

ComEd Energy Efficiency Program



CY2018

SECOND QUARTER REPORT



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.

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Portfolio Summary

700,611

Actual Net MWh YTD

1,873,240

CY2018 MWh Forecast

1,713,451

CY2018 MWh Filed Goal

\$137,150,596

Actual Spend YTD

\$336,157,179

CY2018 Long-Range Plan

\$351,633,881

CY2018 Filed Budget

PORTFOLIO

- Through Q2, the portfolio has achieved 37% of its CY2018 forecast of 1,873,240 MWh and 41% 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 \$3.29 billion on their electric bills.

RESIDENTIAL PROGRAMS

- Through Q2, residential programs have achieved 44% of their combined CY2018 forecast of 665,442 MWh.
- Customers have received over 68,000 rebates, recycled over 24,000 appliances, and received over 14,000 assessments through Q2.
- ComEd has collected and responsibly recycled more than 395,000 refrigerators and freezers since ComEd began to offer this service to our customers in June 2008.

INCOME ELIGIBLE PROGRAMS

- Through Q2, income eligible programs have achieved 27% of their combined CY2018 forecast of 80,275 MWh.
- An additional 3,943 MWh savings were converted from approximately 134,500 therm savings achieved by income eligible programs, including Public Housing Retrofits, through Q2.
- Over 5,900 income eligible households have participated through Q2.
- 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 Q2, business private sector programs have achieved 41% of their combined CY2018 forecast of 741,238 MWh.
- Over 6,900 business private sector projects have been completed through Q2.

BUSINESS PUBLIC PROGRAMS

- Through Q2, business public sector programs have achieved 24% of their combined CY2018 forecast of 168,646 MWh.
- Over 300 business public sector projects have been completed through Q2.

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.

- 135,630 MWh savings achieved (47% 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.
- The program auto-enrolled 160,000 High Usage Alert customers during May and June.
- The program increased the number of emailed Home Energy Report (eHER) customers by 92,000 in June; these customers already received the print HER and will now receive the eHER in addition. The new email addresses were a combination of refill customers and existing HER customers who updated MyAccount and provided their email addresses since the last eHER enrollment.

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.

- 109,635 MWh savings achieved (41% of forecast) based on 4,751,895 units sold
- Over 4.7 million LEDs, LED trim kits, and LED integrated fixture have been sold through Q2.

- Field representatives have conducted over 200 in-store lighting demonstrations and trained more than 6,000 store associates, including appliance retailers.

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.

- 10,073 MWh savings achieved (26% of forecast) based on 58,339 appliance rebates issued
- On May 4, 2018, ComEd launched a new channel for customers to purchase ENERGY STAR® certified smart thermostats. The new channel offers eligible ComEd customers the opportunity to receive an instant coupon for use while in-store to purchase a qualifying smart thermostat. After being validated, the ComEd customer can present the instant coupon from their mobile device at checkout and receive the \$100 rebate instantly.
- The program is currently running a marketing awareness campaign that includes cable TV, radio, billboards, print and digital ads.

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.

- 11,734 MWh savings achieved (54% of forecast) based on 24,511 pickups
- Over 24,000 appliances have been recycled through Q2.

Residential Programs

- For the first time in the history of the program, the program recycled 6,000 units in one month. This shows the popularity and success of the program among ComEd customers.
- Approximately 97% of customers are very satisfied with the convenience of the program and the professionalism crews have shown out in the field.
- ComEd has collected and responsibly recycled more than 395,000 refrigerators and freezers since we began to offer this service to our customers in June 2008.

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 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.

- 10,638 MWh savings achieved (43% of forecast) based on 8,133 assessments
- A total of 8,133 customers have received assessments through Q2. More than 3,200 additional assessments are already scheduled.
- 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.
- The program is adding additional in-field positions as well as operational positions to provide a sustainable set of resources to reduce customer wait time and continue to meet demand for the program.

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.

- 4,848 MWh savings achieved (45% of forecast)
- The program has completed 494 assessments, direct install work in 5,809 tenant units and 273 common area spaces, and 96 trade ally projects through Q2.
- The program capitalized on the demand generated during Q1 for both direct install and trade ally projects to achieve strong results during Q2. Participation is expected to continue at a high level through Q3 and into Q4.
- The direct distribution opportunities for Tier 1 advanced power strips has grown, with an install rate of more than 50% through Q2.

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.

- 4,309 MWh savings achieved (42% of forecast) based on 10,372 rebates
- Over 10,300 customers have received rebates for energy efficient heating and cooling equipment, including contractor-installed smart thermostats, through Q2.
- The program increased instant discount offerings.
- 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 customers on the tool.

Residential Programs

- The trade ally network has increased from 205 trade allies at the end of Q1 to 367 trade allies at the end of Q2.

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.

- 161 MWh savings achieved (20% of forecast) based on 504 projects
- Through Q2, over 500 customers have received rebates for completing weatherization projects in the combined Peoples Gas, North Shore Gas and Nicor Gas service territories.
- Total number of approved weatherization contractors increased as the program continues to have territory wide coverage for weatherization rebates.
- The program continues to make up ground for inactivity at the start of CY2018, including tapping existing contractors to increase focus and efforts on work in the ComEd service territory.

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.

- 2,535 MWh savings achieved (68% of forecast) based on 18,152 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.

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.

- 148 MWh savings achieved (32% of forecast) based on 292 homes
- A total of 292 homes have been completed through Q2.
- The program is currently forecasted to fall below goal. This is due to a recent update to the American National Standards Institute (ANSI) standard which negatively impacted savings per home.
 - The program team is still working with Navigant to gain approval to begin collecting prescriptive savings for lighting and appliance measures not currently captured through the energy modeling. The team has provided proposed savings calculations for these measures to Navigant and will be discussing them in Q3.
 - In efforts to increase program awareness and participation, the program team is supplementing continuing outreach efforts to HERS rating companies and builders, with new marketing avenues such as sponsorship of the GreenBuilt Home Tour and a builder focused training scheduled for later this year.

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

- 677 MWh savings achieved (60% of forecast) based on 4,248 kits

Residential Programs

- Beginning in CY2018, 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.**
- Based on feedback from Navigant, NTC will now include the breakdown of single-family and multi-family dwellings when calculating domestic hot water measure savings.
- 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.

- 5,302 MWh savings achieved (18% of forecast) based on 132,716 units sold
- Field representatives are now equipped with smaller demo tables and ComEd branded tablecloths which will allow them to hold in-store consumer events in stores with a smaller footprint.
- More product continues to be added to the program, offering more variety to this new customer segment.
- A marketing campaign beginning in Q2 provided opportunity to promote the program through print and digital ads, cable TV, cinema, and radio. The campaign was offered in both English and Spanish.
- This new program offering for CY2018 experienced a slow ramp-up in Q1 and part of Q2; however, the program began to see momentum toward the end of Q2.

Single-Family Retrofits

Overview: The Single-Family Retrofits Program is implemented by Resource Innovations and the Illinois Community Action Agencies, as well as Franklin Energy and the Chicago Bungalow Association (CBA). Implementers complete comprehensive home energy audits and work with contractors to make weatherization and additional upgrades at no cost to the customer. On the Franklin/CBA side, 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. On the Resource Innovation/CAA side, ComEd,

in coordination with the northern gas utilities is partially and, in some cases, fully funding whole home energy upgrades, in coordination with the State and its Illinois Home Weatherization Assistance Program. Measures may include all of those in the Franklin/CBA side, as well as mechanicals.

- 819 MWh savings achieved (16% of forecast) based on 637 projects
- An additional 65 MWh savings were converted from approximately 2,200 therm savings achieved through Q2.
- Through Q2, a total of 596 income-eligible customers have had projects completed in their home at no out of pocket expense. A total of 41 weatherization projects have been completed.
- 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.
- Launched late in Q2, the program is piloting the same program in Oak Forest, IL, with a goal of completing 250 homes in CY2018 to assess further expansion in future years.
- 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 Q2 were focused on (1) establishing processes and procedures for working directly with the Community Action Agencies (CAAs) to braid utility incentive funds, (2) executing participation agreements between the implementer and the CAAs, (3) implementing and training each agency on the data collection tool for project data submittal, (4) establishing agency-level forecasts and reporting requirements to further refine the CY2018 potential, (5) processing of initial project submittals from agencies and (6) coordination with DCEO and stakeholders to finalize the partnership agreement and savings attribution for jointly funded projects.
 - Efforts during Q3 will focus on (1) processing of all remaining back-log activity completed by agencies in the first half of the year, (2) support to agencies for processing of real-time braiding of funding after the start of the next IHWAP fiscal year on July 1st, (3) implementation of marketing and operational support to increase customer participation in braided

Income Eligible Programs

IHWAP projects and utility-only funded jobs, and (4) tracking and monitoring of agency-level participation to ensure agencies are able to achieve annual targets.

Multi-Family Retrofits

Overview: The Multi-Family Energy Upgrade Program is implemented by Elevate Energy, and Resource Innovations and the Illinois Community Action Agencies. The program is a one-stop shop for multi-family building owners and managers whose buildings serve income-eligible residents, including energy assessments, direct installation of energy-saving devices, and replacement of inefficient equipment/systems at no or very limited cost. The CAA work is jointly funded with the gas utilities, and Elevate is joint with Peoples/NorthShore.

- 823 MWh savings achieved (16% of forecast)
- An additional 3,872 MWh savings were converted from approximately 132,100 therm savings achieved through Q2.
- Through Q2, direct install work has been completed in 1,943 tenant units and 50 common area spaces. A total of 32 trade ally projects, 52 weatherization projects, and 8 capital improvement projects have also been completed.
- The outreach efforts and assessments performed during Q1 began to yield results during May and June, with more projects and energy savings realized than in previous months. The volume of contractor-installed projects, along with direct install work, is expected to be even greater throughout Q3 and remain strong during Q4.
- The primary focus during Q2 was refining internal processes and workflows to improve the scope and timing of projects and increase the volume of work for the remainder of the year.
- The IHWAP program is coordinated by Resource Innovations for both the Multi-Family Retrofits and Single-Family Retrofits programs. Please refer to the Single-Family Retrofits highlights for IHWAP program highlights.

