

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY,)
)
Approval of the Energy Efficiency and) Docket No. 07-0540
Demand-Response Plan Pursuant to Section 12-103(f) of)
the Public Utilities Act)

Direct Testimony of
MICHAEL S. BRANDT
Manager, DSM & Energy Efficiency Program Planning
Commonwealth Edison Company

OFFICIAL FILE
I.C.C. DOCKET NO. 07-0540
ComEd Exhibit No. 2.0
Witness _____
Date 11/4/08 Reporter _____

November 15, 2007

ComEd Ex. 2.0

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1 I. **Introduction and Purpose**

2 A. **Identification of Witness**

3 Q. Please state your name and business address.

4 A. Michael S. Brandt, Commonwealth Edison Company ("ComEd"), Three Lincoln Centre,
5 Oakbrook Terrace, Illinois 60181.

6 Q. By whom are you employed and in what capacity?

7 A. I am currently employed by ComEd as Manager, Demand-Side Management & Energy
8 Efficiency Program Planning.

9 B. **Purposes of Testimony**

10 Q. What are the purposes of your direct testimony?

11 A. The purposes of my direct testimony are to:

12 (1) Provide an overview of the statutory goals and filing requirements of Section 12-
13 103 of the Public Utilities Act ("Act").

14 (2) Introduce the other ComEd witnesses in this proceeding and preview their
15 testimony.

16 (3) Provide an overview of ComEd's 2008-2010 Energy Efficiency and Demand
17 Response Plan ("Plan"), which is being submitted today pursuant to Section 12-103 of
18 the Act. (*See* ComEd Ex. 1.0.)

19 C. **Summary of Conclusions**

20 Q. Please summarize the conclusions of your direct testimony.

21 A. ComEd has taken the mandate of Section 12-103 seriously, and worked diligently to put
22 together a Plan that contains (i) an energy efficiency and demand response portfolio

23 designed to achieve the energy savings goals, (ii) corresponding implementation and
24 management and evaluation, measurement and verification (“EM&V”) plans, and (iii) a
25 reasonable cost recovery mechanism, all of which meet the requirements of Section 12-
26 103. The Illinois Commerce Commission (“ICC” or “Commission”) should approve all
27 elements of ComEd’s Plan.

28 In particular, ComEd is requesting approval of the following features of its Plan:

- 29 • Flexibility to modify program design and budgets and to add or discontinue
30 programs.
- 31 • The ability to “bank” excess energy savings in a given Plan year, and apply that
32 excess to and reduce a subsequent Plan year’s goal.
- 33 • The estimated spending screens calculated under Section 12-103(d) of the Act.
- 34 • The ability to seek recovery of prudently and reasonably incurred costs that exceed
35 the spending screen in a given Plan year.
- 36 • Setting a schedule and adopting the proposed process for evaluating whether ComEd
37 achieves its year two and year three goals, beginning after year two of the Plan.
- 38 • The ability to annualize energy savings.
- 39 • Proposed measure energy savings and net-to-gross ratio values, and overall EM&V
40 process.
- 41 • Proposed allocation of energy efficiency measures to be implemented by ComEd and
42 DCEO.
- 43 • Rider EDA – Energy Efficiency and Demand Response Adjustment, ComEd’s
44 proposed cost-recovery mechanism.

45 **D. Background and Experience**

46 Q. Please summarize your duties and responsibilities in your current position.

47 A. My current responsibilities include the planning, measurement and evaluation functions
48 associated with ComEd's energy efficiency and demand-side management programs and
49 portfolio.

50 Q. Please summarize your educational background and professional experience.

51 A. I graduated from the University of Chicago with a Bachelor of Arts in Economics, and
52 followed it up with an M.B.A. from the University of Chicago's Graduate School of
53 Business. I have been employed by ComEd and Exelon for over 24 years in various
54 positions, including roles as DSM Planning Supervisor and DSM Program Supervisor. I
55 have also had roles in the IT, Marketing, Strategic Analysis, Payroll and Regulatory
56 areas.

57 **II. Statutory Goals, Filing Requirements and Introduction of Witnesses**

58 **A. Statutory Goals**

59 Q. What are the statutory energy efficiency and demand response goals applicable to
60 ComEd?

61 A. From 2008 through 2010, which is the relevant time period for ComEd's Plan, ComEd is
62 required to "implement cost-effective energy efficiency measures to meet the following
63 incremental annual energy savings goals: (1) 0.2% of energy delivered in the year
64 commencing June 1, 2008; (2) 0.4% of energy delivered in the year commencing June 1,
65 2009; [and] (3) 0.6% of energy delivered in the year commencing June 1, 2010"
66 220 ILCS 5/12-103(b). For demand response, ComEd must "implement cost-effective
67 demand-response measures to reduce peak demand by 0.1% over the prior year for
68 eligible retail customers" 220 ILCS 5/12-103(c).

69 Q. Does each year's goal "stand alone"?

70 A. Each year's goal is incremental to the previous year's goal and thus "stands alone." To
71 calculate the savings goal for each year, we multiplied the projected energy to be
72 delivered for each of the three Plan years (June 1, 2008 through May 31, 2009; June 1,
73 2009 through May 31, 2010; and June 1, 2010 through May 31, 2011) by the statutorily
74 mandated percentage reduction. Moreover, in the Plan years ending May 31, 2009 and
75 May 31, 2010, the incremental percentage reduction was applied to projected energy
76 delivery amounts that already reflected the prior year's percentage reduction. The annual
77 savings goals are set forth in Table 1 below:

78 Table 1: Energy Efficiency Savings Goals for 2008-2010

Year commencing in June of...	Annual Savings Goals	Goal - Estimated kWh
2008	0.2%	188,729
2009	0.4%	393,691
2010	0.6%	584,077

79 Q. Does the statute limit or modify in any way ComEd's obligations to implement the
80 energy efficiency and demand response measures?

81 A. Yes. The statute impacts ComEd's obligations under subsections (b) and (c) of Section
82 12-103 in two significant ways. First, Section 12-103(d) puts in place safeguards to limit
83 the Plan's effects on rates:

84 [A]n electric utility shall reduce the amount of energy efficiency
85 and demand-response measures implemented in any single year by
86 an amount necessary to limit the estimated average increase in the
87 amounts paid by retail customers in connection with electric
88 service due to the cost of those measures to:

89 (1) in 2008, no more than 0.5% of the amount paid per
90 kilowatthour by those customers during the year ending May 31,
91 2007;

92 (2) in 2009, the greater of an additional 0.5% of the amount
93 paid per kilowatthour by those customers during the year ending
94 May 31, 2008 or 1% of the amount paid per kilowatthour by those
95 customers during the year ending May 31, 2007; [and]

96 (3) in 2010, the greater of an additional 0.5% of the amount
97 paid per kilowatthour by those customers during the year ending
98 May 31, 2009 or 1.5% of the amount paid per kilowatthour by
99 those customers during the year ending May 31, 2007.

100 220 ILCS 5/12-103(d). ComEd's energy efficiency and demand response measures
101 therefore must be designed to fall within these "spend screens".

102 Second, although the utility is responsible for implementing all of the demand
103 response measures in its Plan, Section 12-103(e) requires that the utility and the
104 Department of Commerce and Economic Opportunity ("DCEO" or "the Department")
105 share the duties of implementing the energy efficiency measures. Specifically, the statute
106 provides that "[e]lectric utilities shall implement 75% of the energy efficiency measures
107 approved by the Commission The remaining 25% of those energy efficiency
108 measures approved by the Commission shall be implemented by the [Department], and
109 must be designed in conjunction with the utility and the filing process." 220 ILCS 5/12-
110 103(e).

111 Q. How does the statute address a utility's recovery of costs related to the implementation of
112 approved energy efficiency and demand response measures?

113 A. Section 12-103(e) allows the utility to recover such costs through an "automatic
114 adjustment clause tariff," which must be filed with and approved by the Commission.
115 220 ILCS 5/12-103(e). The statute also provides for an annual Commission review "to

116 reconcile any amounts collected with the actual costs and to determine the required
117 adjustment to the annual tariff factor to match annual expenditures.” *Id.*

118 Q. What are the potential consequences if ComEd fails to meet the energy efficiency savings
119 goals outlined in Section 12-103(b)?

120 A. Subsection (i) of Section 12-103 states that “[i]f, after two years, an electric utility fails to
121 meet the efficiency standard specified in subsection (b) . . . as modified by subsections
122 (d) and (e), it shall make a contribution to the Low-Income Home Energy Assistance
123 Program” (“LIHEAP”). 220 ILCS 12-103(i). For a large electric utility, the
124 required contribution is \$665,000. Furthermore, if a utility fails to meet the energy
125 efficiency standard after year three, it must make a required contribution to LIHEAP, and
126 “in addition, the responsibility for implementing the energy efficiency measures of the
127 utility making the payment shall be transferred to the Illinois Power Agency.” *Id.*

128 **B. Filing Requirements**

129 Q. Please provide an overview of the statutory filing requirements.

130 A. Section 12-103(f) requires that electric utilities file with the Commission their respective
131 energy efficiency and demand response plans by November 15, 2007. Each plan must set
132 forth how the utility will meet the energy efficiency and demand response goals for the
133 years 2008 through 2010. Specifically, the statute requires that the utility include the
134 following components:

135 (1) Demonstrate that its proposed energy efficiency and demand-
136 response measures will achieve the requirements that are identified
137 in subsections (b) and (c) of this Section, as modified by
138 subsections (d) and (e).

- 139 (2) Present specific proposals to implement new building and
140 appliance standards that have been placed into effect.
- 141 (3) Present estimates of the total amount paid for electric service
142 expressed on a per kilowatt-hour basis associated with the proposed
143 portfolio of measures designed to meet the requirements that are
144 identified in subsections (b) and (c) of this Section, as modified by
145 subsections (d) and (e).
- 146 (4) Coordinate with the Department and the Department of
147 Healthcare and Family Services to present a portfolio of energy
148 efficiency measures targeted to households at or below 150% of
149 the poverty level at a level proportionate to those households'
150 share of total annual utility revenues in Illinois.
- 151 (5) Demonstrate that its overall portfolio of energy efficiency and
152 demand-response measures, not including programs covered by
153 item (4) of this subsection (f), are cost-effective using the total
154 resource cost test and represent a diverse cross-section of
155 opportunities for customers of all rate classes to participate in the
156 programs.
- 157 (6) Include a proposed cost-recovery tariff mechanism to fund the
158 proposed energy efficiency and demand-response measures and to
159 ensure the recovery of the prudently and reasonably incurred costs
160 of Commission-approved programs.
- 161 (7) Provide for an annual independent evaluation of the
162 performance of the cost-effectiveness of the utility's portfolio of
163 measures and the Department's portfolio of measures, as well as a
164 full review of the 3-year results of the broader net program impacts
165 and, to the extent practical, for adjustment of the measures on a
166 going-forward basis as a result of the evaluations. The resources
167 dedicated to evaluation shall not exceed 3% of portfolio resources
168 in any given year.

