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AN EXELON COMPANY

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ComEd Lighting Controls

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Agenda

1. Introduction
2. ComEd EE Plan 6 Lighting Control Goals
3. ComEd EE Program Design
   - Lighting Controls Measures
   - Historical Participation & Progress to Goal
   - Tactics/Initiatives
   - Market Feedback
4. Future Plan/Outlook

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Introduction

Introduction
Lighting Controls Presentation Team

1. Jim Fay (ComEd)
2. Sanjyot Varade (Resource Innovations)

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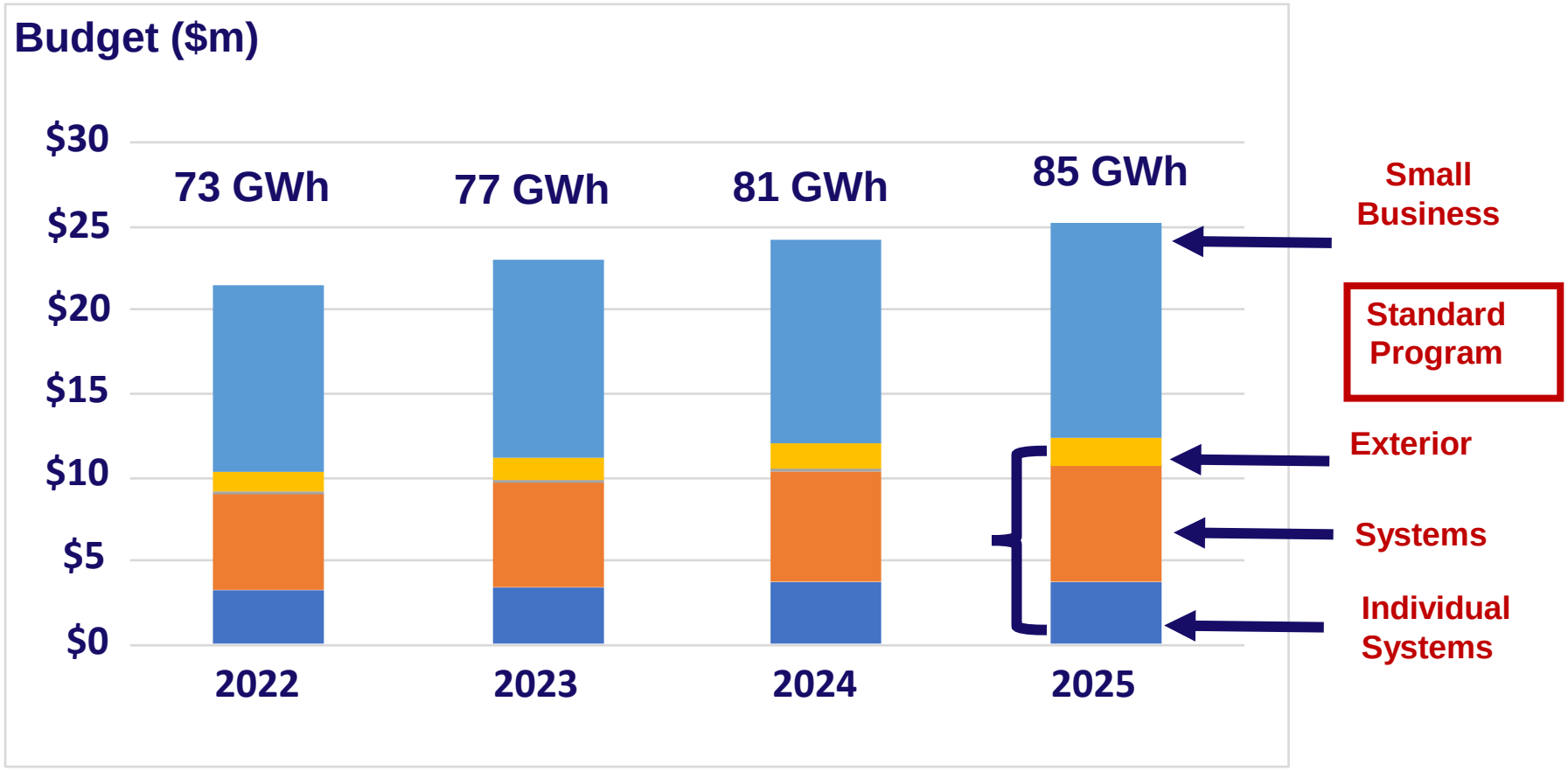
ComEd EE Plan 6 Lighting Control Goals