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.

- 288 MWh savings achieved (50% of forecast) based on 3 projects
- A total of 203,726 income-qualified square feet has been incentivized through Q2.
- There are six projects in the pipeline for CY2018 with potential savings of over 250 MWh and 273,000 income-qualified square feet.
- In May, husARchitecture began serving as a technical subcontractor to Seventhwave. They began training on conducting site visits and developing incentive calculations for projects.
- During Q2, developers were contacted regarding ICC installer program requirements.
- The ComEd Multi-Family Standard was developed in collaboration with New Buildings Institute in Q1. In Q2, the program worked with project teams to incorporate the newly developed ComEd Multi-Family Standard, with some minor exceptions, into five projects. These minor exceptions are anticipated to have a minimal effect on the estimated savings and will help inform further evolution of the program.
- Four new project applications from prior program participants came into the program. Additionally, the program received positive feedback from several customers noting the ability to attentively work with them and gaining confidence in obtaining incentives as a key component to project funding.
- The program savings goal was set based on prior DCEO program estimates. Upon analysis of TRM deemed savings for typical projects and the evaluation of a singular project, those estimates have been shown to be inaccurate for forecasting. A new set of scaled savings estimate is in development. On June 29th, 13 projects were submitted to Navigant for a first round wave of evaluation calculations. Based on results from that assessment, the program will update forecasted savings.

Food Banks Distribution

Overview: The Food Banks Distribution Program provides ENERGY STAR® LEDs and advanced power strips 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 and one advanced power strip.

Income Eligible Programs

- 14,078 savings achieved (47% of forecast) based on 700,656 products
- Beginning in CY2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program has distributed 697,344 9W LED bulbs and 3,312 advanced power strips through Q2.
- Q2 **included the program's first community volunteer event at New Hope Baptist Church in Bolingbrook.** ComEd and CLEAResult staff handing out product directly is a new method of outreach for the program. This method **provided powerful insight for the program's future outreach potential.**
- More progress was made towards conducting a survey of program participants. The program completed initial outreach to pantries to see which would collect completed survey postcards from program participants. Distribution of survey postcards will begin with this select group of pantries before expanding to a wider array.
- Field visits and team participation increased in Q2. Management, the program specialist, and designated members of the field team have all been engaged in reaching out to program partners to improve the program and to educate the food pantries. Eight food pantry visits were made to a wide variety of facilities and geographic areas in the ComEd service territory.
- Other Community Based Organizations and 58 Community and Economic Development Association of Cook County, Inc. partner offices are onboarding the distribution of kits. The recruitment of other organizations, intake staff training, and greater offering visibility will continue to improve program performance.

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.

- 549 savings achieved (6% of forecast) based on 2,450 kits
- Beginning in CY2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program collaborated with the Chicago Department of Planning and Development on the 14th Annual Rents Rights Expo where 150 kits were delivered to customers. The program was recruited to participate in similar events and deliver kits to the income eligible community.

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.

- 80,028 MWh savings achieved (38% of forecast) based on 1,221 projects
- There are currently an additional 1,089 projects with potential savings of approximately 90,000 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 continued two important bonuses in Q2: HVAC Chiller Bonus and HVAC VSD Bonus.
- Internal reporting processes were improved with the addition of several metrics related to outreach, staffing, and program spend to weekly reports for program management.

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.

- 4,131 MWh savings achieved (24% of forecast) based on 35 projects
- There are currently an additional 91 projects with potential savings of approximately 20,500 MWh in the pipeline for CY2018.
- The program experienced significant growth in kWh savings and incentive distributions in Q2.
- Cancelled projects decreased significantly, from 50 percent to 38 percent, in Q2.

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.

- 5,549 MWh savings achieved (20% of forecast) based on 7 projects
- There are currently an additional 27 projects with potential savings of approximately 21,200 MWh in the pipeline for CY2018.
- Marking and outreach campaigns have brought in new customers at each event.
- The program is on track to exceed its savings goal and has a strong pipeline for CY2018 and CY2019.

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 March 15th. Activity is expected to ramp up in Q3.
- There is currently one feasibility study being performed with an additional three studies in the CY2018 pipeline.
- The number of Technical Service Providers (TSPs) increased from 11 to 27 in Q2.
- The program is currently focused on stronger outreach and communication, with ERC leveraging their strong regional CHP expertise and reputation to

Business Private Programs

actively spread word about the program while also performing direct customer recruitment.

- Program eligibility has been extended to customers with a facility peak demand >500 kW.
- Due to a long sales and development cycle, CY2018 will see a lot of activity in building a pipeline of projects for CY2019 and not actual installations.

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.

- 84,215 MWh savings achieved (51% of forecast) based on 3,194 projects
- The program collaborated with the AirCare Plus and Public Small Facilities teams to host a networking and educational event to encourage partnerships amongst trade ally companies to help fully service customer needs.
- The program is working with Solutions for Energy Efficiency Logistics (SEEL) to promote the program within underrepresented, or lower participating, areas.
- The program onboarded five new small business trade allies. All small business trade allies are ICC certified.
- The program continued to release new versions of the Mobile Assessment Tool to improve the experience for both trade allies and customers.
- Multiple waves of Trade Ally Mentorship were completed including the Track 1 initiative which focuses on partnering new trade allies with long-standing trade allies as a path for growth and success.

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.

- 76,841 MWh savings achieved (46% of forecast) based on 1,070,252 products sold
- A key distributor, Grainger, has nearly doubled their participation levels since PY9. They are also very active with the public sector, which is helping to drive their growth.
- Beginning in June, a bonus of \$3.00 per lamp was added to PAR lamp incentives to spur sales of this high impact, low cost per kWh measure.
- The program is tracking approximately 15 percent above PY9 levels, but approximately 20 percent below target for mid-year. The program has approved several trigger tactics that will launch in Q3 and Q4 to close the gap.

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.

- 6,090 MWh savings achieved (31% of forecast) based on 740 units
- 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 CY2018, the program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- Work has been completed on 740 units, and 1,604 measures have been installed through Q2.
- Unseasonably cold weather delayed the start of the AC tune-up season until late June.
- Earlier this year, the program added three new measures to its list of offerings: RTU Real Seal, Advanced Rooftop Controls, and Advanced Early Unit Retirement. Several of these measures were implemented through the contractor network in Q2. RTU Real Seal has been an especially popular measure in **the program's trade ally** network. These measures have also

Business Private Programs

been accepted by the Illinois Technical Advisory Committee (TAC) to be added to the Illinois TRM in 2019.

- The basic tune-up measure was introduced in CY2018 to incentivize trade allies who successfully tune units but are unable achieve the minimum 10 percent improvement in unit efficiency. This measure assumes deemed savings from the Illinois TRM which assumes a 6 percent increase in efficiency from condenser and evaporator coil cleaning. With the slow start of the tune-up season, the program saw many basic tune-up measures implemented in Q2.
- Q2 saw an increase of approximately 230 percent in customer survey responses by asking customers to provide feedback while the site is being audited. The overall customer satisfaction score is 93 percent, with approximately 88 percent responding that they were very satisfied with the contractor and services performed.
- The program added seven trade allies to the AirCare Plus network. The network now has 42 trade allies. The newer trade allies were added from areas where there was either no previous program presence or areas that have seen an increase in demand.

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 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.

- 7,218 MWh savings achieved (40% of forecast) based on 23 projects
- The program accepted 28 new project applications in Q2, of which 10 were Expedited Assistance, one was Accelerate Performance, and seven were public sector projects.
- There are an additional 61 projects in the CY2018 pipeline for potential savings of approximately 11,500 MWh.
- The program hosted a sold-out event that brought over 100 commercial buildings professionals together to discuss high performance detailing of building enclosures in new construction. This event had keynote speaker,

international building enclosure expert John Straube, PhD, PEng, along with local building envelope specialists, discuss recent innovations and real-world applications of high-performance enclosures. Attendees learned critical details for design and construction, advanced details for performance and advances in glazing systems.

- The program delivered a webinar on market-ready technologies for new construction, which highlighted a DCEO public sector research study conducted in 2017.
- The program is undergoing a thorough review of its marketing plan with the goals of both increasing enrollment and driving deeper energy savings from enrolled projects.

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 like custom measures.

- 6,717 MWh savings achieved (26% of forecast) based on 30 projects
- There are an additional 50 projects in the CY2018 pipeline for potential savings of approximately 12,400 MWh.
- In Q2, Franklin Energy was the sole program implementer for this program, after transitioning from CLEAResult. Additionally, Franklin Energy will provide industrial outreach for past Facility Assessment leads using an energy advisor model.
- The program developed several new pilots including a compressed air leak survey and repair, and compressed air system monitoring.
- The program added five new TSPs that will target industrial refrigeration and waste water treatment plants.
- The program continued to receive positive feedback from the TSPs on interactions with customers to initiate new studies and implement measures at customer sites.

Business Private Programs

- The program is working on new reporting tools and templates to streamline the process for TSPs to submit applications and reports.

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.

- 13,133 MWh savings achieved (49% of forecast) based on 28 projects
 - 3 RCx (buildings over 400,000 square feet) projects completed
 - 19 RCx Building Tune-Up (buildings less than 150,000 square feet) projects completed
 - 6 RCxpress (buildings between 150,000 and 400,000 square feet) project completed
- Program incentives, service provider fees and performance-based kWh incentives were increased slightly in CY2018 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.
- Project volumes for RCxpress, MBCx, and RCx Building Tune-Up are well above forecasted targets.
- There are potential savings of approximately 15,000 MWh in the CY2018 pipeline.

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 by up to 15% for both electricity and natural gas.

- 0 MWh savings achieved (0% of forecast)
- There are potential savings of approximately 9,500 MWh in the CY2018 pipeline.
- The program began a new industrial customer cohort with Graphet Data Mining to identify and implement no- to low-cost operational improvements and capital measures.
- Cascade Energy submitted a proposal for an industrial refrigeration cohort to start in Q3. CLEAResult submitted a proposal for a commercial real estate cohort to start in Q3; additionally, CLEAResult submitted a proposal for an energy advisor to assist customers with implementation of identified measures.
- 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.

