

ComEd Energy Efficiency Program



CY2018

FIRST QUARTER REPORT



PARTNER OF THE YEAR **PARTNER OF THE YEAR** **PARTNER OF THE YEAR** **PARTNER OF THE YEAR** **PARTNER OF THE YEAR** **PARTNER OF THE YEAR**
Sustained Excellence **Sustained Excellence** **Sustained Excellence** **Sustained Excellence** **Sustained Excellence** **Sustained Excellence**

Data presented in this document is based on preliminary results and is subject to revision and evaluation adjustments. ComEd Energy Efficiency is funded by ComEd customers in compliance with Illinois Public Act 95-0481.

Table of Contents

Portfolio Summary.....	3
Residential Programs.....	4
Income Eligible Programs.....	8
Business Private Programs.....	11
Business Public Programs.....	17
Voltage Optimization & Market Transformation Programs.....	22
Emerging Technology.....	23
Marketing Education & Awareness.....	25
Stipulations.....	26
Total Resource Cost (TRC).....	27
Residential Programs – Monthly Charts.....	28
Income Eligible Programs – Monthly Charts.....	30
Business Private Programs – Monthly Charts.....	31
Business Public Programs – Monthly Charts.....	34
Voltage Optimization – Monthly Chart	37

Portfolio Summary

298,587

Actual Net MWh YTD

1,894,738

CY2018 MWh Forecast

1,713,451

CY2018 MWh Filed Goal

\$64,458,808

Actual Spend YTD

\$336,157,179

CY2018 Long-Range Plan

\$351,633,881

CY2018 Filed Budget

PORTFOLIO

- Through Q1, the portfolio has achieved 16% of its CY2018 forecast of 1,894,738 MWh and 17% of its CY2018 filed goal of 1,713,451 MWh.
- Since its inception in 2008, the ComEd Energy Efficiency Program has saved ComEd customers over \$3.1 billion on their electric bills.

RESIDENTIAL PROGRAMS

- Through Q1, residential programs have achieved 22% of their combined CY2018 forecast of 613,147 MWh.
- Customers received over 30,000 rebates, recycled over 10,000 appliances, and received over 4,000 assessments in Q1.
- ComEd has collected and responsibly recycled more than 380,000 refrigerators and freezers since ComEd began to offer this service to our customers in June 2008.

INCOME ELIGIBLE PROGRAMS

- Through Q1, income eligible programs have achieved 5% of their combined CY2018 forecast of 84,154 MWh.
- Over 1,000 income eligible households participated in Q1.
- With a goal to complete 1,000 projects in the City of Chicago during CY2018, the Chicago Bungalow Association (CBA) has already received applications and has identified all of the projects and homes to carry the Single-Family Income Eligible program through the end of the year.

BUSINESS PRIVATE PROGRAMS

- Through Q1, business private sector programs have achieved 16% of their combined CY2018 forecast of 827.875 MWh.
- Over 2,000 business private sector projects were completed in Q1, with approximately 1,000 of those completed by the Small Business program.

BUSINESS PUBLIC PROGRAMS

- Through Q1, business public sector programs have achieved 12% of their combined CY2018 forecast of 192,639 MWh.
- Nearly 200 business public sector projects were completed in Q1.
- A "New Customer Bonus" was released for public sector projects to spur participation in the Standard program in the first half of the year and begin to smooth out the historical hockey stick. As part of the bonus, public sector customers can receive a 20% bonus for projects completed and a final application received by May 31, 2018.

Residential Programs

Home Energy Reports

Overview: The Home Energy Report provides select residential customers with information on how they use energy within their households. Reports and the online portal include usage comparison to that of similar, nearby households, personalized energy efficiency advice, program promotions, and application of behavioral principles and social norms to drive adoption of energy efficient behaviors.

- **66,385 MWh savings achieved (23% of forecast)**
- The program is reaching 1.7 million participants with a low opt-out rate and high customer satisfaction through customer inquiries and a high digital communication engagement rate.
- There continues to be a steady volume of approximately 200 customer inquiries per month. Each customer inquiry is responded to personally and promptly. A portion of customer inquiries also require technical support and coordination with our engineering group.

Lighting Discounts

Overview: The Lighting Discounts Program provides instant in-store discounts to ComEd residential customers at participating retail stores on select ENERGY STAR® certified lighting: LEDs, LED trim kits, and LED integrated fixtures.

- **50,354 MWh savings achieved (22% of forecast) based on 2.2 million units sold**
- Over 2.2 million LEDs, LED trim kits, and LED integrated fixture were sold in Q1.
- Field representatives conducted 106 in-store lighting demonstrations and trained more than 3,000 store associates, including appliance retailers.

Fridge and Freezer Recycling

Overview: The Fridge and Freezer Recycling Program provides ComEd customers free pickup and recycling of older, working refrigerators and freezers from residential customer homes. In addition to free pickup, customers receive a \$50 dollar incentive for fridge and freezer units and \$10 for AC units when collected in conjunction. Customers can enroll via phone, following the prompts on the

ComEd® Energy Efficiency Program hotline at 855-433-2700, or through the ComEd website.

- **4,748 MWh savings achieved (22% of forecast) based on 10,371 pickups**
- Over 10,000 appliances were recycled in Q1.
- Approximately 98% of customers are very satisfied with the convenience of the program and the professionalism crews have shown out in the field.
- The program's best practices were presented during an EPA webinar for utility Responsible Appliance Disposal (RAD) partners in March. RAD representatives commended the program for the recent effort in providing the public with customer friendly information on ComEd's fridge and freezer recycling practices.
- ComEd has collected and responsibly recycled more than 380,000 refrigerators and freezers since we began to offer this service to our customers in June 2008.

Appliance Rebates

Overview: The Appliance Rebate Program provides rebates for qualifying ENERGY STAR® appliances sold through retail channels to ComEd residential customers. Eligible measures include the following select ENERGY STAR® certified appliances and products: air purifier, clothes washer, electric clothes dryer, refrigerator, freezer, dehumidifier, variable speed pool pump, room air conditioner, ventilation fan, water dispenser, smart thermostat, and advanced power strip.

- **4,449 MWh savings achieved (14% of forecast) based on 26,067 appliance rebates issued**
- Starting in CY2018, a \$25 rebate is available on the purchase of an ENERGY STAR® certified dehumidifier.
- The program launched a marketing awareness campaign that included TV, radio, cinema, out of home (transit ads), and digital ads.

Home Energy Assessment

Overview: Offered in partnership with Nicor Gas, North Shore Gas, and Peoples Gas, the Home Energy Assessment is a free walkthrough assessment with an energy advisor that determines the ways energy is used in the home. Customers receive personalized energy-efficiency recommendations, and the following

Residential Programs

energy-saving products are installed for free: ENERGY STAR® certified LEDs, programmable thermostats, WaterSense® certified showerheads, faucet aerators, and hot water pipe insulation. Advanced Power Strips are provided for free but no longer installed. Ecobee4 and Ecobee3 Lite smart thermostats are also available for purchase at a discount and include free installation.

- **5,023 MWh savings achieved (20% of forecast) based on 3,793 assessments**
- A total of 3,793 customers received assessments in Q1.
- Starting in CY2018, program implementation has been consolidated under one implementation contractor who is responsible for the program across the entire ComEd service territory regardless of the gas utility.
- The program now offers several additional LED lamp types including 3-way LED lamps and medium-based mini-LED floods.
- Advanced Power Strips are no longer installed, but are left behind with instructions for installation.
- An additional smart thermostat option was added. There is now the \$150 ecobee4 and the \$75 ecobee3lite available for purchase during the assessment which includes free installation.
- The program is receiving positive responses from customers after their appointments with a customer satisfaction score of 4.8 out of 5.
- Savings per home are higher than expected with significant opportunities being found in LED installations and smart thermostats.

Heating & Cooling Rebates

Overview: The Heating & Cooling Rebates Program promotes investment in long-term savings by providing rebates for the purchase and installation of high efficiency central air conditioners, air source heat pumps, ductless mini-split heat pumps, ECM furnace blower motors, heat pump water heaters, smart thermostats, and ground source heat pumps.

- **1,856 MWh savings achieved (18% of forecast) based on 4,770 rebates**
- Over 4,500 customers received rebates for energy efficient heating and cooling equipment, including contractor-installed smart thermostats, in Q1.
- The program has a new 'Most Efficient' tier for Central Air Conditioners and Air Source Heat Pumps: ≥18 SEER.

- Ductless mini-split heat pumps are no longer required to only supplement electric resistance heat or ducted air source heat pumps. Now, any qualified ductless mini-split heat pump is eligible for a rebate.
- Qualifying measures must be installed by ICC certified trade allies. The program has received positive feedback from trade allies on assistance with ICC-certification requirements and communications from the outreach team.
- An online Find a Trade Ally look-up tool is now available to customers at comedrebates.com/findatradeally. The program has received positive feedback from customs on the tool.
- Trade ally education opportunities in Q1 included free and discounted webinars, technical classes and Geothermal Alliance of Illinois (GAOI) certification testing.
- The trade ally network has increased from 176 trade allies at the end of 2017 to 205 trade allies at the end of Q1.

Weatherization Rebates

Overview: The Weatherization Rebates Program promotes investment in long-term savings by providing rebates for the purchase and installation of weatherization measures including air sealing, duct sealing, and attic and wall insulation. The program is offered jointly with Nicor Gas, North Shore Gas and Peoples Gas.

- **47 MWh savings achieved (6% of forecast) based on 185 projects**
- In Q1, a total of 185 customers received rebates for completing weatherization projects in the combined Peoples Gas, North Shore Gas and Nicor Gas service territories.
- Starting in CY2018, program implementation has been consolidated under one implementation contractor who is responsible for the program across the entire ComEd service territory regardless of the gas utility.
- Total number of approved weatherization contractors remained static as the program continues to have territory wide coverage for weatherization rebates.
- Participation in the Nicor Gas service territory continues to perform particularly strong due the focus of a trade ally, Elite Energy Efficiency, to complete projects in the Nicor Gas service territory.

Residential Programs

Multi-Family Energy Savings

Overview: In partnership with Nicor Gas, North Shore Gas, and Peoples Gas, the Multi-Family Energy Savings Program provides multi-family tenants and property owners and managers with a variety of ways to save electricity and natural gas. The program will serve as a “one stop shop” to generate energy savings throughout the property. After an initial assessment, immediate energy savings are generated by the direct installation of energy-saving products in both tenant and common area spaces. The program further provides trade ally installs of common area lighting measures.

- **813 MWh savings achieved (9% of forecast)**
- In Q1, the program completed 273 assessments, direct install work in 1,224 tenant units and 134 common area spaces, and 4 trade ally projects.
- Starting in CY2018, program implementation has been consolidated under one implementation contractor who is responsible for the program across the entire ComEd service territory regardless of the gas utility.
- Existing relationships with property management companies, along with robust outreach efforts during Q1, were used to generate a high level of demand for both direct install and trade ally projects.
- The closed network of trade ally partners was expanded to 15 for CY2018 to provide better coverage across the entire ComEd service territory.
- A new direct distribution method was introduced for Tier 1 advanced power strips and has led to an install rate of more than 30% through Q1.

Residential New Construction

Overview: In partnership with Nicor Gas, the Residential New Construction Program increases awareness and understanding among Home Energy Rating System (HERS) rating companies and home builders of the benefits of energy-efficient building practices with a focus on capturing energy efficiency opportunities available during the design and construction of new single-family homes. Incentives are provided to HERS-certified consultants that certify homes and builders who construct homes that are at least 20 percent more energy-efficient than what currently is required by the State of Illinois Energy Code. Incentives are also provided to RESNET/HERS-certified consultants for submitting homes to the program.

- **77 MWh savings achieved (13% of forecast) based on 150 homes**
- A total of 150 homes were completed in Q1.
- The program will complete its 5,000th home! To commemorate this milestone, the program worked with King’s Court Builders to feature one of their homes on social media and the Nicor trade-ally newsletter: <https://nicorgasrebates.com/community/RNC-5000-Homes>
- The program is currently forecasted to fall below goal. This is due to a recent update, including an update to the American National Standards Institute (ANSI) standard, that had a negative impact on savings per home.
 - The program team is currently in discussion with Navigant to gain approval for new measures and their TRM based savings which could be applied to the program.
 - Increased builder and rater outreach efforts will also help increase per home savings. Helping to facilitate adoption of higher performance practices will help move builders into higher rebate tiers, increasing electric savings.
 - In addition, the program is seeking out electric only projects as they typically produce six to eight times the kWh savings as a joint home.

Elementary Energy Education (Super Savers)

Overview: ComEd, Nicor Gas, North Shore Gas, and Peoples Gas have partnered to offer schools the opportunity to teach 5th grade students and their families how to use less energy at home. Students learn about valuable ways to save energy and money through in-class education. They also receive free take-home kits containing ENERGY STAR®-certified LEDs, faucet aerators, and other energy-saving products to install at home with their families.

- **2,055 MWh savings achieved (55% of forecast) based on 14,715 kits**
- The program continues to successfully collaborate with partnering gas utilities on co-branded materials, a web portal to support teacher enrollment and student resources, and vendor and program management.

Middle School Kits – National Theatre for Children (NTC)

Overview: The Middle School Kits Program leverages a live professional theater experience, performed at schools, to increase awareness of energy efficiency and

Residential Programs

initiate the ordering of kits. Kits are offered based on watering heating fuel type: natural gas and electric.

- 250 MWh savings achieved (20% of forecast) based on 1,592 kits
- Beginning in 2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- Program marketing was updated to include current branding requirements, including the inclusion of ComEd's logo on NTC's website and print marketing materials.
- The program is well received and a beneficial resource for energy efficiency education. General feedback is families feel the program creates a positive engagement with ComEd.

Income Eligible Programs

Income Eligible Lighting Discounts

Overview: The Income Eligible Lighting Discounts Program provides instant in-store discounts to ComEd residential customers at participating retail stores on select ENERGY STAR® certified lighting: LEDs, LED trim kits, and LED integrated fixtures. Instant Discounts will minimize the burden on the target market by lowering barriers to participation.