ComEd EE Plan 6 Lighting Control Goals

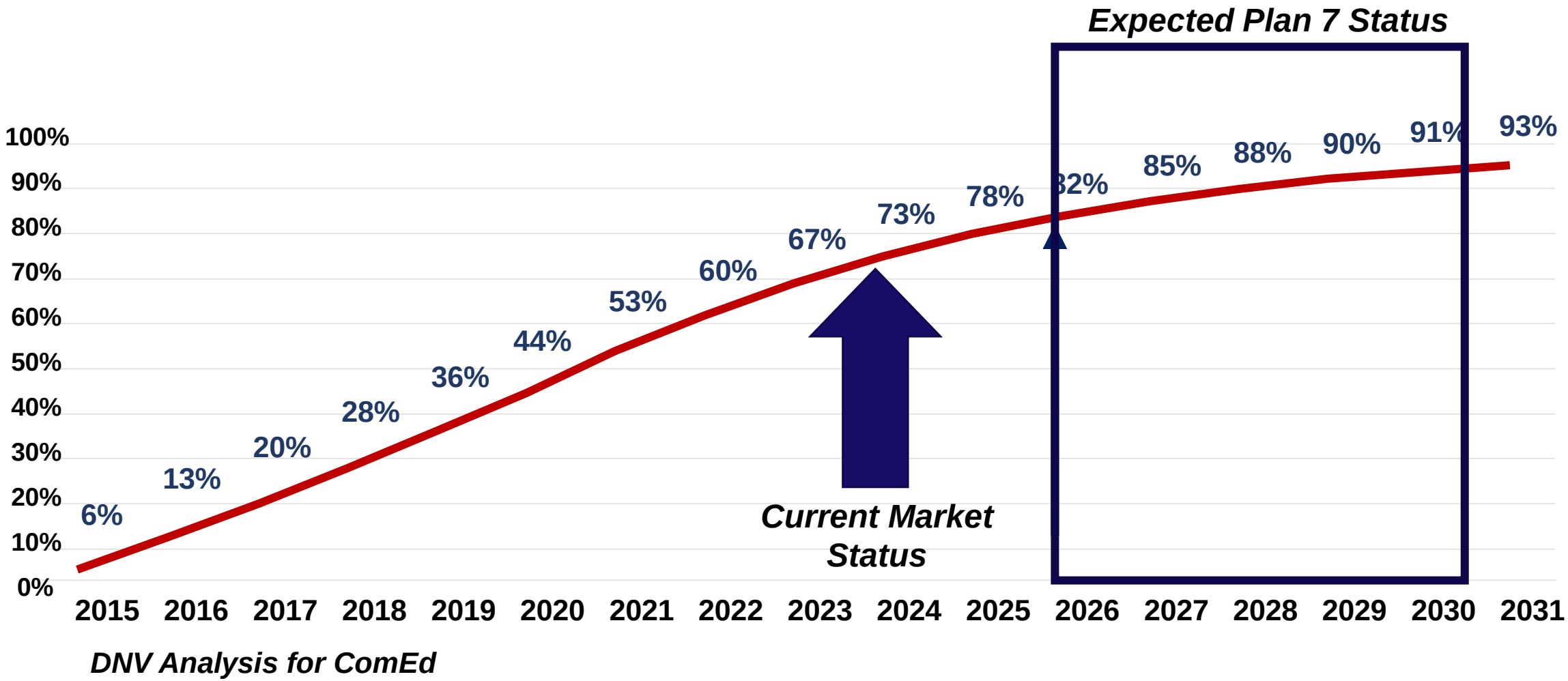


Commercial Lighting Controls
Looking Backward to Plan 6 (2022-2025) and Forward to Plan 7 (2026-30)

- **Since Plan 6 (December, 2020):**
  - **ComEd has invested in lighting controls market development**
  - **Experimented with increased controls incentives**
  - **Kept SAG informed through NLC-targeted calls**
- **Observations & NLC Experience**
  - **Barriers remain to NLC**
  - **NLC savings are not as cost-effective as LED Lighting**
  - **As LED fixtures approach saturation, fewer opportunities to add controls**

