

ILLINOIS COMMERCE COMMISSION

DOCKET NO. 16-0413

DIRECT TESTIMONY

OF

KEITH E. GOERSS

Submitted On Behalf

Of

**AMEREN ILLINOIS COMPANY
d/b/a Ameren Illinois**

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24 In addition to providing background and sponsoring Plan 4 and its appendices, I also provide
25 testimony on the following issues: (1) the integration of dual fuel measures into one program,
26 which is a unique approach undertaken by AIC; (2) the need for modified energy efficiency
27 goals in light of the calculated spending limits; (3) the application of the Illinois Energy
28 Efficiency Policy Manual (“IL-EE Manual”) and the Illinois Technical Reference Manual (“IL-
29 TRM”)—both developed after extensive collaboration with the Stakeholder Advisory Group
30 (“SAG”)—to Plan 4; (4) Program Evaluation, Measurement & Verification; and (5) the
31 integration of the energy efficiency programs of the Department of Commerce and Economic
32 Opportunity (the “Department”).

33 **Q. Are you sponsoring any exhibits in support of your testimony?**

34 A. Ameren Exhibit 1.1 comprises AIC’s Plan 4 and appendices.

35 **Q. Are there any other witnesses testifying in support of the approval of Plan 4?**

36 A. Yes. The following witnesses also provide direct testimony and exhibits in support of
37 Plan 4:

- 38 • Andrew Cottrell, Applied Energy Group, describes the planning and analysis that
39 support Ameren Illinois’ choice of proposed measures and programs included in
40 Plan 4; (the calculation of the Total Resource Cost test, a statutory test for cost-
41 effectiveness, at both the program and portfolio level; explanation of how AIC
42 budgeted Plan 4 not to exceed the spending limits on electric and gas energy
43 efficiency for the three-year planning period, while still offering a diverse
44 portfolio of programs to customers of all rate classes; and how AIC proposes a
45 program mix that favors longer life measures with a higher first year cost as

46 opposed to measures with lower lifetime savings but higher first year savings
47 (Ameren Exhibit 2.0); and

48 • Matthew Noonan, Regulatory Specialist for Ameren Illinois, sponsors testimony
49 addressing the modified energy savings goals and spending limits as specified in
50 the applicable statutes (Ameren Exhibit 3.0). Mr. Noonan also sponsors Ameren
51 Exhibit 3.1, which is a summary of the electric savings goals and spending limit;
52 Ameren Exhibit 3.2, which is a summary of the gas savings goal and spending
53 limit spending limits; and Ameren Exhibits 3.3-3.4, which reflect the versions of
54 Rider EDR and Rider GER that AIC seeks to have approved in this docket.

55 **Q. Do you have any recommendations with respect to approval of Plan 4?**

56 A. Yes. I recommend that the Commission approve AIC's Plan 4, as reflected in Ameren
57 Exhibit 1.1, as the modified savings goals and spending limits reflected therein comply with the
58 provisions of the Act and also represent a diverse portfolio of programs designed to achieve
59 long-term savings and to penetrate some of the most difficult markets in AIC's service territory.
60 Additionally, AIC has embraced the objectives of the Act and proposed an innovative and
61 equitable way to allocate the costs of energy efficiency across all of AIC's customer classes. By
62 approving Plan 4, the Commission would facilitate the continued offering of robust,
63 comprehensive and integrated solutions to residential and business customers that help reduce
64 energy usage and demand. I also recommend that the Commission confirm the application of the
65 EE Policy Manual and IL-TRM to the Plan 4 activities.

66 **III. BACKGROUND**

67 **Q. Are you familiar with the provisions of Section 8-103 and Section 8-104 of the Act?**

68 A. Yes. While I am not a lawyer, and therefore cannot offer a legal opinion, I have worked
69 on AIC's behalf to comply with both Section 8-103 and Section 8-104. These sections address
70 certain of AIC's gas and electric energy efficiency and demand response activities, including the
71 filing of a three-year plan to achieve certain savings goals set forth in the Act, as modified by the
72 spending limits proscribed by the Act.

73 **Q. Based on your experience and expertise, please provide a brief description of the**
74 **components that comprise the three-year energy efficiency and demand response plan**
75 **called for in the Act.**

76 A. Under the Act, Ameren Illinois and the Department develop and implement a portfolio of
77 energy efficiency "programs" that incentivize customers in Ameren Illinois' service territory to
78 reduce energy consumption through program offerings, which are often referred to as
79 "measures."¹ Consistent with past practices and the regulatory framework, Ameren Illinois and
80 the Department split the proscribed spending limit for their respective plans. When combined,
81 AIC's and the Department's program offerings aim to achieve energy savings through demand
82 side management of energy usage. Demand side management can focus on short term savings
83 that may not lead to more savings over the lifetime of the measure (typically referred to as a
84 "measure life"), longer term savings that promote deeper penetration into customer markets and
85 seek to achieve more savings over the measure life, or a mix of both.

¹ Mr. Andrew Cottrell explains the difference between a "program" and a "measure" in his testimony (Ameren Ex. 2.0). The Illinois Energy Efficiency Policy Manual also contains definitions of those terms.

86 **Q. Please provide a brief description of how AIC went about selecting its measure mix**
87 **for Plan 4.**

88 A. As detailed in Ameren Exhibit 1.1 and further explained by AIC witness Mr. Andrew
89 Cottrell in Ameren Exhibit 2.0, at the planning stage, Ameren Illinois makes certain assumptions
90 and performs a series of calculations to determine what measures can and should be a part of its
91 proposed programs in an effort to meet the objectives and goals set forth in Section 8-103 and
92 Section 8-104. Because Ameren Illinois is the only dual fuel public utility in the state of Illinois,
93 meaning it serves both electric and gas customers, Ameren Illinois must develop a unique
94 portfolio of programs that serve a variety of customers that span about 76% of the State's
95 geography. Accordingly, Ameren Illinois' portion of the portfolio, as a whole, seeks to be cost-
96 effective, to gain economic efficiencies by spreading Portfolio Administrative and Evaluation
97 Costs² across all of the programs, which are impacted by the unique circumstances of the
98 Ameren Illinois service territory. In developing its Plan, Ameren Illinois used the IL-TRM,
99 Version 5.0 and Version 1.0 of IL-EE Manual.