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 33 municipalities with nearly 24,000 fixtures have signed up and are being scheduled for installation in CY2018.
- Installations are in progress. Incentive payments will begin as installation verifications are completed.
- Many projects will be completed in Q4. Meetings are being held to better define the project delivery schedule in Q4 to ensure the program is on track to meet the savings goal.
- There are potential savings of approximately 14,900 MWh in the CY2018 pipeline.

Business Private Programs

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 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.

- 657 MWh savings achieved (50% of forecast) based on 65 implemented measures
- A total of 538 operational measures have been identified through Facility Assessments (FAs).
- A total of 324 FAs have been completed through Q2.

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.

- 903 MWh savings achieved (39% of forecast) based on 1,678 kits
- Beginning in CY2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program did not begin production until the final week of Q1; however, the program is back on track and has already fulfilled 79% of the office kits goal.

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 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.

- 850 MWh savings achieved (33% of forecast) based on 152 actions
- Beginning in CY2018, this program transitioned from the Third-Party IPA to a ComEd Energy Efficiency program offering.
- The program has had 83 participants through Q2.
- 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 program is also coordinating with outreach teams for commercial real estate and health care segments.
- Power TakeOff is now working with the ComEd Facility Assessment (FA) team and Small Business team. Prior to scheduled site visits, the Power TakeOff team will provide the FA engineer with an analysis of the facility, highlighting opportunities for operational improvements that can be discussed with the customer.

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.

- 16,690 MWh savings achieved (48% of forecast)
- The BEA is being maintained until the First Fuel (FF) tool within My Account, part of the Business Intelligence and Data Analytics (BIDA) initiative, can demonstrate comparable performance.
- 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.

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.

- 7,117 MWh savings achieved (23% of forecast) based on 222 projects
- There are currently potential savings of approximately 11,500 MWh in the pipeline for CY2018.
- Within the last two days of the deadline for the New Customer Bonus and HVAC Chiller Bonus, the program received 69 applications for potential savings of approximately 2,500 MWh. When compared to the bridge period of last year, the program saw an increased level of productivity, processing final applications at 30 percent faster rate.

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.

- 630 MWh savings achieved (7% of forecast) based on 4 projects
- There are currently potential savings of approximately 9,500 MWh in the pipeline for CY2018.
- Multiple efforts were made on outreach to Facility Assessment participants to follow-up on leads.
- Waste water treatment projects currently make up the majority of the program's public sector pipeline.

- Final applications were received for three large waste water treatment plant projects with combined potential savings of over 5,000 MWh and \$1.1 million in incentives.

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 13 projects with potential savings of approximately 856 MWh in the pipeline for CY2018.
- Marketing and outreach campaigns have brought in new customers at each event.
- There is a steadily growing pipeline of projects that can be attributed to "boots on the ground" and building relationships with customers and TSPs.
- The program is building relationships with towns, municipalities, and school districts to expand 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 March 15th. Activity is expected to ramp up in Q3.
- There are currently four potential feasibility studies in the CY2018 pipeline.

Business Public Programs

- The number of CHP Feasibility Study Technical Service Providers (TSPs) increased from 11 to 27 in Q2.
- 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.
- Program eligibility has been extended to customers with peak demand >500 kW.
- Due to a long sales and development cycle, CY2018 will see a lot of activity in building a pipeline of projects for CY2019 and not actual installations.

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.

- 1,994 MWh savings achieved (38% of forecast) based on 54 projects
- All projects completed in Q2 were post-inspected.
- The program finalized new marketing materials and participated in customer and trade ally events and workshops in Q2.
- 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 makers that meet on a set schedule is typically required. The program has mitigated the risk of project completion uncertainty by building a robust pipeline that exceeds the savings goal.

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.

- 5,905 MWh savings achieved (64% of forecast) based on 103,683 products sold
- Several schools and public institutions, including the Chicago Transit Authority, have started making purchases via the program.
- Beginning in June, a bonus of \$3.00 per lamp was added to PAR lamp incentives to spur sales of this high impact, low cost per kWh measures.
- The public sector is purchasing mainly 4-foot linear replacement lamps (TLEDs), and LED replacements for high intensity lamps (HID LEDs), both of which are among the most expensive measures in the program. Public sector incentives are running over 30 percent more expensive per kWh than private sector. They comprise 8 percent of total Instant Discounts incentives paid and 5.8 percent of total kWh savings.

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.

- 772 MWh savings achieved (22% of forecast) based on 62 units
- Work has been completed on 62 units, and 115 measures have been installed through Q2.
- Unseasonably cold weather delayed the start of the AC tune-up season until late June.
- The basic tune-up measure was introduced in CY2018 to incentivize trade allies who successfully tune units but are unable achieve the minimum 10 percent improvement in unit efficiency. This measure assumes deemed savings from the Illinois TRM which assumes a 6 percent increase in efficiency from condenser and evaporator coil cleaning. With the slow start of the tune-up season, the program saw many basic tune-up measures implemented in Q2.

Business Public Programs

- Another FTE will be added to the program's outreach team, focusing solely on public sector projects. The delays and slower turnaround time with these projects warranted a public sector focused outreach member.
- Q2 saw an increase of approximately 230 percent in customer survey responses by asking customers to provide feedback while the site is being audited. The overall customer satisfaction score is 93 percent, with approximately 88 percent responding that they were very satisfied with the contractor and services performed.
- The program added seven trade allies to the AirCare Plus network and removed two inactive trade allies from the network. The AirCare Plus network now has 42 trade allies. The newer trade allies were added from areas where there was either no previous program presence or areas that have seen an increase in demand.

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.

- 16 MWh savings achieved (14% of forecast) based on 1 project
- In Q2, the program accepted seven new applications for multiple calendar years.
- The program delivered a webinar on market-ready technologies for new construction, which highlighted a DCEO public sector research study conducted in 2017.
- The program has engaged new public sector customers and public sector-specific design firms through multiple lunch and learn presentations. The program has also partnered with Outreach Service Providers to connect with a larger group of public sector customers in the ComEd service territory. Meetings are currently scheduled with county stakeholder groups, the Illinois Capital Development Board, and school districts.
- The program is undergoing a thorough review of its marketing plan with the goals of both increasing enrollment and driving deeper energy savings from enrolled projects.

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 like custom measures. Wastewater treatment facility is the focus of the public sector market.

- 0 MWh savings achieved (0% of forecast)
- There is currently one project with potential savings of approximately 224 MWh in the pipeline for CY2018.
- The program added three new TSPs that will target waste water treatment plants. One investigation report for a waste water treatment plant is underway.
- Public sector customers tend to move slowly, so completing a study with enough time for implementation within CY2018 may be difficult.

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.

- 1,104 MWh savings achieved (25% of forecast) based on 3 projects
- A total of three RCx (buildings over 400,000 square feet) projects have been completed through Q2.
- There are potential savings of approximately 3,500 MWh in the CY2018 pipeline.
- During CY2018, pre-existing public sector RCx projects are being managed through to completion by SEDAC, the RCx program implementer under DCEO who transitioned to the ComEd program to maintain a smooth customer experience. Public sector RCx projects for which applications were

Business Public Programs

accepted after October 15, 2017 are being managed by Nexant along with **private sector projects, following ComEd's existing program structure.**

- Currently, a dollar-for-dollar implementation incentive is being offered to drive early completion of the SEDAC-administered projects.
- Six legacy RCx projects are complete, and 11 more were in the verification stage at end of Q2.
- 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.

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 by up to 15% for both electricity and natural gas.

- 0 MWh savings achieved (0% of forecast)
- Cascade Energy has submitted a proposal for a waste water treatment plant cohort with potential savings of approximately 7,600 MWh over a two-year period.
- CLEAResult has submitted a proposal for a K-12 school district cohort with potential savings of approximately 2,850 MWh over a one-year period.
- The proposals for waste water treatment plants and K-12 school districts that will uniquely target these public sector customers to engage and deliver significant energy savings, but likely not until CY2019, as the remainder of CY2018 will be used to stand up these cohorts.

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.

- 22,797 MWh savings achieved (23% of forecast)
- There have been more than 180 projects paid for applications serving more than 40 municipalities through Q2.
- The incentive was reduced from \$1.47 per watt in 2017 to \$0.70 per watt in CY2018. While this may seem like a large reduction, it is restoring the initial incentive level offered by DCEO in PY8 and PY9.
- The combination of paid projects and existing applications is on track with the savings goal.
- There are potential savings of approximately 46,800 MWh in the CY2018 pipeline.

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 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.

- 201 MWh savings achieved (60% of forecast) based on 8 implemented measures
- A total of 341 operational measures have been identified through Facility Assessments (FAs) and Requests.
- A total of 195 FAs have been completed through Q2.

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.

Business Public Programs

- 146 MWh savings achieved (6% of forecast)
- An additional 5 MWh savings were converted from approximately 181 therm savings achieved through Q2.
- Direct install work has been completed 879 tenant units and three common area spaces. One trade ally project has been completed.
- A multi-phase project at Altgeld Gardens & Murray Homes, a Chicago Housing Authority property, began in June and will extend into August. The work includes direct installations in more than 1,500 tenant units and hundreds of contractor-installed common area interior and exterior lighting improvements throughout the property. Total estimated savings are expected to exceed 1,000 MWh.

Public Sector Outreach

Overview: The Public Sector Outreach program provides full service outreach and technical support aimed at public sector segments and technologies.

- Field deployment of marketing and outreach strategies began in Q2.
- Hundreds of Facility Assessments have been scheduled, and more than 50 prospect projects have been created through Q2.

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 early Q3.
- There are potential savings of approximately 103,500 MWh in the CY2018 pipeline.

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 is now operating as a statewide program with funding from ComEd, Ameren, Nicor and Peoples/North Shore Gas. More information on training options and schedules is available at <http://www.boccentral.org/training/illinois>.

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 is now operating in Northern Illinois with funding from ComEd, Nicor Gas, and Peoples/North Shore Gas. More information on training options and schedules is available at <http://www.illinoishomeperformance.org/>.