169 220 ILCS 5/12-103(f).

170 **C. Introduction of Witnesses**

171 Q. What issues will the direct testimony of the ComEd witnesses address?

172 A. In addition to my testimony, the purposes of which are described in Section I above,
173 ComEd is submitting the direct testimony of the following witnesses on the subjects
174 summarized below:

- 175 • **James C. Eber** (ComEd Ex. 3.0), ComEd's Manager of Demand Response and
176 Dynamic Pricing, describes the demand response portion of the Plan. In
177 particular, Mr. Eber explains ComEd's current demand response programs, and
178 demonstrates that ComEd's proposed expansion of the Nature First demand
179 response program is designed to achieve the statutory goals. Finally, Mr. Eber
180 describes the demand response costs that will flow through the new Rider EDA.
- 181 • **Martin G. Fruehe** (ComEd Ex. 4.0), Manager - Rates, Revenue Policy
182 Department, explains how ComEd proposes to determine its annual revenue
183 requirement associated with the Nature First capital investments made in
184 association with Rider EDA.
- 185 • **Paul R. Crumrine** (ComEd Ex. 5.0), ComEd's Director of Regulatory Strategies
186 and Services, presents and describes ComEd's proposed annual cost-recovery
187 mechanism, including the annual reconciliation proceedings, for energy
188 efficiency programs in proposed Rider EDA. Mr. Crumrine also provides an
189 overview of Section 12-103(d)'s spending screens and presents ComEd's
190 estimates of the total amount paid for electric service per kilowatthour. Mr.
191 Crumrine also addresses cost recovery under the spending screens.
- 192 • **Val R. Jensen** (ComEd Ex. 6.0), Senior Vice President, ICF International,
193 describes how the energy efficiency measures, program elements and programs
194 set forth in the Plan were identified, and shows that these programs, when
195 considered in conjunction with DCEO's portfolio of such measures, are designed
196 to achieve the energy efficiency savings goals. Mr. Jensen also demonstrates that
197 the energy efficiency and demand response measures, programs and the portfolio
198 as a whole are cost-effective under the total resource cost ("TRC") test and
199 represent a diverse cross-section of opportunities for customers of all rate classes
200 to participate in the programs. Mr. Jensen further testifies regarding the need for
201 the Commission to "deem" certain measure savings and net-to-gross ratio values
202 for the evaluation of ComEd's energy efficiency programs. Finally, Mr. Jensen
203 shows that ComEd's Plan is designed to fall within the spending screens
204 described in Section 12-103(d) of the Act.
- 205 • **Nicholas P. Hall** (ComEd Ex. 7.0), President and Owner, TecMarket Works,
206 testifies to ComEd's proposed EM&V process, which, among other things,
207 provides for the annual independent evaluation of the performance of the cost-
208 effectiveness of the utility's portfolio of measures and the Department's portfolio
209 of measures. Specifically, Mr. Hall concludes that ComEd's proposed EM&V
210 process reflects reliable evaluation practices when considered in light of the
211 EM&V budget. Mr. Hall further finds that ComEd's proposals to annualize
212 energy savings, to "bank" positive energy impacts and for Commission approval
213 of certain deemed values are reasonable and reflect standard industry practices.
- 214 • **Frank S. Huntowski** (ComEd Ex. 8.0), Director of The NorthBridge Group,
215 provides the wholesale electricity price forecast utilized in the calculations of the
216 spending screens and TRC test.

217 **III. Overview of ComEd's Plan**

218 Q. Please provide an overview of ComEd's Plan.

219 A. ComEd's 2008-2010 Energy Efficiency and Demand Response Plan ("Plan") is set forth
220 in ComEd Exhibit 1.0. In brief, the Plan demonstrates that (i) it is designed to meet the
221 statutory goals, (ii) it is cost-effective under the TRC test, (iii) it satisfies the spending
222 screens under Section 12-103(d), (iv) it is based on industry best practices, (v) it lays the
223 groundwork for market transformation and provides a foundation for innovation, (vi) it
224 builds in flexibility that allows ComEd to manage risk and respond to changing market
225 conditions, (vii) it is scalable and balanced, and (viii) it is based on collaboration with
226 numerous stakeholders. The key sections of the Plan include the following:

- 227 • Introduction: Presents an overview of the statutory framework and energy efficiency
228 and demand response goals, as well as describes the planning context and
229 collaborative process that led to the Plan.
- 230 • Energy Efficiency and Demand Response Portfolio Framework: Describes the
231 benefits of a portfolio, discusses the various objectives related to the portfolio, and
232 shows how risk can be managed under a portfolio.
- 233 • The ComEd Portfolio: Describes how the final energy efficiency and demand
234 response programs were selected, and provides descriptions of each of the proposed
235 programs, including overviews of proposed implementation, marketing and incentive
236 strategies, estimated savings and proposed general budgets. Also includes a
237 description of programs proposed by DCEO.

238 • Implementation Planning and Portfolio Management: Sets forth the series of steps
239 that ComEd proposes to take to finalize program and portfolio design and launch the
240 programs in the market, and describes ComEd's proposed approach to managing and
241 administering the programs on a going-forward basis, including flexibility to adjust to
242 changing market conditions and manage risk.

243 • Evaluation, Measurement and Verification ("EM&V"): Addresses ComEd's
244 proposed approach to evaluation of the entire portfolio, including a proposal to deem
245 individual energy efficiency measure savings and net-to-gross ("NTG") ratio values
246 for some standard measures.

247 • Cost Recovery: Describes Rider EDA, the proposed annual cost-recovery mechanism
248 for incremental costs related to the energy efficiency and demand response programs.

249 Q. How does ComEd address Section 12-103(f)(2)'s requirement to implement new building
250 and appliance standards that have been placed in effect?

251 A. ComEd coordinated with DCEO with respect to the requirement of Section 12-103(f)(2).
252 Programs offered by the Department will address this requirement.

253 A. Planning Process

254 Q. Please describe the planning process ComEd undertook with stakeholders.

255 A. On the same day the Governor signed into law Public Act 95-0481, which created
256 Section 12-103 of the Act, ComEd held its initial meeting with stakeholders to provide
257 them with an overview of the proposed planning process and to solicit program ideas.
258 Throughout the planning process, ComEd has engaged many stakeholders and national
259 energy efficiency experts to determine what has worked in other locations and what is

260 most desirable and attainable in the ComEd service territory. The following stakeholders
261 participated in discussions about the development of ComEd's Plan: Building Owners
262 and Managers Association; Center for Neighborhood Technology; Citizens Utility Board;
263 City of Chicago; Environment Illinois; Environmental Law and Policy Center; Illinois
264 Industrial Energy Consumers; Metropolitan Mayor's Caucus; Midwest Energy Efficiency
265 Alliance; Office of the Attorney General; and Staff of the Illinois Commerce
266 Commission. In addition, ComEd, the Ameren Illinois Utilities and DCEO have hosted
267 several stakeholder meetings in both Chicago and Springfield during the planning process
268 to engage stakeholders on various aspects of the proposed Plan and to solicit their
269 thoughts and opinions on energy efficiency and demand response in Illinois. Many of the
270 comments received from the local and national stakeholders are reflected in ComEd's
271 Plan. ComEd also has met with DCEO twice a week throughout the planning process to
272 coordinate on the statutorily required split of energy efficiency programs between
273 ComEd and DCEO.

274 Q. What stakeholder comments were incorporated into the Plan?

275 A. ComEd has adopted a number of the suggestions made by stakeholders. For example, in
276 response to comments from several stakeholders, ComEd is presenting its programs as
277 broad solutions-based offerings rather than as a number of individual programs. This is
278 described in more detail in Section III.C of my testimony where I present ComEd's
279 Residential Solutions and Business Solutions programs, which are intended to provide a
280 "one-stop" shopping experience. We agree with stakeholders that this approach will
281 minimize customer confusion. Other suggestions reflected in the Plan include (i) adding
282 a program element for the collection of old room air conditioners ("ACs"), (ii) boosting

283 the estimated participation and funding for building retrocommissions, (iii) increasing
284 estimated participation and funding for custom incentives, (iv) shifting the provision of
285 whole building energy consumption data from a fee-based service to a program element
286 available for free to customers participating in the Business Solutions program, and (v)
287 reducing the estimated participation and budget for the residential lighting program
288 element.

289 Q. Does ComEd plan to continue to meet with stakeholders following the Commission's
290 approval of the Plan?

291 A. Yes. As discussed in Section III.D of my testimony, ComEd proposes the formation of
292 an independently-facilitated collaborative process that will meet quarterly to advise on
293 issues relating to implementation and EM&V, including design of a request-for-proposals
294 ("RFP) process for independent evaluation services and developing evaluation protocols.

295 **B. Energy Efficiency and Demand Response Portfolio Framework**

296 Q. Why are the measures and programs organized into a portfolio?

297 A. At its core, a portfolio allows ComEd to include a mix or balance of investments that are
298 designed as a whole to produce a desired result with acceptable risk. Here, ComEd's
299 portfolio is designed to meet the statutory savings goals, as well as satisfy other important
300 policy and strategic objectives, while also falling within the statutory spending screens.
301 The wide selection of measures that make up the portfolio also creates a broad array of
302 energy efficiency and demand response opportunities for all customers. ComEd also
303 believes that a portfolio is the best option for both meeting the statutory goals and
304 developing the necessary foundation to build an energy efficiency culture in the ComEd
305 service territory.