100 **Q. Please describe what makes Ameren Illinois' service territory unique compared to**
101 **other utilities in Illinois.**

102 A. In addition to being the State's only dual fuel utility, Ameren Illinois has to overcome the
103 following challenges when seeking to provide energy efficiency programs to its electric, gas and
104 dual fuel customers:

- 105 • Customer density: While Ameren Illinois covers about 76% of the state
106 geographically, we serve less than 33% of the customers. This necessarily means

² All capitalize terms have the meaning set forth in the EE Policy Manual. *See*
[http://ilsagfiles.org/SAG_files/Subcommittees/IL_EE_Policy_Manual_Subcommittee/IL_EE_Policy_Manual_Versi
on_1_Approved_12-16-15_ICC_Docket_15-0487.pdf](http://ilsagfiles.org/SAG_files/Subcommittees/IL_EE_Policy_Manual_Subcommittee/IL_EE_Policy_Manual_Versi
on_1_Approved_12-16-15_ICC_Docket_15-0487.pdf).

107 AIC faces increased costs associated with program delivery, as we have to travel
108 further to serve fewer customers. We also have increased marketing and program
109 ally costs. For example, AIC has *five* media markets we need to market to in order
110 to educate our customers about energy efficiency and our programs, as well as
111 program allies that span across a variety of communities that have their own
112 unique interests and customer bases.

- 113 • Cooperatives and Municipals: Ameren Illinois has over twenty-five electric
114 cooperatives or municipalities that are either adjacent to or overlap Ameren
115 Illinois' electric and gas service territory. This can lead to customer confusion
116 about program eligibility and market awareness, an increase in evaluation,
117 measurement and verification costs per program, as well as an increase in
118 regulatory costs.
- 119 • Large State Universities: Ameren Illinois has seven large state universities within
120 its service territory. While the Department primarily provides energy efficiency
121 programs to the universities themselves, Ameren Illinois still has to account for
122 the annual impact to its programs from over 120,000 students per year attending
123 these schools and the impact transient customers have on our programs.
- 124 • Relatively high percentage of industrial load: AIC has a relatively high percentage
125 of industrial customers, which makes energy efficiency decisions highly driven by
126 company/business internal payback calculations. Notably, several of these
127 industries are in an economic downturn and so it requires additional monies to
128 incentivize these customers to participate in AIC's programs.

129 **Q. Plan 4 is both an energy efficiency and demand response plan. Please describe**
130 **Ameren Illinois' commitment to energy efficiency and demand response.**

131 A. Since the Illinois General Assembly's passage of the energy efficiency provisions found
132 in the Act, Ameren Illinois has welcomed the opportunity to collaboratively work with
133 stakeholders, including the Commission Staff, the Office of the Attorney General of the State of
134 Illinois, the Environmental Law and Policy Center, the Natural Resources Development Council,
135 Citizen Utility Board and other interested groups and utilities to further the development of
136 energy efficiency in Illinois. In fact, before it was mandated, Ameren Illinois took the initiative
137 to integrate a gas energy efficiency portfolio during the first three years of the electric portfolio.
138 Per independent evaluation results, Ameren Illinois has exceeded its gas goal for the first four
139 mandated years, (PY4-PY7) and exceeded its Commission-approved electric goals for all years
140 that have been evaluated (PY1-7).

141 Through Ameren Illinois' commitment to the SAG process, the Company has over the
142 last three years participated in an over 500 hours of meetings, which required well over 20,000
143 participant hours of work, not including travel or preparation time. These meetings have
144 produced meaningful results, for example the development and approval of the first-ever
145 statewide Illinois Energy Efficiency Policy Manual which resolves key policy issues, as well as
146 annual updates to the Illinois Statewide Technical Resource Manual. The Company affirms its
147 commitment to a collaborative SAG process, though AIC acknowledges the increased
148 administrative expense associated with doing so and recognizes that the process can continue to
149 be improved upon. While Ameren Illinois intends to continue working on process improvements
150 through the SAG facilitation team, the Company welcomes the opportunity to address SAG
151 matters in this docket.

152 **Q. Has Ameren Illinois previously proposed and received approval to offer energy**
153 **efficiency and demand response programs prior to the current filing?**

154 A. Yes. The Commission reviewed Ameren Illinois' previous energy efficiency and demand
155 response plans in ICC Docket Nos. 07-0539 (Plan 1 – Electric); 08-0104 (Plan 1 – Gas); 10-0568
156 (Plan 2 – integrated Electric and Gas); and 13-0498 (Plan 3 – integrated Electric and Gas). In
157 each docket, the Commission approved Ameren Illinois' plan.

158 **IV. EXPLANATION OF PLAN 4**

159 **A. Summary of Plan 4**

160 **Q. Please summarize Ameren Illinois' Plan 4.**

161 A. Plan 4, as reflected in Ameren Exhibit 1.1, would offer a robust portfolio of electric and
162 natural gas energy efficiency programs to all of AIC's rate classes that would also reduce peak
163 demand in accordance with Section 8-103 and would do so in a manner that would achieve
164 substantial lifetime savings and would allocate costs in an equitable way. Importantly, Ameren
165 Illinois developed Plan 4 in accordance with Section 4.1 of the IL-EE Manual, which provides:

166 Section 8-103 and 8-104 Portfolios shall be designed to accomplish the following
167 objectives:

- 168 • Delivery of an overall Cost-Effective Portfolio of Energy Efficiency and Demand
169 Response Measures using the Total Resource Cost Test;
- 170 • Achievement of statutory objectives and Commission-approved savings goals;
- 171 • Delivery of Programs that represent a diverse cross-section of opportunities for
172 Customers of all rate classes to participate in the Programs;

- 173 • On a prospective basis, Portfolios should have a TRC greater than 1.0. However,
174 individual Programs and Measures that have a TRC less than 1.0 may be included
175 with adequate business justification;
- 176 • Delivery of Programs targeted toward Low Income Customers, which do not have
177 to be Cost-Effective; and
- 178 • Evaluation of Programs using consistent evaluation criteria.