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 has been completed to quantify the energy required to deliver water to a customer site. This value, being introduced to the TRM for 2019, 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: Last 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. This summer, a smaller group of customers are receiving the same option in an attempt to quantify the persistence of savings associated with this approach.

- Target Sector: Residential
- Type of Test: Pilot

- Completion Date: September 2018; savings data will be reported in 2018 Q4.

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.

Income Eligible: High-Efficiency Public Housing Retrofit

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 moved back into the retro-fitted units in fall 2017 and data will be collected on the operation of the systems throughout summer 2018.

- Target Sector: Residential
- Type of Test: Demonstration Project
- Completion Date: Winter 2018; savings data will be reported in 2019 Q1.
- 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.

Emerging Technology

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

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.

Income Eligible: LUCHA Passive House Demonstration

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 was installed at end of 2018 Q2; first data analysis report June 2019
- Building were recently constructed and monitoring equipment has been installed.

Marketing Education & Awareness

General Outreach

- Participated in 63 energy efficiency events
- Interacted with approximately 5,915 customers
- Collected approximately 859 emails

Residential E&A Spring Campaign – Neighbors

Overview: The campaign was to promote awareness of our the rebates offerings with a call to action of ComEd.com/HomeSavings.

- In-market March 26th – May 27th 2018
- Included TV, digital, radio, OOH, and print
- Has generated 5,532,396 digital impressions from April through May
- Drove 32,892 page visits to ComEd.com/HomeSavings

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
- Includes TV, cable, digital, radio, social and print
- Has generated 3,716,178 digital impressions from April through June
- Drove 10,596 page visits to ComEd.com/FacilityAssessments

Rebates Campaign – Neighbors

Overview: The campaign was to promote awareness of the rebates offerings with a call to action of ComEd.com/Rebates.

- In-market March – May 31st, 2018
- Included cable, digital, radio, social and print
- Has generated 5,532,396 digital impressions from April – May 31st
- Drove 70,059 page visits to ComEd.Com/Rebates

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 – December 2018
- Includes TV, digital, social and print
- Has generated 7,482,277 digital impressions for the month of June
- Drove 10,596 page visits to ComEd.com/PSFacilityAssessments

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 February – December 2018
- Has generated 4,403,303 digital impressions from April through June
- Drove 15,839 page visits to ComEd.com/LightingSolutions

Multi-Family Campaign

Overview: The campaign was to promote the offerings for Multifamily properties with a call to action to learn more at ComEd.com/Efficiency.

- In-market April 2nd – June 24th, 2018
- Included print, out of home, social and digital
- Has generated 15,785,205 digital impressions from April through June
- Drove 30,528 page visits to ComEd.com/Efficiency

Income Eligible Lighting Discounts Campaign

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

Marketing Education & Awareness

- In-market April 16th – August 26th, 2018
- Included digital, radio, print and out of home
- Has generated 3,529,842 digital impressions through June

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 – September 2018
- Included digital, radio, social and digital billboard
- Has generated 7,410,648 digital impressions through June
- Drove 52,696 page visits 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 has completed projects for a total of 637 income-qualified customers through Q2.
 - The Multi-Family Retrofits program has completed direct install work in 1,943 tenant units through Q2.
 - The Public Housing Retrofits program has completed direct install work in 879 tenant units through Q2.
 - The Affordable Housing New Construction program has completed three projects through Q2.
 - The Income Eligible Kits program has distributed 2,450 kits to income-qualified single-family homes through Q2.
 - The Food Banks Distributions program has distributed 697,344 9W LED bulbs and 3,312 advanced power strips through Q2. An estimate of unique participants is unavailable.
 - Income-Qualified pilot program results:
 - The Emerging Technology program has two pilots that are specific to income eligible and public housing customers: High-Efficiency Income Eligible Housing and LUCHA Passive House. The total spend on these projects was \$39,600 in Q2.
 - Please refer to the Emerging Technology section on page 23 of this report for additional information on 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

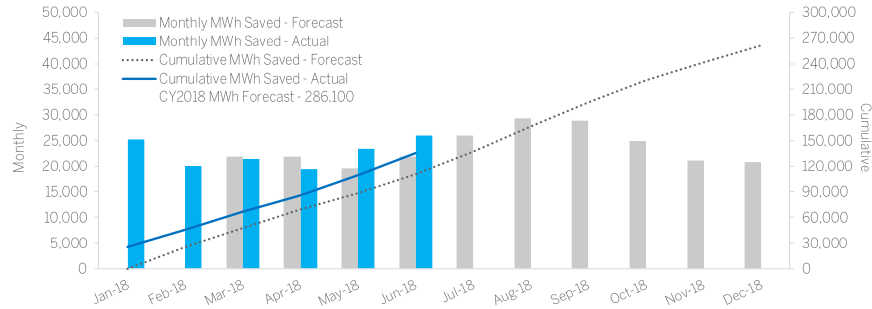
All measures in the table below were launched in CY2018.

MEASURE TOTAL RESOURCE COST (TRC)

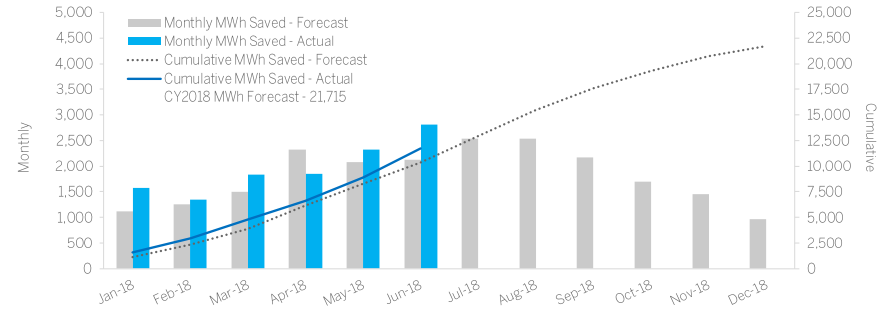
	Sector	TRC
Screw-In HID LED Mogul Base	Business	2.50
Screw-In HID LED Medium Base*	Business	2.04
4 & 2 Pin Base LED*	Business	0.61
Closet to Colocation	Business	3.55
Compressed Air Storage	Business	7.10
Voltage Optimization	Business	3.79
LED Traffic and Pedestrian Signals Flashing Signal	Business	2.51
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

