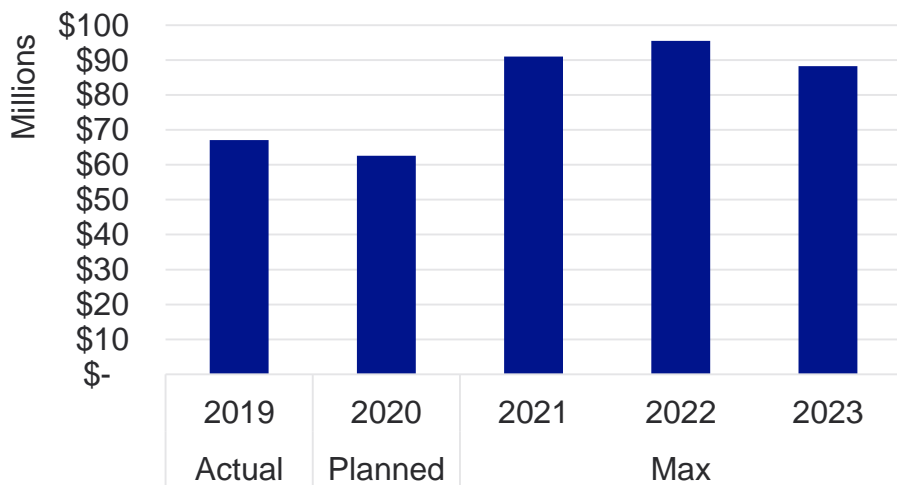


**Max-level targets & budgets could lead to significant increases in EE surcharge from '20 to '21: 261% electric, 234% gas resi, 257% gas C&I**

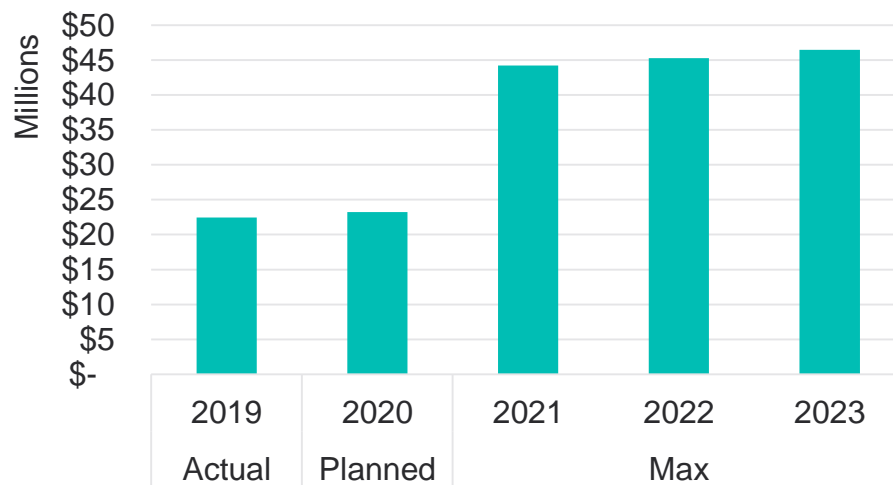
## Lower Bound Estimate of Incentives in Max Scenario

- Estimated forward-looking per-unit-savings incentive costs by removing the residential lighting program savings and incentives from the 2019 program
  - As residential lighting opportunities diminish, the cost of each unit of savings will increase very quickly in the near term
- Applied the \$ incentives/unit savings to Dunsky’s Max Scenario to estimate theoretical lower bound on cost increases to get to Max Scenario

Electric Incentive Spend



Gas Incentive Spend



**Incentive spend could increase at least ~45% (electric), ~90% (gas) from 2020 to 2021 to reach Max scenario targets**

# Measure Scaling in Max Scenario

- Achieving max scenario savings would require top measure savings to immediately scale by large volumes:

Fuel	Sector	Measure	Rank in Dunsky Results (Max 2021)	2020 Planned Annual Savings (MMBtu)	2021 Dunsky Max Annual Savings (MMBtu)	Increase
Gas	Resi & IE	Wi-Fi Thermostat	#2 Resi/IE Measure	12,207	58,561	480%
	Resi & IE	Gas Furnace	#5 Resi/IE Measure	2,558	39,920	1561%
	C&I	Gas Boilers	#1 C&I Measure	6,992	70,304	1006%

Fuel	Sector	Measure	Rank in Dunsky Results (Max 2021)	2020 Planned Savings (kWh)	2021 Dunsky Max Savings (kWh)	Increase
Electric	Resi & IE	Smart Strips	#3 Resi/IE Measure	1,418,806	6,963,392	491%
	Resi & IE	Mini-Split Replacing Electric Resistance	#5 Resi/IE Measure	445,858	4,129,328	926%
	C&I	Heat Pump Replacing Electric Resistance	#5 C&I Measure	35,784	6,340,041	17718%
	C&I	Food Service Equipment	#7 C&I Measures	56,903	4,295,277	7548%

**Measure scaling from 2020 to 2021 Max results could require year-over-year scaling for some key measures from ~400% to ~18,000%**

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