

Ameren Illinois 2018-2021 Plan

SAG Presentation

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SAG Feedback Received

1. Low income spend should be well above statutory minimums
2. Low/Moderate Income spend at similar levels to last approved Plan (Plan 4).
3. Pursue deep retrofit and long term savings for Low/Moderate Income
4. Strive to meet Electric Statutory Goals

Illinois Federal Poverty Guidelines

Household Size	Yearly Income Poverty Line	Yearly Income (200%)	Yearly Income (300%)	80% IL Median Income (2012)	IL Median Income (2012)
1	\$12,060	\$24,120	\$36,180	\$37,586	\$46,983
2	\$16,240	\$32,480	\$48,720	\$47,979	\$59,974
3	\$20,420	\$40,840	\$61,260	\$55,092	\$68,865
4	\$24,600	\$49,200	\$73,800	\$65,256	\$81,570
5	\$28,780	\$57,560	\$86,340		
6	\$32,960	\$65,920	\$98,880		

IL 2017 Federal Poverty Guidelines Source: <https://www.illinoislegalaid.org/legal-information/federal-poverty-guidelines>
IL 2012 Median Income Source: <http://www.deptofnumbers.com/income/illinois/>



Defining Deep Retrofit

- Focuses on comprehensive projects that touch multiple systems and components (such as heating, cooling, lighting, building envelope)
- Aim for savings target range of 20-40% savings based on actual consumption for a 3-5 year period post-retrofit (achieving this target should not be required for each project)
- Provide a whole building assessment and report that includes
 - Analyzing HVAC and lighting systems with on-site diagnostic testing (combustion efficiency, etc.)
 - Identifying health and safety issues
 - Measuring utility consumption, compared to consumption of typical buildings
 - Projecting savings and modelling based on actual prior energy usage, practical experience, performance and similar buildings
 - Addressing financing options and showing ROI

Defining Deep Retrofit

- IL EE Policy Manual Definition
 - **Comprehensive Efficiency** means a whole-building approach to saving energy that can result in the identification of the most Cost-Effective improvements and fewest missed energy savings opportunities, rather than a focus on single Measures.

Challenges

- Allocation of budget to balance objectives
- Reduced Budget
 - 19% reduction in Electric Spend for PY2018 in comparison to PY9 (\$119 million to \$97 million) (includes AIC, DCEO and IPA)
- Reduced Potential
 - Estimated 25% reduction in energy savings potential due to the loss of more than 50 customers with demands > 10 MW.
- Increased low/moderate income allocations
 - 41% increase in PY2018 electric budget compared to PY9 electric budget (includes AIC and DCEO)
- High 2018 Goal of 443,000 MWhs
 - <400,000 MWhs achieved savings - Program Year 9 (includes AIC, DCEO and IPA)
 - 396,000 MWhs all time high achieved savings in AIC territory in Program Year 6 (includes AIC, DCEO and IPA)



Information Shared Today

- Review of Energy Efficiency Budget (*electric and gas*)
- Overview of Energy Efficiency Savings Goals (*electric and gas*)
- Residential Sector Initiatives (*electric and gas*)
- Business Sector Initiatives (*electric and gas*)
- Breakthrough Equipment & Devices (*electric and gas*)
- Third-Party Energy Efficiency (*electric*)

EE Budget (*electric, gas, total*)

Electric Budget (\$MM)				Gas Budget (\$MM)				Total Budget (\$MM)			
2018	2019	2020	2021	2018	2019	2020	2021	2018	2019	2020	2021
97.08	97.08	97.08	97.08	15.02	14.46	14.34	14.28	112.10	111.54	111.42	111.36

EE Statutory Savings Goals (*electric and gas*)

