

**ILLINOIS COMMERCE COMMISSION**

**DOCKET NO. 04-0294**

**SURREBUTTAL TESTIMONY**

**OF**

**RICHARD E. GOLDBERG**

**Submitted On Behalf**

**Of**

**AMEREN CORPORATION**

**PUBLIC VERSION**

**August 19, 2004**

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5 **RICHARD E. GOLDBERG**

6  
7 **Q. Please state your name, title, and business address.**

8 A. Richard E. Goldberg. I am a Principal of The Brattle Group, an economics  
9 consulting firm. My business address is 353 Sacramento Street, Suite 1140, San  
10 Francisco, CA 94111.

11 **Q. Have you provided previous testimony in this proceeding?**

12 A. No, I have not.

13 **Q. Do you have prior testimony experience?**

14 A. Yes. I have testified before the Federal Energy Regulatory Commission and in  
15 various state regulatory proceedings.

16 **Q. What are your qualifications to provide testimony here today?**

17 A. I co-manage The Brattle Group's consulting practice in Valuation and Risk  
18 Management for the energy industry. In this position, my main areas of focus  
19 have been risk management, power and gas trading, generation asset  
20 management, fuel procurement, and retail service design. I have 15 years of  
21 experience performing research for and consulting to energy companies and I  
22 have a Ph.D. in Physics from Stanford University. A more complete description  
23 of my qualifications can be found in Exhibit REG-1 of this testimony.

24 **Q. What is the purpose of your testimony today?**

25 A. I was asked by Ameren Corporation (“Ameren”) to address Staff witness Michael  
26 McNally’s statement that “[Ameren] has not quantified the effect that each  
27 alleged source of credit related savings ... would have on the ultimate cost of  
28 purchased power or gas” [McNally Rebuttal p.2 lines 25-27] and to address Staff  
29 witness Eric Lounsberry’s statement that “To the best of [his] knowledge”  
30 Ameren has not “attempted to quantify the claimed credit related benefit  
31 associated with having more suppliers and ISDA counterparties” [Lounsberry  
32 Rebuttal p. 10 lines 207-209]. These witnesses generally are responding to the  
33 analyses presented by Ameren witness Craig Nelson and his efforts to quantify  
34 credit savings to Illinois Power Company (“Illinois Power”) in its purchased  
35 power and gas costs as a result of Ameren ownership. My testimony will provide  
36 the Illinois Commerce Commission (“Commission”) with a quantification of the  
37 credit-related savings that Illinois Power can be expected to obtain under Ameren  
38 ownership due to Ameren’s investment grade credit rating over the electricity and  
39 gas purchased costs that would be incurred under continued Dynegy Inc.  
40 (“Dynegy”) ownership.

41

42 **I: Overview**

43 **Q. How is your testimony organized?**

44 A. I will first review three potential sources of credit related savings in electricity  
45 and gas purchased costs that a company can expect to receive from improving its  
46 credit rating to investment grade from below investment grade. Then I will  
47 address each source of savings in turn and quantify the specific level of savings

48 that Illinois Power can be expected to achieve due to a change in credit rating  
49 from its current rating under Dynegy ownership to a rating closer to Ameren’s  
50 current credit rating.

51 **Q. What are the “alleged source[s] of credit related savings” that Staff witness  
52 McNally claims have not been quantified in his rebuttal testimony [McNally  
53 Rebuttal p.2 lines 25-27]?**

54 A. Staff witness McNally is referring to credit related savings cited by Ameren  
55 witness Nelson in his rebuttal testimony. In that testimony, Mr. Nelson states that  
56 Ameren expects that under Dynegy ownership rather than under Ameren  
57 ownership, Illinois Power would face “higher commodity prices” due to  
58 “concern[s] about Illinois Power’s creditworthiness”, costly  
59 “prepayment/collateral requirements”, and higher “power supply and gas costs”  
60 due to access to fewer suppliers [Nelson Rebuttal p. 2. line 38 – p. 3 line 50]. I  
61 agree with Mr. Nelson’s observations.