- **856 MWh savings achieved (3% of forecast) based on 22,872 units sold**
- Field representatives conducted 12 in-store lighting demonstrations in stores where the program offers deeper discounts for income eligible customers and trained over 500 store associates.
- This new program offering for CY2018 experienced a slow ramp-up in Q1; however, the program team anticipates a strong performance for Q2 and beyond. Many retailers were only able to join starting in Q2, and a robust advertising campaign is also now in market, specifically targeting income eligible customers to drive awareness of the offering.

Single-Family Retrofits

Overview: The Single-Family Retrofits Program is implemented by Franklin Energy and the Chicago Bungalow Association (CBA). CBA identifies and determines qualified vintage homeowners located in the City of Chicago and coordinates Home Assessments to identify areas prone to air leaks or drafts and works with contractors to make weatherization updates at no cost to the customer. This program covers costs associated with completing Air Sealing, Attic and wall insulation, duct sealing, direct install measures (LEDs, water saving measures, programmable thermostats) as well as Health & Safety improvements. This program is delivered in partnership with Peoples Gas. A portion of the budget for this program element is being used to help fund projects in the Illinois Home Weatherization Assistance Program (IHWAP) program, which is designed to help reduce the energy costs for income eligible households by making their homes and apartments more energy efficient. The value of the funding provided by ComEd is being further amplified through coordination of additional funds provided by Nicor Gas, North Shore Gas, and Peoples Gas.

- **272 MWh savings achieved (5% of forecast) based on 224 projects**

- In Q1, a total of 224 income-eligible customers have had projects completed in their home at no out of pocket expense.
- With a goal to complete 1,000 projects in the City of Chicago during CY2018, CBA has already received applications and has identified all of the projects and homes to carry the program through the end of the year.
- As compared to the bridge period in 2017, the program is seeing less opportunity for direct-install measures in homes where projects are completed, while Weatherization improvements continue to drive the majority of energy savings.
- Illinois Home Weatherization Assistance Program:
 - Efforts during Q1 were focused on (1) determining the best method for braiding utility funding with state and federal grants provided through the Illinois Department of Commerce and Economic Opportunity (DCEO) office, and (2) working with local Community Action Agencies (CAAs) throughout the ComEd service territory to determine their capacity to complete more projects with the additional funds.
 - Efforts during Q2 will focus on (1) retroactively opening projects completed in 2018 to begin the flow of braiding utility funding to the CAAs, and (2) continuing to refine work flow projections with the CAAs to properly align with DCEO grant cycle application and reporting deadlines.

Multi-Family Retrofits

Overview: The Multi-Family Retrofits Program provides comprehensive energy efficiency retrofits in common areas and tenant spaces to eligible multi-family properties in the ComEd service territory. The program will serve as a “one stop shop” to multi-family building owners and managers whose buildings are targeted to income-eligible residents. Building owners, managers, and tenants will benefit from the results of energy assessments, direct installation of energy-saving devices, and replacement of inefficient equipment/systems at no cost. For energy efficiency projects requiring funding beyond program incentives, technical assistance will be offered to support implementation and identify financing options.

- **74 MWh savings achieved (1% of forecast) based on 797 projects**

Income Eligible Programs

- Direct install work was completed in 778 tenant units and 12 common area spaces. Four trade ally projects, two weatherization projects, and one capital improvement project were also completed.
- The program utilized outreach efforts and existing relationships with several large building portfolios during Q1 to generate a high level of interest in the program. Demand for direct install work and trade ally projects is expected to drive robust energy savings during Q2 and Q3.
- Efforts during Q1 were focused on (1) determining the best method for braiding utility funding with state and federal grants provided through the Illinois Department of Commerce and Economic Opportunity (DCEO) office, and (2) working with local Community Action Agencies (CAAs) throughout the ComEd service territory to determine their capacity to complete more projects with the additional funds.
- The primary focus during Q1 was coordinating program design with the gas utility partners, including the approval of measure incentive levels and incentive applications. Completion of these efforts will allow the team to focus on increased outreach efforts and program participation during Q2 and beyond.

Affordable Housing New Construction

Overview: The Affordable Housing New Construction Program offers technical support and incentives for whole-building efficiency for new construction and rehab projects that increase the energy efficiency of income eligible households.

- **56 MWh savings achieved (3% of forecast) based on 1 project**
- In January, the CY2018 program design was finalized. All projects that enroll in CY2018 will follow this new design. New program materials and forms were developed and the Multi-Family Standard was created.
- The ComEd Multi-Family Standard was developed in collaboration with New Buildings Institute. The Standard details the 13 required integrated bundle of measures, as well as six additional, optional measures.
- A webinar was held on March 28th to discuss the new program requirements. The program representatives presented to 196 live viewers. The audience included primarily developers, architects, and engineers that focus on affordable housing.

- One project, Huntley Horizon Senior Living Community, was completed in Q1. The senior multi-family low-rise is a new, 3-story, 64-unit building, and three new 5-unit villas. The project had 65,910 square feet of income-qualified square footage and received incentives from ComEd and Nicor Gas.
- There are 8 projects in the pipeline, totaling an estimated 402 MWh savings, and 410,820 income-qualified square feet.
- In March, the program updated the placeholder kWh and therm savings based on TRM v6.0. The 2018 electric savings dropped significantly (71%) along with therm savings (20%) from values derived from the DCEO placeholder multipliers, based on income-eligible square feet. The drop in kWh and therm placeholder savings after updating the savings from the DCEO values has posed a significant challenge towards meeting the program goal. Savings estimates for projects with incentive agreements are in the process of being updated. During Q2-Q3, the program will review cost allocations, avenues for greater savings, and goals for CY2018.

Income Eligible Kits

Overview: The Income Eligible Kits Program delivers energy efficiency kits to single family income eligible homes. The kits include (4) 9-watt LED bulbs, (2) 15-watt LED bulbs, (1) tier 1 advanced power strip, and general guidelines for energy savings. A portion of the kits will also contain (1) low-flow kitchen aerator, (1) low-flow bathroom aerator, and (1) low-flow showerhead.

- **0 savings achieved (0% of forecast)**
- Beginning in 2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- Kit distributions started later than expected due to the program transitioning from a third-party IPA program.
- Program marketing materials are now ComEd branded.
- The program continues to receive positive feedback from participants in previous program years. The team is positive that the program will have similar success in the future.

Income Eligible Programs

Food Banks LED Distribution

Overview: The Food Banks LED Distribution Program provides ENERGY STAR® LEDs to food banks affiliated with Feeding America. The food banks then use their network of local food pantries to distribute the bulbs to utility customers in need may elect to receive a free 4-bulb pack.

- **2,784 savings achieved (9% of forecast) based on 155,808 bulbs**
- Beginning in 2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program will begin providing advanced power strips starting in Q2.
- Per feedback received by the program from food bank employees and volunteers, laminated educational information sheets will be shipped to the food banks for distribution in small batches, as needed by each pantry as bulb orders are requested.
- Visiting food banks and pantries is now integral to the program design. Three field visits are made per quarter. The program's QA/QC process of calling pantries to verify bulb distribution now includes education and information gathering about operations at individual locations.

Business Private Programs

Standard

Overview: The Standard Program provides monetary incentives to customers on a “Standard” per-unit or per-fixture basis. Offered measures include LEDs, T-8 and T-5 lighting and controls, building automation systems, air- and water-cooled chillers and variable speed drives, as well as equipment with niche or targeted market applications, such as laboratory, farm and commercial food service equipment, and grocery refrigeration measures.

- **34,494 MWh savings achieved (15% of forecast) based on 602 projects**
- There are currently an additional 541 projects with potential savings of approximately 65,000 MWh in the pipeline for CY2018.
- The program launched three new measures in CY2018 including Type C LEDs, compressed air storage tanks, and traffic lights.
- The program launched a New Retail Space offering modeled after the existing Standard Office Space offering.
- The Comprehensive Energy Savings Program was streamlined by eliminating its tiering structure and adding “Custom” as an eligible measure.
- The program organized an HVAC webinar for customer and trade allies regarding available standard incentives, among other program offerings. In total, 101 participants attended the webinar. In a follow up survey to participants after the webinar, 70% of respondents said they were “More Likely” to complete an energy efficiency project after participating in our webinar.
- FAST TRACK and Online Application processes developed in Q1 are expected to significantly decrease application processing times and increase customer satisfaction during the remainder of CY2018.

Custom

Overview: The Custom Program identifies and implements site-specific and unique cost-effective energy efficiency opportunities that are not available via the Standard element. Customized incentives based on calculated savings for specific customer projects are offered. Measures include process efficiency improvements, system upgrades, and those measures not covered by the Standard element of the program.

- **783 MWh savings achieved (4% of forecast) based on 13 projects**

- There are currently an additional 88 projects with potential savings of approximately 21,500 MWh in the pipeline for CY2018.
- The program increased implementation staff resources for outreach and engineering.
- Custom M&V Pilot parameters and Custom Lighting worksheets were developed in preparation for the Q2 launch.
- The Comprehensive Energy Savings Program was streamlined by eliminating its tiering structure and adding “Custom” as an eligible measure.
- A trade ally roundtable was organized to socialize and validate the solutions proposed to challenges identified in PY9.

Data Centers

Overview: The Data Center Program follows the basic tenets of the Custom Program such that all energy-saving measures that can be measured and verified via industry accepted measurement and verification techniques are eligible for incentives. Incentives are based on actual energy saved from pre-project conditions to post-project conditions. The targeted segment for this program includes data centers as a business, data centers that support businesses and subsequent systems that support those data centers.

- **3,987 MWh savings achieved (16% of forecast) based on 2 projects**
- There are currently an additional 25 projects with potential savings of approximately 28,500 MWh in the pipeline for CY2018.
- In CY2018, the program launched a new offering called Closet to Colo/Cloud with a \$0.10/kWh incentive rate. This is double the previous Closet to Colo incentive of \$0.05/kWh. In Q1, this offering engaged multiple customers and initiated four new projects with potential savings of approximately 1,900 MWh.
- The program is also developing a new pilot idea for artificial intelligence (AI) based data center cooling, and currently performing an in-depth analysis on market potential, technology documents and cost effectiveness. This will be the first AI based cooling program in the country and demonstrate cutting edge technology in energy and utility industry.
- The program has achieved high customer satisfaction. QTS, zCOLO and Ascent are thrilled as participants. QTS is considering a big check ceremony for their large phase 1 payment. zCOLO was impressed by their payment in April and decided to move on with another project by leveraging the incentive

Business Private Programs

received from the April payment. Ascent requested assistance with two large projects for early stage design and pre-approval.

Combined Heat & Power (CHP)

Overview: The Combined Heat and Power (CHP) Program supports the investigation of CHP opportunities for conventional and waste heat to power (WHP) systems, existing systems that have been dormant for at least three years, and generation equipment that currently does not have waste heat recovery capabilities. The program provides an economic assessment of site specific CHP opportunities and promotes implementation of CHP projects by customers.

- The implementation of the program has been transferred to the Energy Resources Center (ERC) at the University of Illinois at Chicago from Leidos as of April 8th. Activity is expected to ramp up in Q2 and reach steady state by Q3.
- There are currently 11 potential private sector projects in the CY2018 pipeline. In addition, there is one potential feasibility study.
- The program is currently focused on stronger outreach and communication, with ERC leveraging their strong regional CHP expertise and reputation to actively spread word about the program while also performing direct customer recruitment.
- Feasibility studies have a new incentive structure, with lower payments of up to \$10,000 for systems less than 400 kW and higher payments of up to \$25,000 for systems greater than 400 kW.
- The program modified its incentive level structure, with \$60 per kW, or approximately 20%, of the potential incentive awarded after construction completion and at least one month of successful operation, and 80% awarded after having 12 months of metered data.
- Due to a long sales and development cycle, CY2018 will see a lot of activity in building a pipeline of projects for CY2019, and will be less likely to see actual installations. Smaller projects with shorter development cycles might get installed within the calendar year, but focus of installations will be on the future.

Business Instant Discounts

Overview: The Instant Discounts Program provides instant discounts on qualifying commercial screw-in, pin-base, HID, and linear fluorescent fixtures, and exit signs. Linear fluorescent lamps can be replaced with reduced wattage T8 lamps or Tubular LED (TLED) lamps. All screw-in, pin-base and exit sign replacements are LED.

- **39,646 MWh savings achieved (19% of forecast) based on 581,792 products sold**
- Incentive levels were reduced across most measures per market pricing for LED lamps.
- New measures for CY2018 include pin-base LED replacements for CFLs and HID LED lamps.
- The program received the annual Impact Award from the Midwest Energy Efficiency Alliance for achieving over 1 TWh of energy savings to-date.
- To remove a barrier to participation, the program removed a requirement that most measures be dimmable. This also allows the program to validate energy efficiency qualification via ENERGY STAR or DLC, rather than having distributors rely exclusively on ComEd's Approved Product List (APL). Most midstream programs exclusively validate via ENERGY STAR and DLC.
- At the request of program distributors, the APL is still being maintained, and program processes have been modified to update the APL more quickly and provide faster information on qualifying lamps to distributors.

Retro-Commissioning (RCx)

Overview: The RCx Optimization Program provides detailed engineering analysis of building systems designed to identify energy-saving operational improvements with a bundled simple payback of 18 months or less. Incentives are provided to customers who commit to implementing agreed-upon energy-saving equipment scheduling, optimization of economizer operations, and adjustment of heating, ventilation, and air conditioning (HVAC) setpoints.

- **5,919 MWh savings achieved (23% of forecast) based on 13 projects**
 - 10 RCx Building Tune-Up (buildings less than 150,000 square feet) projects completed

Business Private Programs

- 3 RCxpress (buildings between 150,000 and 400,000 square feet) project completed
- Program incentives, RCx service provider fees and performance-based kWh incentives, were increased slightly in 2018 to drive participation. This was the first increase in several years.
- An MBCx project at The Franklin was selected for national recognition by the Department of Energy's Smart Energy Analytics Campaign, achieving over 4,700 MWh in savings.
- An MBCx project at the Chicago Mercantile Exchange achieved over 2,400 MWh of savings in Q1.
- There are 159 active projects in the CY2018 pipeline for potential savings of approximately 29,000 MWh.