179 **Q. What time period does Plan 4 comprise?**

180 A. Plan 4 comprises June 1, 2017 through May 31, 2020, the three-year period that
181 comprises PY 10 (June 1, 2017-May 31, 2018), PY 11 (June 1, 2018-May 31, 2019), and PY 12
182 (June 1, 2019-May 31, 2020).

183 **Q. Can you please summarize how AIC proposes to fund Plan 4?**

184 A. The funding of these programs would continue to be accomplished through the existing
185 Rider EDR (for electric) and Rider GER (for gas), subject to any changes ordered in this Docket,
186 which Ameren Illinois would continue to rely upon for full cost recovery of the approved
187 spending limit on behalf of itself and the Department in a manner consistent with the law and
188 prior Commission orders.

189 **Q. Does Plan 4 include savings goals that have been modified pursuant to the Act?**

190 A. Yes, as explained by Ameren Illinois witness Andrew Cottrell, it is highly unlikely that
191 Ameren Illinois will be able to meet the electric and natural gas savings goals for PY 10, PY 11
192 or PY 12 without exceeding the mandatory spending limit set forth by the Act. Based on Mr.
193 Cottrell's projections, Plan 4 includes proposed modified electric and natural gas savings goals,
194 in accordance with the Act's modification provisions. Ameren Illinois asks the Commission to
195 approve Plan 4 with these modified savings goals, as it has done in the past.

196 **Q. Can you please summarize any policy requests associated with the approval of**
197 **AIC's Plan 4?**

198 A. As agreed to by the SAG, the IL-EE Manual, which reflects significant compromise and
199 consensus by a variety of stakeholders and which has already been approved by the Commission,
200 will be effective June 1, 2017. It sets forth the policy provisions that will apply to Plan 4. AIC
201 recognizes and affirms that the IL-EE Manual will apply to the entirety of Plan 4 and commends
202 the SAG for minimizing the number of contested issues in this docket through the IL-EE
203 Manual's development and adoption.

204 **B. The Planning Process**

205 **Q. Can you please explain the planning process Ameren Illinois used in the**
206 **development of Plan 4?**

207 A. While Mr. Cottrell explains the technical developmental process, I can explain the
208 process from the business and policy perspective. As of the date of this filing, Ameren Illinois
209 will have no approved Energy Efficiency Programs either through 8-103, 8-104 or 16-111.5B
210 after May 31, 2017. Due to a misalignment with the timing in the Act, Ameren Illinois has had
211 to prepare its Plan 4 filing due September 1, 2016, as well as its annual Electric Energy
212 Efficiency Submission due to the Illinois Power Agency on July 15, 2016, simultaneously.
213 Ameren Illinois chose to use a holistic approach and developed both its Plan 4 and IPA
214 submission in tandem. The IPA procurement is for electric customers who have not been
215 declared competitive. For Ameren Illinois, this includes DS-1 Residential Delivery Service (DS-
216 1), DS-5 Lighting Service (DS-5) and DS-2 Small General Delivery Service (DS-2). As part of
217 the IPA procurement submission, Ameren Illinois conducted an RFP process to find cost-
218 effective energy efficiency programs to serve the DS-1, DS-2 and DS-5 customer rate classes

219 ("IPA Electricity Procurement Plan RFP "). Since Ameren Illinois has no approved 8-103
 220 programs after May 31, 2017, the IPA bidders were open to bid programs for these customers in
 221 response to the RFP. The RFP sought bids up to three-years to align with Plan 4. The intent of
 222 the RFP was to identify all cost-effective electric programs for these three customer rate classes.
 223 These cost-effective programs would then be used to inform the completion of AIC's Plan 4
 224 filing and the IPA electric energy efficiency submission so that a holistic approach could be
 225 taken with respect to offering energy efficiency programs to AIC's customers in an equitable
 226 manner that complied with the Act.

227 **Q. Were there any bids that AIC analyzed and included in its submission to the IPA**
 228 **pursuant to 220 ILCS 5/16-111.5B?**

229 A. Yes. Ameren Illinois received twenty-four bids in response to its IPA Electricity
 230 Procurement Plan RFP . In its IPA submission, Ameren Illinois recommended the following
 231 programs for consideration to the IPA.

Sector	Porgram	Annual Cost	Net Savings Mwh
Residential DS-1	CLEAResult - Community LED Distribution	\$ 2.68	10,994
Residential DS-1	CLEAResult Residential Retail Lighting	\$ 14.45	83,538
Residential DS-1	Energy Resources - Low Income Mulitfamily	\$ 0.96	5,486
Business DS-2,5	Franklin - SBDI	\$ 5.71	19,593
Business DS-2,5	MEEA-STEP	\$ 0.77	1,771
Business DS-2,5	360 Energy - Private HVAC	\$ 1.13	6,264
Business DS-2,5	361 Energy - Public HVAC	\$ 1.13	6,264
Business DS-2,5	GDS - Exterior Lighting	\$ 2.52	7,515
Business DS-2,5	GDS- Lit Signage	\$ 3.08	11,686
232 Business DS-2,5	Weidt Group - Com New Construction	\$ 0.27	881

233 In its IPA submission, Ameren Illinois indicated that its Plan 4 was still under development, and
 234 as a result, its positions in the IPA submission were subject to change.

235 **Q. Other than the bids received in response to the RFP, were there any other data**
236 **points that AIC considered when developing Plan 4?**

237 A. Yes. As described in AIC's Plan 4, and in Mr. Cottrell's testimony in addition to the RFP
238 results, Ameren Illinois used the following data points when developing Plan 4: Ameren Illinois
239 Potential Study, Ameren Illinois IPA Electric Energy Efficiency Submission (which reflects
240 AIC's analysis of the bids received pursuant to the IPA Electricity Procurement Plan RFP),
241 historical information from AIC's energy efficiency programs, input from the Stakeholder
242 Advisory Group, Version 5.0 of the IL-TRM and the Commission approved IL-EE Manual
243 Version 1.0. Ameren Illinois also performed analysis with respect to whether any Plan 4
244 programs were duplicative to bids received through the IPA electricity procurement process, a
245 process explained by Mr. Cottrell in his testimony and addressed further below.