62 **Q. Are these the sources of credit related savings you will be quantifying in your  
63 testimony today?**

64 A. Yes they are.

65 **Q. Will you please explain why concerns about creditworthiness lead to  
66 increased electricity and gas purchase costs?**

67 A. Certainly. When a company selling electricity or natural gas makes a sale to a  
68 company with a low credit rating, the seller faces two credit related financial  
69 risks: Firstly, the seller risks that the purchaser will go into default at a time when  
70 the sale contract has significant value. The risk of such default is an additional

71 expected cost to the seller of doing business with a purchaser having a low credit  
72 rating that would not be borne by the seller had it instead sold the commodity to a  
73 purchaser without credit concerns. Clearly, sellers will need to demand a higher  
74 up-front price when dealing with such a counterparty to compensate themselves  
75 for this additional “mark-to-market credit cost”. Since the risk of default is quite  
76 low for investment grade companies, this is an additional cost that typically only  
77 would apply to a non-investment grade company.<sup>1</sup>

78 Secondly, the seller risks that the purchaser will go into default and not  
79 make payments for commodity that has already been delivered to the purchaser.  
80 Clearly, sellers will demand that purchasers with low credit ratings make  
81 arrangements to secure payment for delivered commodity, either through pre-  
82 payment or by posting collateral adequate to cover any accounts receivable from  
83 the purchaser. These security arrangements are costly to the purchaser and  
84 provide an additional “accounts receivable credit cost” to purchasers of electricity  
85 and gas with low credit ratings. Again, since the risk of default is quite low for  
86 investment grade companies, this is an additional cost that typically only would  
87 apply to a non-investment grade company.

88 In addition to these default-related costs of actual purchases, there is an  
89 additional cost that a purchaser with low credit rating faces: A gas or electric  
90 purchaser with a credit rating below investment grade will find that numerous  
91 potential counterparties are simply unwilling to sell to that purchaser in the first

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<sup>1</sup> For example, a recent Standard and Poor’s Special Report [“Corporate Defaults in 2003 Recede from Recent Highs”, p. 4, (February 2004)] lists a historical default rate over 1 year of only 0.13% averaged over investment grade companies during the period from 1981-2003 while the corresponding default rate is over 30% averaged over companies in the CCC/C rating class – the historical default rate for companies in the CCC/C class is over 200 times greater than for investment grade companies.

92 place. Many energy companies have credit screens that will not allow their  
93 traders to conduct trades with counterparties below investment grade. Limited  
94 access to trading counterparties implies that the purchaser will pay a higher  
95 commodity price solely due to illiquidity. This “illiquidity credit cost” is a third  
96 credit related cost facing companies with low credit ratings.

97 **Q. Why would Illinois Power face greater credit costs under Dynegy ownership**  
98 **than under Ameren ownership?**

99 A. Prior to the press release on February 3, 2004, announcing Ameren’s acquisition  
100 of Illinois Power, senior unsecured debt issued by Illinova (the Dynegy subsidiary  
101 that directly holds its ownership stake in Illinois Power) was rated at CCC+ by  
102 Standard & Poor’s and at Caa2 by Moody’s [S&P Monthly Bond Guide for  
103 month ending 1/31/04, p. 111, and Mergent Bond Record, January 2004, p. 118] –  
104 in both cases well below investment grade.<sup>2</sup> In contrast, at that time Ameren  
105 Corporation was rated at A3 by Moody’s [Mergent Bond Record, January 2004,  
106 p. 84] – investment grade. Both Standard & Poor’s and Moody’s compute the  
107 average default probability over 1 year to be more than 200 times greater for  
108 companies in the range of Illinova’s pre-announcement ratings than for  
109 investment grade companies [Standard & Poor’s, “Corporate Defaults in 2003  
110 Recede from Recent Highs”, p. 4 (Feb. 2004), and Moody’s “Default and  
111 Recovery Rates of Corporate Bond Issuers”, Exhibits 20 and 31 (Feb. 2004)].  
112 Hence, under Dynegy ownership Illinois Power will face substantial credit costs  
113 while under Ameren ownership Illinois Power is unlikely to face any credit costs.

114 **Q. Would you please summarize your findings as to the additional credit related**  
115 **costs Illinois Power would incur under Dynegy ownership as compared to**  
116 **under Ameren ownership?**

117 A. Using the base case estimate of 2007 electricity and gas purchase costs of \$900  
118 Million per year used by Ameren witness Nelson in his Exhibit 3.3, I find that  
119 under Dynegy ownership Illinois Power would incur roughly another \$46 Million  
120 per year in credit related costs leading to total electricity and gas purchase costs of  
121 \$946 Million. A breakdown of how my \$46 Million per year estimate splits into  
122 components due to mark-to-market, accounts receivable, and illiquidity credit  
123 related costs is shown in Table REG-1 below.