ELECTRIC STATUTORY GOALS				
Year	2018	2019	2020	2021
Cumulative Persisting Annual Savings Goal %	7.4%	8.2%	9.0%	9.8%
Cumulative Persisting Annual Savings Goal (MWh)	2,049,800	2,271,400	2,493,000	2,714,600
Applicable Annual Incremental Goal	221,600	221,600	221,600	221,600
Expired Deemed Savings (MWh)	221,600	166,200	193,900	138,500
Expired Cumulative Prior Year Savings (MWh)	-	6,475	47,237	59,384
Annual Savings to Achieve	443,200	394,275	462,737	419,484

GAS STATUTORY GOALS				
Year	2018	2019	2020	2021
Annual Savings Goal %	1.4%	1.5%	1.5%	1.5%
Annual Incremental Goal (therms)	15,709,640	16,831,750	16,437,810	16,437,810



EE Modified Savings *Goals (electric and gas)**

ELECTRIC MODIFIED GOALS				
Year	2018	2019	2020	2021
Cumulative Persisting Annual Savings Goal %	6.9%	7.4%	7.6%	8.0%
Cumulative Persisting Annual Savings Goal (MWh)	1,914,186	2,039,761	2,092,052	2,227,332
Applicable Annual Incremental Goal (MWh)	85,986	125,575	52,291	135,280
Expired Deemed Savings (MWh)	221,600	166,200	193,900	138,500
Expired Annual Prior Year Savings (MWh)	-	7,801	43,114	12,147
Annual Savings to Achieve (MWh)	307,586	299,576	289,305	285,927

GAS MODIFIED GOALS				
Year	2018	2019	2020	2021
Annual Savings Goal %	0.37%	0.35%	0.31%	0.31%
Annual Incremental First-Year Goal (therms)	4,168,319	3,963,149	3,419,246	3,395,910

*as modeled



Residential Sector: *Budget and Goals*

RESIDENTIAL Budget and Goals					
Year	Budget (\$MM)			Savings Goals	
	Electric	Gas	Total	Electric (MWh)	Gas (therms)
2018	\$29.80	\$5.56	\$35.36	68,835	1,605,091
2019	\$29.90	\$5.90	\$35.79	67,956	1,681,194
2020	\$29.90	\$5.94	\$35.84	58,251	1,771,140
2021	\$29.90	\$5.94	\$35.84	55,860	1,771,140
TOTAL	\$119.50	\$23.33	\$142.83	250,901	6,828,565