306 Q. What were ComEd's overall objectives in designing its portfolio?

307 A. Consistent with the statutory framework, ComEd's energy efficiency and demand
308 response portfolio was designed with a three-year progression in mind that satisfied both
309 the statutory goals and ComEd's objectives, which include the following:

- 310 • Creating value for customers through a range of options for customer energy
311 management.
- 312 • Maximizing the capture of cost-effective energy efficiency subject to spending
313 screens.
- 314 • Laying a solid foundation for energy efficiency programs going forward by investing
315 in the program infrastructure needed to support comprehensive and integrated
316 approaches to energy efficiency and demand response.
- 317 • Developing a diverse portfolio of programs that minimizes portfolio risk while
318 offering numerous energy efficiency opportunities across all customer groups.
- 319 • Laying the groundwork for demand-side innovation in technology, practice and the
320 integration of energy efficiency and demand response.
- 321 • Creating easy program entry points for our customers.
- 322 • Building customer awareness of energy management options and the relationship
323 between energy use and environmental impact.

324 It is important to stress that the portfolio has been put together as a three-year
325 integrated plan, building each year into a more comprehensive portfolio. It is not and
326 should not be viewed as three separate one-year plans.

327 Q. Please explain how ComEd split implementation of the energy efficiency measures with
328 DCEO.

329 A. As I mentioned above, Section 12-103(e) requires that ComEd and DCEO each
330 implement a portion of the energy efficiency measures. ComEd must implement 75% of
331 the measures, and DCEO must implement 25% of the measures. ComEd and DCEO
332 calculated the split by considering the nature of the programs and allocating the amount

333 under the statutory spending screen to correspond with the statutory percentages. ComEd
334 is requesting that the Commission approve this allocation.

335 DCEO also has responsibility for specific programs under the statute. Section 12-
336 103(e) requires that “[a] minimum of 10% of the entire portfolio of cost-effective energy
337 efficiency measures shall be procured from units of local government, municipal
338 corporations, school districts, and community college districts,” and that the Department
339 “coordinate the implementation of these measures.” 220 ILCS 5/12-103(e). In addition,
340 ComEd and DCEO have agreed that DCEO would be responsible for presenting and
341 implementing the portfolio of energy efficiency measures targeted at low-income
342 households as required by Section 12-103(f)(4).

343 Q. Does the 25%/75% allocation between DCEO and ComEd correspond to the
344 kilowatthour (“kWh”) savings?

345 A. No. Because DCEO has taken on the responsibility of the low-income programs, which
346 are exempted from the TRC test, ComEd and DCEO assumed that DCEO’s portion of the
347 kWh savings would be less than 25% of the savings, and that therefore ComEd’s portion
348 of the kWh savings would have to achieve over 75% of the savings to achieve the goal.
349 Working iteratively, ComEd and DCEO reached agreement as to the kWh savings goal
350 for which each group would be responsible for each year of the Plan.

351 Q. What are the energy efficiency goals for ComEd and DCEO over the life of the Plan?

352 A. Table 2 below sets forth the breakdown of kWh savings goal by year for ComEd and
353 DCEO. The breakdown shows that ComEd is taking on a goal of 79% of the overall

354 kWh savings goal, and DCEO will be taking on a goal of 21% of the overall kWh savings
355 goal.

356 Table 2: Share of Energy Efficiency Savings Goals for ComEd and DCEO

Annual Goal	2008	2009	2010	TOTAL
Energy Efficiency Goal (MWh)	188,729	393,691	584,077	1,166,497
ComEd Goal (MWh)	148,842	312,339	458,919	920,100
DCEO Goal (MWh)	39,887	81,352	125,158	246,397

357 **C. Description of Proposed Energy Efficiency and Demand Response Programs**

358 Q. What is the difference between a measure, a program element, and a program?

359 A. An energy efficiency measure is an individual technology (*e.g.*, compact fluorescent light
360 bulb (“CFL”)) or service (*e.g.*, AC tune-up) that reduces the amount of electricity used
361 when installed or performed. An energy efficiency program or program element consists
362 of the bundling of one or more energy efficiency measures into an entire program
363 concept, which includes program delivery mechanisms, incentive rebate levels, and
364 marketing approaches. The measure is one component of the program element. A
365 program represents a bundle of program elements. This is set forth in Figure 1 of the
366 Plan (ComEd Ex. 1.0).

367 Q. How did ComEd select the energy efficiency measures, program elements, and programs
368 that make up ComEd’s energy efficiency portfolio?

369 A. Although this process is described in more detail in the direct testimony of Mr. Jensen
370 (ComEd Ex. 6.0), in general ComEd worked iteratively with Mr. Jensen and his team to
371 identify energy efficiency measures and programs, relying on the results of the TRC test

372 to determine the cost-effectiveness of each measure and program. The portfolio is
373 designed to attain the annual kWh savings while also building the required infrastructure
374 for future programs. As described below, ComEd's portfolio development process
375 consisted of three primary stages – energy efficiency measure analysis, program analysis
376 and portfolio design.

377 Energy Efficiency Measure Analysis. The purpose of this stage is to conduct a
378 cost-effectiveness test of individual energy efficiency measures. We first sorted the
379 measures based on whether or not a given measure was weather-sensitive, using
380 California's Database of Energy Efficiency Resources ("DEER"). A non-weather-
381 sensitive measure is assumed to achieve the same level of savings wherever it is installed.
382 For example, a CFL is a non-weather-sensitive measure because it is assumed to achieve
383 the same kWh savings in California as it would in Illinois. For weather-sensitive data,
384 such as AC measures that are affected by the local climate, ComEd and ICF built DOE-2
385 building simulations, a commonly accepted modeling tool in the field, to calculate the
386 expected savings that could be achieved in the ComEd service territory. ICF then
387 analyzed each measure using the TRC test to determine whether it was cost-effective. In
388 all, ComEd analyzed over 1,900 energy efficiency measures for cost-effectiveness at this
389 step, with 72% of those measures passing the test.

390 Program Analysis: The purpose of the program analysis stage is to develop
391 program elements around those energy efficiency measures found to be cost-effective in
392 the preceding step. These individual measures are bundled together into a program
393 concept or "type." Program types include the following: (i) High Yield / Quick Start
394 Programs, which can be implemented in a rather short period of time and can produce

395 immediate kWh savings (e.g., Residential Lighting and Appliance Recycling); (ii)
396 Medium Yield / Market Building Programs, which require more time to establish in the
397 marketplace and therefore realize kWh savings over time instead of immediately (e.g.,
398 Residential, Heating, Ventilation and Air Conditioning (“HVAC”) Diagnostics and Tune-
399 Up Program and Commercial and Industrial (“C&I”) New Construction Program); (iii)
400 High Touch / Market Conditioning Programs, which are designed to facilitate and move
401 the market toward an energy efficiency culture but do not achieve immediate kWh
402 savings (e.g., Building Operation Certification and On-line Audits); and (iv) Emerging
403 Technologies, which represent new, innovative energy efficiency technologies or
404 concepts that ComEd is considering for use in future portfolios (e.g., Smart Grids, White
405 LEDs). It is important to include a mixture of the various types of programs in the
406 portfolio to ensure it is robust and can deliver the savings goals.

407 For each program element, an implementation strategy, marketing strategy and
408 incentive strategy are also outlined.

- 409 • **Implementation Strategy:** Describes the anticipated steps to be taken in implementing
410 the program, including reference to target market segments, recruiting of customers
411 and other market actors, the role of these actors, provision of technical assistance and
412 training, and the incentive fulfillment process.
- 413 • **Marketing Strategy:** Describes the strategy for communicating the availability of the
414 program and motivating target customer action, and may also include a description of
415 anticipated marketing collateral.

416 • Incentive Strategy: Provides the incentive level offered for the various energy
417 efficiency measures.

418 In addition, program analysis requires projections of annual participation by energy
419 efficiency measure, a projected annual program budget, and an evaluation, measurement
420 and verification strategy. Each program element is also analyzed for cost-effectiveness
421 using the TRC test. Only those program elements that pass this analysis move on to the
422 next stage.

423 Portfolio Design: The purpose of portfolio design is to set up a three-year plan of
424 programs that satisfies the statutory goals and ComEd's objectives. As discussed above,
425 programs can be allocated into different categories, and it is important to include a
426 mixture of all types of programs in order to develop a robust energy efficiency portfolio
427 that can achieve the statutory goals. In particular, this step lays out the program launches
428 over the three-year period, and projects kWh savings on an annual basis. While the
429 portfolio is designed to achieve the annual kWh savings goals, it also is designed to build
430 the required infrastructure to facilitate future programs.

431 The portfolio is also designed to blend together the program elements under two
432 broad solutions-based programs called ComEd Residential Solutions and ComEd
433 Business Solutions. Packaging the individual program elements under these larger
434 umbrella programs is intended to facilitate a one-stop shopping experience and avoid
435 customer confusion. Our marketing strategy is to deliver customer-facing programs via
436 an easy to understand "customer solution" concept that matches how customers make

437 energy efficiency purchasing decisions such as reducing energy costs, improving
438 productivity or enhancing comfort or convenience.

439 In addition, ComEd's overall Plan has three additional broad-based or
440 "solution-type" programs centered around Public Sectors, Schools, and Low-income
441 customers. While the energy efficiency components of these programs will be
442 implemented as part of the DCEO portion of the overall Plan, ComEd's overall marketing
443 awareness strategy will include these elements. We feel that these "solutions" give
444 customers easy access points to the many programs that will be open to them.

445 ComEd's portfolio also aims to exceed the statutory savings goals, under the
446 assumption that some programs will not deliver the kWh savings as planned.
447 Additionally, the portfolio describes how the utility will handle various potential
448 outcomes (e.g., over-subscription and under-subscription) and what actions will be taken
449 in these types of situations.

450 Q. You mentioned above that one of ComEd's objectives was to minimize risk. Please
451 explain ComEd's risk management strategy in designing the portfolio.

452 A. A crucial step in developing the portfolio was undertaking an examination of the
453 likelihood that the portfolio would fail to meet the statutory goals and other objectives.
454 We looked at three key factors: (i) risk tolerance, or ComEd's tolerance for falling short
455 of the 2008, 2009 and 2010 goals; (ii) relative risk associated with the programs in the
456 portfolio; and (iii) consideration of the portfolio design elements used to mitigate and
457 balance individual program risk. With respect to risk tolerance, ComEd is firmly
458 committed to achieving the statutory goals, and therefore its risk tolerance is low.