Market Saturation of Commercial Sector LED

ComEd Service Territory



DNV Analysis for ComEd

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ComEd EE Program Design

ComEd EE Program Design
Lighting Controls Measures

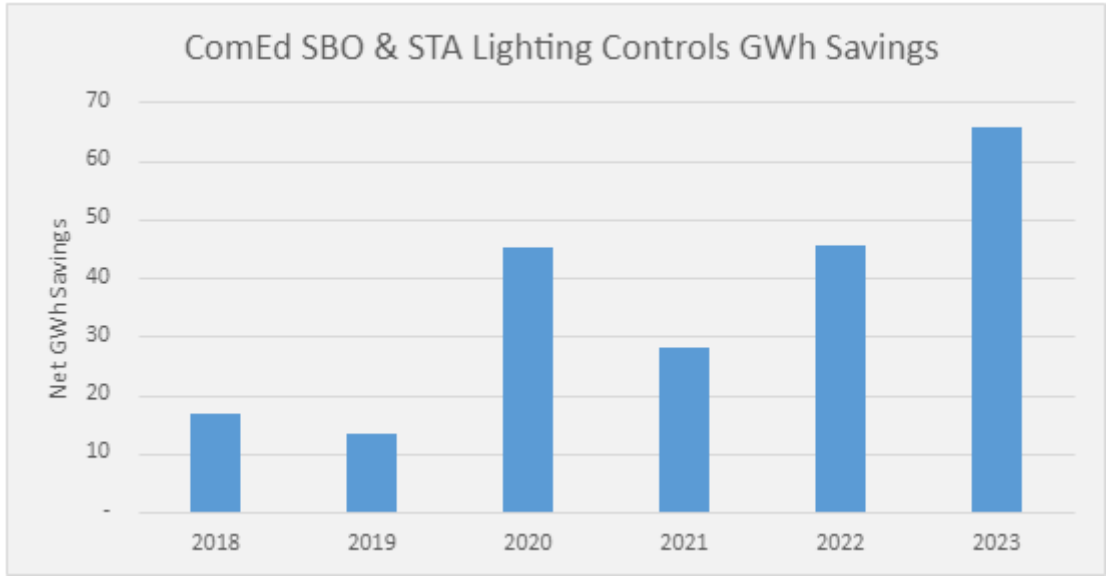
- ComEd provides lighting control incentives through two main programs:
  - Standard Offering – Geared towards mid-size and large customers
  - Small Business Offering – Increased incentives for customers with peak demand below 400 kW (private and public)
    - Note: For 2023, SBO customer eligibility was increased from 200 kW to 400 kW (private)
- Lighting Control Measures
  - Networked Lighting Controls, baseline with controls
  - Network Lighting Controls, baseline without controls
  - Remote/Fixture mounted Occupancy Sensors and Vacancy Sensors
  - Daylighting Controls
  - Occupancy Sensors + Daylighting Controls
  - Dimming Controls
  - Photocells
  - Timeclocks
  - Photocells + Timeclocks

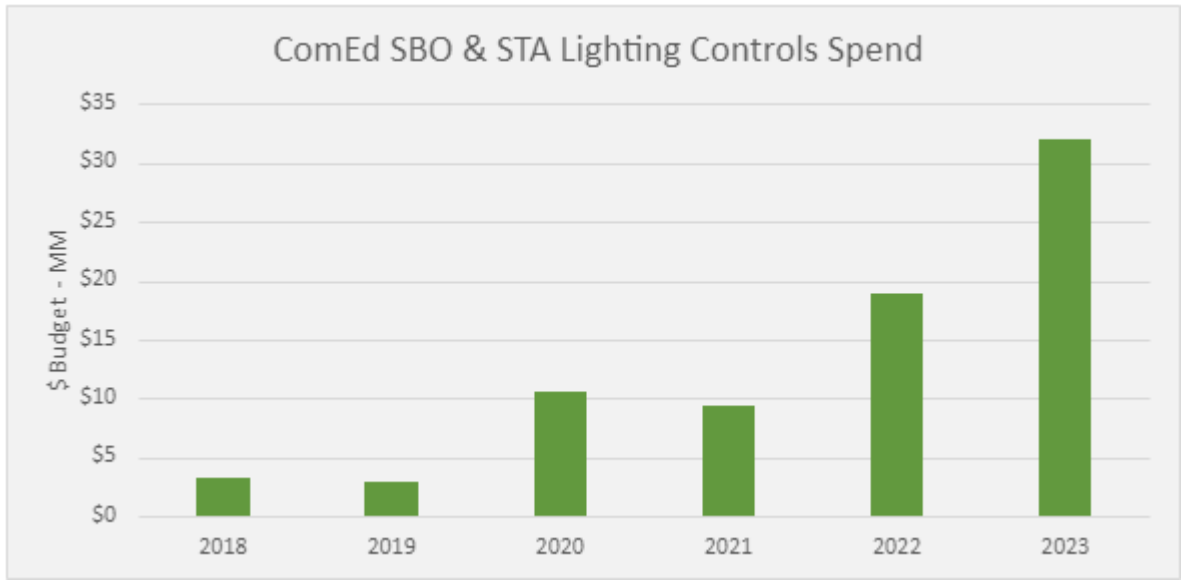
ComEd EE Program Design
Lighting Controls Measures – 2024 Incentive Levels