246 **C. Proposed Programs**

247 **Q. Did AIC work collaboratively with stakeholders to develop its portfolio of electric**
248 **and gas programs?**

249 A. Yes, over the span of nearly a year, AIC participated in a collaborative process led by the
250 SAG facilitator. During this process, the SAG participants, including the utilities, exchanged
251 ideas and discussed several different priorities, and options with respect to program inclusion.
252 This process allowed for parties to provide input—and ask questions—about a variety of topics.
253 As part of this process, AIC also shared information and analysis to non-financially interested
254 parties, subject to a Non-Disclosure Agreement, and parties met regularly and provided
255 comments on the information provided.

256 **Q. Did AIC find the SAG development process useful during the plan development?**

257 A. While the process took a significant amount of time and effort, the exchange of ideas was
258 useful in the final development of AIC's Plan 4 as many ideas were incorporated.

259 **Q. Did the SAG-led development process result in an agreement of all issues?**

260 A. No, though AIC and the non-financially interested parties worked hard to compromise on
261 a variety of issues, some of which did get resolved, we were unable to get complete resolution
262 for a variety of reasons. From AIC's perspective, the proposals were not in the best interest of its
263 customers nor did they take proper consideration of the unique circumstances of AIC's service
264 territory.

265 **Q. How are AIC's programs grouped together?**

266 A. AIC groups its residential programs into its residential portfolio and its commercial and
267 industrial programs into its business portfolio.

268 **Q. Please identify the proposed residential programs.**

269 A. Here are the proposed residential programs:

Residential – Single Family	Targets low-to-moderate income customers in providing a customized home-energy plan and flexible, affordable options to encourage implementation of cost-effective improvements.
Residential - Multifamily	Offers straightforward solutions to help property tenants, owners and managers reduce operating costs. With flexible and affordable options, the program generates immediate energy savings and improvements in three phases.
Residential - Direct Distribution Efficient Products	Assists residential customers to take their energy savings into their own hands by offering them high quality, self-service resources that guide and inspire them to learn about energy efficiency and equips them to try resource-efficient products. The program generates energy savings and serves as a gateway and alternative to the Single Family and Multifamily programs.

270 **Q. How did the IPA procurement process affect the development of the Plan 4**
271 **residential portfolio?**

272 A. Due to the timing misalignment of having to identify “incremental” energy efficiency
273 programs before the baseline programs had been identified, AIC had to employ a holistic
274 approach of seeking residential bids through the RFP required for the IPA electricity
275 procurement process. This way, AIC could identify what programs the market thought were
276 available to the AIC service territory, which, when viewed along with the other data used by AIC
277 to develop its portfolio, would provide a full picture of the energy efficiency opportunity.

278 **Q. What was the result of the request for proposal?**

279 A. Of the 24 bids received, only three residential bids were recommended in Ameren
280 Illinois' submission to the IPA on July 15. The largest bid, CLEAResult – Retail Lighting,
281 represents over 83% of the residential savings. In the Ameren Illinois Plan 3 Order (Docket 13-
282 0498), the ICC ordered Ameren Illinois to move retail lighting to the IPA for the final two years
283 of the Plan (PY 8 and PY 9). Ameren Illinois has chosen to continue to include retail lighting in
284 the IPA submission for Plan 4. This allows Ameren Illinois to focus its Plan 4 residential
285 programs on integrated gas and electric customers with a strong emphasis on low and moderate
286 income. This supports the Plan 4 objectives as well as the IL-EE Manual goal of “Delivery of
287 Programs targeted to Low Income Customers, which do not have to be Cost-Effective.”

288 **Q. What was the result of using the holistic approach to see DS-2 bids through the IPA**
289 **Electricity Procurement RFP at the same time as developing Plan 4?**

290 A. The IPA Electricity Procurement Plan RFP bid process captured the cost-effective
291 potential for the DS-2 (small business) customers. Seven programs were recommended to the
292 IPA for consideration. These programs identify annual potential savings of over 50,000 MWhs

293 and annual program costs of \$14,610,000. One of the objectives of Plan 4 is to have similar rate
294 impact to each rate. This objective is also supported by the following goals of the EE Policy
295 Manual for “Achievement of statutory objectives” and “Delivery of Programs that represent a
296 diverse cross-section of opportunities for Customers of all rate classes to participate in
297 Programs.” Pursuant to Section 8-103, the rate impact is set to 2.015% of the amount paid per
298 kilowatthour by those customers during the year ending May 31, 2007, or the incremental
299 amount per kWh paid in PY 4. For Plan 4 this means that Ameren Illinois has approximately
300 \$6,500,000 per year to spend on programs for DS-2 small business customers. In order to meet
301 these goals and objectives, as well as other selection criteria, Ameren Illinois has included a
302 Small Business Direct Install program in its Plan 4. As explained by Mr. Cottrell, Ameren
303 Illinois has analyzed the DS-2 programs bid into the IPA to determine whether programs are
304 duplicative to the Ameren Illinois Small Business Direct Install program.

305 **Q. Please describe the test applied by AIC to determine duplicity.**

306 A. Consistent with the Commission-approved methodology, a seven-factor test is used to
307 determine whether a program is duplicative. Specifically, a program that overlaps an existing
308 program in a manner in which greater market participation by vendors does not yield sufficient
309 additional value to consumers is duplicative.

310 The seven factors listed below were used to determine whether a program is duplicative:

- 311 1. Similarity in product/service offered;
- 312 2. Market segment targeted, including geographic, economic, and customer classes
313 targeted;
- 314 3. Program delivery approach;

- 315 4. Compatibility with other programs (for instance, a program that created an
316 incentive to accelerate the retirement of older inefficient appliances could clash
317 with a different program that tunes-up older appliances); and
- 318 5. Likelihood of program success (a proven provider versus an undercapitalized or
319 understaffed provider).
- 320 6. The effect(s) on utility joint program coordination, and
- 321 7. Impact on Section 8-103 portfolio or Department portfolio performance.

322 As noted above, Mr. Cottrell addresses these factors in his testimony and determines that
323 programs are, in fact, duplicative.