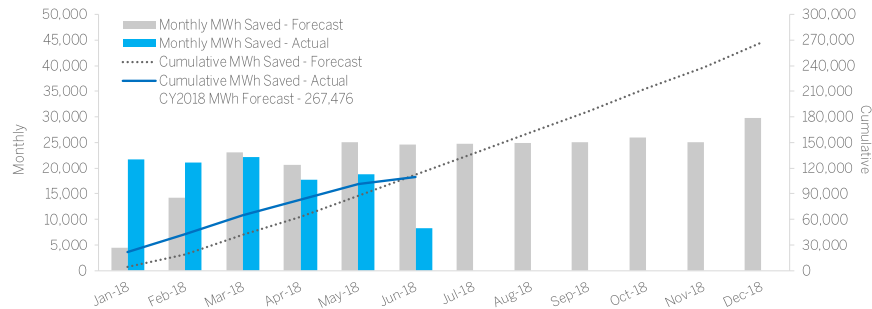
HOME ENERGY REPORT NET MWH



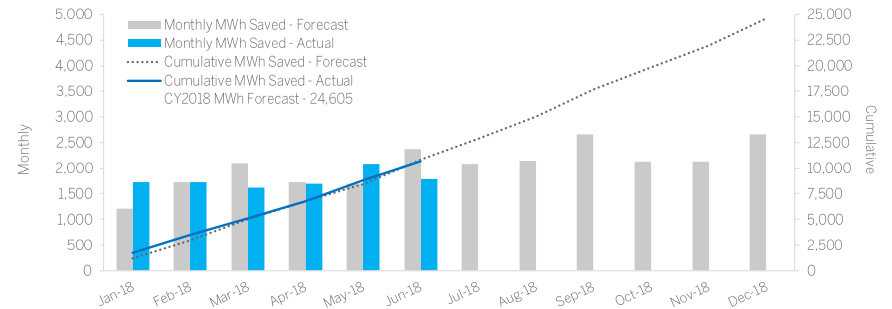
FRIDGE & FREEZER RECYCLING NET MWH



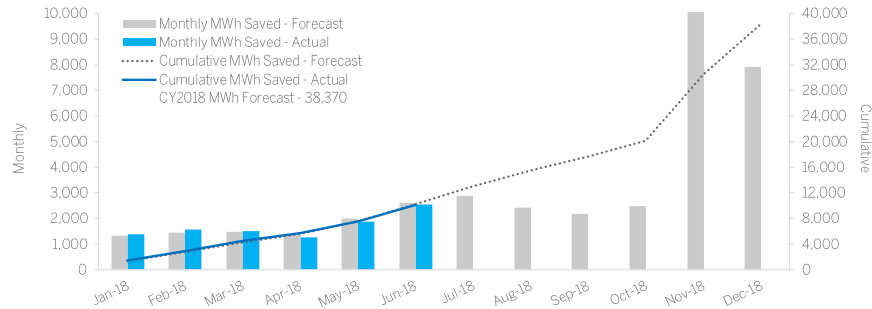
RESIDENTIAL LIGHTING NET MWH



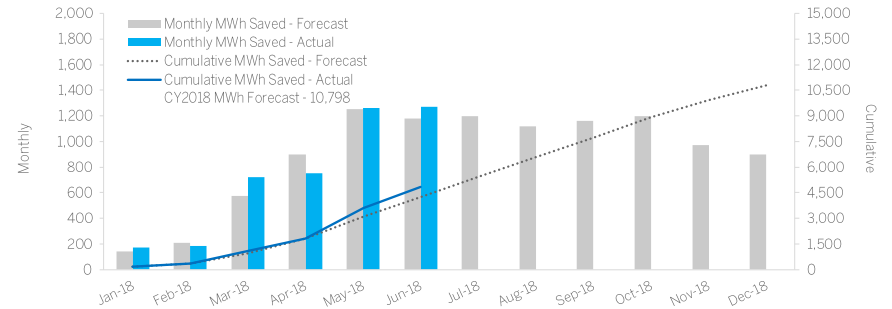
HOME ENERGY ASSESSMENTS NET MWH



APPLIANCE REBATES NET MWH

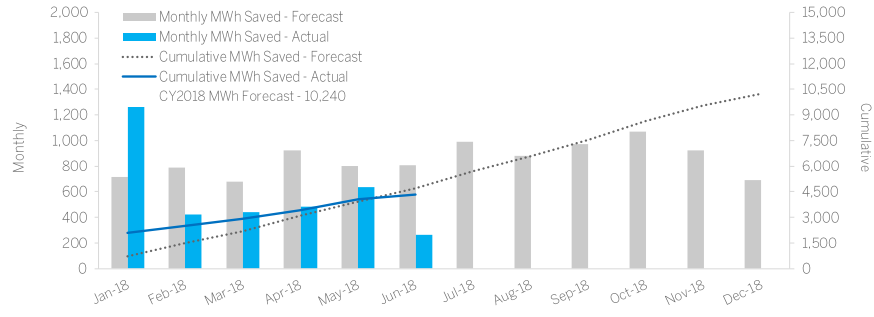


MULTI-FAMILY ASSESSMENTS NET MWH

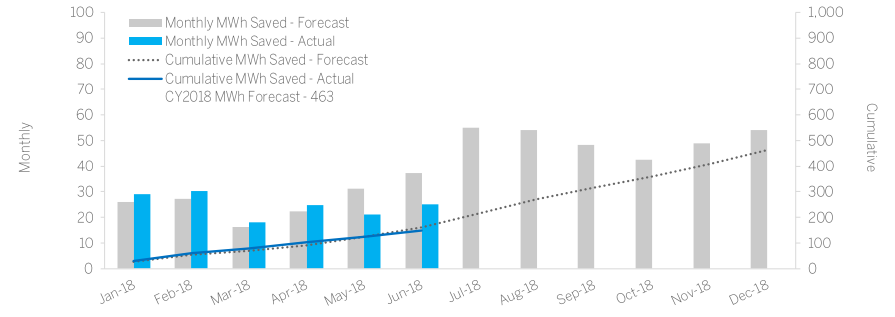


Residential Programs – Monthly Charts

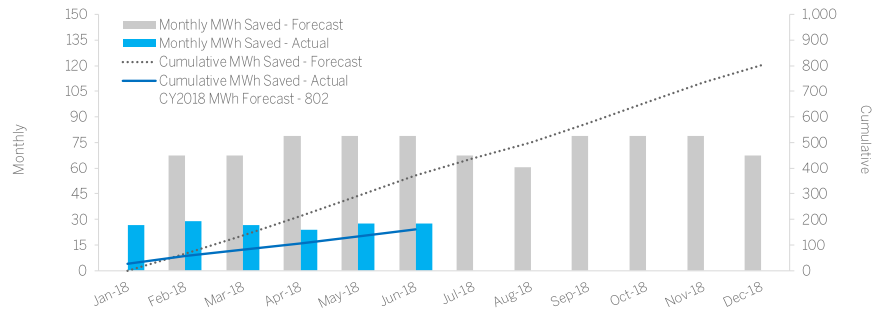
HEATING AND COOLING REBATES NET MWH



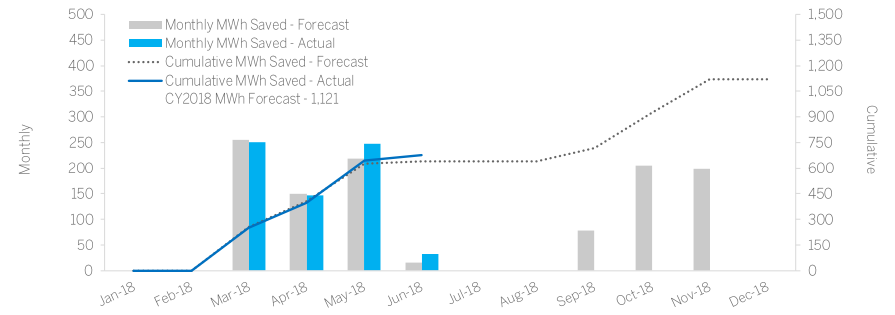
RESIDENTIAL NEW CONSTRUCTION NET MWH



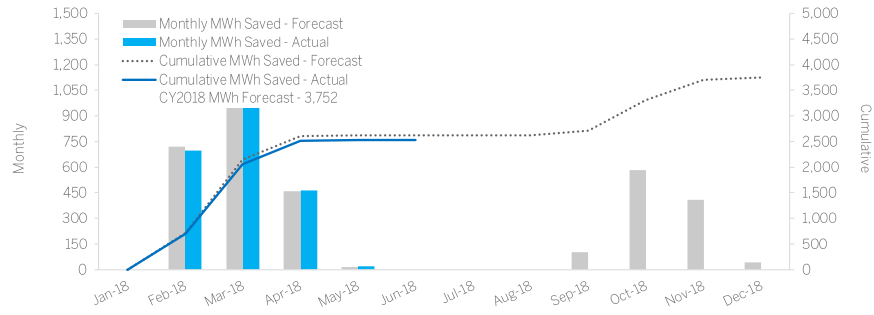
WEATHERIZATION NET MWH



NATIONAL THEATRE FOR CHILDREN KITS NET MWH

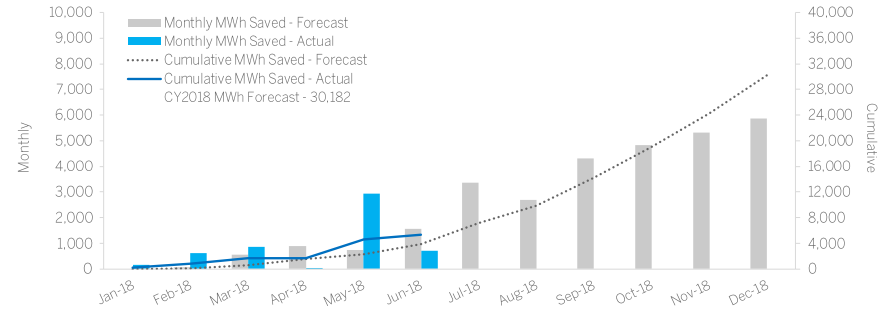


ELEMENTARY ENERGY EDUCATION NET MWH

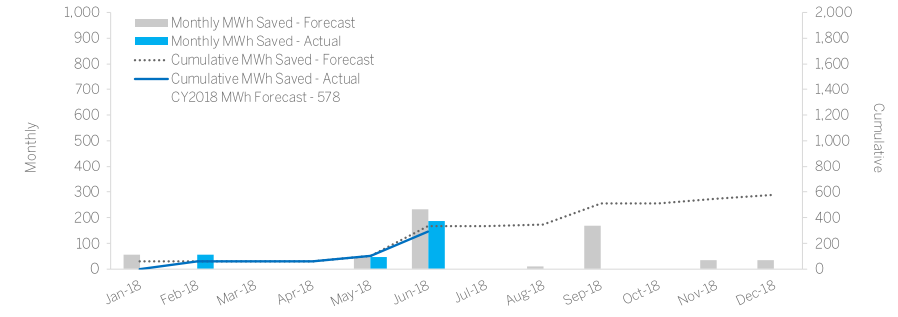


Income Eligible Programs – Monthly Charts

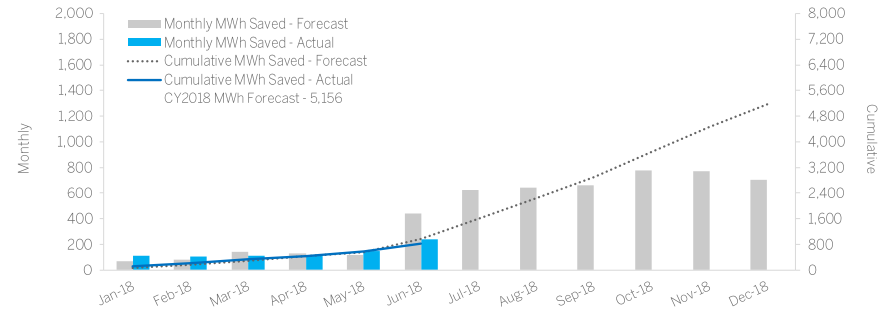
INCOME ELIGIBLE LIGHTING DISCOUNTS NET MWH



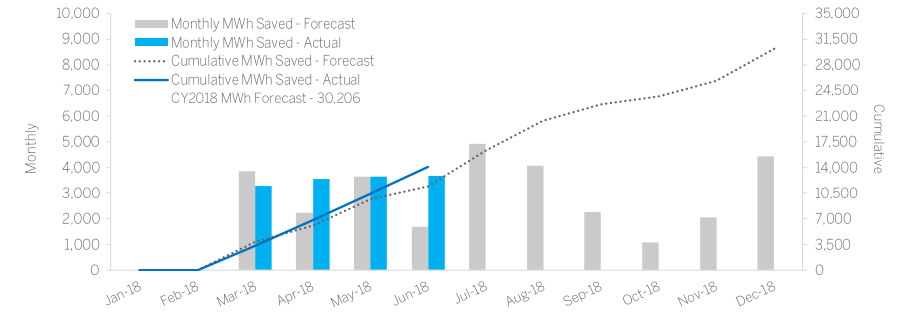
AFFORDABLE HOUSING NEW CONSTRUCTION NET MWH