AirCare Plus

Overview: The AirCare Plus Program is an enhanced HVAC maintenance service program designed to optimize the performance of all major energy-using components of packaged HVAC Roof Top Units (RTUs) and split systems. The program integrates a package of energy saving hardware retrofits and mechanical adjustments into the standard commercial HVAC service and maintenance model to provide a cost-effective energy saving solution for 3 to 60-ton units.

- **1,848 MWh savings achieved (9% of forecast) based on 202 measures**
- In PY9, participation from small business customers with a peak demand of 100 kW or less was attributed to the Third-Party IPA. Beginning in 2018, the program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program incorporated two new measures into the program's field and project management software: Advanced Early Retirement, RTU Exterior Sealing, and updated Advanced RTU Controls. Corresponding technician training is underway and will continue into Q2.
- There was significant demand for the newly added measures in Q1. Specifically, trade allies have already completed Real Seal and Advanced Rooftop Control measures, as well as pre-applications for the Advanced Early Retirement measure. The program is anticipating the first Advanced Early Retirement measure will be complete in Q2.

- The largest ComEd Advanced Rooftop Control project to date was complete at the Holiday-Inn Itasca in Q1. Associated savings are approximately 350 MWh.
- The trade ally network was expanded to meet CY2018 goals with the addition of 11 new contractors in Q1. The current AirCare Plus trade ally network count is 37 and has almost doubled in the past year.
- Unseasonably cold weather has delayed the start of the AC tune-up season.

Industrial Systems

Overview: The Industrial Systems Optimization Program is a study-based program for compressed air, process cooling, industrial refrigeration and wastewater treatment plant. The target customer is over 500 kW but under 10 MW. Because this is a study-based program, there are no predefined measures. Measures are a mix of no- to low-cost system optimization and capital improvements that are similar to custom measures.

- **7,400 MWh savings achieved (22% of forecast) based on 29 projects**
- There are an additional 66 projects in the CY2018 pipeline for potential savings of approximately 20,000 MWh.
- For Q1, the program has been transitioning from CLEAResult to Franklin Energy as the program implementer. At the beginning of Q2, Franklin Energy will be the sole program implementer for this program.
- The program successfully recruited four new service providers.
- Implementation of recommended measures is slow as customers are not always ready with capital or manpower to implement projects. However, no- to low-cost measures are quickly implemented. Addressing these will be a focus in CY2018.

Operational Savings

Overview: The Operational Savings Program identifies no-cost/low-cost opportunities that do not qualify for incentives. These opportunities are identified by engineers during the course of various types of ComEd Energy Efficiency Program studies and Facility Assessments. Examples of such opportunities include shutting off idle equipment, optimizing the efficiency of existing systems and changes in the operating habits of occupants.

Business Private Programs

- **154 MWh savings achieved (12% of forecast)**
- A total of 350 operational measures were identified in Facility Assessments during Q1.
- Additional outreach resources have been brought on in Q1 to assist in following up on all projects identified in Facility Assessments.
- A total of 157 Facility Assessments were completed in Q1.

Business Energy Analyzer (BEA)

Overview: Business Energy Analyzer provides business customers with tools to visualize their energy usage over time, pinpointing high use periods and suggesting potential strategies to reduce energy costs. Customers receive personalized energy-efficiency solutions based on their unique energy use and the ability to compare usage patterns with similar businesses.

- **8,570 MWh savings achieved (15% of forecast)**
- The BEA is being phased out and replaced by the First Fuel (FF) tool within My Account as part of the Business Intelligence and Data Analytics (BIDA) initiative.
- While the new FF tool is similar in function to BEA, a parallel evaluation process is being developed, in which some BEA users will be transitioned to the new tool and others will remain on BEA. Once it has been demonstrated that the FF tool successfully generates savings on the same level as BEA, the BEA will be phased out.
- Due to the transition to the new tools, aggressive marketing of BEA has not taken place in some time. This has limited the number of new users added to the system, and therefore limits the amount of potential savings driven by its use.

Strategic Energy Management (SEM)

Overview: Strategic Energy Management provides tools, coaching and technical resources to support your energy goals through a year-long series of workshops and one-on-one coaching. It draws on principles of continuous improvement and organizational change and integrates Lean, Six Sigma and other cost savings and operational excellence initiatives. SEM will help implement organizational

structures, behavior changes, and systematic practices that can lead to reducing energy costs 5-25% for both electricity and natural gas.

- **0 MWh savings achieved (0% of forecast)**
- There are currently potential savings of approximately 9,500 MWh in the CY2018 pipeline.
- In Q1, the practitioner group was started to continue the process of identifying and implementing no- to low-cost operational improvements and capital measures with previous SEM cohorts.
- There are several new focused cohorts planned for CY2018 with industrial refrigeration facilities, hospitals, commercial and industrial customers.
- The change in culture to incorporate energy saving practices may take more than a year but produce a significant impact over time. The addition of the practitioner group is good way to continue the success for the customer. In addition, the program identifies other capital investment opportunities that drive participation in other energy efficiency programs.

C&I New Construction

Overview: The New Construction Program provides technical assistance, support for the Leadership in Energy and Environmental Design (LEED) rating system, and incentives for efficient designs and measure implementation in order to influence building design practices during the design and construction of new buildings, major renovations of existing buildings, and tenant build-outs in the C&I market.

- **3,033 MWh savings achieved (12% of forecast) based on 9 projects**
- The program accepted 31 new project applications in Q1, of which 6 were Expedited Assistance 5 were public sector projects.
- There are an additional 86 projects in the CY2018 pipeline for potential savings of approximately 20,000 MWh.
- The program celebrated the milestone of its 500th completed project and has received approximately 1,000 project applications through its 9-year program history, including projects still in the pipeline and projects that were enrolled but ultimately not constructed.
- Starting in CY2018, The Weidt Group was added as an implementation subcontractor to supplement Seventhwave's technical assistance and outreach team; Q1 included a ramp-up of The Weidt Group staff to ensure the

Business Private Programs

program offering, experience and quality will be identical regardless of the implementation staff serving the specific project.

- Construction industry forecasts suggest a decline in the recent multi-family building boom, which will impact pipelines moving forward. That said, the pipeline for 2019 is looking stronger, with application volume keeping pace with more successful prior years in terms of project square footage. However, projects completing in 2018 and 2019 will be largely under the more stringent 2015 Illinois energy code and the forthcoming 2018 energy code. The program will be conducting analysis to ascertain the impacts of the forthcoming code update on energy savings.
- The program is also undergoing a thorough review of its marketing plan with the goals of both increasing enrollment and driving deeper energy savings from enrolled projects.

Small Business Energy Savings (SBES)

Overview: The SBES Program implements energy efficiency projects for customers under 100 kW peak demand. The program provides comprehensive energy savings solutions for customers including advanced lighting, refrigeration, HVAC, and compressed air.

- **30,174 MWh savings achieved (18% of forecast) based on 1,073 projects**
- The specification requirement for interior LED fixtures changed from the DesignLights Consortium (DLC) standard to DLC premium requirement
- Incentives increased for several refrigeration measures according to the savings calculation updates in TRM V6.0
- Multi-family common area opportunities are being referred to and served by the comprehensive Multi-Family Energy Savings offering for premier customer experience.
- All small business trade allies are ICC certified.
- The program hosted a weekly Open Forum for Mobile Assessment tool which helped address trade allies' questions about the tool.
- The program has an 18% inspection rate which exceeded the required 15% inspection rate.

LED Street Lighting

Overview: The program is to replace existing ComEd-owned mercury vapor (MV) or high pressure sodium (HPS) fixtures with LED street lights. These street lights are installed and maintained by ComEd and the municipality pays a rental charge for the fixture as well as an energy charge. LED street lights provide energy efficient lighting which reduces operating costs and increases the life of street lighting.

- **0 MWh savings achieved (0% of forecast)**
- Approximately 550 fixtures have been or will be installed; 4 applications are in the approval process. External Affairs Managers (EAM) and Project Management have identified a 24,000 fixture population for CY2018.
- The first set of applications are expected in late April.

Rural Small Business Kits

Overview: The Rural Small Business Kits Program aims to cost-effectively capture electric energy savings in office, restaurant, or other general facilities located in ComEd's rural counties. The program achieves immediate savings through a kit of self-install energy efficiency measures delivered directly to customer facilities. A customer survey will be used to determine installation rates for each measure.

- **8 MWh savings achieved (0.3% of forecast) based on 15 kits**
- Beginning in 2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program added exit sign retrofits to all kits starting in CY2018. The retail kit was changed to a general kit which included A-19 and BR-30 LED lamps.
- MR-16 bulbs were removed from all kits and replaced with BR-30 LEDs.
- All program marketing material was finalized in Q1. Outbound calling started late in Q1.

Power TakeOff Energy Advisor

Overview: Using analysis of AMI data, Power Takeoff identifies customers with a peak demand of less than 100 kW that have significant potential for operational savings. When such a customer is identified, Power Takeoff reaches out directly to engage the customer and provides recommendations to help them operate their

Business Private Programs

facility more efficiently. The customer documents the changes to operations that are made, and Power Takeoff measures and verifies savings using the same AMI data. Since the change in usage over time needs to be adequately demonstrated, verification takes three to six months to complete.

- **179 MWh savings achieved (7% of forecast) based on 82 actions taken**
- Beginning in 2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program had 45 participants in Q1.
- All customers with a peak demand over 100 kW were added to the target market. In PY9, the program was limited to customers with a peak demand under 100 kW.
- Support from the LCS team for national accounts was very valuable in providing introductions to the appropriate customer personnel for Power Takeoff to work with.
- The Power TakeOff team now has access to Salesforce, enabling them to document customer interactions and projects.

Business Public Programs

Public Sector Standard

Overview: The Standard Program provides monetary incentives to customers on a “Standard” per-unit or per-fixture basis. Offered measures include LEDs, T-8 and T-5 lighting and controls, building automation systems, air- and water-cooled chillers and variable speed drives, as well as equipment with niche or targeted market applications, such as laboratory, farm and commercial food service equipment, and grocery refrigeration measures to public sector customers.

- **2,739 MWh savings achieved (7% of forecast) based on 72 projects**
- There are currently an additional 138 projects with potential savings of approximately 8,400 MWh in the pipeline for CY2018.
- Effective January 1st, 2018, public sector was folded into Standard element of the Incentives program. Both private and public sector customers are eligible for the same Standard incentives and program offerings.
- ComEd released a “New Customer Bonus” for public sector projects to spur participation in the first half of the year. As part of the bonus, public sector customers can receive a 20% bonus for projects completed and a final application received by May 31, 2018.
- The program retained the 75% incentive cap from DCEO for public sector projects, as opposed to reducing it to 50%, which is the incentive cap for private sector projects, to further encourage public sector participation in the program.
- Approximately 45% of the public sector Q1 incentives have gone to school districts. This is related to the increased number of facility assessments being conducted at public school districts. Several of these schools are participating in an energy efficiency program for the first time.
- Currently, a large amount of public sector applications is being brought in by three top trade allies. An outreach and marketing plan is being finalized, which will include further education and marketing to Trade Allies for public sector opportunities and promotion of the “New Customer Bonus”.

Public Sector Custom

Overview: The Custom Program identifies and implements site-specific and unique cost-effective energy efficiency opportunities that are not available via the Standard element. Customized incentives based on calculated savings for specific

customer projects are offered. Measures include process efficiency improvements, system upgrades, and those measures not covered by the Standard element of the program.

- **158 MWh savings achieved (1% of forecast) based on 93 projects**
- There are currently 17 projects with potential savings of approximately 6,700 MWh in the pipeline for CY2018.
- There has been a healthy increase in Waste Water treatment plant projects, with projects in the pipeline projected through program year 2020.
- Effective January 1st, 2018, both private and public sector customers are eligible for the same custom incentives and program offerings. Waste Water treatment plants are eligible for incentives at \$0.21 per kWh as opposed to the standard \$0.07 per kWh for custom measures.
- Public sector is still a new market for many Trade Allies. Currently, the majority of projects within the pipeline are from Waste Water treatment plants.

Public Sector Data Centers

Overview: The Data Center Program follows the basic tenets of the Custom Program such that all energy-saving measures that can be measured and verified via industry accepted measurement and verification techniques are eligible for incentives. Incentives are based on actual energy saved from pre-project conditions to post-project conditions. The targeted segment for this program includes data centers as a business, data centers that support businesses and subsequent systems that support those data centers.

- **0 MWh savings achieved (0% of forecast)**
- There are currently 9 projects with potential savings of approximately 1,200 MWh in the pipeline for CY2018.
- Blast outreach and marketing to public sector customers resulted in nine leads in Q1.
- The program provided free program and data center education, engineering services, savings estimates to all public sector customers.
- The program began offering free data center audits to significant public sector customers, such as Cook County. The Cook County IT director was very satisfied with the program’s heavy engagement.

Business Public Programs

- The program is focused on adding more resources to public sector outreach and marketing in order to build the public sector pipeline.

Public Sector Combined Heat & Power (CHP)

Overview: The Combined Heat and Power (CHP) Program supports the investigation of CHP opportunities for conventional and waste heat to power (WHP) systems, existing systems that have been dormant for at least three years, and generation equipment that currently does not have waste heat recovery capabilities. The program provides an economic assessment of site specific CHP opportunities and promotes implementation of CHP projects by customers.

- The implementation of the program has been transferred to the Energy Resources Center (ERC) at the University of Illinois at Chicago from Leidos as of April 8th. Activity is expected to ramp up in Q2 and reach steady state by Q3.
- There are currently 10 potential public sector projects in the CY2018 pipeline.
- The program is currently focused on stronger outreach and communication, with ERC leveraging their strong regional CHP expertise and reputation to actively spread word about the program while also performing direct customer recruitment.
- Feasibility studies have a new incentive structure, with lower payments of up to \$10,000 for systems less than 400 kW and higher payments of up to \$25,000 for systems greater than 400 kW.
- The program modified its incentive level structure, with \$60 per kW, or approximately 20%, of the potential incentive awarded after construction completion and at least one month of successful operation, and 80% awarded after having 12 months of metered data.
- Due to a long sales and development cycle, CY2018 will see a lot of activity in building a pipeline of projects for CY2019, and will be less likely to see actual installations. Smaller projects with shorter development cycles might get installed within the calendar year, but focus of installations will be on the future.