- Standard Offering (STA) 2024 Measure Incentives
  - Networked Lighting Controls
    - Baseline Without Controls: $0.50/Watt Controlled
    - Baseline With Controls: $0.40/Watt Controlled
    - Additional $0.35/Watt Reduced if new lighting
  - Occupancy Sensors, Vacancy Sensors, Daylighting Controls
    - $0.15 - $0.25/Watt Controlled
  - Occupancy Sensors plus Daylighting Controls
    - $0.30/Watt Controlled
  - Time Clocks for Lighting
    - $0.03/Watt Controlled
  - Photocells
    - $0.08/Watt Controlled
  - Photocells plus Time Clock
    - $0.09/Watt Controlled

- Small Business Offering (SBO) 2024 Measure Incentives
  - Networked Lighting Controls
    - Baseline Without Controls: $0.60/Watt Controlled
    - Baseline With Controls: $0.50/Watt Controlled
  - Occupancy Sensors, Daylighting Controls, Dimming Controls
    - $20 - $35/Unit
  - Occupancy Sensors plus Daylighting Controls, Occupancy Sensors with Dimming Controls
    - $20 - $25/Unit
  - Time Clocks for Lighting
    - $0.25/Watt Controlled
  - Photocells
    - $0.20/Watt Controlled
  - Photocells plus Time Clock
    - $0.35/Watt Controlled

ComEd EE Program Design
Historical Participation – All Lighting Controls



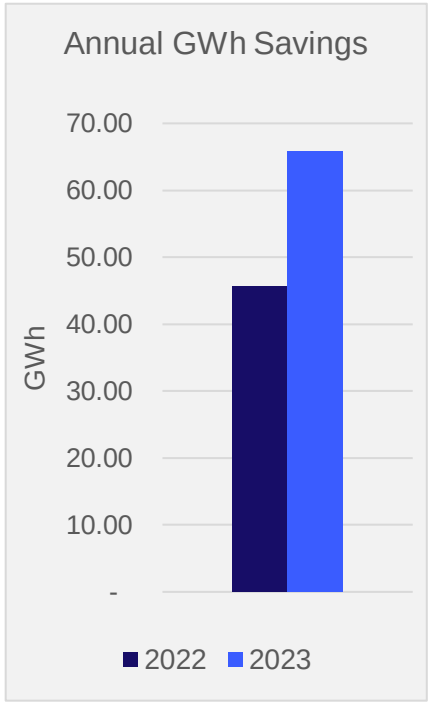


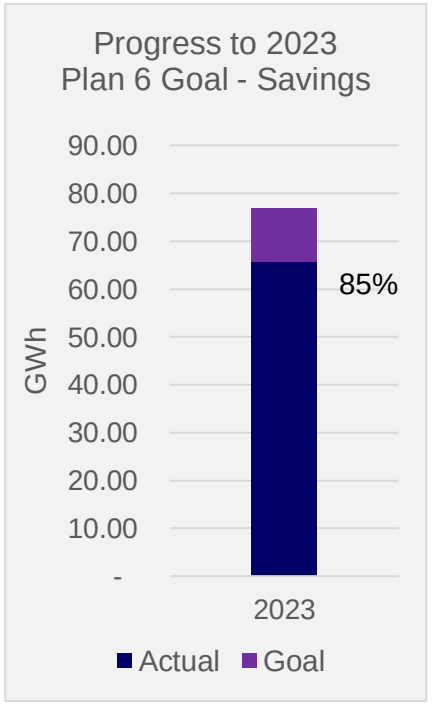
- Insights:
  - Lighting controls participation has continued to increase
    - Note: 2021 savings decrease was largely due to changes in measure savings calculations and a decrease in non-NLC lighting control participation
  - Additional campaigns and incentives employed in 2023 to further promote Networked Lighting Controls measures
    - Overall lighting controls participation increased by almost 45% from 2022 to 2023
    - Overall lighting controls spend increased by nearly 70% from 2022 to 2023