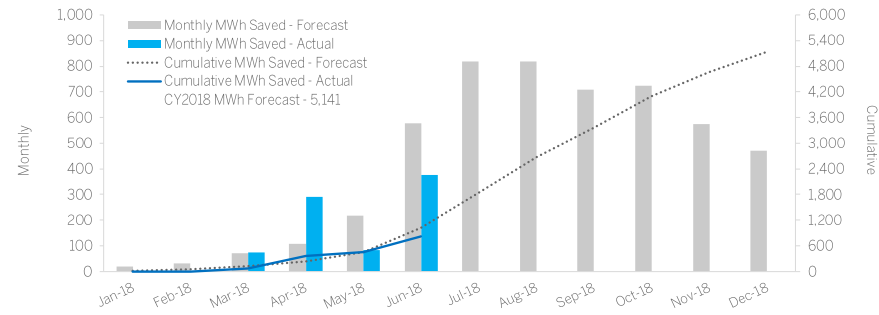
SINGLE-FAMILY RETROFITS NET MWH



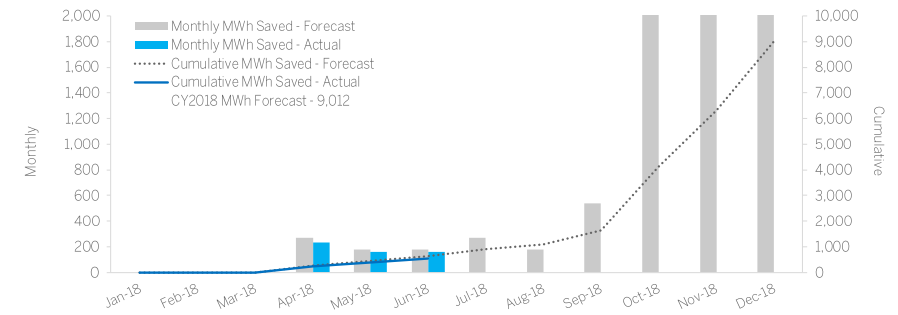
FOOD BANK LED DISTRIBUTION NET MWH



MULTI-FAMILY RETROFITS NET MWH

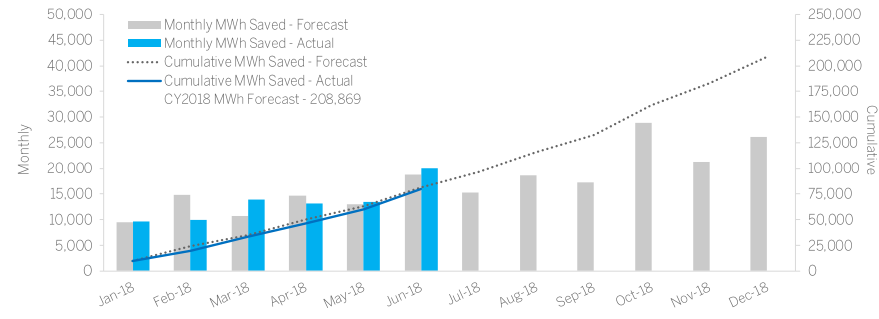


INCOME ELIGIBLE KITS NET MWH

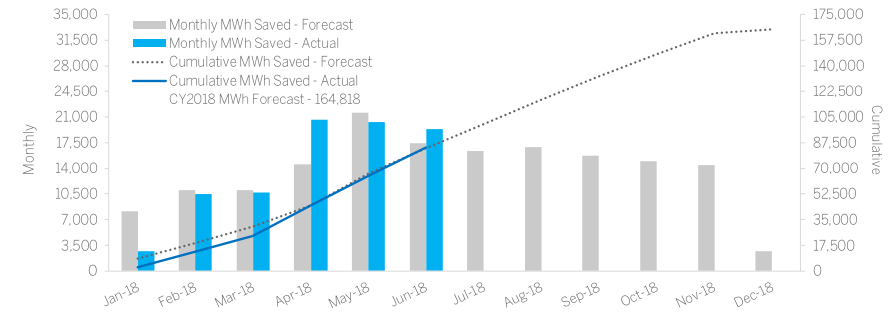


Business Private Programs – Monthly Charts

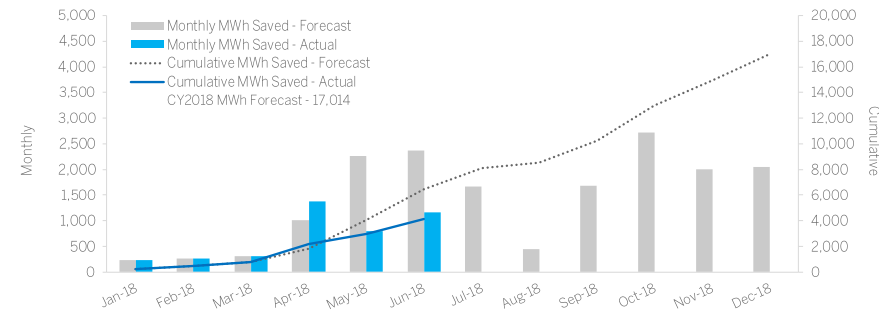
STANDARD PRIVATE NET MWH



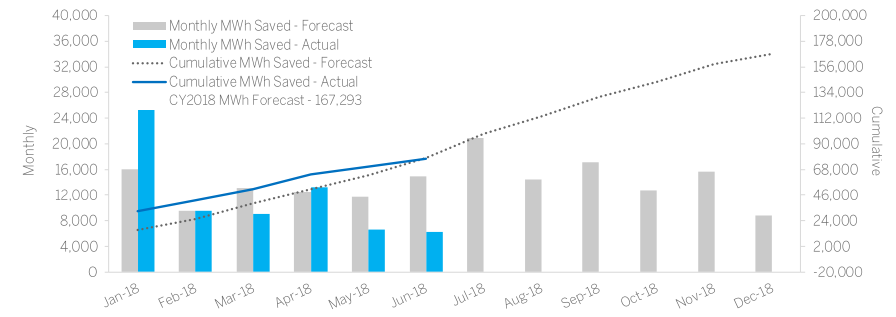
SMALL BUSINESS PRIVATE NET MWH



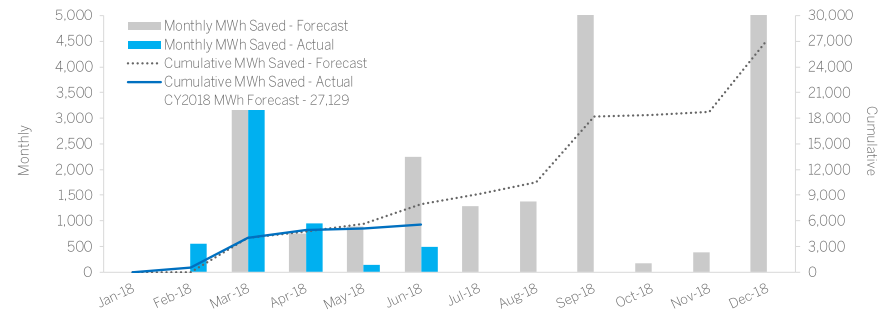
CUSTOM PRIVATE NET MWH



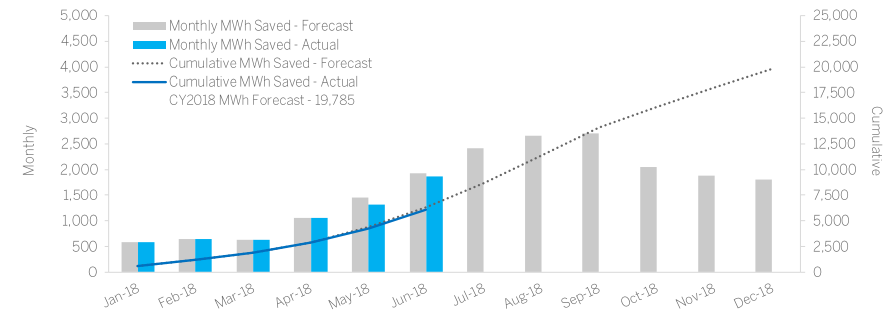
INSTANT DISCOUNTS PRIVATE NET MWH



DATA CENTER PRIVATE NET MWH

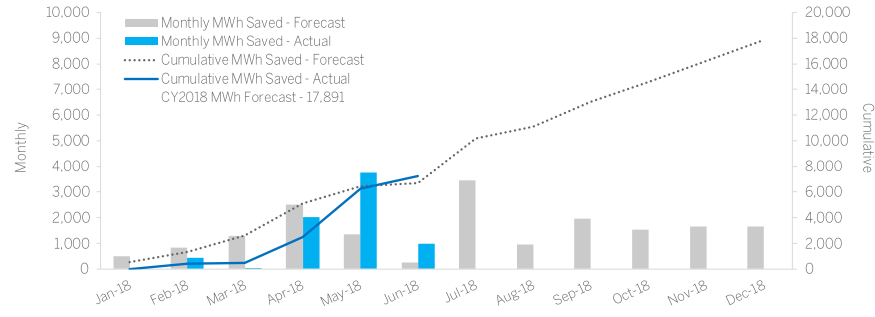


AIRCARE PLUS PRIVATE NET MWH

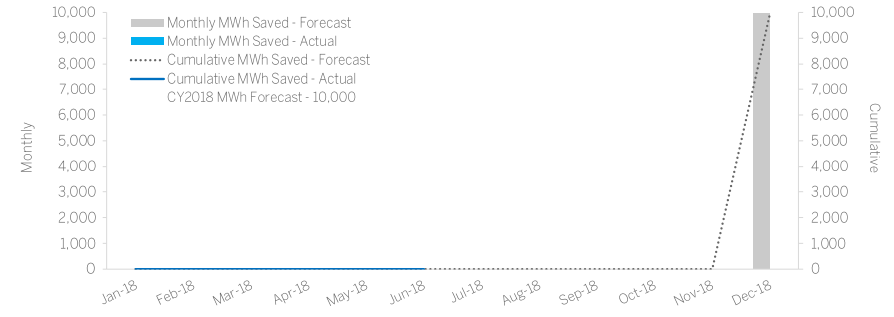


Business Private Programs – Monthly Charts

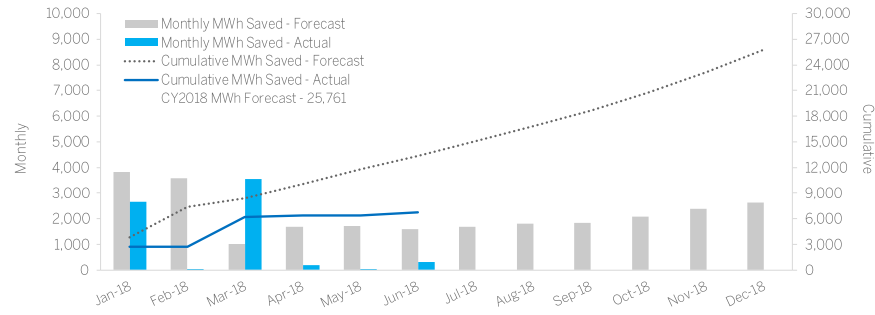
BUSINESS NEW CONSTRUCTION PRIVATE NET MWH