Public Sector Business Instant Discounts

Overview: The Instant Discounts Program provides instant discounts on qualifying commercial screw-in, pin-base, HID, and linear fluorescent fixtures, and exit signs. Linear fluorescent lamps can be replaced with reduced wattage T8 lamps or Tubular LED (TLED) lamps. All screw-in, pin-base and exit sign replacements are LED.

- **1,068 MWh savings achieved (5% of forecast) based on 20,653 products sold**
- Incentive levels were reduced across most measures per market pricing for LED lamps.
- New measures for CY2018 include pin-base LED replacements for CFLs and HID LED lamps.
- To remove a barrier to participation, the program removed a requirement that most measures be dimmable. This also allows the program to validate energy efficiency qualification via ENERGY STAR or DLC, rather than having distributors rely exclusively on ComEd's Approved Product List (APL). Most midstream programs exclusively validate via ENERGY STAR and DLC.
- At the request of program distributors, the APL is still being maintained, and program processes have been modified to update the APL more quickly and provide faster information on qualifying lamps to distributors.

Public Sector Retro-Commissioning (RCx)

Overview: The RCx Optimization Program provides detailed engineering analysis of building systems designed to identify energy-saving operational improvements with a bundled simple payback of 18 months or less. Incentives are provided to customers who commit to implementing agreed-upon energy-saving equipment scheduling, optimization of economizer operations, and adjustment of heating, ventilation, and air conditioning (HVAC) setpoints.

- **0 MWh savings achieved (0% of forecast)**
- Program incentives, RCx service provider fees and performance-based kWh incentives, were increased slightly in CY2018 to drive participation. This was the first increase in several years.
- During CY2018, approximately 60 pre-existing public sector RCx projects are being managed through to completion by SEDAC, the RCx program

Business Public Programs

implementer under DCEO who transitioned to the ComEd program in order to maintain a smooth customer experience. Public sector RCx projects for which applications were accepted after October 15, 2017 are being managed by Nexant along with private sector projects, following ComEd's existing program structure.

- Several public sector projects carried over from the DCEO program have indicated that they do not have funds for implementation and will not complete the projects.
- Currently, a dollar-for-dollar implementation incentive is being offered to drive early completion of the SEDAC-administered projects.
- There are 62 active projects in the CY2018 pipeline for potential savings of approximately 4,000 MWh.

Public Sector AirCare Plus

Overview: The AirCare Plus Program is an enhanced HVAC maintenance service program designed to optimize the performance of all major energy-using components of packaged HVAC Roof Top Units (RTUs) and split systems. The program integrates a package of energy saving hardware retrofits and mechanical adjustments into the standard commercial HVAC service and maintenance model to provide a cost-effective energy saving solution for 3 to 60-ton units.

- **168 MWh savings achieved (5% of forecast) based on 21 measures**
- The program incorporated two new measures into the program's field and project management software: Advanced Early Retirement, RTU Exterior Sealing, and updated Advanced RTU Controls. Corresponding technician training is underway and will continue into Q2.
- There was significant demand for the newly added measures in Q1. Specifically, trade allies have already completed Real Seal and Advanced Rooftop Control measures, as well as pre-applications for the Advanced Early Retirement measure. The program is anticipating the first Advanced Early Retirement measure will be complete in Q2.
- The trade ally network was expanded to meet CY2018 goals with the addition of 11 new contractors in Q1. The current AirCare Plus trade ally network count is 37 and has almost doubled in the past year.
- Unseasonably cold weather has delayed the start of the AC tune-up season.

Public Sector Industrial Systems

Overview: The Industrial Systems Optimization Program is a study-based program for compressed air, process cooling, industrial refrigeration and wastewater treatment plant. The target customer is over 500 kW but under 10 MW. Because this is a study-based program, there are no predefined measures. Measures are a mix of no- to low-cost system optimization and capital improvements that are similar to custom measures. Wastewater treatment facility is the focus of the public sector market.

- **0 MWh savings achieved (0% of forecast)**
- For Q1, the program has been transitioning from CLEAResult to Franklin Energy as the program implementer. At the beginning of Q2, Franklin Energy will be the sole program implementer for this program.
- The program is actively pursuing public sector customers, but there are no projects in the CY2018 pipeline at this time.
- A presentation on the benefits of the study-based program has been presented at two local conferences for wastewater treatment operators in Springfield. In addition, there have been several site walkthrough meetings to discuss the program, resulting in two applications.
- Public sector customers tend to move slowly, so completing a study with enough time for implementation within CY2018 may be difficult.

Public Sector Operational Savings

Overview: The Operational Savings Program identifies no-cost/low-cost opportunities that do not qualify for incentives. These opportunities are identified by engineers during the course of various types of ComEd Energy Efficiency Program studies and Facility Assessments. Examples of such opportunities include shutting off idle equipment, optimizing the efficiency of existing systems and changes in the operating habits of occupants.

- **28 MWh savings achieved (8% of forecast)**
- A total of 199 Operational Measures were identified in Facility Assessments during Q1.
- Additional outreach resources have been brought on in Q1 to assist in following up on all projects identified in Facility Assessments.
- A total of 76 Facility Assessments were completed in Q1.

Business Public Programs

Public Sector Strategic Energy Management (SEM)

Overview: Strategic Energy Management provides tools, coaching and technical resources to support your energy goals through a year-long series of workshops and one-on-one coaching. It draws on principles of continuous improvement and organizational change and integrates Lean, Six Sigma and other cost savings and operational excellence initiatives. SEM will help implement organizational structures, behavior changes, and systematic practices that can lead to reducing energy costs 5-25% for both electricity and natural gas.

- **0 MWh savings achieved (0% of forecast)**
- There is a possibility of 3,800 MWh for the CY2018 pipeline depending on cohort launch timing.
- There are several new focused cohorts planned for CY2018 for wastewater treatment facilities and school districts.

Public Sector C&I New Construction

Overview: The C&I New Construction Program serves new construction and major renovation of FEJA-eligible public sector buildings. The program provides technical assistance and financial incentives to participating building owners, developers, and design teams to encourage them to surpass standard practices and exceed current Illinois Energy Conservation Code requirements.

- **0 MWh savings achieved (0% of forecast)**
- Effective January 1st, 2018, public sector was folded into the C&I New Construction program.
- Public sector projects can qualify for higher per-kWh and per-therm incentive rates if the project falls into one of the categories defined by FEJA: units of local government, municipal corporations, school districts, public housing and community college districts.
 - Incentives are tiered similar to the existing C&I New Construction. The highest incentives, \$0.20 per kWh and \$1.00 per therm, are available to customers who engage prior to design team selection and include a contractual energy performance target in their procurement.
 - Incentives of \$0.14 per kWh and \$0.70 per therm are available to customers engaging prior to 50 percent design for two building systems.

- Incentives of \$0.10 per kWh and \$0.50 per therm are available for customers engaging at least six weeks prior to design completion for two systems.
- A 10 percent design incentive bonus is also available for engaged design teams.
- Nine projects that applied to the program in PY9 were approved to receive the higher CY2018 rates.
- In Q1, the program accepted 5 new applications for multiple calendar years.
- The program is engaging new outreach channels with public sector customers not previously served. The outreach team has contacted AIA Chicago to identify architectural firms that specialize in public sector projects. The team has also contacted the Illinois Clean Energy Community Foundation that provides grants to public sector projects including K-12 schools. The team has also met with large public sector owners and stakeholders including City of Chicago, Cook County, Chicago Public Schools and Chicago Infrastructure Trust. The program is targeting these firms and organizations for lunch and learn presentations.
- The program will be delivering a webinar in June on market-ready technologies for new construction, which will highlight a DCEO public sector research study conducted in 2017.

Public Sector Small Facilities

Overview: The Small Facilities Program implements energy efficiency projects for public sector customers under 100 kW peak demand. The program provides comprehensive energy savings solutions for customers including advanced lighting, refrigeration, HVAC, and compressed air.

- **406 MWh savings achieved (8% of forecast) based on 9 projects**
- Public safety, park district, and library facilities represented most projects in Q1.
- All projects completed in Q1 were post-inspected.
- The program team established working relationships with Outreach Service Providers and other Implementation Contractors to facilitate effective exchange of leads and programmatic information.
- Public sector projects often require a longer sales cycle due to more stringent procurement procedures and due diligence. Approval from multiple decision

Business Public Programs

makers that meet on a set schedule is typically required. The program has mitigated the risk of untimely project complete by building a robust pipeline that exceeds the savings goal.

Public Sector LED Street Lighting

Overview: The LED Street Lighting Program provides incentives for customer-owned LED street lights and a small portion of standard exterior LED's. The exterior LED's are included in the street light program when they are decorative fixtures associated with the street lights. This program also provides outreach support, to facilitate the submittal of street light applications from municipalities.

- **17,691 MWh savings achieved (18% of forecast)**
- The incentive was reduced from \$1.47 per watt in 2017 to \$0.70 per watt in 2018. While this may seem like a large reduction, it is restoring the initial incentive level offered by DCEO in PY8 and PY9.
- There are pre-applications in review or approved with potential MWh savings of approximately 38,000 MWh, 95% of which are from the Chicago Department of Transportation (CDOT). CDOT will be submitting final applications beginning in May and through July for those pre-applications. The program also expects to have a set of pre-applications from CDOT in June for an additional 17,500 MWh.
- CDOT projects and rollover projects from 2018 have helped get to a combined realized and pipeline of 55,5000 MWh at the end of Q1.
- The program is starting to see an increase in calls from trade allies and municipalities to discuss new projects.
- CDOT submittal of final applications was forecasted to be somewhat linear based on a weekly fixture installation goal of more than 1,000 fixtures per week. While CDOT is ahead of schedule on installation, CDOT is still working with their installer to complete installations based on atlas (account and project). CDOT has committed to begin submitting final data in early May and will complete submitting final data by early August, providing 31,500 MWh in final applications by end of August and early September.
- Pre-application pipeline outside of CDOT needs to increase significantly in Q2 to increase confidence in meeting the CY2018 filed goal.

Public Housing Retrofits

Overview: The Public Housing Retrofits Program provides energy efficiency retrofits in Public Housing Authority (PHA) facilities in the ComEd service territory. The program offers energy assessments and incentives to upgrade most inefficient equipment in buildings owned and managed by a PHA, including residential units, and common areas at no cost. For energy efficiency projects requiring funding beyond program incentives, technical assistance will be offered to support implementation and identify financing options.

- **35 MWh savings achieved (2% of forecast) based on 4 projects**
- PHA representatives have responded positively to program outreach efforts during Q1, and the inclusion of direct install work has been well-received as this opportunity was not available previously.
- Assessments have been completed at 79 buildings, covering more than 3,700 units. Direct installations have been completed at four buildings, covering 403 units. A total of 14 non-direct installation projects are in the pipeline.
- Forecasting the scope and timing of projects is heavily reliant on the PHA improvement planning process. Regular communication with PHAs will help to improve forecast accuracy throughout the balance of the year.

Voltage Optimization & Market Transformation Programs

Voltage Optimization

Overview: The Voltage Optimization Program deploys circuit voltage detectors and control equipment that will effectively assess and adapt the amount of voltage traveling across a power line at any given time. Once in place, these devices will allow ComEd to more precisely monitor, manage and deliver the voltage customers need. No additional effort by consumers will be required as the control equipment will automatically adjust to consistently deliver only the voltage each customer requires.

- 0 MWh savings (0% of forecast)
- Equipment installations are underway, but there will be no substations with voltage optimization in automatic control until Q2. Estimated savings will likely not be available until Q3.

Building Operator Certification (BOC)

Overview: This training and certification program for large commercial building managers is a DCEO legacy program operated by the MEEA Team. Energy savings are attributed to both increased awareness of energy efficiency opportunities from the training and from participation in utility programs.

- The CY2018 BOC Program will continue to be operated statewide. The utilities have agreed upon a scope and cost-sharing arrangement, and the program is expected to begin training in Q2.

Building Industry Training and Education (BITE)

Overview: The BITE Program includes general support for applying the new Illinois building code to new construction of residential and commercial buildings. The program includes stakeholder training and general response to code questions.

- Program administration was assumed by the Illinois Energy Office starting January 1, 2018. It will no longer be included in future updates.

Illinois Home Performance (IHP)

Overview: The Illinois Home Performance with ENERGY STAR Program consists of processing ENERGY STAR certificates for homeowners, training realtors and appraisers, and conducting a building science training series.

- The CY2018 IHP Program will continue to be operated in Northern Illinois. Nicor Gas, North Shore and Peoples Gas, have agreed upon a scope and cost-sharing arrangement, and the Program is expected to begin training in Q2.

Emerging Technology

Mission: Assess, introduce, and accelerate the adoption of emerging cost-effective energy efficient technologies and services through demonstration and pilot projects in the ComEd service territory that have the potential to offer sustainable kWh and kW savings

Smart Meter Connected Devices Service (SMCD)

Overview: Customers are able to purchase smart devices directly from manufacturers and have their smart device connected or joined to their smart meter to receive real-time energy data. Primary customer benefits include increased awareness of electric energy consumption, potentially reduced electric energy use due to behavioral changes.

- Service Launch: December 2014
- Target Customer: ComEd residential customers with smart meters
- 840 customers have been successfully commissioned into the SMCD service.

Water/Energy Nexus

Overview: A study is underway to attempt to quantify the energy required to deliver water to a customer site. If this value can be determined, it may allow ComEd to claim energy savings from water reduction measures.

- Target Sector: All
- Type of Test: Study
- Completion Date: 2018 Q3; study findings will be reported in 2018 Q3.

Nest Seasonal Savings

Overview: This summer, Nest thermostat owners within the ComEd service territory were offered the opportunity to opt-in to the Seasonal Savings program, which makes small set-point adjustments to deliver additional energy savings for the customer while balancing comfort requirements.