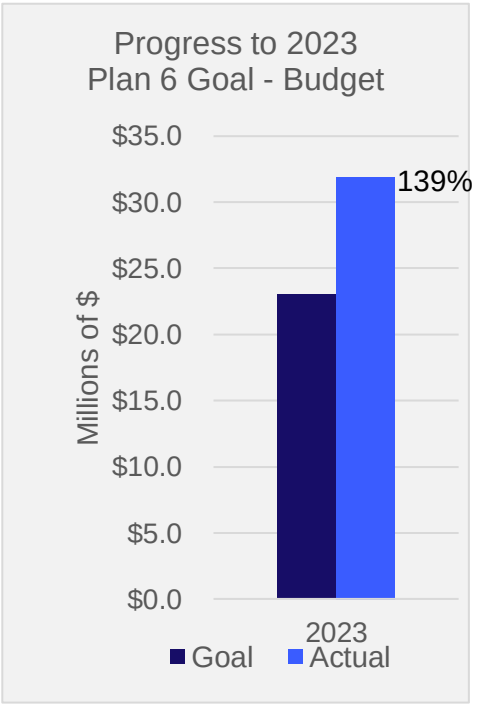
*Values for 2018-2021 have been updated since the presentation in April 2022

ComEd EE Program Design
Progress to Goal – All Lighting Controls

- ~45% increase in savings from 2022 to 2023
- 2023 Plan 6 Goals:
  - 77 GWh
  - ~$23 Million
- 2023 Results:
  - ~ 66 GWh
  - ~$32 Million
- Insights:
  - Achieved 85% of the savings goal
  - Exceeded the spend goal by $8.9M
    - 2023 Campaigns and Promotions
    - Shift to NLCs continues
  - Increased Incentives