459 Consequently, a low risk tolerance suggests a preference for programs that reflect
460 standard and straightforward program designs, produce historically high NTG ratios and
461 bear a track record of successful implementation in other jurisdictions. The second
462 factor, program risk, was evaluated based on an analysis of the industry's nearly 20 years
463 of experience with energy conservation program design and implementation. And
464 finally, risk mitigation was also reviewed in light of roughly two decades of industry
465 experience.

466 Q. What are the specific types of risk that you had to address in the portfolio?

467 A. ComEd accounted for four different types of risk – performance, technology, market and
468 evaluation risks. Common to all types of programs is performance risk, which relates to
469 design or implementation flaws that result in a program failing to deliver the expected
470 savings. Technology risk relates to targeted technologies that fail to deliver the expected
471 savings, and has the potential to affect those programs that target emerging technologies,
472 systems that are made up of specific technologies, or systems in which energy use is
473 heavily influenced by external factors such as customer behavior or economic conditions.
474 Market risk involves customers choosing not to participate in a program because of poor
475 economic climate, the availability of better investments, or a subsequent regulation
476 renders the program ineffective, impractical or no longer cost-effective. And finally,
477 evaluation risk relates to the potential for the independent evaluator to conclude, based on
478 different assumptions, that the energy savings fall short of the original estimates of the
479 program planners. Because evaluation risk is fundamentally different from the other
480 types of risks due to the inability of ComEd or DCEO to manage it in real-time, I discuss
481 this risk in more detail in Section III.D of my testimony.

482 We have addressed performance, technology and market risk using a set of
483 relatively straightforward tools. First, we focused on selecting good investments,
484 meaning those that were simple, flexible and that have been shown over time to deliver
485 predictable results in other jurisdictions. Second, we ensured that the portfolio was
486 diversified and contained a mix of program types, including different services, delivery
487 mechanisms, providers, and incentive types and levels. We believe this approach avoids
488 over-reliance on any single approach, technology or market. Third, ComEd used
489 hedging, prudently planning to overshoot the energy savings goals based on the estimated
490 likelihood of program under-performance. Informed by experience and receipt of actual
491 results once the programs are underway, the hedge can be adjusted so that the final kWh
492 savings amounts acquired will achieve the goal.

493 Q. Does risk change over time?

494 A. Yes. We also took into account the way in which the different types of risk can change
495 over time. For example, while market risk generally increases over time due to
496 uncertainty in the way in which the economy and markets might change in the future,
497 technology risk generally decreases over time as we come to better understand
498 performance characteristics. In addition, we considered the timing of each program and,
499 in particular, whether it was anticipated to achieve savings more immediately or at a later
500 time.

501 Q. What particular adjustments did you make to the portfolio in light of your risk analysis?

502 A. In developing the portfolio, we worked with ICF to prepare a formal analysis of the
503 effects of risk on the portfolio. Looking in particular at key assumptions concerning
504 technology performance, program participation and program NTG ratios, we simulated

505 the impacts on ComEd's ability to achieve the statutory savings goals using Monte Carlo
506 analysis. Based on this analysis, ComEd made adjustments to its portfolio to better
507 manage these risks, including (i) reducing the planned contribution from residential
508 lighting, (ii) focusing on program elements that are readily scalable, (iii) investing now in
509 program elements which are not expected to generate savings in the first three years but
510 which will significantly enhance technology and program diversity in the next plan, (iv)
511 using program designs that reflect best practice, and (v) building in a small reserve
512 margin to provide a cushion in the event that one or more program elements fails to
513 perform at the level expected.

514 Q. Please describe the proposed energy efficiency portfolio.

515 A. As I previously stated, ComEd analyzed over 1,900 energy efficiency measure
516 combinations, of which over 70% passed the TRC test. At the program design stage,
517 ComEd focused in particular on the cost-effective measures from a marketplace
518 perspective. For example, rather than offer a simple CFL rebate program that could
519 possibly achieve the immediate goal, ComEd designed a portfolio that would meet not
520 only the immediate goals but would also achieve other objectives such as laying a
521 foundation for an energy efficiency culture in the ComEd service territory. ComEd also
522 felt it was important to have programs available for all customers, including programs
523 that went across various end-uses (e.g., lighting, HVAC, motors, refrigeration) and that
524 addressed special customer groups (e.g., all-electric customers). By focusing on these
525 objectives, we believe we have made the portfolio more accessible to all customers and
526 have allowed ComEd to spread its investment in energy efficiency across many
527 customers and end-uses.

528 Specifically, ComEd's initial set of energy efficiency programs was designed to
529 build a comprehensive set of programs designed to achieve the kWh goal. While
530 designing programs, measures were grouped into logical sets, whether it was different
531 lighting measures for the Residential Lighting program element or a mixture of measures
532 related to apartment dwellers for the Residential Multi-Family All-Electric Sweep
533 program element. In all cases, we focused on how the customer would perceive the
534 program in the marketplace and, in particular, on the ease of participation for the
535 customer.

536 The portfolio consists of a set of energy efficiency program elements
537 ("programs") that will roll out over the three-year Plan cycle. There are 12 energy
538 efficiency programs – 7 residential programs and 5 commercial and industrial programs.

539 Q. Please describe the programs available to residential customers.

540 A. The residential programs, which are grouped under the heading "Residential Solutions,"
541 provide a variety of options for residential customers. The programs rolled out during the
542 first implementation cycle will be technology-based and focus on relatively simple
543 customer actions. They will also emphasize customer education, with the goal of moving
544 residential customers to more comprehensive "whole home" solutions. The following
545 programs are available to residential customers:

546 • Residential Lighting – This program will offer customers instant rebates at the cash
547 register when purchasing CFLs, and is designed with a program delivery approach
548 that is midstream, targeting retailers or manufacturer/retailer partnerships. Incentive
549 levels are designed to buy down the price of the 60/75/100 watt CFL-equivalent bulbs

550 and specialty type bulbs (3-way/CFL dimmables/spots/floods). Additional rebates
551 will be available for pin-based table lamps and torchieres.

552 • Appliance Recycling– This program is designed to promote the retirement and
553 recycling of inefficient room AC units and secondary, inefficient refrigerators and
554 freezers from residential households. This is a turnkey program coordinated through
555 selected recyclers, with incentives paid to the customer for the certified working
556 appliances.

557 • Residential Multi-Family “All-Electric” Sweep – This program is designed as a
558 direct-install program to implement multiple measures at once within all-electric
559 buildings. The program would be targeted to multi-family all-electric residences,
560 particularly those with a large number of units per building.

561 • Residential HVAC Diagnostics & Tune-Up – This program is designed to obtain
562 energy savings by improving the operating performance of residential central AC
563 units for residential customers. HVAC diagnostics and tune-up services will be
564 delivered through a network of HVAC contractors operating in ComEd’s service
565 territory that have been trained in program protocols and participation processes. A
566 coordinated recruitment and training strategy will be used to inform contractors of
567 opportunities and incentives available through this program and the Residential New
568 HVAC with Quality Installation Program. Incentives will be paid to participating
569 HVAC contractors on a per job basis.

570 • Residential New HVAC with Quality Installation – This program is designed to
571 promote proper sizing and installation of new residential central AC units and capture

572 the associated savings with the intent to transform current HVAC installation
573 practices. The target market will be the dealers and installers of residential central
574 AC units. The secondary target is the new homebuilder community. This will be a
575 rebate program on new residential central AC units that are installed by a qualified
576 installer who submits a copy of the quality installation certificate.

577 • Residential Advanced Lighting Package – This program is designed to increase
578 builder and consumer awareness and understanding of the benefits of energy efficient
579 building practices, with a focus on capturing lighting energy efficiency opportunities
580 that are available during the design and construction of new homes. To secure
581 lighting energy efficiency opportunities in new home construction projects, the
582 program will provide homebuilders with incentives, education and training, and
583 marketing assistance to promote new homes that include the ENERGY STAR
584 Advanced Lighting Package (“ALP”).

585 • Single Family Home Performance – This program is a whole-house approach targeted
586 at all-electric homes that begins with an inspection of the home and provides a list of
587 prioritized improvements and repairs. Homeowners can implement measures on their
588 own or work with a qualified contractor. The homeowner submits copies of paid
589 invoices to receive their rebate.

590 • Residential Demand Response – Nature First Program Expansion – In addition to the
591 energy efficiency programs described above, ComEd will address the demand
592 response component of the Plan through an expansion of one of its current demand
593 response programs, Nature First. Nature First is a residential central AC direct load

594 control program that allows ComEd to cycle participating customers' central AC on-
595 and-off for select periods of time on high energy use days. To achieve the statutory
596 demand response goals, ComEd will expand participation in the Nature First
597 program. The expansion of the Nature First program is discussed in greater detail in
598 the direct testimony of Mr. Eber. (ComEd Ex. 3.0.)

599 In summary, the Residential Lighting program element provides the most kWh
600 savings, while at the same time promoting different aspects of energy efficiency lighting.
601 This program will be available to all customers. The Appliance Recycling program
602 element is the second largest residential program in terms of projected kWh savings, and
603 will be open to all customers who own old working appliances (e.g., refrigerators,
604 freezers, window AC units). With these two programs alone, we believe all residential
605 customers will have opportunities to participate. Although the other five programs are
606 more narrowly focused on particular segments, they are targeted at either an important
607 end use (e.g., AC), a critical customer segment (e.g., all-electric customers), or a critical
608 market sector (e.g., new construction). These five programs, along with the two larger
609 programs, create a diverse residential portfolio that provides opportunities for all
610 residential customers to participate while also minimizing portfolio risk and laying the
611 foundation for future offerings.

612 Q. Please describe the programs available to commercial and industrial customers.

613 A. The C&I programs are grouped under the "Business Solutions" heading and offer a
614 complementary set of energy management options to C&I customers. While the initial
615 focus is on individual technology or device incentives, the goal is to increase consumer
616 awareness to ultimately implement more comprehensive "whole building" solutions.