- Target Sector: Residential
- Type of Test: Pilot
- Completion Date: March 2018; savings data will be reported in 2018 Q2.

Total Connected Savings

Overview: This winter, customers with a Honeywell Wi-Fi thermostat (not a smart-thermostat, i.e., one that can sense occupancy), will be able to enroll into the Total Connected Savings program which provides cloud-based advanced analytics to control the thermostat based on outside weather conditions to increase energy savings while maintaining occupants' comfort.

- Target Sector: Residential
- Type of Test: Pilot
- Completion Date: September 2018; savings data will be reported in 2018 Q4.

Ultra High-Efficiency Income Eligible

Overview: A team of stakeholders and experts designed and deployed retrofit strategies incorporating new heating and cooling technologies for seven housing units located at Rockford Housing Authority's (RHA) Blackhawk Courts this summer. The new technologies include advanced heat-pumps and low capacity furnaces. Tenants will be moving into the retro-fitted units in fall 2017 and data will be collected on the operation of the systems into summer 2018.

- Target Sector: Residential
- Type of Test: Demonstration Project
- Completion Date: August 2018; savings data will be reported in 2018 Q4.
- The retrofit was completed on time; however, move-in of the tenants has been delayed as RHA pursues additional upgrades outside of this pilot.

HVAC SAVE

Overview: The HVAC SAVE project will provide training for Trade Allies to provide a Quality Install (QI) of Residential AC units to improve their performance. This pilot will look to have 400 QI installs this summer and will collect information on QI energy savings to encourage TRM inclusion for 2020.

- Target Sector: Residential
- Type of Test: Pilot
- Completion Date: October 2018; study findings will be reported in 2018 Q4.

Emerging Technology

Commercial & Industrial Geothermal Pilot

Overview: The project implementation team is developing a pilot offer to incentivize geothermal heat pump (GHP) installations in the commercial and public sectors (business offering) through a Standard program styled approach. The pilot includes a TRM Workpaper Development, Pilot Program Design and Planning, and Marketing and Outreach.

- Target Sector: C&I
- Type of Test: Market Testing
- Completion Date: December 2018; study findings will be reported in 2019 Q1.

Condenser VFD Pilot

Overview: This project will study the impact of adding variable frequency drives (VFDs) to refrigeration system condenser fans in 23 condensers in 4 supermarkets. The pilot will compare system performance pre- and post-condenser fan retrofit with VFD, and provide energy and cost impacts to the Illinois Technical Reference Manual (TRM).

- Target Sector: C&I
- Type of Test: Pilot
- Completion Date: September 2018; study findings will be reported in 2018 Q4.

Ultra High-Efficiency Income Eligible Housing

Overview: A team of stakeholders and experts designed and deployed retrofit strategies incorporating new heating and cooling technologies for seven housing units located at Rockford Housing Authority's (RHA) Blackhawk Courts last summer. The new technologies include advanced heat-pumps and low capacity furnaces. Tenants moved into the retro-fitted units in February and data will be collected on the operation of the systems into summer 2018.

- Target Sector: Residential
- Type of Test: Demonstration Project
- Completion Date: August 2018; study findings will be reported in 2018 Q4.
- The retrofit was completed on time; however, move-in of the tenants has been delayed as RHA pursues additional upgrades outside of this pilot.

LUCHA Passive House

Overview: The Latin United Community Housing Association's (LUCHA) Tierra Linda project is comprised of several new construction multifamily buildings intended for low income residents. Located along the 606 Trail in Chicago's Humboldt Park neighborhood, one of the six-unit buildings will be constructed to Passive House Institute U.S. (PHIUS) certification standards. ComEd will install energy monitoring equipment, survey residents, and analyze construction cost data to better understand the potential for integrating Passive House standards into the Affordable New Construction program.

- Target Sector: Residential and Income Eligible
- Type of Test: Demonstration Project
- Completion Date: Monitoring equipment installed by end of Q2 2018; first data analysis report June 2019
- Building are currently being constructed and monitoring equipment will be installed by end of Q2 2018.

Marketing Education & Awareness

CY2018 Q1 General Outreach

- Participated in 28 energy efficiency events
- Interacted with approximately 3532 customers
- Collected approximately 542 emails
- Drove 12,764 unique page visits to ComEd.com/HomeSavings

2018 Q1 Business E&A Facility Assessment Campaign – Moving Up

Overview: The campaign was to promote awareness of our facility assessment offerings with a call to action of ComEd.com/FacilityAssessments.

- In-market January – December 2018
- Included TV, Cable, Digital, radio, social and Print
- Has generated 3,449,049 digital impressions through March 31st
- Drove 31,999 unique page visits to ComEd.com/FacilityAssessment

CY2018 Q1 Public Sector Campaign

Overview: The campaign was to promote awareness of our public-sector offerings with a call to action of ComEd.com/PSFacilityAssessments

- In-market February – March 11, 2018
- Included TV, Cable, Digital, radio, social and Print
- Has generated 13,724,918 digital impressions through March 31st

2018 Q1 Instant Discounts – Pass the Buck

Overview: The campaign was to promote participation in the Instant Discounts program with a call to action to learn more about all of the lighting solutions available.

- Included TV, Digital and Radio
- In Market – January – December 2108
- Has generated 3,588,429 digital impressions through March 31st
- Drove 1,995 unique page views to ComEd.com/LightingSolutions

2018 Q1 Lighting Discounts Campaign – Saved By Savings

Overview: The campaign was to promote awareness of lighting discounts through the ComEd Energy Efficiency program with a call of action to get instant in-store discounts at your local retailer.

- In-market October – Week of December 4th, 2017
- Included Cable TV, Digital, Radio, Social and Transit
- Has generated 2,095,568 digital impressions through March 31st
- Drove 9,624 unique pageviews to ComEd.com/LightingDiscounts

2018 Q1 Fridge Recycling Campaign – Found Money

Overview: The campaign was to promote awareness of fridge recycling through the ComEd Energy Efficiency program with a call to action to get \$50 to recycle your old, working fridge.

- In-market January – March 2018
- Included Digital, Radio, Social and Digital Billboard
- Has generated 2,095,568 digital impressions through March 31st
- Drove 53,116 unique pageviews to ComEd.com/FridgeRecycling

Stipulations

Commitments Regarding Interactions with the Income-Qualified Advisory Committee (Settlement Stipulation § IV(D)(1))

- ComEd agrees to report on a quarterly basis to both the Income-Qualified Energy Efficiency Advisory Committee and the SAG on the development of reporting metrics on the following topics:
 - Identification of budget, savings, and number of participants served through Income-Qualified Plan funding, separately tracking by single-family and multi-family programs:
 - For budget and savings, please refer to the Income Qualified Programs section on the “Ex Ante Results” tab of the statewide quarterly report template. Total Income Qualified homes served is captured on the “Other” tab of the statewide quarterly report template.
 - The Single-Family Retrofits program completed projects for a total of 224 income-qualified customers in Q1.
 - The Multi-Family Retrofits program completed direct install work in 778 tenant units in Q1.
 - The Public Housing Retrofits program completed direct install work in 403 tenant units in Q1.
 - The Affordable Housing New Construction program completed one multi-family construction project in Q1.
 - Income-Qualified pilot program results:
 - The Emerging Technology program has two pilots that are specific to income eligible and public housing customers: Ultra High-Efficiency Income Eligible Housing and LUCHA Passive House. The total spend on these projects was \$37,000 in Q1.
 - Please refer to the Emerging Technology section on page 23 of this report for additional information on Ultra High-Efficiency Income Eligible Housing and LUCHA Passive House.
 - Identification of implementation vendors who receive funding designated for Income-Qualified programs, indicating whether each vendor is an independent third party that has demonstrated capabilities to serve such households, including not-for-profit entities and government agencies that have existing relationships with or experience serving Low-Income communities in the State:
 - Single-Family Retrofits – Chicago Bungalow Association (not-for-profit), Chicagoland Vintage Home Association (not-for-profit), Franklin Energy (for-profit), Illinois Association of Community Action Agencies (not-for-profit), Resource Innovations (WBE for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
 - Multi-Family Retrofits – Elevate Energy (not-for profit), Franklin Energy (for-profit), Resource Innovations (WBE for-profit), Shelton Solutions (WMBE for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
 - Public Housing Retrofits – Elevate Energy (not-for-profit), Franklin Energy (for-profit), University of Illinois at Chicago Energy Resources Center (not-for-profit)
 - Affordable Housing New Construction – Seventhwave (not-for-profit)
 - Income Eligible Lighting Discounts – CLEAResult (for-profit)
 - Low Income Kits – University of Illinois at Chicago Energy Resources Center (not-for-profit), 15 community action agencies in the ComEd territory (not-for-profits)
 - Food Bank – CLEAResult (for-profit), Greater Chicago Food Bank (non-for-profit), Northern Illinois Food Bank (non-for-profit), Riverbend Food Bank (non-for-profit)
 - Outreach & Marketing – Eire (WBE for-profit), Faith in Place (not-for-profit), Franklin Energy (for-profit), Ignition (for-profit), PACO (MBE for-profit), Surge Solutions (MBE for-profit)

Total Resource Cost (TRC)

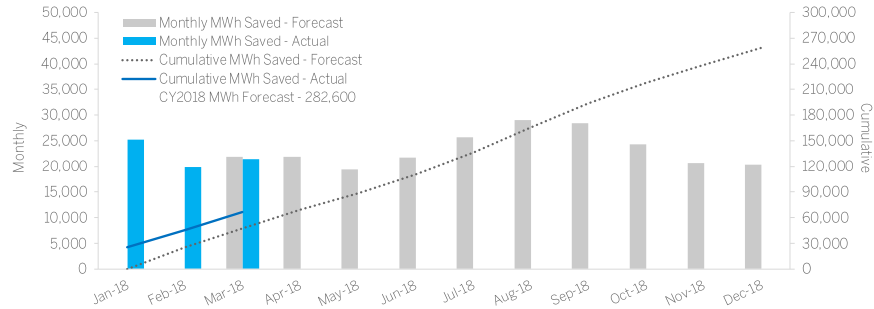
CY2018 New Measures

All measures in the table below were launched in CY2018.

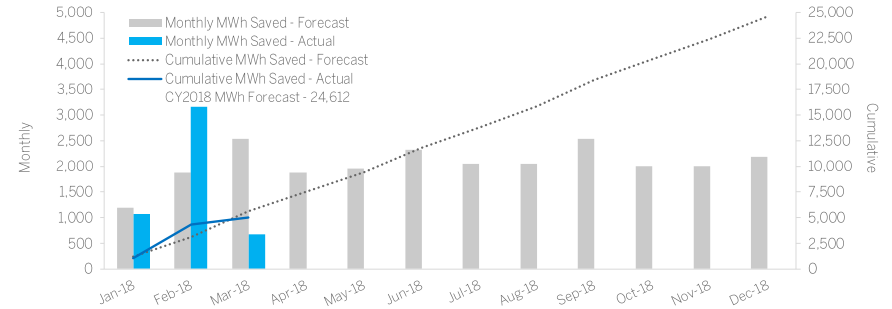
MEASURE TOTAL RESOURCE COST (TRC)		
	Sector	TRC
Screw-In HID LED Mogul Base	Business	2.50
Screw-In HID LED Medium Base*	Business	2.04
4 & 2 Pin Base LED*	Business	0.61
Closet to Colocation	Business	3.55
Compressed Air Storage	Business	7.10
Voltage Optimization	Business	3.79
LED Traffic and Pedestrian Signals Flashing Signal	Business	2.51
LED Traffic and Pedestrian Signals Round Signals	Business	1.69
LED Traffic and Pedestrian Signals Turn Arrows*	Business	0.43
LED Traffic and Pedestrian Signals Pedestrian Sign	Business	3.95
Packaged RTU Sealing	Business	1.42
Dehumidifiers	Residential	2.46
ComEd Affordable Housing New Construction Standard*	Residential	0.85