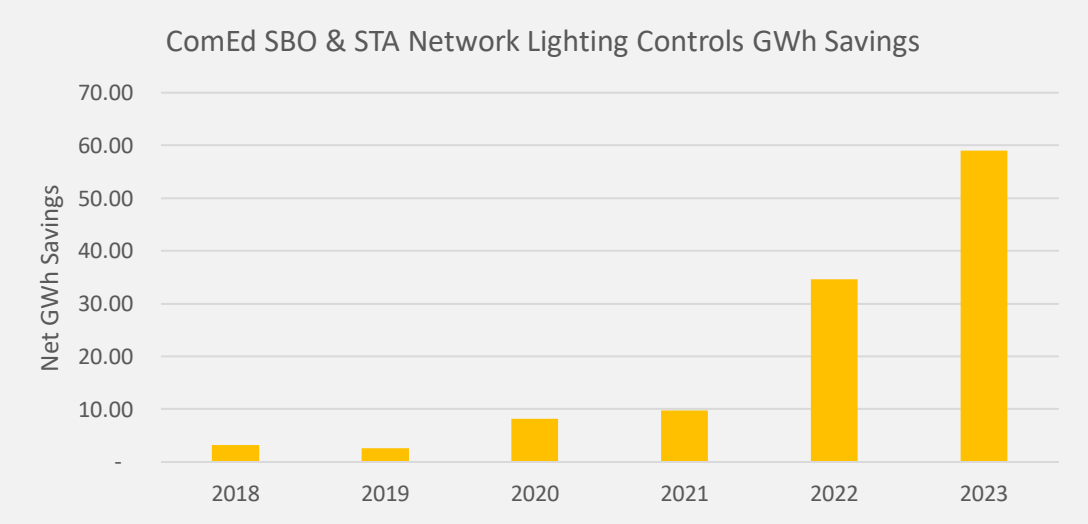


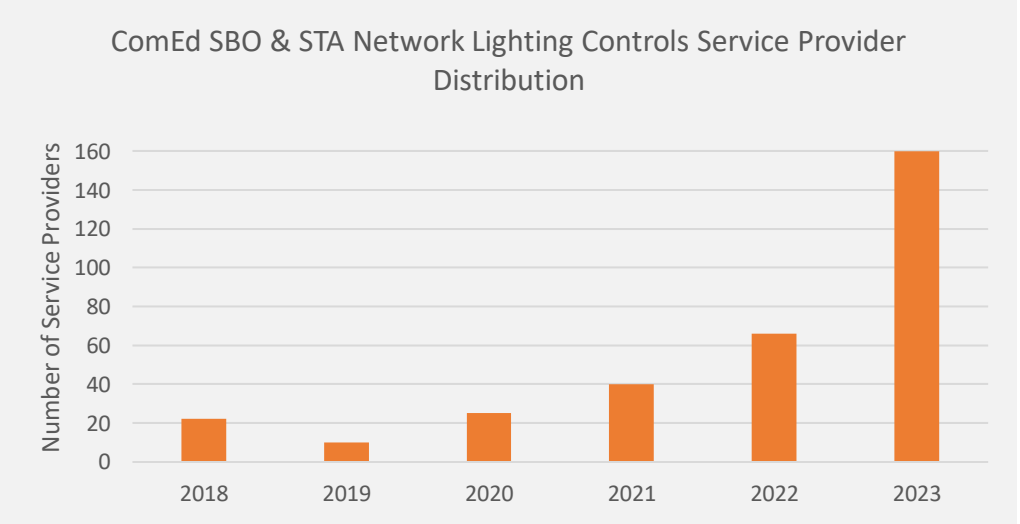




ComEd EE Program Design
Historical Participation – NLC

Year	Net MWh Savings	Incentives	Projects	Energy Efficiency Service Providers (EESPs)
2018	3,183,698.12	$662,109	49	22
2019	2,632,093.58	$494,311	64	10
2020	8,101,466.50	$1,583,516	74	25
2021	9,692,951.00	$3,097,096	372	40
2022	34,629,883.25	$16,461,334	1823	66
2023	58,997,851.62	$30,328,636	2911	160