617 Although customers can participate in the program through any individual program
618 element, ComEd will also encourage participants to use the available building benchmark
619 services as a means of increasing awareness of the "whole building" solutions. The
620 following programs are designed for C&I customers:

621 • C&I Prescriptive – This will be a comprehensive program for all C&I customers that
622 will offer incentives for the installation of energy efficiency measures. The
623 anticipated rebates would lower payback economics to two years. Measures will
624 include, but not be limited to, T8s, T5s, CFLs, Energy Star Exit Signs (LED &
625 electroluminescent), Lighting Controls (occupancy sensors), Motors (> 5 horsepower)
626 / Variable Speed Drives for HVAC, AC Tune-up, Chillers, Food Service Equipment,
627 and Vending Machine Controllers.

628 • C&I Custom – This program is intended to improve the efficiency of unique
629 processes (many industrial-related) within customer operations. Customers will apply
630 for incentives after conducting their own facility audit. An engineering review will
631 be required for each application. This program is projected to cover up to 50% of
632 incremental measure costs for cost-effective technologies.

633 • C&I Retrocommissioning - This program will primarily focus on building controls
634 and HVAC systems in existing buildings, and will involve a two-step process: 1) a
635 systematic evaluation of equipment operational and performance levels, and 2) low-
636 cost implementation of enhancements and adjustments that improve the efficiency
637 levels of building systems by returning them to their intended operation or design
638 specifications. This program will also include a strong customer education

639 component targeting senior management decision-makers as well as facility
640 operations and maintenance staff. Educational program components will help to
641 ensure savings persistence by promoting improved operations and maintenance
642 practices.

643 • C&I New Construction – This program will provide design incentives and assistance
644 for above-code efficiency improvements in new non-residential buildings, plus
645 implementation incentives. This program would also be applicable to major remodels
646 and rehabilitations that would be subject to Illinois Commercial Energy Codes.

647 • Small C&I CFL Intro Kit – This program will consist of a direct mail postcard and
648 education piece to the small business customer segment. Customers can send back
649 the coupon for free CFLs, which also will include a chance to order additional CFLs
650 at a discounted purchase price. Additionally, the customers will receive information
651 on ComEd's other energy efficiency offerings, plus educational material on energy
652 efficiency.

653 To summarize, the C&I program mix is driven by two programs – the C&I
654 Prescriptive Program and the C&I Custom Program. These programs are designed to
655 work in tandem, giving all C&I customers opportunities to receive financial incentives
656 for energy efficiency measures. The C&I Prescriptive Program is the more traditional
657 program with its menu of measures and a corresponding rebate or incentive amount. The
658 C&I Custom Program, on the other hand, is designed to offer opportunities for energy
659 efficiency measures that are not found in the Prescriptive Program (e.g., industrial
660 process-related). In this program, customers can solicit proposals for energy efficiency

661 projects to receive a custom incentive. Together, these programs provide opportunities
662 for all C&I customers to participate, whether the program involves a simple motor
663 replacement or an overhaul of an industrial process. The remaining three C&I programs
664 are projected to be smaller in scope and are targeted at important niche segments that are
665 key to establishing a future energy efficiency culture. For example, the
666 Retrocommissioning Program and the New Construction Program are designed for either
667 the retrofit or new construction market, and the Small C&I Intro Kit Program is a
668 program that is targeted to the “hard to reach” small business customer – it can be used to
669 help kickstart this customer segment if need be. Again, we believe this selection of
670 programs under the Business Solutions umbrella offers numerous and diverse
671 opportunities for both C&I customers, small and large, in the ComEd service territory,
672 and will lay a foundation that can be built upon in future years.

673 Q. Please describe the programs that DCEO will implement.

674 A. DCEO’s portion of the Plan, which is described in more detail in its filing, consists of the
675 following twelve programs. Five programs are targeted at the municipal and school
676 segment, four are aimed at the low-income segment, and three are designed as market
677 transformation programs.

678 Public Sector Programs (Municipals & Schools)

- 679 • Public Sector Prescriptive Program
- 680 • Public Sector Custom Program
- 681 • Public Sector New Construction Program
- 682 • Lights for Learning Program
- 683 • Public Sector Retrocommissioning Program

684 Low-Income Programs

- 685 • Low-Income New Construction & Gut Rehab Program
- 686 • Low-Income Energy Efficient Moderate Rebate Program
- 687 • Low-Income Single-Family Remodeling Program
- 688 • Low-Income Energy Efficiency Direct Install Program

689 Market Transformation Programs

- 690 • Smart Energy Design Assistance Program
- 691 • Large-Customer Energy Analysis Program (LEAP)
- 692 • Efficiency Training Program

693 Q. Is ComEd's proposed portfolio of energy efficiency measures, when considered in
694 conjunction with the measures DCEO is implementing, designed to achieve the goals set
695 forth in subsection (b) of Section 12-103?

696 A. Yes. Table 3 below sets forth how ComEd's portfolio is designed to achieve the goals.

Table 3: Design of ComEd's Portfolio

ComEd Programs	2008		2009		2010		2011		2012	
	Cost (\$/customer)	Life-cycle (\$/customer)								
Residential										
Residential Lighting Program	2.97	\$ 0.014	76,889	\$ 7.2	126,349	\$ 12.0	149,822	\$ 14.2	351,400	\$ 33.3
Appliance Recycling Program	1.35	\$ 0.032	8,159	\$ 2.1	18,355	\$ 4.8	24,477	\$ 6.3	50,904	\$ 13.2
Residential Multi-Family "All Electric" Sleep	1.35	\$ 0.027	2,563	\$ 0.8	2,369	\$ 0.8	2,369	\$ 0.8	7,107	\$ 2.3
Residential - HVAC Diagnostics & Tune-Up	1.17	\$ 0.085	-	\$ 0.1	1,602	\$ 1.3	4,488	\$ 3.2	6,297	\$ 4.6
Residential New HVAC w/Quality Installation	1.11	\$ 0.087	-	\$ -	7,227	\$ 4.6	18,033	\$ 11.2	25,260	\$ 15.7
Single Family Home Performance	1.04	\$ 0.033	-	\$ -	1,407	\$ 0.6	2,478	\$ 1.0	3,980	\$ 1.6
Residential Advanced Lighting Package	1.11	\$ 0.032	-	\$ -	125	\$ 0.0	280	\$ 0.1	973	\$ 0.1
Commercial & Industrial										
C&I Prescriptive	1.25	\$ 0.036	43,206	\$ 7.0	86,610	\$ 14.0	167,613	\$ 27.0	297,378	\$ 48.0
C&I Custom	2.19	\$ 0.029	18,932	\$ 2.9	74,475	\$ 10.5	95,244	\$ 13.0	188,651	\$ 26.4
Small C&I CPL Intro Kit	2.07	\$ 0.027	16,816	\$ 0.8	-	\$ -	-	\$ -	16,816	\$ 0.8
C&I Retrocommissioning	1.11	\$ 0.038	1,050	\$ 0.4	6,456	\$ 2.4	10,903	\$ 4.1	16,449	\$ 6.9
C&I New Construction	1.06	\$ 0.041	-	\$ 0.1	695	\$ 0.8	1,808	\$ 1.6	2,934	\$ 2.1
Demand Response										
Nature First Expansion	1.06			\$ 0.8		\$ 1.0		\$ 1.2		\$ 3.0
Education / Market Transformation										
Energy Star Monthly Building Usage				\$ 0.3		\$ 0.4		\$ 0.6		\$ 1.1
EIO Interval Data Profiler				\$ 0.2		\$ 0.2		\$ 0.2		\$ 0.8
Educational / Outreach				\$ 2.5		\$ 1.5		\$ 1.5		\$ 5.9
ComEd Total Program Costs			136,139	\$ 24.1	324,471	\$ 54.2	477,487	\$ 74.1	880,194	\$ 136.7
DCSO - Public Sector										
Public Sector Prescriptive Program	1.18	\$ 0.048	30,406	\$ 4.8	65,016	\$ 9.9	95,153	\$ 14.3	191,575	\$ 28.7
Public Sector Custom Program	2.82	\$ 0.011	4,443	\$ 0.7	7,975	\$ 1.1	14,773	\$ 2.2	26,591	\$ 4.0
Public Sector New Construction	4.30	\$ 0.007	-	\$ -	-	\$ 0.7	2,070	\$ 3.2	2,070	\$ 3.0
Lighting For Learning	2.83	\$ 0.016	2,663	\$ 0.1	4,035	\$ 0.2	5,160	\$ 0.2	11,378	\$ 0.6
Public Sector Retrocommissioning	2.94	\$ 0.018	2,251	\$ 0.1	2,242	\$ 0.1	4,491	\$ 0.3	8,984	\$ 0.6
Public Sector - Admin Costs				\$ 0.5		\$ 0.8		\$ 1.1		\$ 2.0
DCSO - Low Income										
Low-Income New Construction & Gut Rehab	0.85	\$ 0.032	-	\$ 1.1	811	\$ 1.2	1,346	\$ 3.0	2,157	\$ 6.3
Low-Income Energy Efficient Moderate Rehab	0.35	\$ 0.034	-	\$ -	-	\$ 1.1	773	\$ 1.6	773	\$ 2.6
Low-Income Energy Efficient Single Family Remodeling	0.30	\$ 0.143	-	\$ 0.4	206	\$ 0.7	341	\$ 1.3	547	\$ 2.4
Low-Income Energy Efficiency Direct Install	0.80	\$ 0.071	648	\$ 0.7	969	\$ 1.1	1,394	\$ 1.6	2,811	\$ 3.3
Low Income - Admin Costs				\$ 0.1		\$ 0.1		\$ 0.1		\$ 0.3
DCSO - Education / Market Transformation										
Smart Energy Design Assistance Program				\$ 0.7		\$ 1.2		\$ 1.8		\$ 3.9
Large customer Energy Analysis Program (LEAP)				\$ 0.1		\$ 0.1		\$ 0.3		\$ 0.6
Efficiency Training				\$ 0.9		\$ 0.5		\$ 0.8		\$ 1.8
Market Transformation - Admin				\$ 0.1		\$ 0.1		\$ 0.1		\$ 0.4
DCSO Total Program Costs			40,411	\$ 9.5	81,654	\$ 13.6	115,407	\$ 20.1	237,498	\$ 36.1
Portfolio-level Costs										
Portfolio Administration				\$ 2.8		\$ 4.0		\$ 4.8		\$ 11.8
Measurement & Verification (M&V)				\$ 1.2		\$ 2.4		\$ 3.6		\$ 7.4
R&D/Emerging Technologies				\$ 1.0		\$ 1.1		\$ 1.2		\$ 3.3
Portfolio-level Costs	1.17			\$ 5.1		\$ 7.5		\$ 9.4		\$ 22.6
ANNUAL TARGET			188,729	\$ 38.4	393,691	\$ 61.6	594,077	\$ 126.7		

698

699 Q. Does ComEd's portfolio provide a "diverse cross-section of opportunities for customers
700 of all rate classes?"

701 A. Yes. As I previously have stated, the Residential Solutions and Business Solutions
702 programs are designed to provide all residential and C&I customers with the opportunity
703 to participate in energy efficiency programs. In the residential sector, we have a lighting
704 program that is available to all customers. In addition, we have appliance programs
705 aimed at AC units and refrigerators, which are two of the highest loads in the home. We
706 also have residential programs aimed specifically at all-electric homes, which are some of
707 the larger electricity users in the residential sector. Concerning the C&I programs, the
708 C&I Prescriptive and C&I Custom programs provide every C&I customer with multiple

709 opportunities to take advantage of energy efficiency offerings. In addition, we are
710 offering new construction and retrocommissioning programs that allow customers to
711 participate at the building level. And finally, we have also targeted small C&I customers,
712 often considered to be the hardest target market to reach, with the Small C&I Intro Kit
713 program. Overall, we believe the portfolio as a whole provides a diverse cross-section of
714 opportunities for all ComEd customers.