Residential Programs – Monthly Charts

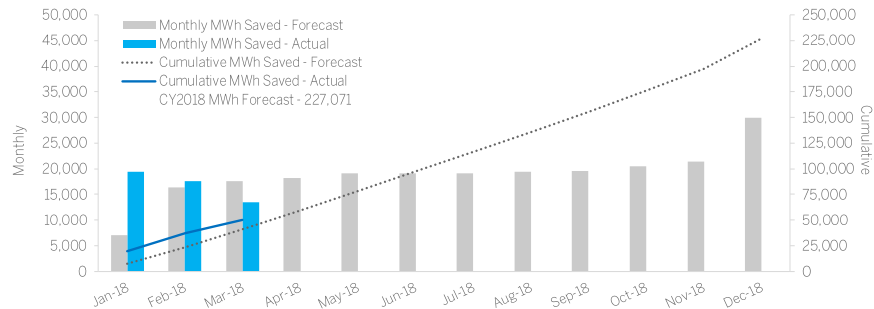
HOME ENERGY REPORT NET MWH



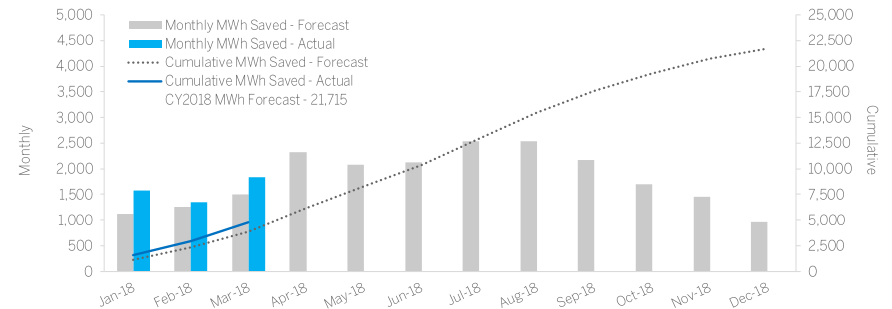
HOME ENERGY ASSESSMENTS NET MWH



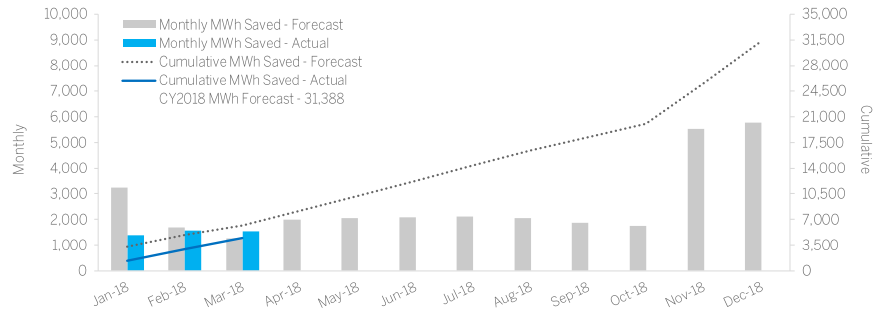
RESIDENTIAL LIGHTING NET MWH



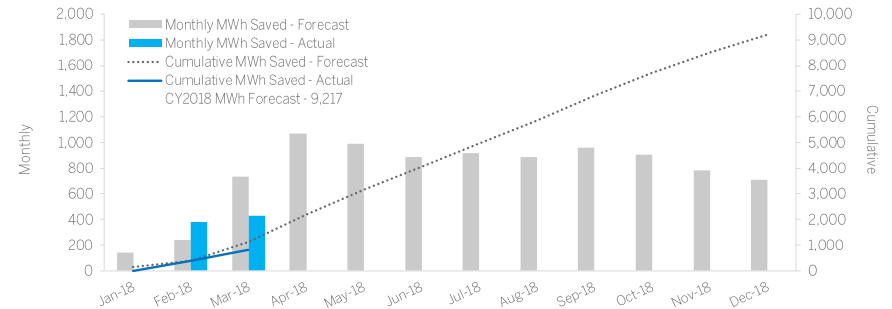
FRIDGE & FREEZER RECYCLING NET MWH



APPLIANCE REBATES NET MWH

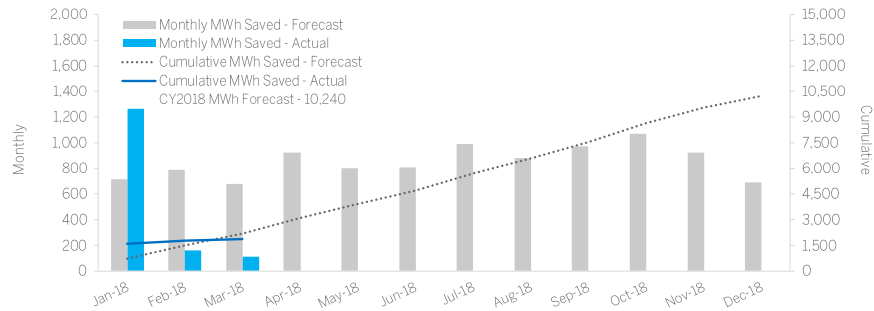


MULTI-FAMILY ASSESSMENTS NET MWH

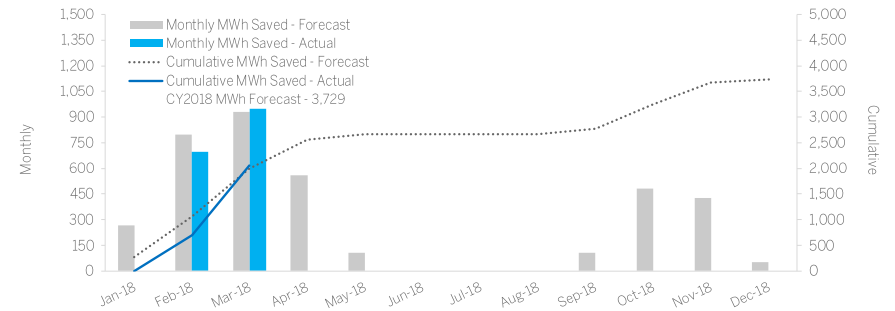


Residential Programs – Monthly Charts

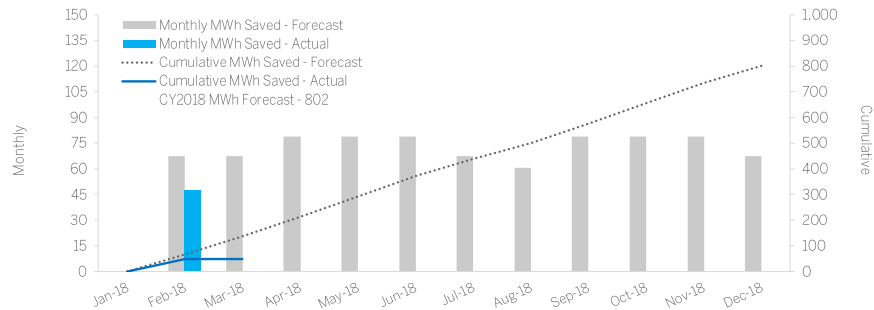
HEATING AND COOLING REBATES NET MWH



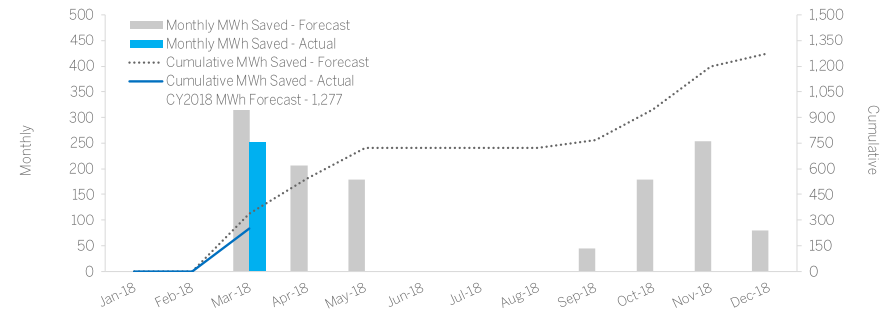
ELEMENTARY ENERGY EDUCATION NET MWH



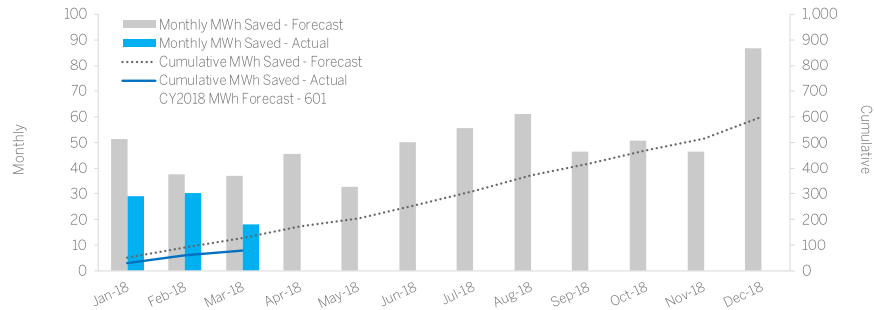
WEATHERIZATION NET MWH



NATIONAL THEATRE FOR CHILDREN KITS NET MWH

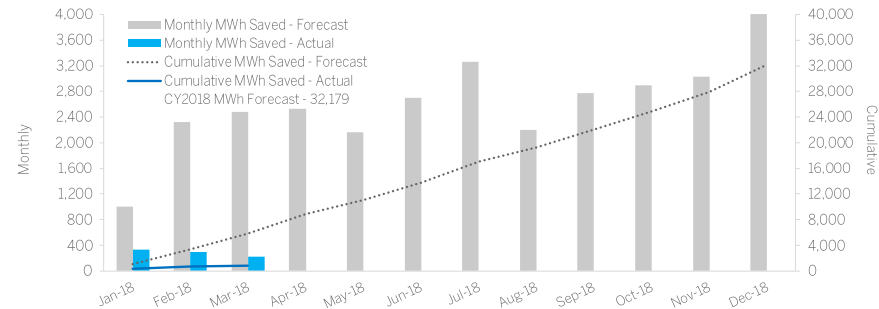


RESIDENTIAL NEW CONSTRUCTION NET MWH

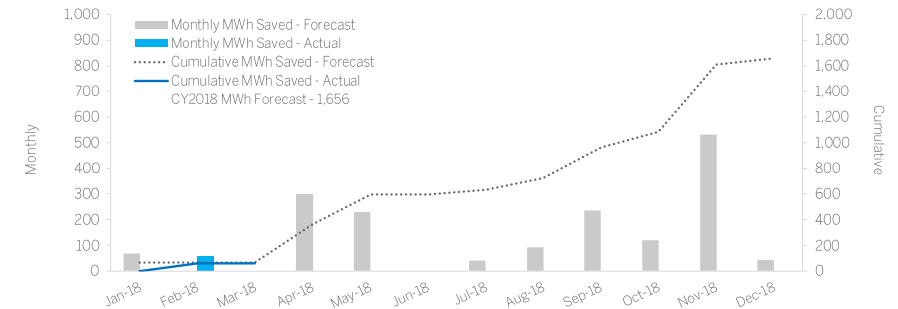


Income Eligible Programs – Monthly Charts

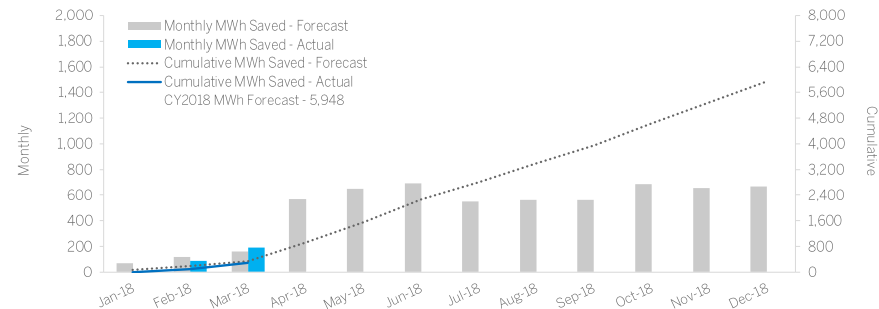
INCOME ELIGIBLE LIGHTING DISCOUNTS NET MWH



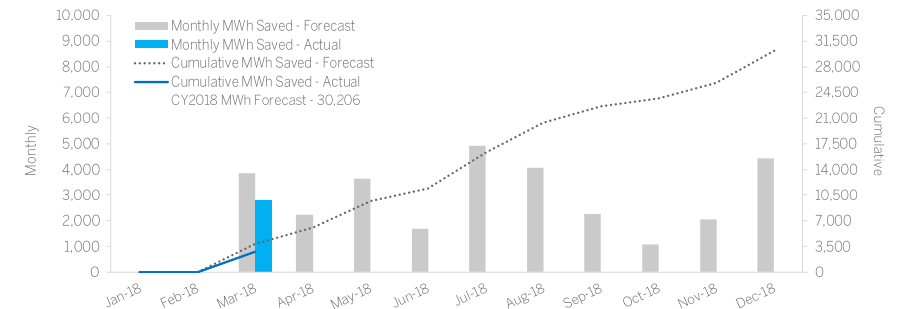
AFFORDABLE HOUSING NEW CONSTRUCTION NET MWH