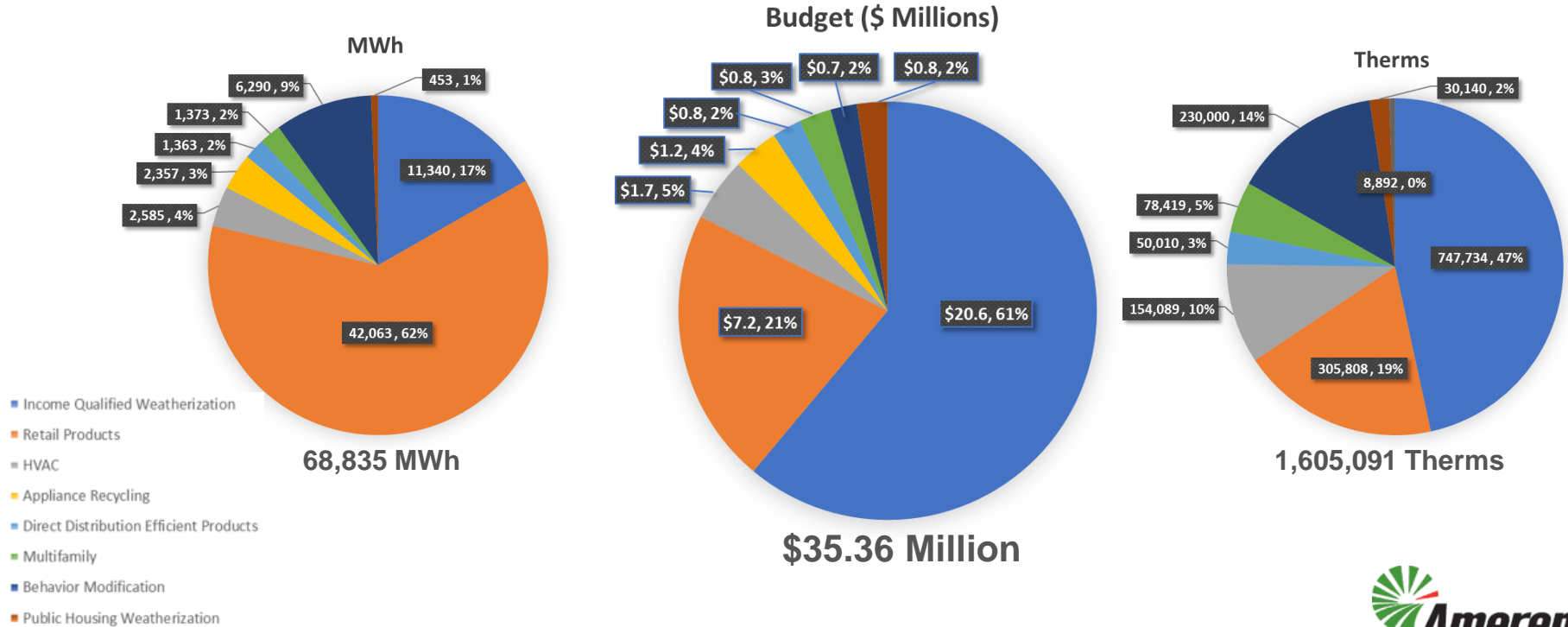
Business Sector: *Budget and Goals*

BUSINESS Budget and Goals					
Budget (\$MM)				Savings Goals	
Year	Electric	Gas	Total	Electric (MWh)	Gas (therms)
2018	\$50.12	\$7.28	\$57.40	238,751	2,563,227
2019	\$50.02	\$6.47	\$56.49	231,620	2,281,955
2020	\$50.02	\$6.32	\$56.35	231,055	1,648,106
2021	\$50.02	\$6.27	\$56.30	230,067	1,624,770
TOTAL	\$200.18	\$26.35	\$226.53	931,492	8,118,058

A photograph of a family in a kitchen. A man in a grey sweater is cooking at the stove, stirring a red pot. A young girl with long brown hair, wearing a light blue shirt, is leaning on the counter and looking at a white tablet. A woman with blonde hair, wearing a purple and white striped shirt, is in the background, also looking at the tablet. The kitchen has white cabinets and a light blue backsplash. There are various kitchen items on the counter, including a red tomato, a silver pot, and a loaf of bread on a cutting board.

Residential Program Initiatives

Residential: 2018 Budget and Goals Breakdown



Res: HVAC

- All Ameren Illinois electric customers eligible
- Serve approximately 4,400 customers per year
- Income tiered mail-in and instant rebates
- Mail-in or instant rebates for income qualified customers (see Income Qualified initiative below)
- Eligible products: programmable thermostats (\$50), smart thermostats (\$150), air source heat pump (\$600-\$1,200 tiered by SEER), air conditioner (\$400-\$650 tiered by SEER), ECM blower motor retrofit (\$150), and heat pump water heater (\$500).
- Contractor training on installation best practices through the mandated statewide program
- Quality control inspection of installed equipment to discourage fraud
- Delivered by a qualified implementation contractor

HVAC			
	TRC = 2.55		Total
Year	MWh	therms	Budget (\$MM)
2018	2,585	154,089	\$1.7
2019	2,585	154,089	\$1.7
2020	2,585	154,089	\$1.7
2021	2,585	154,089	\$1.7