324 **Q. What is Ameren Illinois' solution to the duplicative programs for DS-2 customers?**

325 A. Ameren Illinois would request that in its Plan 4, the ICC approve a Small Business Direct
326 Install program similar to the Franklin – SBDI program bid into the IPA. Ameren Illinois would
327 then request that the Franklin – SBDI bid in the IPA submission be conditionally approved, so
328 that if the Commission approves Plan 4, the Franklin-SBDI program would not be implemented
329 because it would be duplicating efforts. AIC would note that the IPA has recommended such an
330 approach for Commonwealth Edison (“ComEd”) and certain programs that ComEd has deemed
331 duplicative in the IPA’s draft electricity procurement plan.

332 **Q. What are AIC’s proposed commercial and industrial programs for Plan 4?**

333 A. The proposed commercial and industrial programs include:

Business – Standard	Incentivizes customers to purchase energy efficient measures with predetermined savings values and fixed incentive levels, achieving both gas and electric energy savings.
Business – Custom	Applies to energy efficient measures that do not fall into the Standard or Small Business Direct Install programs. These projects normally are complex and unique, requiring separate incentive applications and calculations of estimated energy savings, achieving both gas and electric energy savings.

Business –Retro-Commissioning	Provides options and incentives for businesses to improve operations and maintenance practices for buildings, systems, and processes, achieving both gas and electric energy savings.
Business –Small Business Direct Install	Incentivizes small business customers to install energy efficient products through direct installation of those products to electric DS-2 and Gas GDS-2. GDS-3 customers to increase participation from this hard-to-reach customer segment.

334 **D. Integration of the Dual Fuel Programs**

335 **Q. Please provide a summary of why Ameren Illinois has submitted an integrated plan**
336 **comprised of both natural gas and electric energy efficiency programs.**

337 A. Plan 4 includes integrated natural gas and electric efficiency measures into single
338 programs, when possible, as required by the Act and because offering integrated programs
339 benefits those customers.³ In the Company’s experience, developing and implementing an
340 integrated portfolio allows for broader program offerings while achieving certain efficiencies and
341 cost savings for customers through combining marketing materials, joint administration,
342 implementation, and market outreach activities. Additionally, energy savings achieved for both
343 fuels are “combined” when determining the cost effectiveness of measures under the TRC test,
344 which is used to assess cost effectiveness at the planning stage. Mr. Cottrell provides additional
345 detail on the use of an integrated portfolio to serve AIC’s customers’ needs.

346 **E. Proposed Modified Energy Efficiency Goals**

347 **Q. What savings goals has Ameren Illinois proposed in Plan 4?**

348 A. While I am not a lawyer, I understand that the Act identifies specific savings goals for
349 each Program Year, subject to certain modifications to account for the statutory spending limit

³ The Act specifies that a gas utility affiliated with an electric utility shall integrate gas and electric efficiency measures into a single program that reduces program or participant cost and appropriately allocates costs to gas and electric ratepayers and that the Department shall integrate all gas and electric programs it delivers in any such utilities’ service territories unless the Department can show that integration is not feasible or appropriate. 220 ILCS 5/8-104(f)(6).

350 put in place to mitigate the rate increase on ratepayers. As more fully explained by Mr. Cottrell,
 351 it is not realistic to submit a plan that seeks to meet the unmodified savings goals identified in the
 352 statute for PY10-12, as it is highly unlikely AIC could meet those savings goals without
 353 exceeding the spending limit. Accordingly, Ameren Illinois proposes the following electric and
 354 gas modified savings goals:

355 **Table 1. Plan 4 Electric (MWh) and Gas (Therms) Savings Goals**

	PY10		PY11		PY12		3-year Cumulative Target ⁴	
	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas
Total	139,058	2,334,584	139,573	2,368,741	141,662	2,355,868	420,293	7,059,192

356 The modified savings goals may be met by Ameren Illinois on a yearly basis by showing
 357 that the evaluated result in the year exceeded the goal or the sum of the evaluated results from
 358 PY10, PY11 and P12 exceed the 3-year cumulative savings goal. Section 6.2 Adjustable
 359 Savings Goals of the EE Policy Manual describes how the above goals may be adjusted.

360 **Q. Does Plan 4 use all available funds within the statutory spending limits prescribed**
 361 **for electric and gas programs?**

362 A. Yes, for planning purposes. As addressed by Ameren Illinois witness Mr. Noonan, the
 363 Act specifies a three-year spending limit for electric and natural gas measures. Ameren Illinois
 364 does not intend to update its spending limit. The AIC Plan 4 Portfolio Summary (Table 6 of
 365 Exhibit 1.1) shows that Ameren Illinois intends to use all available funds within the statutory
 366 spending limits, to the extent practicable, which is a condition previously approved by the
 367 Commission for prior plans.

⁴ Under Section 8-103 and 8-104, electric and gas savings goals and spending limits can be cumulatively calculated (that is, add the individual year savings goals to equal a three year goal) for the 3-year planning period.

368 **Q. Does Ameren Illinois propose to allocate any spending on Breakthrough Equipment**
369 **or Devices?**

370 A. Yes, though AIC recognizes the statutory limit on the spending to be 3% of AIC's total
371 budget. The IL-EE Manual Version 1.0 defines Breakthrough Equipment and Devices as
372 "energy-efficient technologies, Measures, projects, Programs, and/or services that the Program
373 Administrator determines are generally nascent in Illinois or nationally, for which energy savings
374 have not been validated through robust evaluation, measurement and verification (EM&V)
375 efforts, in the Program Administrator service territory, or for which there is substantial
376 uncertainty about their Cost-Effectiveness, performance, and/or Customer acceptance.
377 Demonstration of Breakthrough Equipment and Devices is intended to support these research
378 and development activities."

379 **Q. How does Ameren Illinois plan to use its Breakthrough Equipment and Devices**
380 **Funds in Plan 4?**

381 A. First, in the Plan 3 Order on Reopening, Ameren Illinois was ordered to implement an
382 AMI Connected Smart Device Program utilizing the funds. That program has been completed
383 and the costs associated with it are being capitalized over a five-year period. Ameren Illinois will
384 need approximately \$600,000 per year from the electric budget related to Breakthrough
385 Equipment and Devices. Second, Ameren Illinois plans to spend the remaining funds on a pilot
386 program that will offer prepay service for residential customers.