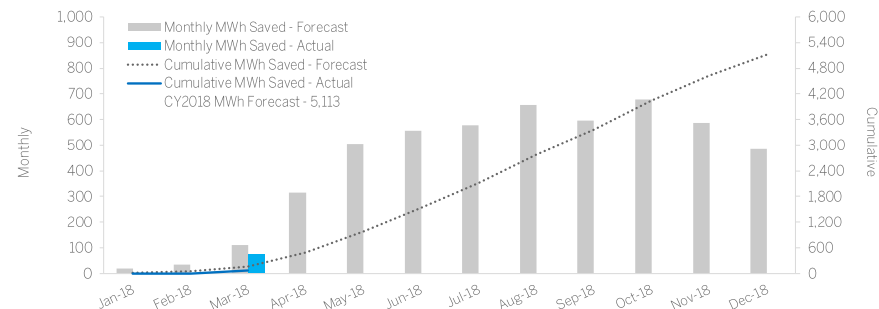
SINGLE-FAMILY RETROFITS NET MWH



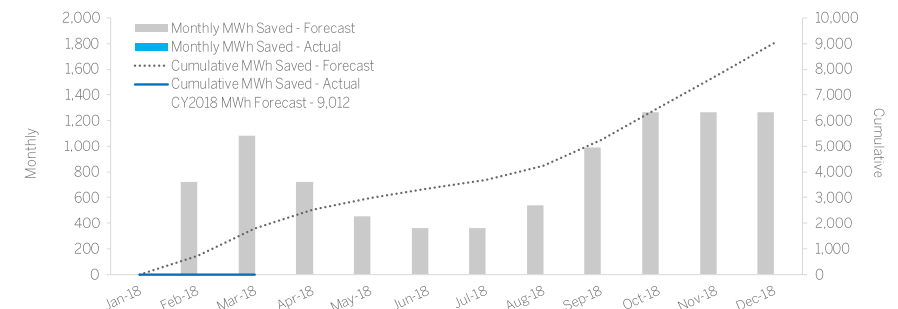
FOOD BANK LED DISTRIBUTION NET MWH



MULTI-FAMILY RETROFITS NET MWH

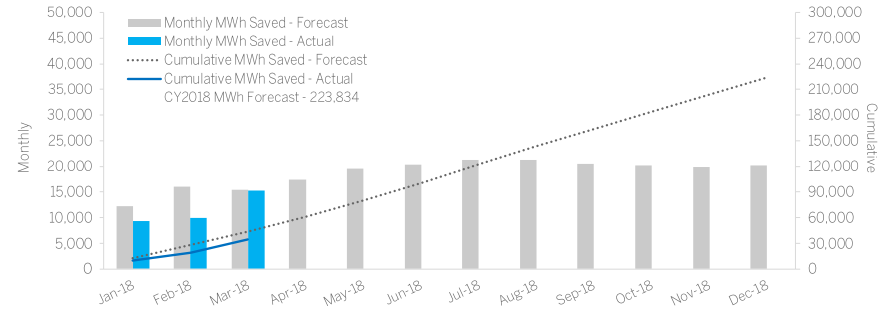


INCOME ELIGIBLE KITS NET MWH

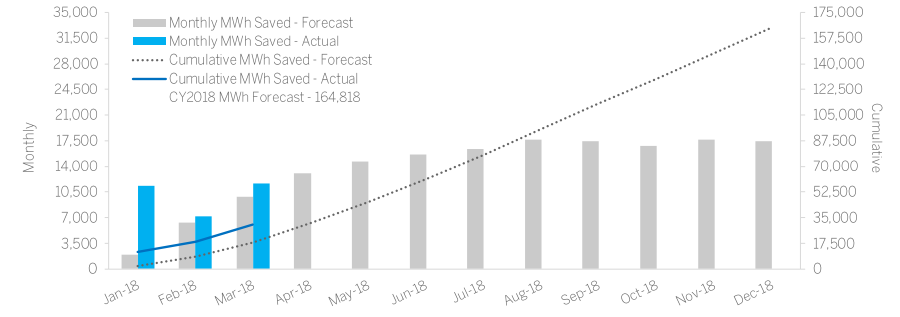


Business Private Programs – Monthly Charts

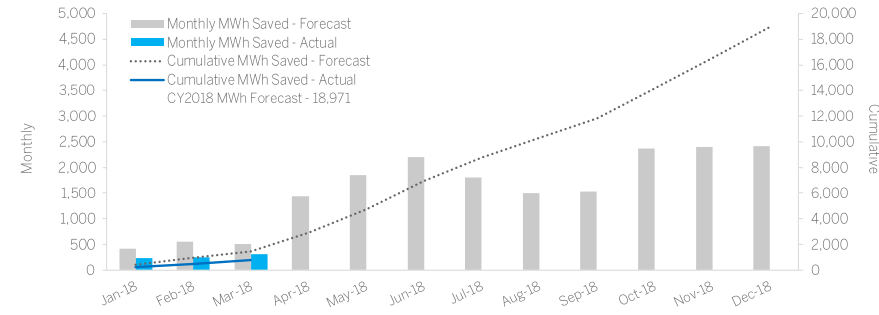
STANDARD PRIVATE NET MWH



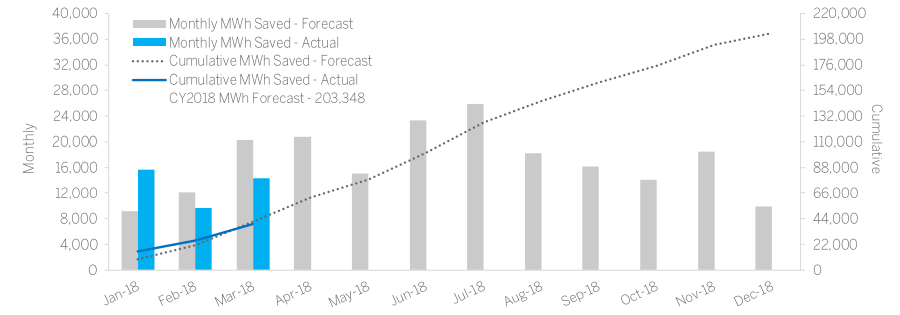
SMALL BUSINESS PRIVATE NET MWH



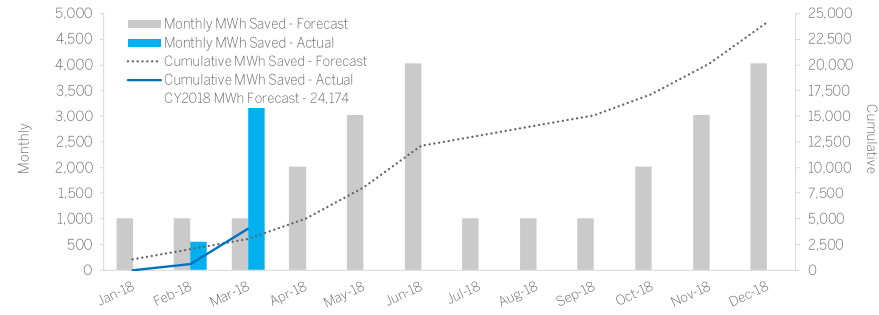
CUSTOM PRIVATE NET MWH



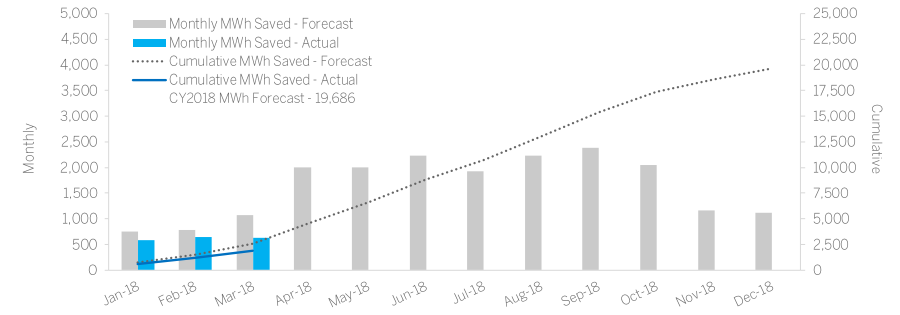
INSTANT DISCOUNTS PRIVATE NET MWH



DATA CENTER PRIVATE NET MWH

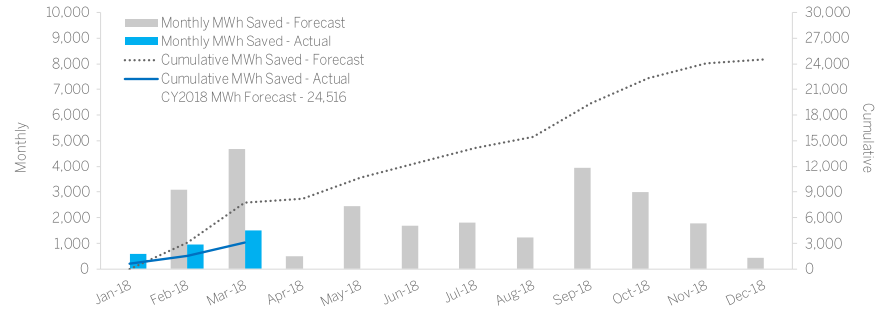


AIRCARE PLUS PRIVATE NET MWH

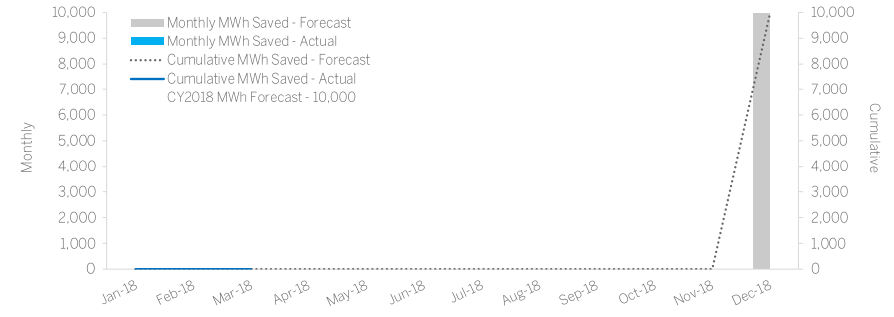


Business Private Programs – Monthly Charts

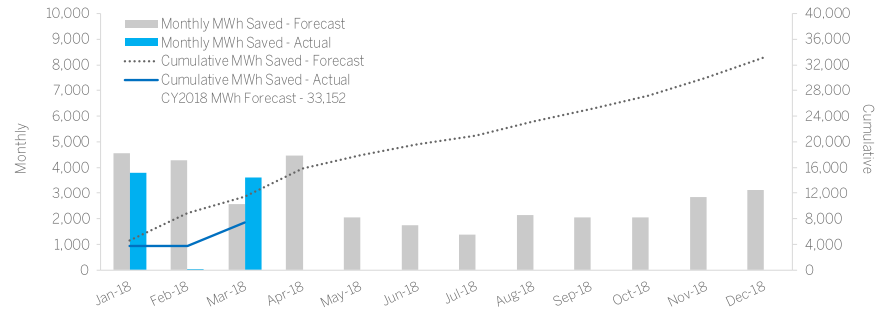
BUSINESS NEW CONSTRUCTION PRIVATE NET MWH



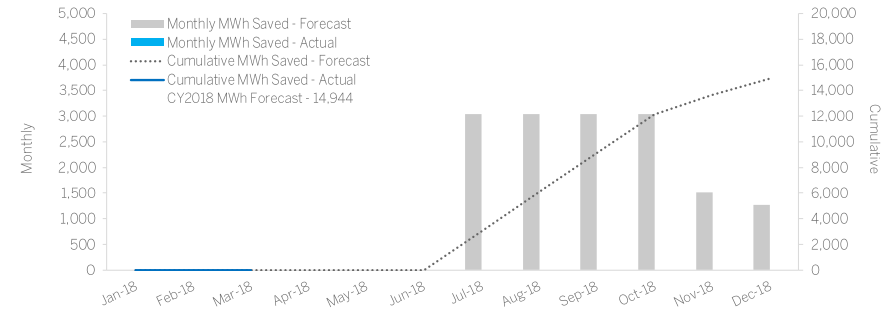
STRATEGIC ENERGY MANAGEMENT PRIVATE NET MWH



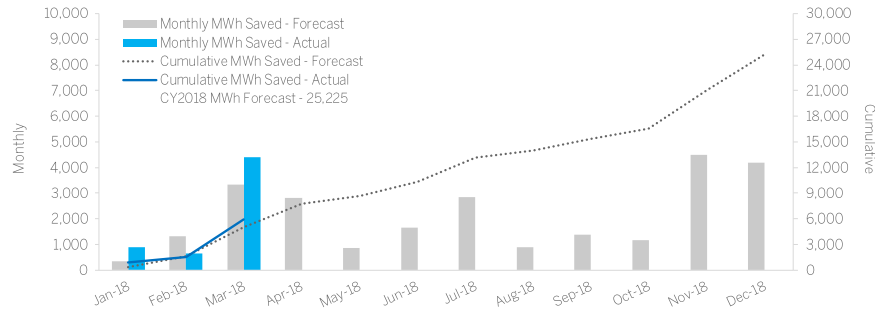
INDUSTRIAL SYSTEMS PRIVATE NET MWH



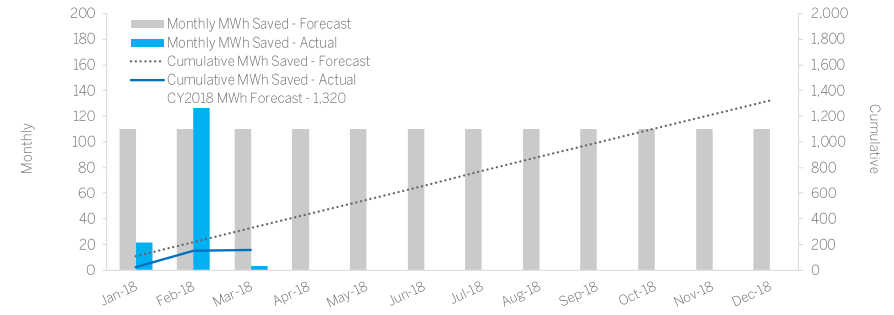
LED STREET LIGHTING PRIVATE NET MWH



RETRO-COMMISSIONING PRIVATE NET MWH

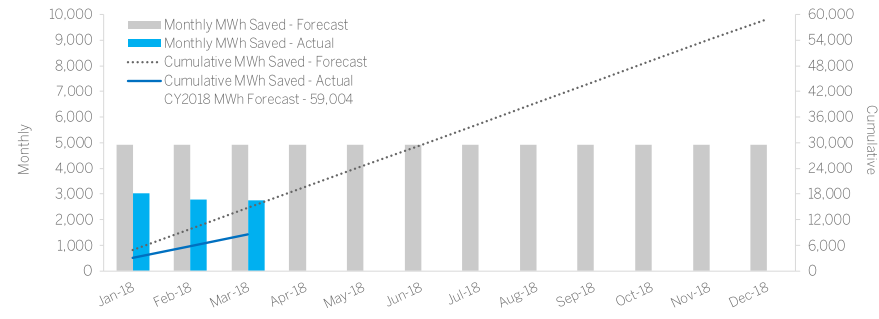


OPERATIONAL SAVINGS PRIVATE NET MWH

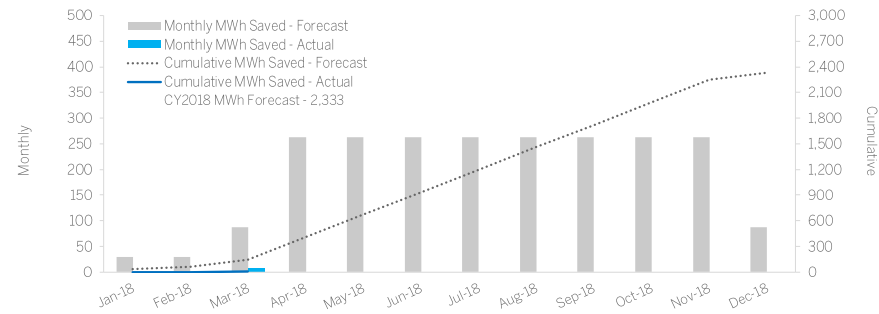


Business Private Programs – Monthly Charts

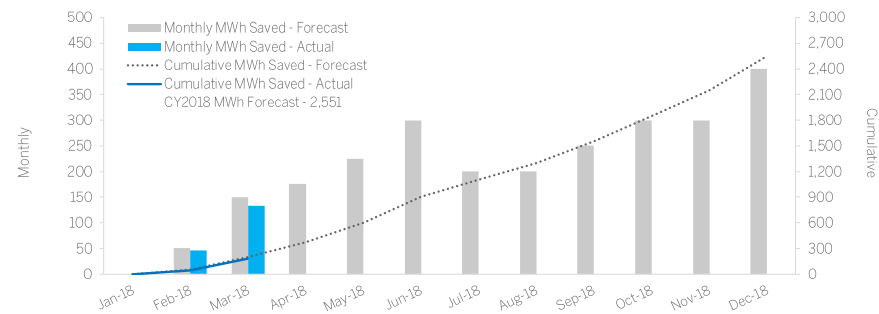
BUSINESS ENERGY ANALYZER PRIVATE NET MWH