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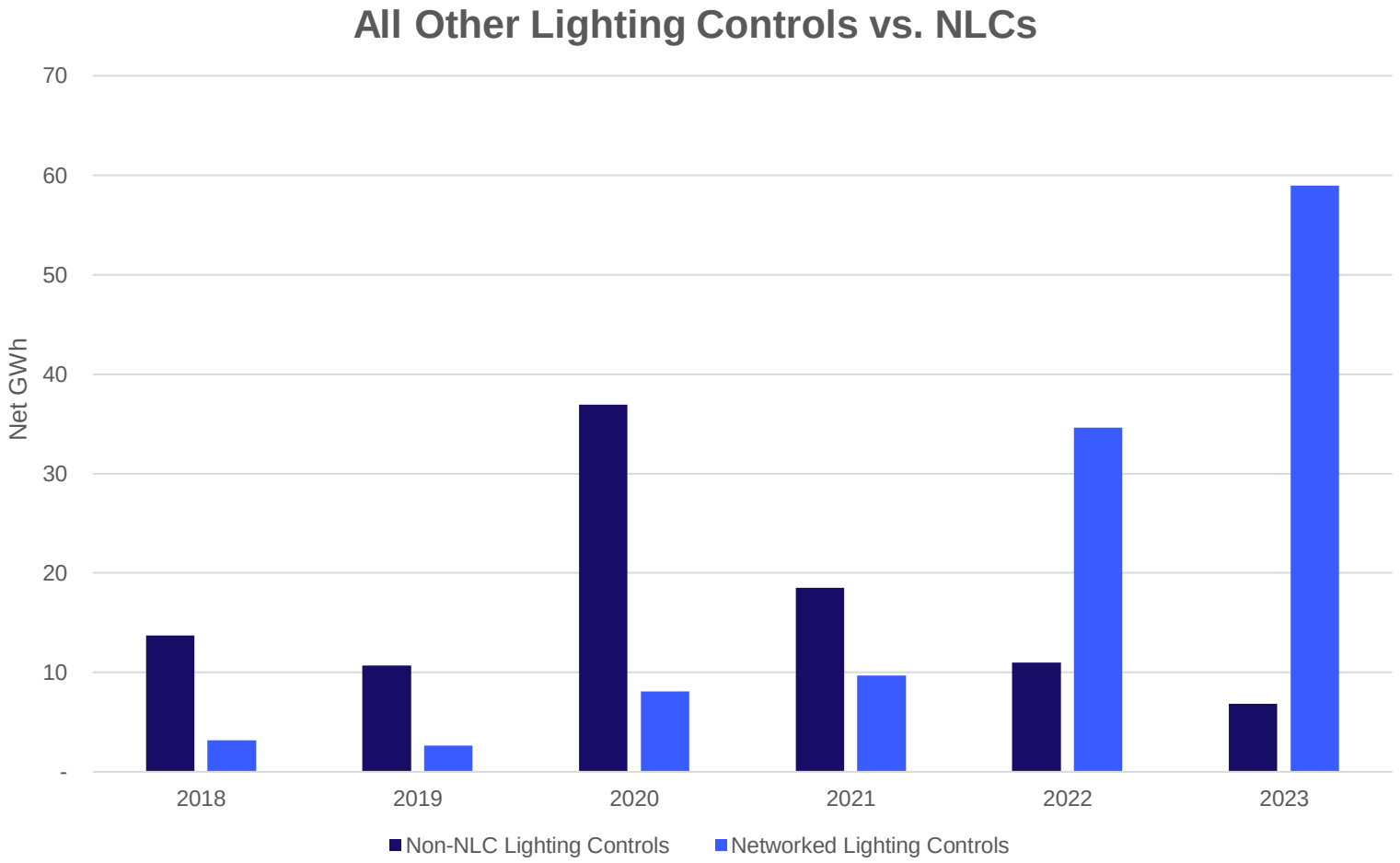
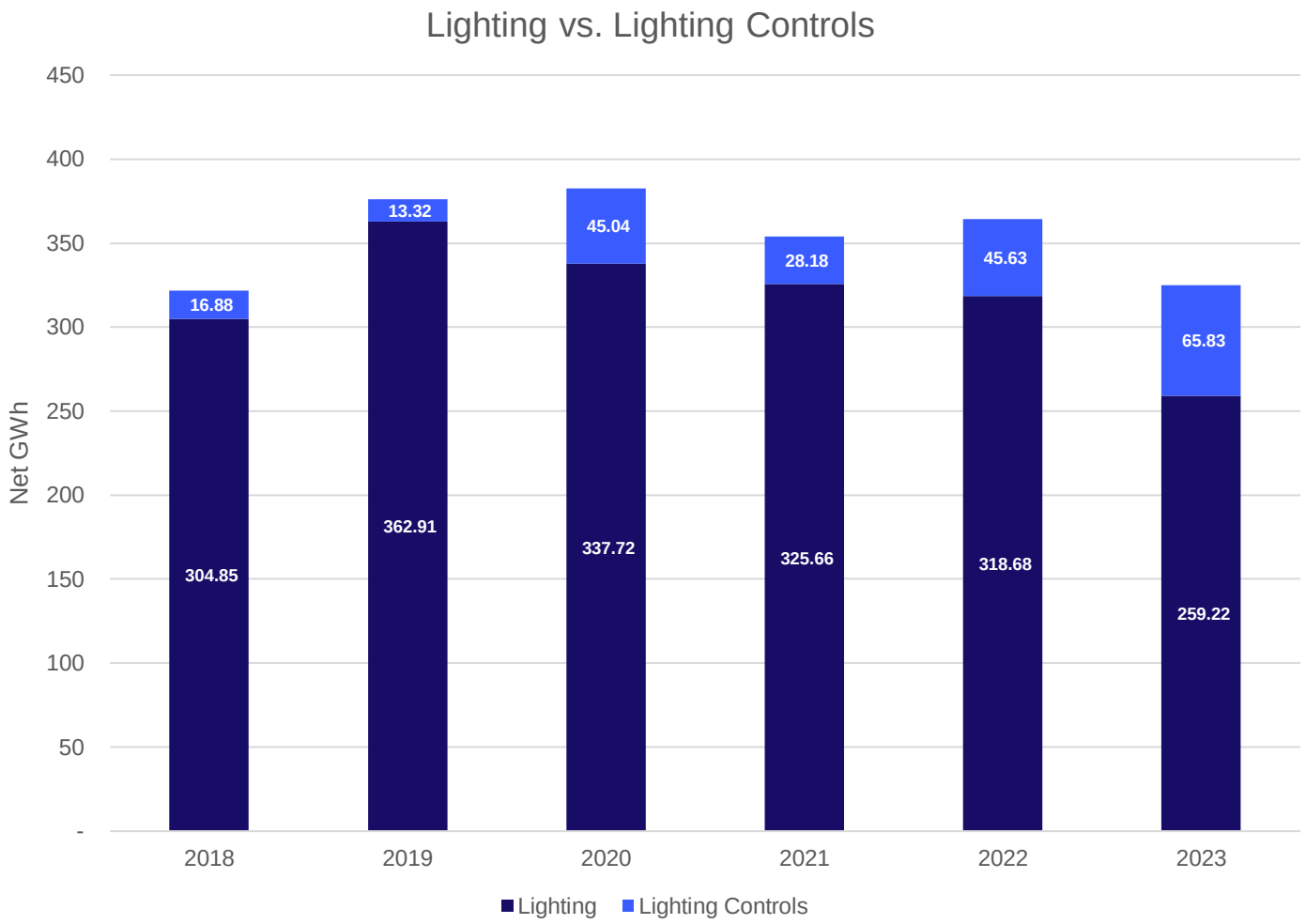
ComEd EE Program Design
Historical Participation – Lighting Control Type