387 **Q. Please summarize Ameren Illinois' proposal for a residential Prepay Service pilot.**

388 A. Prepay Service would be a new pilot program offered to residential consumers applying
389 for electric service that would be implemented as a behavior-based energy efficiency program.
390 The pilot would seek to leverage the smart grid advanced meter investments and provide near

391 real-time feedback on consumption allowing customers to gain understanding of their daily
392 energy use by season and end-use. The service could also provide tips and program information
393 designed to reduce their energy consumption. It would allow AIC and its customers to leverage
394 technology advances as all communications could be provided via text and/or email. Like most
395 other energy efficiency programs, participation would be at the customer's option and would
396 allow payments of different sizes and at different times in advance of service rather than
397 receiving a bill at the end of the monthly billing period. AIC anticipates that participation in the
398 Prepay Service would eliminate applicable security deposit requirements. At this time, AIC
399 anticipates that the pilot program would be limited to 1000 accounts. Based on Ameren Illinois'
400 research to date, there is a real potential for significant, uncaptured, cost-effective energy savings
401 for the residential market.

402 **Q. Has Ameren Illinois offered other behavior-based energy efficiency programs?**

403 A. Yes. For years AIC has offered the OPower program, which is also a behavior based
404 program that provides feedback, tips and program information designed to encourage customers
405 to reduce their energy consumption. The OPower program delivers paper and email reports that
406 include feedback on the amount of energy being used in the home. While the OPower program
407 has been successful, AIC has concerns that it may not be penetrating the residential market in a
408 way that could lead to transformational behavior. Accordingly, AIC would like to explore the
409 Prepay Service pilot as a behavior-based alternative.

410 **Q. What sort of research and information did Ameren Illinois rely upon when**
411 **considering the Prepay Service pilot program proposal?**

412 A. AIC reviewed research regarding the savings potential of a prepay service, particularly
413 the research compiled by Distributed Energy Financial Group LLC (“DEFG”), a management
414 consulting firm specializing in energy.

415 **Q. Who is DEFG?**

416 A. DEFG founded and manages the Prepay Energy Working Group (“PEWG”), the
417 industry’s leading forum for the exploration of prepaid energy offerings. PEWG participants
418 include: utilities, energy retailers, regulators, consumer advocates, vendors and other
419 stakeholders. The PEWG conducts extensive and actionable research on four tracks: 1)
420 regulatory/policy, 2) consumer, 3) operational/ business, and 4) impacts of prepaid energy
421 offerings on energy conservation/consumption. DEFG – together with the PEWG – have
422 compiled a significant amount of information regarding prepay service programs. The
423 information in these reports reflects the experiences of other utilities that have implemented
424 prepay service programs and the opinions of their customers that are participating in those
425 programs.

426 **Q. Does a Prepay Service pilot have potential to achieve any energy savings?**

427 A. Yes, I believe that a Prepay Service pilot program has potential to be a cost effective
428 energy efficiency program that could deliver significant energy savings to residential consumers.

429 **Q. Please explain.**

430 A. The research suggests that the energy savings that result from prepayment appear to be a
431 result of several factors. First, there is a change in consumer awareness of their energy
432 consumption and related costs. It stands to reason that once a customer places money in an

433 account, they are more likely to pay attention to how quickly energy is used and the rate at which
434 the account balance declines. Second, Ameren Illinois Prepay Service pilot program would seek
435 to provide the customer with near real-time communications. With traditional billing (and other
436 behavior modification programs like OPower), a customer receives paper reports reflecting
437 monthly usage and related charges days or weeks after the end of the 30-day billing cycle. With
438 prepay and advanced meters, customers would have access to updated consumption and cost
439 information every day. This information could be delivered in a timely manner via a text or e-
440 mail showing daily energy consumption and the corresponding account balance. Alerts
441 indicating abnormally high use or low account balances could also be provided within hours of
442 reaching a specific user-defined level. Third, the information is more timely. If the daily balance
443 and usage are received within a day of use, the customer can more easily associate behaviors
444 (more loads of laundry or different thermostat settings) with energy usage and cost. Customers
445 can see a high use day, understand the reasons for the high use, and make behavioral
446 adjustments, on their terms. Finally, the customer can manage the household budget in a way
447 that meets their personal situation. Some households may prefer to apply money to their account
448 on a more frequent or regular basis; the same way they may buy food or other essentials. Others
449 may choose to align their payments to coincide with weekly, biweekly or monthly income.

450 **Q. Why does Ameren believe that the Prepay Service pilot is a cost effective way of**
451 **delivering energy savings?**

452 A. Research compiled by DEFG includes a measurement and verification methodology for
453 estimating energy savings for residential consumers that participate in a prepayment service. A
454 statistical model is used to estimate the consumption that occurs prior to and after signing up for
455 prepay service. Indeed, DEFG has estimated savings of at least 11% at Oklahoma Electric

456 Cooperative based on the usage of 1,217 households. This is a significant level of savings driven
457 by changes in customer behavior, which is much higher than the typical savings of
458 approximately 1% delivered by the OPower program.

459 **Q. Are there other analyses that were informative that AIC reviewed?**

460 A. Yes. A 2010 analysis by EPRI of the Salt River Project's M-Power program, one of the
461 largest utility prepayment programs in the nation, found that, "the constant aspects of the M-
462 Power experience have been a high level of customer satisfaction and an overall conservation
463 effect reported by SRP of approximately 12%."⁵ This is based on measurements made in two
464 studies in 2004-06 when subscription was about 30,000 accounts. By 2010, subscription had
465 grown to 100,000 accounts.

466 **Q. Does AIC expect to achieve similar levels of savings as the program offered by
467 Oklahoma Electric or Salt River Project?**

468 A. No. The customers participating in these programs face the risk of disconnection if they
469 do not maintain a positive balance. The AIC Prepay Service pilot program would not subject the
470 customer to immediate disconnection but would simply revert the customer to traditional post
471 pay service if they fail to maintain a positive account balance.

472 **Q. Are customers under any obligation to participate in Prepay Service pilot?**

473 A. No. The pilot program would be voluntary at the time they apply for residential service.
474 The customer may leave the service at any time. Customers failing to maintain a positive balance
475 would receive multiple notices and an opportunity to maintain a positive balance. If they choose
476 to not maintain a positive balance, they would automatically revert to traditional utility service,

⁵ Neenan, B., "Paying Upfront: A Review of Salt River Project's M-Power Prepaid Program," Technical Update, EPRI, Palo Alto, CA: 2010. 1020260 at pp. v and 5-1.