715 **D. Program Implementation, Management and Administration**

716 **1. Implementation Overview**

717 Q. How does ComEd propose to implement the programs in its portfolio?

718 A. ComEd has developed a detailed implementation schedule for each program element,
719 which includes proposed completion dates for the major steps in the process of bringing a
720 program to market. These steps include comprehensive program design, RFP
721 development for third party administrators, RFP solicitation and award, program
722 development and program launch. This schedule is set forth in Section 4.6 of the Plan.
723 (*See ComEd Ex. 1.0.*)

724 Q. Can you describe this process in more detail?

725 A. Yes. In addition to the implementation information provided in each program element
726 template presented in Section 3.4 of the Plan, ComEd realizes that the actual
727 implementation process for each program will require much more detail. Because most
728 programs will be implemented by third parties selected through the RFP process, ComEd
729 expects to work with the winning bidders in the development of the more detailed
730 program designs and implementation plans. This will allow ComEd to bring the third
731 party administrator's expertise into the process before the program design is complete.

732 Working with the third party administrator, ComEd will finalize the program structure,
733 incentive levels and marketing and recruitment strategies to maximize the success of
734 achieving the program goals. ComEd and the third party administrators will develop a
735 detailed roadmap for program roll-out and management, including customer
736 qualification, rebate fulfillment, customer care, data capture and tracking, reporting and
737 quality control processes.

738 Q. How does ComEd propose to market the programs in its portfolio?

739 A. ComEd views the marketing of the portfolio as one of the key elements that can lead to
740 the overall success of the portfolio. It is important to stress that ComEd does not view
741 the portfolio as 12 individual programs that will be launched separately to the customers.
742 Rather, ComEd views the initial portfolio at a customer segment level with programs
743 presented together as Residential or Business Solutions, which ComEd believes will
744 allow customers to learn about and make energy management purchasing decisions in a
745 one-stop shopping environment that matches programs to their needs for energy savings
746 and environmental benefits. These groupings present all the programs for the particular
747 customer segment as a package, and are designed to avoid the potential confusion that
748 might be caused by presenting each program and its details individually.

749 In addition, ComEd is proposing market transformation and educational
750 programs, in conjunction with market transformation and educational programs offered
751 by DCEO, that are designed to actively promote an energy efficiency culture and the
752 value of ComEd's energy efficiency programs. Two market transformation programs are
753 highlighted below:

754 • Energy Star Data Program – This program will provide C&I building owners and
755 managers with totalized building energy usage on a monthly basis. This information
756 is important to any customer who wishes to participate in the Energy Star
757 benchmarking process. Customer receipt of this service may be linked to
758 participation in other portfolio measures.

759 • Energy Insights Online Program – This program is a web-based energy analysis
760 service that interprets data gathered from the customer's recording meters and
761 converts either monthly or daily data into easy-to-understand graphs and reports that
762 show how much electricity the customer consumes. This data helps customers
763 understand how and when their facilities use electricity. Energy managers can use
764 this data to lower demand charges, to quantify energy usage changes in production
765 modifications, and to validate efficiency upgrades. This information would be
766 provided to customers free of charge and would no longer be provided as a fee-based
767 service (currently 400 customers subscribe to this service). Customers would be
768 required to pay any meter exchange costs and additional meter rental charges that are
769 necessary to participate in this program. Customer receipt of this service may be
770 linked to participation in other portfolio measures such as energy efficiency
771 educational components.

772 ComEd will also dedicate funding each year to investigate emerging technologies
773 in the energy efficiency field so that the portfolio is properly designed to evolve over
774 time.

775

2. ComEd Management and Administration

776

Q. What infrastructure is in place at ComEd to oversee these implementation processes?

777

A. ComEd's energy efficiency and demand response portfolio will be administered by

778

ComEd's Marketing & Environmental Program Area ("M&EP"). Within this area, four

779

departments will play major roles in implementing the portfolio. The DSM & Energy

780

Efficiency Program Planning Department, which I lead, will have responsibility for the

781

planning, RFP development and solicitation, measure and verification, cost tracking, goal

782

tracking, and portfolio risk assessment functions. The Energy Efficiency Services

783

Department will be in charge of the implementation of all energy efficiency programs,

784

serving as program managers and overseeing management of third party program

785

administrators. The Demand Response/Dynamic Pricing Department, which currently

786

implements the Nature First demand response program, will serve as program manager of

787

the demand response component of the portfolio. Finally, the Marketing Department will

788

bear responsibility for both portfolio and program marketing strategy and

789

implementation. To assist with these implementation activities, ComEd also is hiring

790

additional employees in the Planning, Implementation and Marketing areas.

791

Many other internal ComEd departments will play supporting roles throughout the

792

implementation process, including Large Account Services, Customer Care,

793

Communications and IT.

794

3. Ongoing Evaluation and Risk Management

795

Q. What additional activities does ComEd propose to undertake during the initial three-year

796

period?

797 A. First, at the portfolio level, ComEd will continue to reassess its mix of programs and
798 timing to ensure it remains on track in meeting the statutory goals within the applicable
799 spending screens. To support ongoing planning efforts, ComEd will undertake additional
800 evaluation and market research, develop a portfolio communications plan that
801 emphasizes a consistent brand and message across the portfolio and includes education
802 initiatives, and implement back-office systems for tracking, reporting and incentive
803 fulfillment in a timely fashion.

804 Second, to address risk going forward, ComEd also must retain flexibility to
805 adjust portfolio and program design based on the real-time information it receives.
806 ComEd requires the ability to modify programs during the three-year Plan cycle as results
807 are realized. On-going program modifications are a key to a well-designed portfolio – as
808 information is received and analyzed, program designs will be modified accordingly.
809 This will be critical if the kWh goal is to be achieved. For example, it is possible that a
810 measure may lose its cost-effectiveness over time or participation rates for a certain
811 measure turn out lower than expected. Although we have conducted a risk analysis, it is
812 impossible to foresee every contingency that might arise in the future. To ensure that
813 ComEd has the ability to respond to such challenges following approval of the Plan, it
814 must retain sufficient flexibility to reallocate funds across program elements, including
815 the ability to modify, discontinue and add program elements within approved programs
816 based on subsequent market research and actual implementation experience.

817 Third, ComEd will continue to meet and work with other Illinois stakeholders,
818 establishing a stakeholder collaborative process. ComEd is committed to continued
819 engagement with the stakeholders listed above to provide opportunities to review

820 ComEd's progress towards achieving the required energy efficiency and demand
821 response goals. We propose, therefore, the establishment of a collaborative process
822 facilitated by an independent, third party organization or individual accepted by all
823 parties. Participants in this collaborative process would include ComEd, DCEO, the
824 Attorney General, Commission Staff and representation from a variety of interests,
825 including residential consumers, business consumers, environmental and energy
826 advocacy organizations, trades and local government. An initial meeting of the
827 collaborative would be held in February 2008 to establish basic principles of operation, to
828 be followed by a series of meetings throughout the spring of 2008 to establish
829 performance metrics. The collaborative would be engaged in the development and
830 review of the RFPs for independent evaluation services and in developing evaluation
831 protocols. ComEd and DCEO would present final program designs to the participants in
832 the collaborative process prior to June 1, 2008. Going forward, quarterly meetings of the
833 collaborative would be held at which program performance and program options for the
834 next three-year Plan would be discussed. Working groups could be established to pursue
835 topics between quarterly meetings.

836 Q. Has ComEd proposed a process for making changes to its Plan following its initial
837 approval?

838 A. Yes. Essential to ComEd's risk management strategy is retaining sufficient flexibility to
839 reallocate funds across program elements, including the ability to modify, discontinue
840 and add program elements within approved programs as dictated by additional market
841 research and actual implementation experience. At the same time, we recognize the
842 importance of having stakeholder participation in this process of review and, as

843 necessary, modification. Specifically, we propose that the following matters would be
844 discussed with the stakeholder group:

- 845 • The reallocation of funds among program elements within the Residential and
846 Business Solutions programs (excluding those elements managed by DCEO) to
847 ensure ComEd's ability to achieve its goals, where the change in budget for any
848 specific program element is greater than 20%.

- 849 • Discontinuing approved program elements within the Residential and Business
850 Solutions programs.

- 851 • Adding new program elements with the Residential and Business Solutions programs,
852 as long as those elements pass the TRC test.

- 853 • Dismissing ComEd's evaluation contractor under the terms of the contracts signed
854 with that contractor, and the hiring of a new contractor.

855 The proposed portfolio represents ComEd's initial effort to design a cost-effective
856 mix of programs with a high probability of success. Following Commission approval of
857 the Plan, ComEd will proceed with final and detailed program designs and
858 implementation plans. This process will include further discussions with stakeholders,
859 customer groups, and trade allies. Continuing market research will also influence ongoing
860 Plan direction. Based on the information compiled through this process, these initial
861 program designs most likely will be refined to strengthen the program offerings. In the
862 event ComEd revises the proposed budget for any specific program element within the

863 Residential or Business Solutions programs by more than 20%, it will notify the
864 collaborative of these changes.

865 Q. For ComEd's energy efficiency portfolio, is each program limited to a certain
866 participation or kWh limit each year?