Res: Retail Products

- All Ameren Illinois customers eligible.
- Provide incentives on approximately 2.2 million LEDs and 6,500-7,500 smart thermostats per year, and 12,000 appliances (starting in 2020-2021) per year beginning in 2020.
- Instant rebates on LEDs, and mail-in and instant rebates on appliances, smart thermostats.
- Eligible products: A-Line LED (2018-2019 only at \$1.75), Specialty LED (\$2.50), Smart thermostat (\$100), ES ceiling fan (\$20), ES dehumidifier (\$25), ES air purifier (\$50), ES clothes washer (\$50), ES clothes dryer, heat pump clothes dryer (\$400), ES refrigerator (\$50), ES Freezer (\$50), ES Dishwasher (\$25), ES water cooler (\$50), ES water cooler (\$50), ES room air conditioner (\$25), ES bathroom exhaust fan (\$25), tier 1 smart power strip (\$25), multi-speed pool pump (\$200), heat pump water heater (\$400)
- Quality control inspection of installed appliances to discourage fraud and exit interviews
- Delivered by an implementation contractor selected through a competitive bid process

Retail Products			
TRC = 2.22			Total
Year	MWh	therms	Budget (\$MM)
2018	42,063	305,808	\$7.2
2019	40,890	305,808	\$7.2
2020	30,944	382,260	\$7.2
2021	28,553	382,260	\$7.2

Res: Appliance Recycling

- All Ameren Illinois customers eligible
- Serve approximately 5,000 customers per year
- Pickup of any functioning refrigerator and freezer at no cost
- \$50 cash-back rebate paid to the customer
- Quality control inspection of refrigerator and freezer pickups to monitor compliance with removal, safety and customer service guidelines
- Delivered by a qualified implementation contractor

Appliance Recycling			
	TRC = 1.29		Total
Year	MWh	therms	Budget (\$MM)
2018	2,357	0	\$1.2
2019	2,357	0	\$1.2
2020	2,357	0	\$1.2
2021	2,357	0	\$1.2

Res: Multifamily

- All multifamily properties served by Ameren Illinois eligible
- Serve approximately 3,000 customers (dwellings) per year
- In-unit and common area direct installation at no cost to property manager (excluding smart thermostats)
- Direct installation of low-cost measures provided at no cost to property manager (excluding smart thermostats)
- Eligible products: programmable thermostat, smart thermostat upgrade (with \$150 co-pay), LEDs, aerators, shower head, pipe insulation, and tier 2 smart power strip
- Quality control inspection of living units that receive direct installation services to monitor compliance with installation, safety and customer service guidelines
- Delivered by a qualified implementation contractor

Multifamily			
	TRC = 1.61		Total
Year	MWh	therms	Budget (\$MM)
2018	1,373	78,419	\$0.8
2019	1,373	78,419	\$0.8
2020	1,544	91,913	\$0.9
2021	1,544	91,913	\$0.9

Res: Behavior Modification

- All Ameren Illinois customers eligible
- Serve approximately 50,000 new customers per year
- Enrolled customers received feedback on energy consumption, energy saving tips and education
- Delivered by a qualified implementation contractor

Year	Behavior Mod		Total Budget (\$MM)
	MWh	therms	
2018	6,290	230,000	\$0.7
2019	6,290	230,000	\$0.7
2020	6,290	230,000	\$0.7
2021	6,290	230,000	\$0.7



Res: Income Qualified *(low & moderate initiative)*

- All income qualified Ameren Illinois customers eligible
- Approximately 50% low income (\leq 150% Poverty) and approximately 50% moderate income (\leq 300% Poverty)
- Serve approximately 5,800 homes/units per year (~80% single family homes and ~20% multifamily dwellings)
- Services:
 - Phase 1: Comprehensive home assessment
 - Phase 2: Direct installation: LEDs, aerators, showerhead(s), thermostat, pipe wrap, power strip at no cost
 - Phase 3: Home Weatherization: Health and safety measures, air sealing, duct sealing, insulation and ECM blower at no cost for low income and 20% co-pay for moderate income customers
 - Phase 4: HVAC: Enhanced incentives on furnaces, air conditioners and heat pumps via HVAC initiative when replacing a functioning unit. There is no co-pay for emergency (failed unit) replacement.
- Third-party contractor training and qualify control inspection
- Services will be provided by community action agencies (CAAs) and private contractors