477 receive a monthly bill at the conclusion of the 30-day billing period and be subject to all
478 consumer protection rules as experienced by other Ameren Illinois residential consumers.

479 **Q. Does AIC have an estimate of the amount of energy to be saved?**

480 A. No, but that is the reason for the pilot program. It is AIC's intent to gain an understanding
481 of the potential savings, which could be much higher than the OPower and OPower-like behavior
482 program.

483 **Q. Are there other reasons to offer a prepay service program besides energy savings?**

484 A. Yes. AIC is interested in offering options to a growing segment of customers who desire
485 to have more control over their energy usage and related payments and who intend to leverage
486 the information provided by their advanced meters. AIC expects that prepay service will be a
487 popular option for many customer segments. DEFG's market research shows that young people,
488 particularly, may be interested in prepayment.

489 **Q. What information does AIC intend to capture from the pilot program?**

490 A. The purpose of the Prepay Service pilot program is to better understand the customer
491 interest, demographics, changes in energy use and the level of customer satisfaction with and
492 adoption of the Prepay Service. Customer research will be completed as part of the pilot
493 pursuant to an evaluation plan developed by the independent evaluator in charge of evaluating,
494 measuring and verifying savings achieved by AIC's energy efficiency programs. The research
495 objectives could be to (1) estimate changes in energy usage attributable to prepay; (2) determine
496 characteristics of customers who sign up for prepay; (3) determine the size of the customer
497 segment(s) likely to participate in a Prepay Service; (4) identify customer payment behavior for
498 Prepay Service; and (5) measure the effects of the service on customer satisfaction.

499 **Q. Why did AIC choose to pursue a voluntary pilot program as opposed to a full**
500 **prepay program?**

501 A. The purpose of seeking approval of a pilot program is to allow AIC and stakeholders to
502 gather information about how the program works, how the required technology works with
503 AIC's systems, what level of customer interest there is in the program, and whether the program
504 impacts customer participants in unexpected ways or other aspects of AIC's tariff or business.
505 While there may be differing opinions about the impact a prepay program can have, generally,
506 the goal of AIC is to utilize pilot programs to gather information and determine how best to
507 respond to customers' interests and expectations and then create a more permanent set of
508 programs. This approach allows Ameren Illinois to try new programs in a small, controlled, and
509 voluntary fashion. This approach reduces the risk of new programs and allows the knowledge
510 gained in the pilot to help shape the future program's design, scale and energy savings estimates.

511 **Q. Would there be any restrictions on who would be eligible for the Prepay Service**
512 **pilot?**

513 A. Yes. The customer must have an electric AMI meter and be a new applicant for utility
514 service.

515 **Q. Is there a reason a customer must be a new applicant for service?**

516 A. Yes. There are several advantages to this approach, as it:

- 517 1) Provides an efficient and cost effective way to communicate with and offer the
518 pilot service to 1000 accounts on a first come, first served basis;
- 519 2) Provides an opportunity to include a diverse group of participants;
- 520 3) Reassures stakeholders that the service is not being targeted to accounts with
521 current or historic past due balances; and

522 4) Simplifies the enrollment process.

523 **F. TRC Test**

524 **Q. Does Ameren Illinois' portion of the energy efficiency portfolio meet the Illinois**
525 **TRC test?**

526 A. Yes. Ameren Illinois has screened the proposed measures and programs. As explained
527 in Mr. Cottrell's testimony, some *programs* that do not pass the TRC test have been included,
528 but Ameren Illinois' planned *portfolio* passes the TRC test. The programs that do not pass the
529 TRC test are all residential with a significant concentration in serving low and moderate-income
530 customers. These low and moderate-income customers are financially challenged and without
531 AIC's programs they would not be able to receive the benefits of energy efficiency. The Act and
532 the IL-EE Manual recognize this fact. The Act exempts programs that target households at or
533 below 150% of the poverty level from passing the TRC test. The IL-EE Manual set one of the
534 goals for the Section 8-103 and Section 8-104 portfolios as "Delivery of Programs targeted
535 toward Low Income Customers, which do not have to be Cost-Effective." Mr. Cottrell addresses
536 the development process of Plan 4, including these TRC values and the reasonableness of the
537 assumptions, in his testimony.

538 **G. Demand Response Goal**

539 **Q. Please identify the peak demand reduction goal for PY10.**

540 A. As set forth in Mr. Noonan's testimony (Ameren Exhibit 4.0), the Company's demand
541 reduction goal for PY10 is 1.98 MW. While I am not a lawyer, I understand that the law does
542 not require a demand reduction goal for years after PY10.

543 **Q. Please identify and explain how Ameren Illinois proposes to meet this goal.**

544 A. Consistent with past Commission treatment of this issue, the Company again expects that
545 its proposed energy efficiency measures will both reduce energy consumption and, through
546 coincident reduction in kW, reduce peak demand to meet its savings goals. This method has
547 been accepted by the Commission in past proceedings.

548 **H. Illinois Energy Efficiency Policy Manual and Illinois Technical Reference**
549 **Manual**

550 **Q. Please describe the Illinois Energy Efficiency Policy Manual.**

551 A. The IL-EE Manual provides guiding principles for procurement, oversight, evaluation
552 and operation of the electric and gas Energy Efficiency Programs authorized under Sections 8-
553 103 and 8-104 of the Illinois Public Utilities Act (Act), and Section 16-111.5B, as applicable.
554 The principles and policies articulated in the IL-EE Manual were derived from Commission
555 orders, policies and procedures developed by the SAG, as well as Best Practices from state
556 Energy Efficiency Programs delivered throughout the nation and approved by the ICC in Docket
557 No. 15-0487.