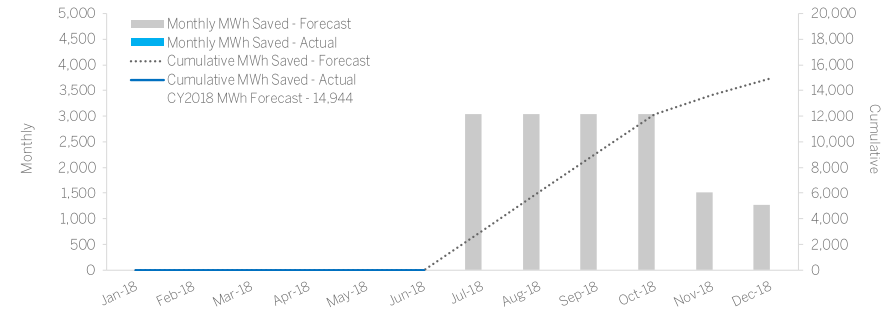
STRATEGIC ENERGY MANAGEMENT PRIVATE NET MWH



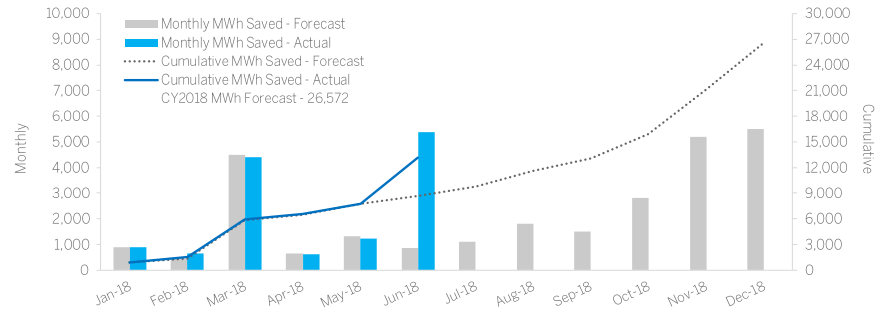
INDUSTRIAL SYSTEMS PRIVATE NET MWH



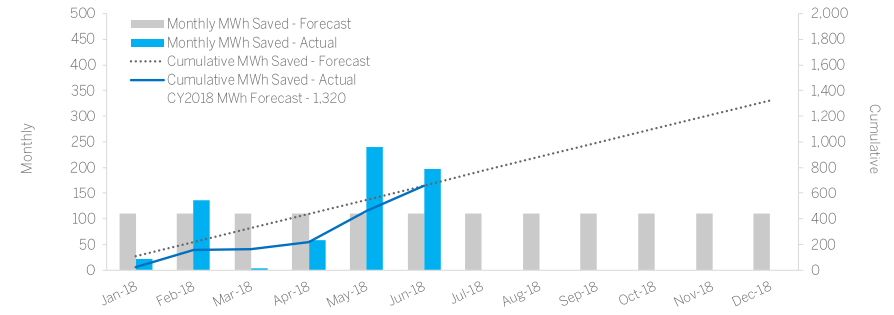
LED STREET LIGHTING PRIVATE NET MWH



RETRO-COMMISSIONING PRIVATE NET MWH

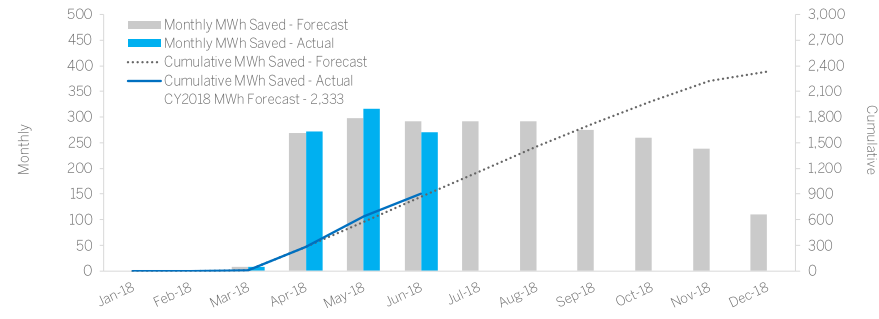


OPERATIONAL SAVINGS PRIVATE NET MWH

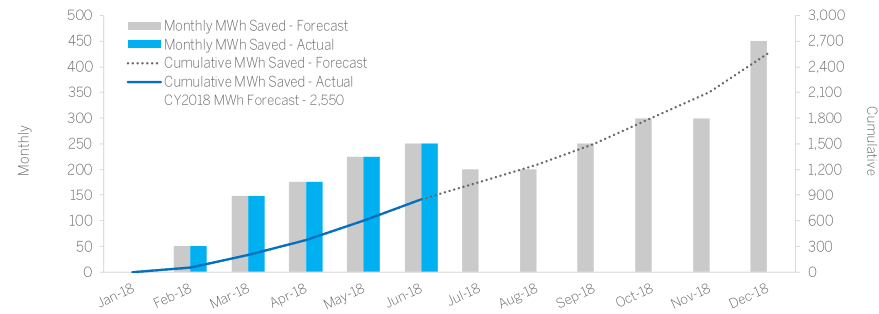


Business Private Programs – Monthly Charts

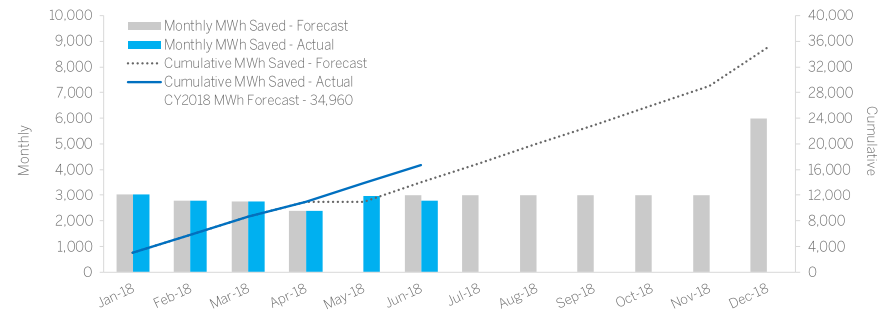
RURAL SMALL BUSINESS KITS PRIVATE NET MWH