867 A. No. While ComEd has done its best to model projections of program participation, costs,
868 and other impacts, it is still a projection. We cannot predict with certainty what will
869 happen in the marketplace when the programs are launched. Although ComEd has
870 projected participation rates for each of the 12 program elements, each program could
871 potentially realize much different participation rates. For example, ComEd has modeled
872 the C&I Retrocommissioning Program and New Construction Program as rather small in
873 terms of kWh savings. Some stakeholders, however, believe these types of programs
874 could become the cornerstone of the portfolio. If that turns out to be the case, ComEd
875 would not want to prevent these programs from growing beyond the initial estimates.
876 Rather, funding from other programs could possibly be made available to these programs.
877 ComEd will need to have the flexibility necessary to manage the costs and the program
878 and customer mix to determine when funds are reallocated and to properly manage the
879 portfolio.

880 Q. If participation exceeds the projected estimates such that the annual energy savings goal
881 is exceeded, how does ComEd propose to address any impact on the goals?

882 A. Because ComEd is launching nearly all of its programs from a "cold start", it is
883 impossible to predict with certainty how the market will respond to each program. With
884 that said, ComEd believes it can manage the portfolio and its programs in such a way to
885 "accelerate" or "throttle back" various activities to increase or decrease participation as

886 needed to generate annual results within the “ballpark” of the goal, it would be
887 impossible to do so with absolute precision. Based on this ramp-up period and a desire to
888 encourage participation in energy efficiency programs, ComEd believes that it would be
889 neither appropriate nor prudent to turn away willing participants. The Plan is not a single
890 year effort, but rather a process that evolves from one year to the next. While it is
891 important to report progress on an annual basis given the yearly goals, the
892 implementation and management of the portfolio and its programs must be fluid and
893 should not be dictated by the end of each Plan year. In fact, we have designed a seamless
894 implementation and management process that emphasizes the ready availability of energy
895 efficiency and demand response solutions without regard to underlying State energy
896 savings goals.

897 Therefore, ComEd proposes that if it exceeds the kWh energy savings goals in a
898 given Plan year, it should be permitted to apply that excess to the next year’s goal and
899 reduce it accordingly. This is called “banking.” In such a circumstance, forecast costs
900 for the subsequent year of the Plan would be adjusted downward to reflect the need to
901 achieve a lower kWh reduction in that year. In such case, not only would the goal be
902 reduced in the subsequent year, but the projected costs input in Rider EDA would also be
903 reduced for the subsequent year. This is explained in additional detail in Mr. Crumrine’s
904 direct testimony. (See ComEd Ex. 5.0.) This “banking” concept is very important to the
905 overall management of ComEd’s portfolio.

906 Let me illustrate with an example. Suppose ComEd’s goal in year one is 100
907 kWh of energy savings within a \$1 million spending screen, and ComEd instead achieves
908 140 kWh of energy savings and spends \$1.2 million. In this case, year two’s goal would

909 be decreased by 40 kWh (140 less 100) and the projected costs for year two would be
910 decreased by \$0.2 million (\$1.2 less \$1.0). ComEd believes that this is a fair and
911 equitable method to ensure the statutory goals are being attained, while, at the same time,
912 encouraging the development of an energy efficiency culture in Illinois by allowing the
913 programs to grow in the marketplace.

914 Q. What happens if participation is lacking, such that the annual kWh goal is not reached?

915 A. In this case, ComEd would be viewed as missing the goal for the year.

916 E. **Proposed Evaluation, Measurement and Verification (EM&V) Process**

917 Q. What are the purposes of the EM&V process?

918 A. The EM&V process serves several purposes. First, at its core, this process determines the
919 actual savings achieved by a program or group of programs. This is known generally as
920 an impact evaluation. Second, by combining actual savings data with actual program
921 cost data, the EM&V process calculates the actual cost-effectiveness of a program or
922 portfolio of programs. Third, the EM&V process develops estimates of key program
923 planning variables such as per unit measure energy savings and demand reductions and
924 NTG ratios. Fourth, the EM&V process provides a vital early-warning system for
925 program administrators if the evaluation can be conducted in a timely manner. By
926 providing the administrator timely information on actual savings, potential critical
927 shortfalls can be determined while time remains in the implementation cycle to make
928 changes in design or implementation methods. Fifth, though often neglected in
929 evaluation processes due to resource constraints, an EM&V process also evaluates the
930 process of program implementation. Such process evaluations, when combined with

931 impact evaluations, are particularly important in helping to refine and improve program
932 design and delivery.

933 Q. What are the key EM&V activities that ComEd is proposing?

934 A. There are a number of activities related to EM&V that ComEd proposes to undertake
935 over the next three years. These include (i) selecting an independent program evaluation
936 contractor; (ii) establishing appropriate program EM&V protocols and guidelines; (iii)
937 establishing stipulated savings values for prescriptive measures; (iv) establishing
938 benchmark NTG ratios; (v) verifying and performing due diligence of project savings;
939 (vi) providing an independent evaluation of program impacts; and (vii) providing internal
940 quality assurance and control.

941 It is also important to explain up front that the statutory limit on EM&V
942 expenditures of 3% of the total budget presents a significant barrier to an effective
943 EM&V process. This budgetary constraint will determine the nature of the evaluation
944 process to a far greater extent than will the purposes I outline above. Because of the
945 funding limitations for the EM&V process, it is important that evaluation resources be
946 allocated to highest value purposes. ComEd has several proposals that are designed to
947 achieve the proper allocation, ensure an independent evaluation, and develop a process
948 for gauging ongoing program performance.

949 Q. Please describe ComEd's proposals concerning the EM&V process.

950 A. ComEd proposes the following steps as part of its EM&V process:

- 951 • Select a Master Evaluation Contractor: Consistent with the statutory framework,
952 ComEd proposes to hire an independent evaluator through an RFP process. ComEd

953 will develop the RFP in conjunction with the collaborative process, including
954 defining the scope of work and developing a list of potential bidders. Although the
955 statute ultimately charges ComEd with selecting the evaluator, ComEd believes that
956 the review of qualified proposals received would benefit from the participation of the
957 collaborative. ComEd also proposes that the independent evaluator be hired early in
958 the process, ideally as soon after the Commission approves the Plan as possible. It is
959 important for all parties to know how savings will be counted before programs are
960 implemented and not after. Moreover, the experience of the evaluator can be very
961 valuable in developing final program designs capable of maximizing energy savings.

962 • Establish Appropriate Program EM&V Protocols: The independent evaluator should
963 conduct the evaluation using a set of evaluation protocols that determine the types of
964 evaluation methods to be applied to different types of programs, the format of the
965 evaluation reports, and schedule for evaluation activities. ComEd proposes to work
966 with the collaborative and the evaluator to develop these protocols in conformance
967 with the International Performance Measurement and Verification Protocol
968 (“IPMVP”). These protocols will be valuable for ComEd as well, as they will
969 prescribe the types of data that ComEd must track. Specifically, the protocols will
970 address (i) the type of evaluation required for each type of program, (ii) the schedule
971 for evaluation activities, (iii) the methods to be used in estimating and applying NTG
972 ratios, (iv) the contents and format of evaluation plans to be prepared by the
973 evaluator, (v) the contents and format of evaluation reports, and (vi) the allocation of
974 available evaluation funding across time and evaluation activities. In general, ComEd
975 proposes that stipulated savings values be used when possible to simplify the savings

976 calculation process and limit the impact on the small EM&V budget, and, when that
977 is not possible, the level of EM&V undertaken should correspond to the level of
978 savings attributed to the measures and likelihood of variability in measure savings.

979 • Establish Deemed Savings Values for Prescriptive Measures and Rebates: For
980 lighting measures such as in the Residential Lighting Program and C&I Prescription
981 Program, where the savings are well established and can be reasonably predicted,
982 ComEd proposes that the Commission “deem” or adopt the measure savings values
983 set forth in Mr. Jensen’s direct testimony. (*See* ComEd Ex. 6.0.)

984 • Establish Benchmark Net-to-Gross Values: Similar to establishing deemed savings
985 values for measures, ComEd proposes that the Commission deem certain NTG ratio
986 values set forth in Mr. Jensen’s direct testimony. (*See id.*)

987 • Verification and Due Diligence of Project Savings: In those instances where
988 stipulated savings are not utilized, ComEd proposes to work with the implementation
989 contractors to develop and implement quality assurance and quality control,
990 inspection and due diligence procedures, which are needed to verify customer
991 eligibility, completion of installations, and the reasonableness and accuracy of
992 savings upon which incentives are based. The independent evaluator, however, will
993 verify installation and estimation of savings under the independent evaluation.

994 • Provide an Independent Evaluation of Program Impacts: Using the evaluation
995 protocols, the independent evaluator will determine the program and portfolio
996 impacts. ComEd also proposes to implement a program tracking system that can

997 support ongoing program management and assessment and the independent
998 evaluation.

999 ● Provide Internal Quality Assurance and Control: ComEd proposes to establish
1000 internal tracking and reporting mechanisms to review the quality of the program
1001 design and implementation.

1002 Q. Please describe what you mean by deemed measure “savings values” and “NTG ratio
1003 values”.

1004 A. Stipulated savings values or “deemed” values are the savings that ComEd proposes using
1005 in the impact evaluation of the program. While discussed in much more detail in the
1006 direct testimony of Messrs. Jensen and Hall (ComEd Exs. 6.0 & 7.0), the policy
1007 underlying stipulated savings is that many measures have been evaluated numerous times
1008 for several years, establishing levels of energy savings that are consistently achieved.
1009 Instead of trying to “reinvent the wheel” for common, non-weather-sensitive measures,
1010 ComEd proposes that kWh savings values for such measures be adopted up-front so that
1011 evaluation dollars can be used more effectively on other parts of the analysis.