Income Qualified			
TRC = 1.13			Total
Year	MWh	therms	Budget (\$MM)
2018	11,340	747,734	\$21.4
2019	12,561	832,728	\$22.6
2020	12,561	832,728	\$22.6
2021	12,561	832,728	\$22.6



Res: Public Housing

- Government owned public housing served by Ameren Illinois eligible
- Serve approximately 250 single family homes and/or multifamily dwellings per year
- Design mirrors Low to Moderate Income Weatherization

Year	Public Housing		Total Budget (\$MM)
	MWh	therms	
2018	453	30,140	\$0.8
2019	453	30,140	\$0.8
2020	453	30,140	\$0.8
2021	453	30,140	\$0.8

Res: Direct Distribution Efficient Products

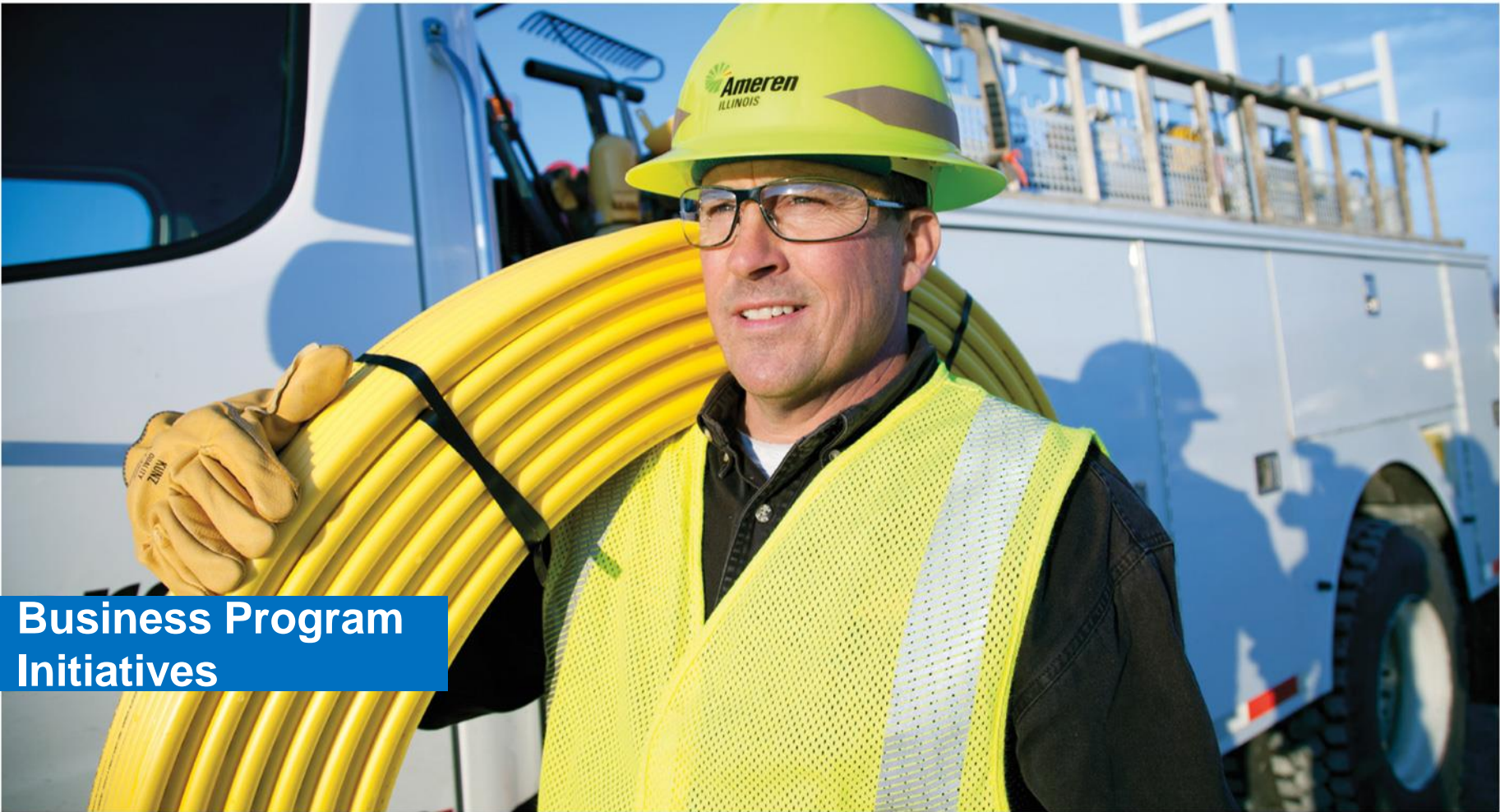
- Students attending schools in communities served by Ameren Illinois eligible
- Serve approximately 7,500 students and their families each year
- Teacher training, energy education curriculum and kits provided to students at no cost
- Kit products: LEDs, aerators, showerhead, tier 1 smart power strip, and water heater temperature adjustment kit
- Service level requiring data collection sample from at least 50% of participating students
- Delivered by an implementation contractor