POWER TAKEOFF PRIVATE NET MWH

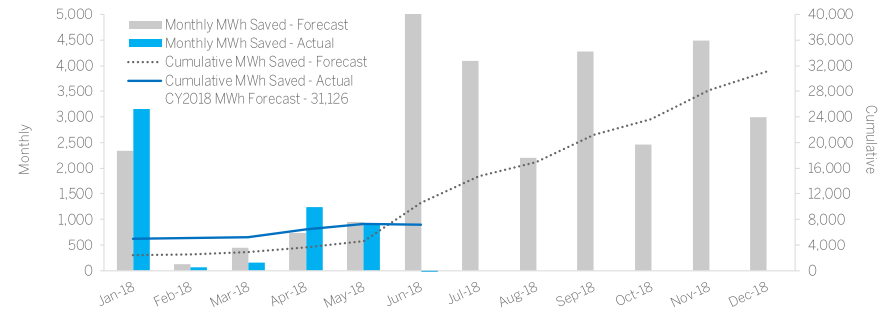


BUSINESS ENERGY ANALYZER PRIVATE NET MWH

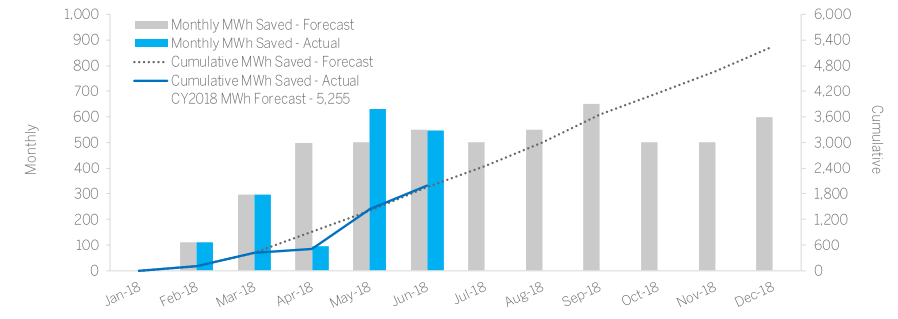


Business Public Programs – Monthly Charts

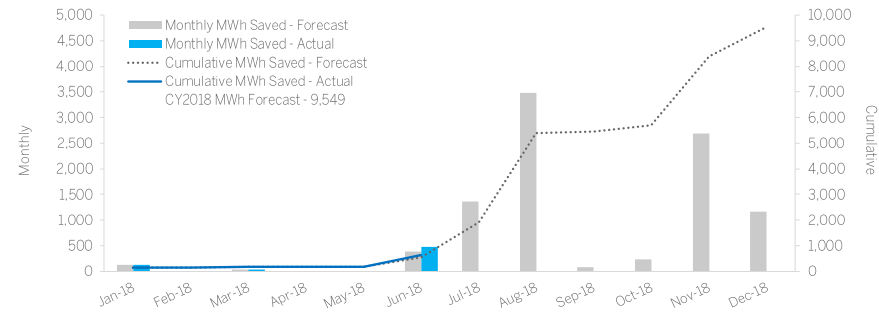
STANDARD PUBLIC NET MWH



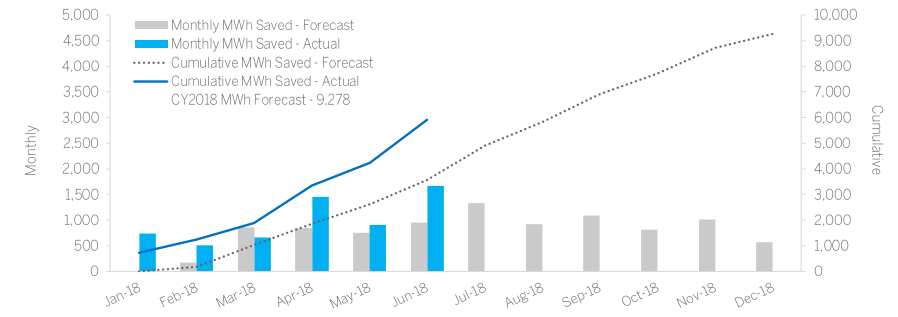
SMALL BUSINESS PUBLIC NET MWH



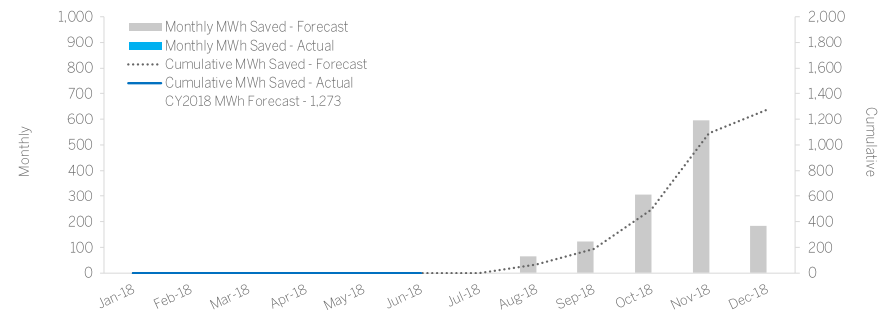
CUSTOM PUBLIC NET MWH



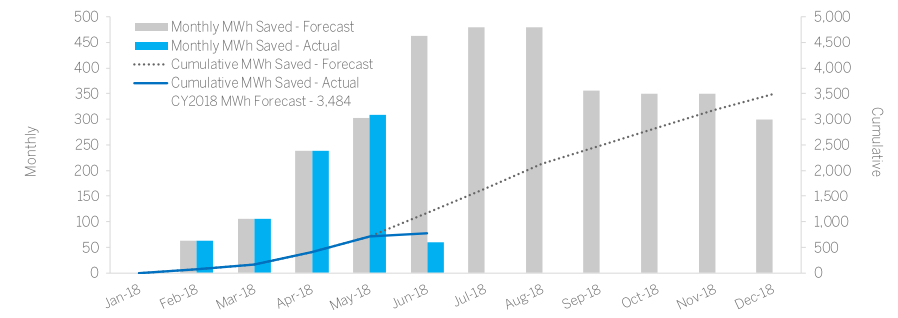
INSTANT DISCOUNTS PUBLIC NET MWH



DATA CENTER PUBLIC NET MWH

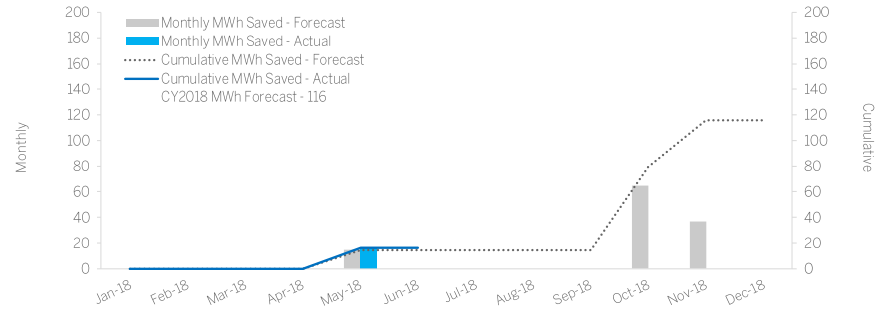


AIRCARE PLUS PUBLIC NET MWH

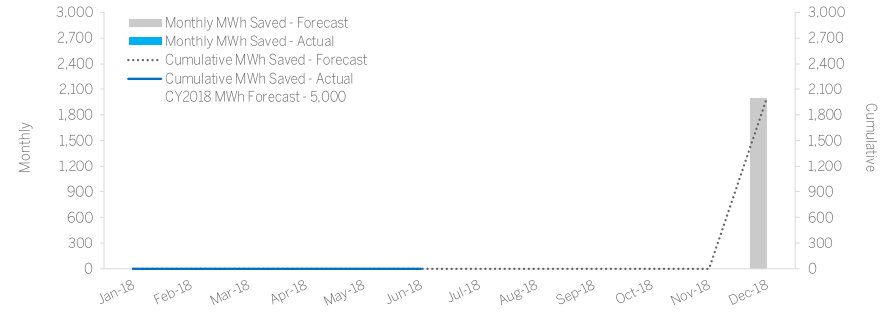


Business Public Programs – Monthly Charts

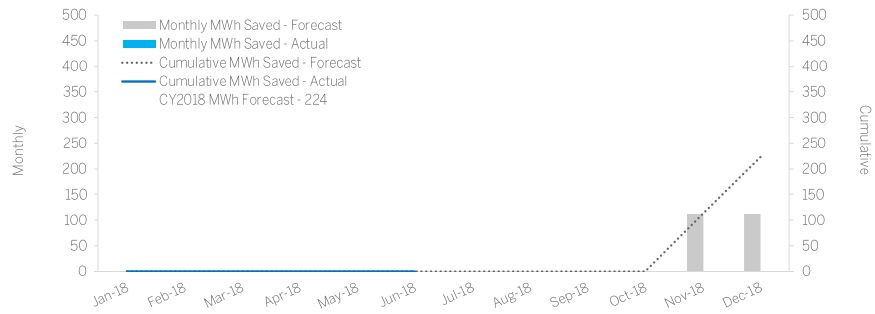
BUSINESS NEW CONSTRUCTION PUBLIC NET MWH



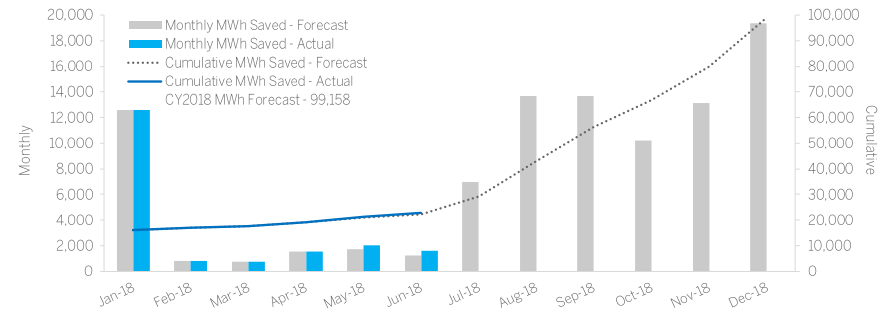
STRATEGIC ENERGY MANAGEMENT PUBLIC NET MWH



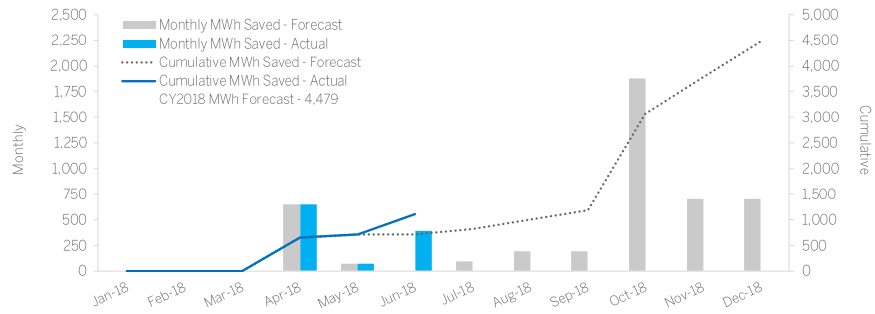
INDUSTRIAL SYSTEMS PUBLIC NET MWH



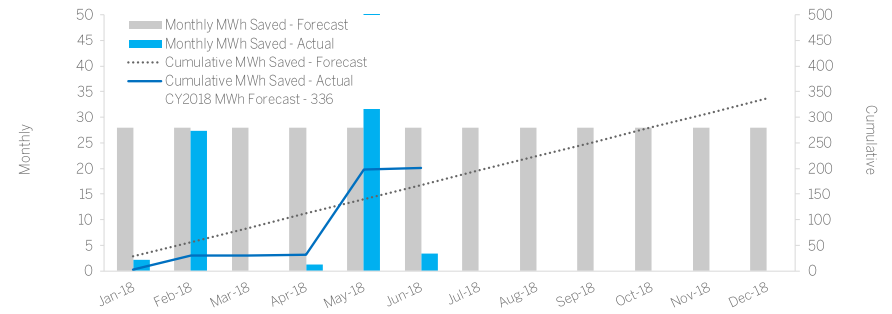
LED STREET LIGHTING PUBLIC NET MWH



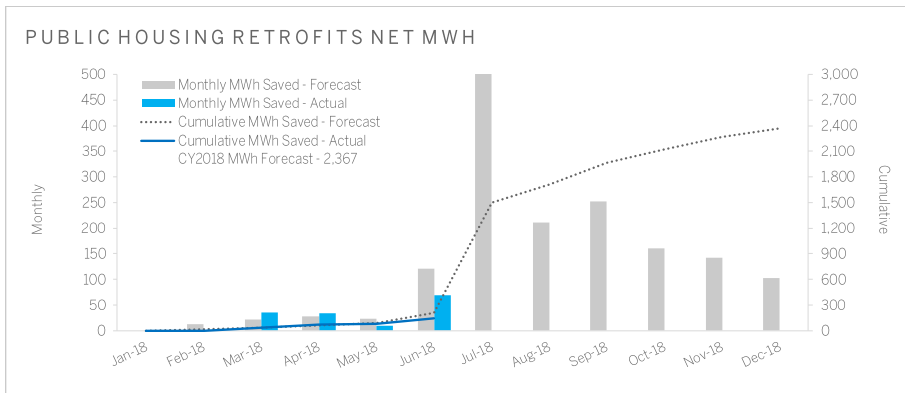
RETRO-COMMISSIONING PUBLIC NET MWH



OPERATIONAL SAVINGS PUBLIC NET MWH



Business Public Programs – Monthly Charts



Voltage Optimization – Monthly Chart

VOLTAGE OPTIMIZATION NET MWH