- Insights:
  - Shift in market from non-NLC controls to NLCs
  - Steady increase in NLCs until 2023, where we saw a large increase in participation
  - This illustrates NLCs drove 89% of all lighting controls savings in 2023

ComEd EE Program Design
Historical Participation – Lighting vs. Lighting Controls



- Insights:
  - Year over year increase in savings achieved from lighting controls
  - Larger percentage of lighting projects also included controls
  - In 2023, savings from lighting controls represented 20% of all lighting and lighting controls project savings

ComEd EE Program Design
Historical Participation – Projects

- **NLC project volume increased by 60% between 2022 and 2023, with the bulk of the increase from small and medium size businesses**
- **Warehouse, Manufacturing, and Schools/Outdoor Sports Facilities are the top three participating facility types**
- Disadvantaged Community Public School (SBO):
  - $140,000 project to implement LED upgrades (TLED, indoor/outdoor new fixtures) with Networked Lighting Controls
  - 322,395 kWh of savings, 55,333 kWh from NLCs. This project highlights how public facilities are increasingly interested in NLCs in addition to lighting upgrades
- Disadvantaged Community Warehouse - WP Carey Dart Container
  - $617,800 project to upgrade interior and exterior lighting to LED's. In addition to fixture upgrades existing standalone interior lighting controls were also upgraded to Networked Lighting Controls
  - 1,673,437 kWh of savings,474,272 kWh from NLCs
  - Occupancy, dimming, zone control and scheduling strategies implemented

ComEd EE Program Design
Tactics in 2024 - Lighting & Lighting Controls

- Measure and Incentive Updates
  - Updated lighting product eligibility to the latest version of DLC (DLC V5.1) for both programs
  - Scaled back our incentive and campaign promotions to align better with Plan 6 spend goals
  - ComEd Standard offering allows LED to LED replacements since 2023
    - This in turn allows customers to upgrade older LEDs with limited control capabilities with newer LEDs and incorporate NLCs
- EESP Focused Updates
  - Number of Service Providers participating in NLC measures increased by **142%** in 2023
  - Both offerings continue to provide:
    - Technical Trainings
    - Program Support including Roundtables
    - Fact sheets and case studies
    - Newsletter Spotlight
    - Customer Webinars

ComEd EE Program Design
EESP/Market Feedback

- Networked Lighting Controls incentives were one of the primary drivers for a significant budget impact in 2023
- While elevated incentives made selling projects easier, EESPs were not opposed to lowering incentives to preserve budget over the full program year
  - Both offerings reduced NLC incentives mid year in 2023 and later into 2024
- EESPs anticipate LED saturation and continue to pivot towards NLCs, other lighting controls, and LED to LED upgrades

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Future Plan/Outlook

Future Plan/Outlook
Next Steps

- Continued Market Education
  - Increase in awareness
  - Promotion of NLC Measures
- Lessons Learned & Keys to Success
  - Continuous EESP Engagement
    - Incentive design
    - Trainings
    - Feedback

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Thank you

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