Direct Distribution Efficient Products			
TRC = 1.24			Total
Year	MWh	therms	Budget (\$MM)
2018	1,363	50,010	\$0.8
2019	1,446	50,010	\$0.8
2020	1,517	50,010	\$0.8
2021	1,517	50,010	\$0.8

Res: DCEO New Construction 2018 Commitments

- Four DCEO projects with expected completion dates in 2018
 - Illinois Community Action Development Corp.
 - Christian County Integrated Community Services
 - Regional Housing Development Inc.
 - Southwestern Illinois Development Authority
- Energy savings and incentive budgets based on existing DCEO commitments

DCEO New Construction Commitments			
	TRC = 1.25		Total
Year	MWh	therms	Budget (\$MM)
2018	1,011	8,892	\$0.8
2019	0	0	\$0.0
2020	0	0	\$0.0
2021	0	0	\$0.0



**Business Program
Initiatives**

Business: Standard

- All Ameren Illinois non-residential electric & gas customers eligible
- Provide incentives to ~9,000 customers per year
- Prescriptive Measure Applications and Midstream Offering (Instant Incentives)
- Prescriptive measures: Lighting, Controls, VFDs, Specialty Equipment, Refrigeration, Compressed Air Leaks, HVAC, Steam Traps, Water Saving Technologies, Small Business New Construction
- Midstream: primarily LED lamps and fixtures with some RW fluorescent, HVAC, and Water Heating
- Driven by strong network of Program Allies with training to push EE
- Quality control inspection of projects to discourage fraud
- Education and Training components (C&I specific, BOC, CEM, other certifications)
- Customer outreach to provide customized assistance and enhanced participation

Year	Standard		Total Budget (\$MM)
	MWh	therms	
2018	104,105	1,112,933	\$18.7
2019	100,773	1,055,591	\$18.7
2020	100,799	422,755	\$18.5
2021	98,586	397,405	\$18.3

Business: Standard – Small Business

- Ameren Illinois DS2, DS3A, and GDS2 non-residential electric & gas customers eligible
- Provide incentives to ~2,600 customers per year
- Direct Install by Program Allies with low cost to customer
- Measures: Lighting (Interior & Exterior), Controls, VFDs, DCV, Specialty Equipment, limited subset of HVAC, Water Saving Technologies, School-focused Direct Install/Distribution
- Program Ally network will be provided specific training to push EE in hard to reach sectors
- Quality control inspection of projects to discourage fraud
- Education and Training components (Small Business specific)
- Customer outreach to provide customized assistance and enhanced participation