RURAL SMALL BUSINESS KITS PRIVATE NET MWH

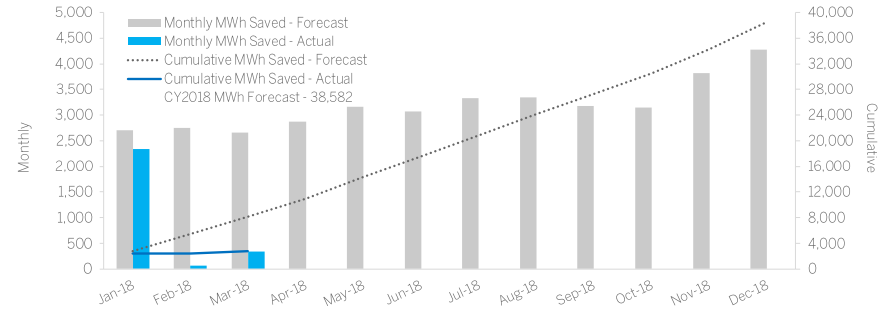


POWER TAKEOFF PRIVATE NET MWH

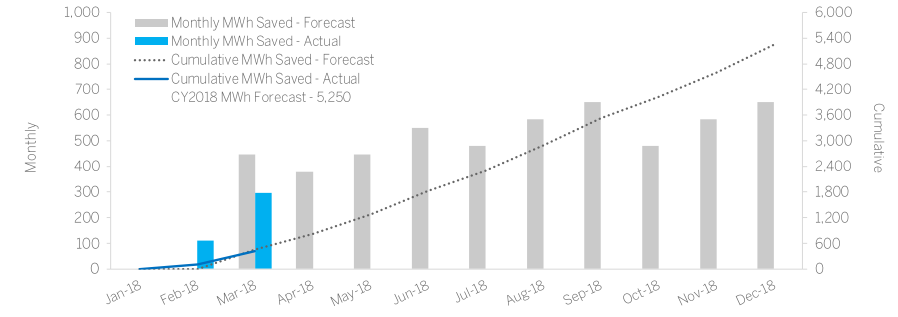


Business Public Programs – Monthly Charts

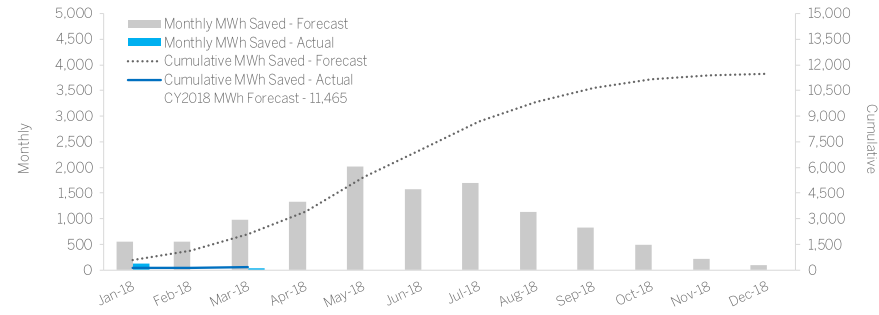
STANDARD PUBLIC NET MWH



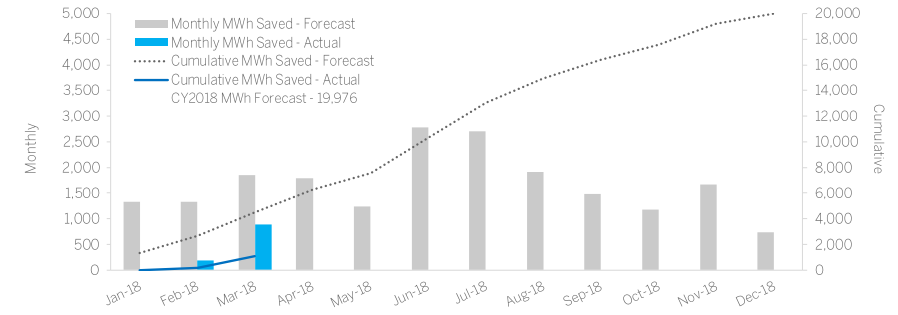
SMALL BUSINESS PUBLIC NET MWH



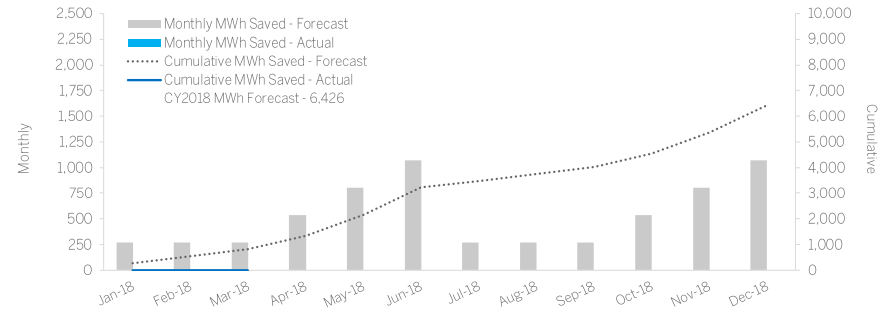
CUSTOM PUBLIC NET MWH



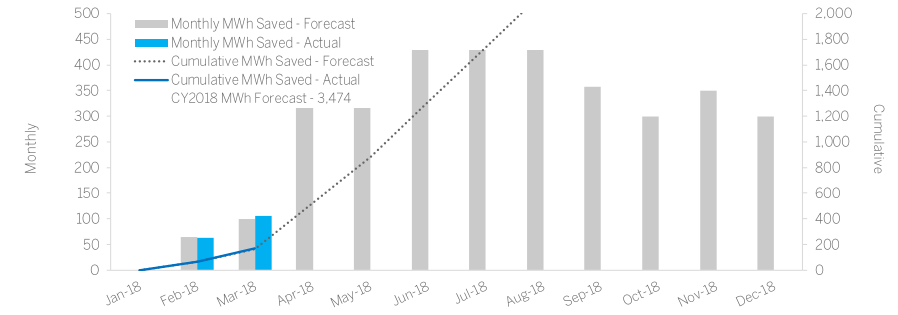
INSTANT DISCOUNTS PUBLIC NET MWH



DATA CENTER PUBLIC NET MWH

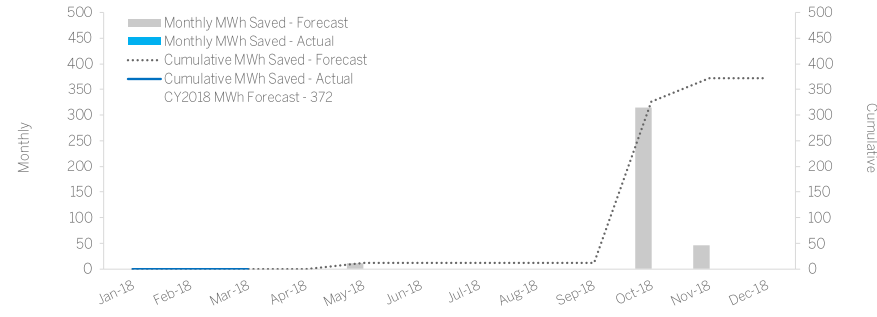


AIRCARE PLUS PUBLIC NET MWH

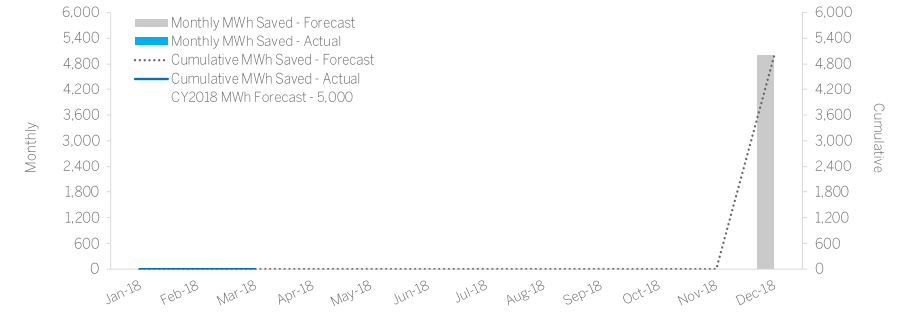


Business Public Programs – Monthly Charts

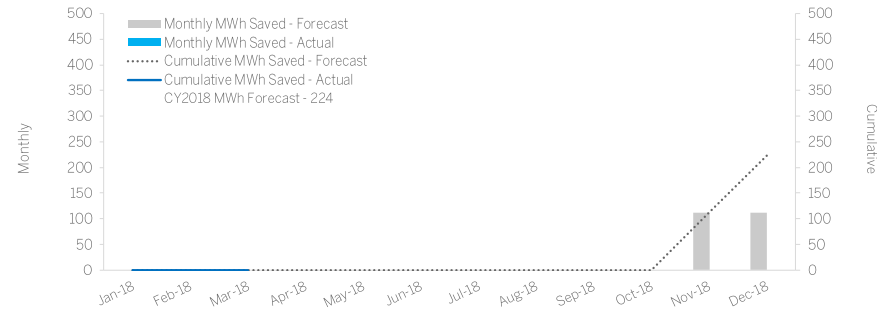
BUSINESS NEW CONSTRUCTION PUBLIC NET MWH



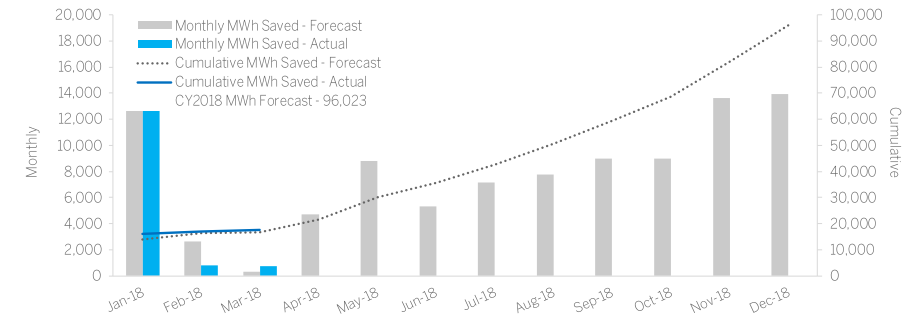
STRATEGIC ENERGY MANAGEMENT PUBLIC NET MWH



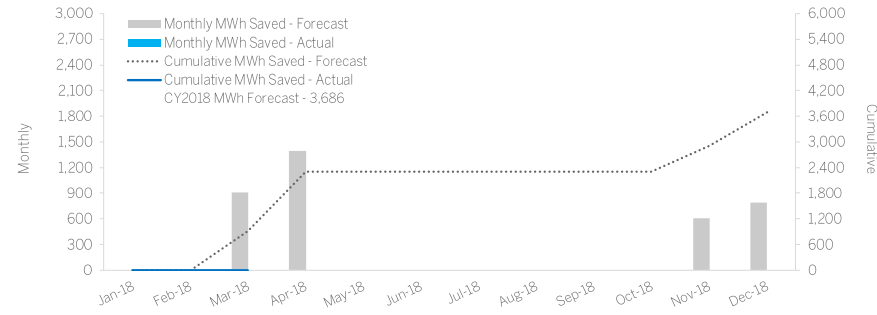
INDUSTRIAL SYSTEMS PUBLIC NET MWH



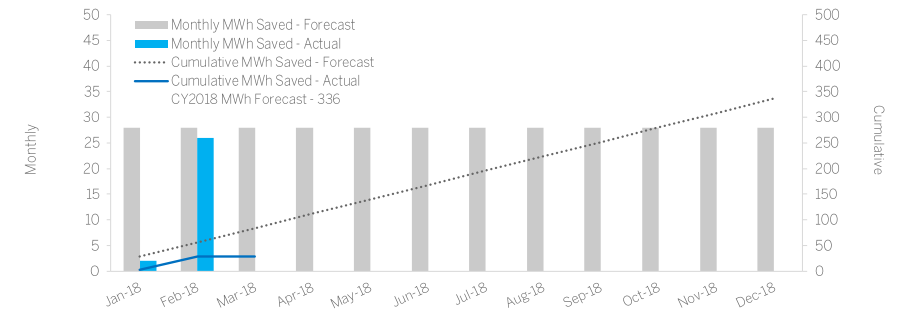
LED STREET LIGHTING PUBLIC NET MWH



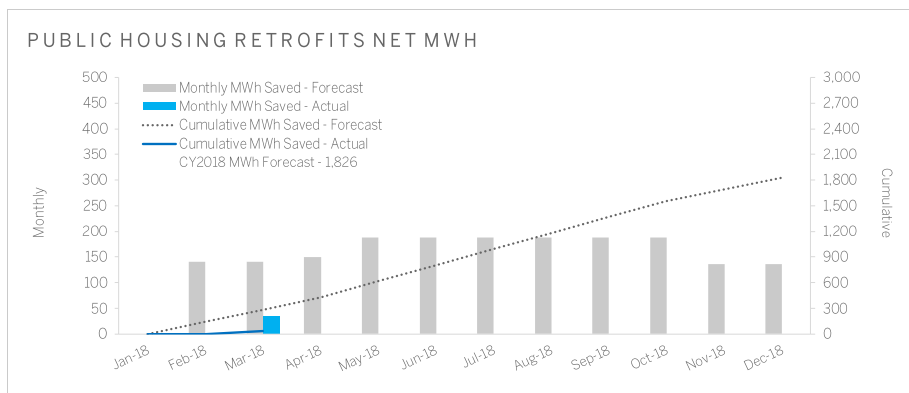
RETRO-COMMISSIONING PUBLIC NET MWH



OPERATIONAL SAVINGS PUBLIC NET MWH



Business Public Programs – Monthly Charts



Voltage Optimization – Monthly Chart