1012 The NTG ratio, on the other hand, establishes a value reflecting the program’s net
1013 impact, taking into account the impact of “free riders” and “free drivers.” Free riders are
1014 customers who would have installed the measures for which they received the incentives
1015 even in the absence of the program. Free drivers are customers who did adopt a measure
1016 that is promoted by a program after having been influenced by the program, but without
1017 taking the program incentive, the savings effect of which is called “spillover”. Again,
1018 this concept is discussed in more detail in the direct testimony of Messrs. Jensen and

1019 Hall. The policy behind deeming NTG ratio values is based on the same logic as
1020 deeming the measure savings values. These values have been evaluated numerous times
1021 over several years, and projections of the NTG ratio from these other analyses will
1022 provide ComEd with reasonable projections of their expected results. There is no reason
1023 to use limited evaluation dollars to conduct new analyses of this data.

1024 Q. Why is it important that the Commission adopt or "deem" certain measure savings and
1025 NTG ratio values?

1026 A. Absent deeming certain values, ComEd faces significant evaluation risk because the
1027 values upon which it has based its savings for purposes of achieving the goals have not
1028 yet been established by the evaluator. Although ComEd has based its estimates of
1029 program costs and savings on the best information available to us, has retained expert
1030 evaluation expertise to review its assumptions, and has conducted a formal analysis of
1031 portfolio risk, the lack of any established values introduces substantial risk and
1032 uncertainty for customers and ComEd going forward. Moreover, given the evaluation
1033 funding limits, it is unrealistic to expect any evaluation contractor to independently
1034 determine the per unit savings of every measure included in every program, verify that
1035 every measure recorded by ComEd and DCEO was in fact installed and is operating
1036 properly, and estimate the amount of free-ridership and spillover associated with each
1037 measure or program.

1038 Many aspects of portfolio performance are, to some extent, under ComEd's
1039 control as a function of program design and implementation effectiveness. For example,
1040 risks associated with sub-par performance stemming from design or implementation
1041 flaws are risks that ComEd can attempt to manage. However, evaluation risk – the risk

1042 that an evaluator will use a very different value for a measure's energy savings or NTG
1043 ratio than assumed by ComEd – presents ComEd with a significant and potentially
1044 unmanageable risk. Although ComEd can and has invested in developing estimates of
1045 measure savings and NTG ratio values, an evaluator could determine that these values are
1046 not “correct” and apply different values that effectively reduce estimated savings.
1047 Moreover, the values selected by the evaluator may or may not be any more “correct” in
1048 a statistical sense than those used by ComEd, and could be much less correct in that
1049 sense. Most important, if the evaluator does not produce these “correct” values until after
1050 the implementation period is over, there is no way ComEd can make up a shortfall
1051 created by the use of these values. This uncertainty creates inefficiency to the extent that
1052 ComEd attempts to adjust its portfolio for this risk, and negatively impacts customers.
1053 The uncertainty surrounding program measurement adversely impacts the quality of
1054 program infrastructure, delivery development, and program sustainability.

1055 ComEd therefore proposes that the set of proposed values for the energy savings
1056 associated with common energy efficiency measures and NTG ratios that are introduced
1057 in Mr. Jensen's direct testimony be approved as part of this Plan. This means that these
1058 values will be used for all evaluations conducted until the time when new values are
1059 developed and validated as appropriate to use. The new values, however, would be
1060 applied prospectively only and not retrospectively, meaning that if the independent
1061 evaluator modifies values deemed by the Commission or otherwise establishes new
1062 values, those values only should be applied in subsequent Plan years and not to savings
1063 booked to that point or otherwise booked in the current Plan year. This is critical for the
1064 implementation and EM&V of the programs – ComEd must have the ability in real-time

1065 to quantify the impacts of its programs if it is to manage the goal. To change critical
1066 factors (e.g., NTG ratios, kWh savings) after the fact will introduce risk into the program
1067 that cannot be reasonably managed without incurring additional costs and negatively
1068 impacting program quality.

1069 Q. Please explain how ComEd proposes to calculate the kWh savings under its EM&V
1070 methodology.

1071 A. Similar to other states, ComEd proposes to annualize the savings related to a measure for
1072 the full year. This means that no matter when a measure is installed during the year, its
1073 savings are calculated as if the measure had been in place for the full year.

1074 Q. Why is annualization of savings a valid methodology for calculating savings?

1075 A. Although Mr. Hall discusses the validity of annualization in more detail in his direct
1076 testimony (ComEd Ex. 7.0), put simply, any other method of calculating savings would
1077 make the statutory goals unattainable, and would require all programs to maximize their
1078 impact during the first couple months of the Plan year. This immediate ramp-up,
1079 however, would essentially shut down the energy efficiency programs for the remainder
1080 of the year due to the depletion of available funds, and is inconsistent with the policy goal
1081 of developing energy efficiency infrastructure and culture on a going-forward basis.

1082 Q. Does ComEd seek any clarity from the Commission regarding the process of evaluating
1083 whether ComEd has met its energy efficiency goals under Section 12-103(b)?

1084 Q. Yes. ComEd requests that the Commission approve a schedule and procedure to review
1085 whether the utility achieved the energy savings goals, as contemplated by subsection (i)
1086 of Section 12-103. 220 ILCS 5/12-103(i). In particular, ComEd proposes that the

1087 Commission set a schedule for reviewing whether ComEd has met the individual energy
1088 efficiency savings goals for the second and third years of the Plan set forth in Section 12-
1089 103(b). In particular, ComEd proposes that the Commission adopt the following review
1090 process:

1091 After the second year of the Plan, the Commission shall determine whether or not
1092 ComEd achieved the goal for the year commencing June 1, 2009 and ending May
1093 31, 2010. After the third year of the Plan, the Commission shall determine
1094 whether or not ComEd achieved the goal for the year commencing June 1, 2010
1095 and ending May 31, 2011. The Commission shall base its review on the measure
1096 savings and NTG ratio values deemed by the Commission. In the event that the
1097 independent evaluator modifies those values or otherwise establishes new values,
1098 those values only shall be applied to the Commission's review prospectively (*i.e.*,
1099 to subsequent years of ComEd's Plan).

1100 **F. Proposed Cost-Recovery Mechanism and Annual Reconciliation Process**

1101 Q. Please describe how ComEd proposes to recover its costs related to achieving the
1102 statutory goals.

1103 A. ComEd has proposed Rider EDA to recover its incremental costs related to the Plan.
1104 This is described in more detail in Mr. Crumrine's direct testimony.

1105 Q. From the portfolio perspective, what costs does ComEd expect to recover?

1106 A. ComEd's overall goal in terms of cost recovery for its Plan is to recover all incremental
1107 costs associated with the planning, implementation, management and evaluation of the
1108 portfolio and its programs. This will include the costs to implement ComEd's and
1109 DCEO's programs, including, but not limited to, third party administrative costs,
1110 customer incentives, internal management activities (*e.g.*, marketing, advertising,
1111 reporting, risk analysis) and incremental fully-loaded labor costs. By incremental fully-
1112 loaded labor costs, I am referring to costs related to the creation of new positions and

1113 hiring of new employees who have been retained to work on the energy efficiency
1114 portfolio and that are not recovered through other tariffed charges (e.g., delivery charges).

1115 Q. As part of the yearly reconciliation process, will ComEd also be adjusting its spending
1116 screens?

1117 A. No. The spending screens for each year of the Plan were determined during the planning
1118 stages of the Plan, and ComEd relied on the spending screens in assembling its overall
1119 portfolio over the three-year period. The statute requires that the utility file a single,
1120 three-year Plan to achieve the statutory goals applicable during that initial period. To that
1121 end, ComEd designed the Plan to build upon itself, and in so doing relied on the
1122 assumptions that are presented for Commission approval in this docket. Therefore,
1123 ComEd seeks Commission approval of the spending screens estimated and presented by
1124 Mr. Crumrine (ComEd Ex. 5.0).

1125 Q. Why are the projected costs equal to the spending screen in each year of the Plan?

1126 A. The portfolio has been designed to achieve the kWh goal while also attempting to try to
1127 lay a foundation for a sustained energy efficiency culture in Illinois, and to incorporate
1128 other key activities such as education and emerging technology components. ComEd has
1129 had to balance the requirement to achieve the kWh goal with other competing factors,
1130 such as educating the marketplace and investing in research of new technologies, all
1131 within the spending screen. Factors such as education and research are critical to
1132 establishing an energy efficiency culture in Illinois and laying the groundwork for
1133 innovation. Indeed, the spending screen has constrained ComEd's ability to invest in
1134 energy efficiency programs. For example, while 3% of the annual budget can be
1135 budgeted for emerging technologies, budget limitations have not allowed that to happen.

1136 The budget is tight in all three years, and ComEd is making every attempt within its
1137 portfolio to cost-effectively reach the kWh goals, while still moving towards its overall
1138 objectives.

1139 Q. Please explain what types of policies and practices ComEd has in place concerning the
1140 management of costs related to the energy efficiency and demand response portfolio.

1141 A. As I will explain in more detail below, ComEd employs a number of cost management
1142 measures, including a competitive bidding process for selecting outside contractors,
1143 program-based estimates and billing, reporting requirements to monitor the status of each
1144 program, and evaluation of the efforts to manage costs as part of performance reviews.

1145 Q. How will ComEd ensure that the vendor or contractor costs incurred are reasonable?

1146 A. ComEd intends to hire third party administrators through a competitive bidding process
1147 that focuses on experience and costs.

1148 Q. Will ComEd have a tracking mechanism in place to monitor the status of each program
1149 and the portfolio?

1150 A. ComEd intends to purchase and implement a cost and program tracking system for the
1151 energy efficiency and demand response portfolio. Each third party administrator will be
1152 required to enter program data and costs on a regular basis (frequency will be dependent
1153 on program, but minimum will be monthly) so that ComEd can closely monitor the
1154 performance of all programs and the portfolio, and respond accordingly.

1155 Q. What incentives are there for ComEd employees and consultants to control costs?

1156 A. Performance reviews for internal ComEd staff will focus on the employee's ability to
1157 manage costs. Moreover, a large factor in deciding which third party administrators to

1158 retain will be the firm's demonstrated ability to control and avoid costs on past projects.
1159 Given the spending screen, ComEd has a strong incentive to closely monitor and control
1160 costs to ensure that the annual kWh goal is met.

1161 Q. Does this conclude your testimony?

1162 A. Yes.