Standard - Small Business			
	TRC = 2.29		Total
Year	MWh	Therms	Budget (\$MM)
2018	34,083	311,158	\$11.2
2019	32,169	203,008	\$11.0
2020	30,884	246,812	\$10.9
2021	30,715	258,327	\$10.9

Business: Standard – Public Buildings

- Specific tracking for local government, municipal corporations, school districts, community colleges, and public housing*
- Tracking to provide incentives to ~250 customers per year
- Combination of Standard Prescriptive incentives and Small Business Direct Install
- Enhanced incentives where needed
- Measures will be public building use of Standard and Small Business initiatives
- Program Ally network will be provided specific training to push EE in hard to reach sectors
- Quality control inspection of projects to discourage fraud
- Education and Training components (BOC, School and local government specific)
- Customer outreach to provide customized assistance and enhanced participation

Standard - Public Buildings			
TRC = 1.81			Total
Year	MWh	therms	Budget (\$MM)
2018	15,731	249,384	\$6.1
2019	14,684	244,096	\$6.0
2020	14,281	250,262	\$6.0
2021	14,120	242,890	\$6.0

* Public housing here is on the electric side only and is for measures that PHA would undergo outside of previous mentioned residential initiatives



Business: Standard – Public Streetlights

Standard - Public Streetlights			
	TRC = 2.89		Total
Year	MWh	therms	Budget (\$MM)
2018	223	0	\$0.03
2019	223	0	\$0.03
2020	223	0	\$0.03
2021	223	0	\$0.03

- Municipal-owned streetlights
- Provide incentives to ~10 customers per year
 - Vast majority of municipal streetlighting is Ameren Illinois owned
- Prescriptive incentive per fixture
- Similar to private sector exterior lighting incentive
- Quality control inspection of projects to discourage fraud (most will need Ameren Illinois involvement from the field)
- Customer outreach to drive participation



Business: Custom

- All Ameren Illinois non-residential electric & gas customers eligible
- Provide incentives to ~250 customers per year
- Measures typically not offered under Standard or RCx initiatives
- Custom incentives based on \$/kWh and \$/therm
- Additional Offerings: Staffing Grants, Feasibility Studies, CHP, New Construction (Large Bldg and Lighting), Metering & Monitoring, SEM, Water Treatment, and Wastewater
 - Offerings may provide savings to Standard or Small Business initiatives
- Driven by strong network of Program Allies with training to push EE
- Quality control inspection of projects to discourage fraud
- Education and Training components (C&I specific, BOC, CEM, other certifications)
- Customer outreach to provide customized assistance and enhanced participation

Year	Custom		Total Budget (\$MM)
	MWh	therms	
2018	61,809	474,867	\$15.9
2019	60,629	404,279	\$15.4
2020	61,641	352,942	\$15.5
2021	63,410	346,525	\$15.7

Business: Custom – Public Buildings

- Specific tracking for local government, municipal corporations, school districts, community colleges, and public housing*
- Tracking to provide incentives to ~25 customers per year
- Enhanced incentives where needed
- Measures will be public building use of Custom incentives and other additional offerings
- Program Ally network will be provided specific training to push EE in hard to reach sectors
- Quality control inspection of projects to discourage fraud
- Education and Training components (BOC, School and local government specific)
- Customer outreach to provide customized assistance and enhanced participation

Custom - Public Buildings			
	TRC = 2.33		Total
Year	MWh	therms	Budget (\$MM)
2018	6,573	62,888	\$2.1
2019	6,657	64,171	\$2.2
2020	6,657	61,604	\$2.2
2021	6,657	65,455	\$2.2

* Public housing here is on the electric side only and is for measures that PHA would undergo outside of previous mentioned residential initiatives