558 The goals of this IL-EE Manual are to:

- 559 • Achieve consistent policies for utility ratepayer funded Energy Efficiency
560 Programs;
- 561 • Reduce litigation before the Commission;
- 562 • Reduce Program Administrator risk for disallowance;
- 563 • Provide clarity and certainty for Program Administrators and other parties; and

- 564 • Create a policy framework that supports the delivery of Cost-Effective Energy
565 Efficiency Portfolios, pursuant to Section 8-103, 8-104 and Cost-Effective
566 Programs pursuant to Section 16-111.5B of the Act.

567 **Q. Please explain how the Illinois Energy Efficiency Policy Manual applies to the Plan**
568 **4 planning, implementation, evaluation, measurement and verification of Plan 4?**

569 A. The EE Policy Manual is effective June 1, 2017 and is applicable to Plan 4. The EE
570 Policy Manual provides goals for Program and Portfolio Planning, defines Cost Categories,
571 identifies Program Administration and Reporting, clarifies the Total Resource Cost Test policies
572 and provides Evaluation Policies.

573 **Q. Please describe the Illinois Technical Reference Manual.**

574 A. The purpose of the Technical Reference Manual is to provide a transparent and consistent
575 basis for calculating energy (electric kilowatt-hours (kWh) and natural gas therms) and capacity
576 (electric kilowatts (kW)) savings generated by the State of Illinois' energy efficiency programs,
577 which are administered by the Department and the state's largest electric and gas Utilities
578 (collectively, "Program Administrators"). The TRM is a technical document that is filed with
579 the Commission and is intended to fulfill a series of objectives, including:

- 580 • Serve as a common reference document for all stakeholders, Program
581 Administrators and the Commission, so as to provide transparency to all parties
582 regarding savings assumptions and calculations and the underlying sources of
583 those assumptions and calculations.
- 584 • Support the calculation of the Illinois Total Resource Cost test, as well as other
585 cost-benefit tests in support of program design, evaluation and regulatory

586 compliance, though actual cost-benefit calculations and the calculation of avoided
587 costs are not part of the IL-TRM.

- 588 • Identify gaps in robust, primary data for Illinois, that can be addressed via
589 evaluation efforts and/or other targeted end-use studies.
- 590 • Provide a process for periodically updating and maintaining records, and preserve
591 a clear record of what deemed parameters are/were in effect at what times to
592 facilitate evaluation and data accuracy reviews.
- 593 • Support coincident peak capacity (for electric) savings estimates and calculations
594 for electric utilities in a manner consistent with the methodologies employed by
595 the utility's Regional Transmission Organization, as well as those necessary for
596 statewide Illinois tracking of coincident peak capacity impacts.⁶

597 **Q. Please explain how the Illinois Technical Reference Manual applies to the Plan 4?**

598 A. IL-TRM Version 5.0 was effective June 1, 2016. To the extent measures in AIC's Plan 4
599 are in the TRM version 5.0, TRM Version 5.0 was used to calculate savings. Future TRMs will
600 be used in accordance with the EE Policy Manual Version 1.0 to adjust goals approved in this
601 Plan 4.

602 **I. Program Evaluation, Measurement & Verification**

603 **Q. Please describe Ameren Illinois' proposal with respect to the Evaluation,
604 Measurement & Verification of its proposed programs.**

605 A. Ameren Illinois proposes to continue with the current model used to engage and
606 collaborate with the independent EM&V contractors. As before, the EM&V contractors will
607 assess achievement of net energy savings. This model has worked for the last three plan cycles

⁶ See Illinois Statewide Technical Reference Manual Request for Proposals, August 22, 2011, pages 3-4, http://ilsag.org/yahoo_site_admin/assets/docs/TRM_RFP_Final_part_1.230214520.pdf.

608 and has resulted in contractors that are familiar with the Ameren Illinois energy efficiency
609 market and regulatory environment. Ameren Illinois intends to adhere to Section 7: Evaluation
610 Policies of the EE Policy Manual.

611 **J. Integration of the Department's Portfolio**

612 **Q. Please explain the status of the Department's portion of the portfolio.**

613 A. Ameren Illinois understands that the Department will be separately filing their portion of
614 the portfolio. Ameren Illinois has included, based on the information that it has received, the
615 statutory Department budget estimates and savings goals, and the Department's proposed savings
616 goals, applicable to the Ameren Illinois portfolio in the tables represented in the Plan document,
617 Ameren Exhibit 1.1, Sections 1.1 and 6.1.

618 **Q. Have Ameren Illinois and the Department worked together on portfolio
619 development?**

620 A. Yes. Ameren Illinois and the Department have continued to work collaboratively during
621 the development process and established agreed upon market segments. As in the past, the
622 Department will administer energy efficiency programs targeted to households at or below 150%
623 of the poverty level as well as state universities, state and federal government, in addition to
624 those segments as prescribed in the Act (units of local government, municipal corporations,
625 public school districts and community colleges). Ameren Illinois and the Department will
626 coordinate with each other on the programs that are targeted for low and moderate-income
627 customers.

628 **V. CONCLUSION**

629 **Q. Does this conclude your direct testimony?**

630 A. Yes, it does.

APPENDIX

STATEMENT OF QUALIFICATIONS

KEITH E. GOERSS

My name is Keith Goerss. My business address is 300 Liberty Street, Peoria, IL 61602. My current title is Senior Manager, Energy Efficiency with duties that support Ameren Illinois. I am a 1981 graduate of University of Missouri-Rolla with a Bachelor of Science degree in Civil Engineering. From 1981 through June 1987, I worked for Soyland Power Cooperative in Decatur Illinois. My duties included civil engineering oversight for the design of a coal-fired power plant, transmission line design, marketing and rate design.

In June of 1987, I joined Central Illinois Light Company as a Senior Rate Administrator in the Rates & Regulatory Affairs Department. My duties included rate design, cost of service and regulatory analysis and support.

In January of 1994, I joined our System Planning Department. In this Department I was responsible for Integrated Resource Planning and long-term energy and capacity sales and purchases.

From 1996 until January 2012, I worked in the unregulated gas and electric area of Central Illinois Light Company, QST Energy, Ameren Illinois and Ameren Energy Marketing. While working in this area my responsibilities included supervisory roles in electric supply, pricing & analysis and sales & marketing.

In February 2012, I was promoted to my current position as Senior Manager, Energy Efficiency. In this position, my duties include responsibility for implementation of energy efficiency programs, planning and regulatory compliance.