Business: Retro-Commissioning

- All Ameren Illinois non-residential electric & gas customers eligible
- Provide incentives to ~40 customers per year
- RCx for Compressed Air, Large Facility, Grocery, and Refrigeration
- Retro-Light for smaller buildings or limited customer budgets
- Low Cost / No Cost Measures
- Funding for study and assessment with separate incentives provided to implement recommended changes
- Qualified Registered Service Providers conduct study
- Quality control inspection of projects to discourage fraud
- Education and Training components (C&I specific, BOC, CEM, other certifications)
- Customer outreach to provide customized assistance and enhanced participation

Year	Retro-Commissioning		Total Budget (\$MM)
	MWh	therms	
2018	10,124	321,326	\$2.6
2019	10,382	277,509	\$2.5
2020	10,425	280,430	\$2.5
2021	10,253	280,430	\$2.5

Business: Retro-Commissioning – Public Buildings

- Specific tracking for local government, municipal corporations, school districts, and community colleges
- Tracking to provide incentives to 3-10 customers per year
- Additional incentives for implementation of measures beyond RCx for other customers
- Measures will be public building use of RCx Large Facility and Retro-Light
- Qualified Registered Service Providers conduct study
- Quality control inspection of projects to discourage fraud
- Education and Training components (BOC, School and local government specific)
- Customer outreach to provide customized assistance and enhanced participation

Retro-Commissioning - Public Buildings			
	TRC = 1.44		Total
Year	MWh	therms	Budget (\$MM)
2018	515	30,672	\$0.2
2019	515	33,301	\$0.3
2020	558	33,301	\$0.3
2021	515	33,739	\$0.3

Business: Ameren-Owned ER Streetlights

- Ameren Illinois DS5 non-residential electric customers with Ameren-owned streetlights eligible
- To serve ~250 customers per year; ~10,000 fixtures per year
- Prescriptive incentive per fixture
- A combination of street lighting, protective lighting, area lighting, and decorative lighting will be upgraded from HID technology to LED prior to burn out.
- Ameren Illinois will reduce cost for customers to perform this upgrade and provide an additional incentive using EE funds

Ameren-Owned ER Streetlights			
TRC = 3.89			Total
Year	MWh	therms	Budget (\$MM)
2018	5,587	0	\$0.5
2019	5,587	0	\$0.5
2020	5,587	0	\$0.5
2021	5,587	0	\$0.5





**Third-Party Electric
EE**

Third Party Electric EE

Legislative Requirement: 8-103B(g)(4)

- Utility shall:
 - (A) Fund \$8.35 million third-party EE program
 - (B) During 2018, conduct a solicitation process for requesting proposals
 - (C) Propose the bidder qualifications, performance measurement process and contract structure – subject to ICC approval
 - (D) Retain an independent third party to score the proposals received through the solicitation process
- Recover all costs associated with ICC-approved third-party administered programs regardless of the success of the programs.





Breakthrough Equipment & Devices

Breakthrough Equipment & Devices (BED)

IL EE Policy Manual Definition (updated):

Breakthrough Equipment and Devices means energy-efficient technologies, Measures, projects, Programs, and/or services that the Program Administrator determines are generally nascent in Illinois or nationally, for which energy savings have not been validated through robust evaluation, measurement and verification (EM&V) efforts, in the Program Administrator service territory, or for which there is substantial uncertainty about their Cost-Effectiveness, performance, and/or Customer acceptance. Demonstration of Breakthrough Equipment and Devices is intended for research, development, or pilot deployment of new equipment or measures.

BED/Market Transformation

- Codes and Standards (*joint with utilities*)
- Business Behavioral Modification
- Disaggregation
- Smart LED Street Lighting
- Home Energy Monitoring Pilot
- Cable Systems
- Advanced Rooftop Controls
- Convenience Pay
- HVAC SAVE
- Illinois Home Performance (IHP)
- Builder Operator Certification (BOC)



Next Steps:

- Share next round batch files
- Continue receiving feedback from all parties
- Continue discovery/settlement discussions
- Key date: June 1
- File 2018-2021 Plan: June 30





Thank You

Ameren Illinois 2018-2021 Plan





FOCUSED ENERGY. For life.