124

Credit Cost Category	Credit Related Costs Under Dynegy Ownership
Mark-to-Market	\$11.0 Million/yr
Accounts Receivable	\$15.3 Million/yr
Illiquidity	\$20.0 Million/yr
Total	\$46.33 Million/yr

125 **Table REG-1:** Summary of Illinois Power credit related costs for purchased electricity and gas under  
126 Dynegy Ownership  
127

128 **II: Mark-to-Market Costs**

129 **Q. How can you quantify mark-to-market credit costs associated with electricity**  
130 **and gas purchases by a non-investment grade company?**

131 A. Mark-to-market credit costs can be quantified by estimating the likelihood of loss  
132 on electricity and gas purchase contracts and multiplying that by the expected

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<sup>2</sup> In addition, Illinois Power’s senior unsecured debt rating was Caa1 according to Moody’s prior to the announcement of the transaction [Moody’s Rating Action, 2/4/04]. Thus, Illinois Power and Illinova

133 value that the contract would have for the seller in the case of default.<sup>3</sup> The  
134 likelihood of loss for any particular counterparty can be estimated from the  
135 company's bond ratings and is equal to the probability of default multiplied by  
136 one minus the expected recovery rate.<sup>4</sup> Market forward price and volatility data  
137 can be used to calculate the expected value to the seller of the contract under  
138 default.<sup>5</sup>

139 **Q. Have you done this calculation for the case of Illinois Power?**

140 A. Yes, I have.

141 **Q. What were your results?**

142 A. I find that sellers of electricity and gas to Illinois Power would face mark-to-  
143 market credit costs of \$11.0 Million per year more under Dynegy ownership than  
144 under Ameren ownership.

145 To carry out this calculation I made the assumption that Illinois Power would  
146 contract for its electricity and gas needs at least one year in advance in the  
147 forward markets<sup>6</sup> and used a monthly electricity and gas purchase amount of \$75

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were in essentially the same credit position.

<sup>3</sup> This relies on the standard assumption that the default probability is uncorrelated with the commodity price outcome. See J. Hull, "Options, Futures, and Other Derivative Securities" Second Edition, p. 456-458, Prentice Hall, 1993 for further discussion on the appropriateness of making this assumption.

<sup>4</sup> Both Standard & Poor's and Moody's regularly publish statistics on the cumulative probability of default over various time horizons versus company rating. Moody's also includes statistics on the expected recovery rates over various time horizons for senior unsecured debt versus company rating. Estimates of credit losses, therefore, can be presented as the product of historical default probability and loss severity for senior unsecured debt (which is simply one minus the recovery rate for senior unsecured debt) See "Ratings Performance 2003", Standard & Poor's, February 2004, p. 13 and "Default & Recovery Rates of Corporate Bond Issuers", Moody's, January 2004, pp. 15-16.

<sup>5</sup> The value of a forward contract is equal to roughly zero at the time of contracting since the forward price is equal to the (risk neutral) expected value of commodity deliveries. However, the contract is likely to have non-zero value at any later time due to the movement of market forward prices. Volatility data summarizes the range of potential forward price movements and, hence, describes the expected contract value under default.

<sup>6</sup> Note that Ameren witness Nelson states that "Ameren's position" is for "Illinois Power to enter into long-term supply arrangements for a significant portion of its commodity supply" [Nelson Rebuttal p.

148 Million<sup>7</sup>. I then estimated the mark-to-market credit cost for each month of  
149 deliveries one year away as the sum over intervening months of the likelihood of  
150 loss times the expected contract value to the seller under purchaser default.

151 The likelihood of loss is equal to the probability of default multiplied by  
152 one minus the recovery rate. For the probability of default I used the Standard &  
153 Poor's default probability of 30.85% over the following year for CCC/C rated  
154 companies ["Ratings Performance 2003", Standard & Poor's, February 2004, p.  
155 13]<sup>8</sup> and for the recovery rate I used Moody's recovery rate of 28.4% over the  
156 following year for Caa-Ca rated companies ["Default & Recovery Rates of  
157 Corporate Bond Issuers", Moody's, January 2004, p 15]. These values imply a  
158 probability of loss equal to 22.1% over the year or 1.84% for each month of the  
159 year.

160 The expected seller loss under default on a contract to deliver one-month's  
161 worth of commodity one year forward is the sum of the values of 12 at-the-money  
162 European put options on the one year away forward price expiring serially in each  
163 intervening month.<sup>9</sup> I used Black's formula<sup>10</sup> to value these put options which

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2 lines 34-36]. Repeating my calculations for longer time horizons led to larger results so the one year time horizon can be considered a conservative assumption.

<sup>7</sup> \$75 Million per month represents the \$900 Million annual electricity and gas purchase cost estimated for 2007 by Ameren witness Nelson in his base case [Nelson Rebuttal p. 8 lines 168-170] divided by 12.

<sup>8</sup> For comparison, Moody's default probability over 1 year for Caa-C rated companies was equal to 36.84% when averaged over the period from 1994-2003 and equal to 23.49% when averaged over the period from 1983-2003 ["Default & Recovery Rates of Corporate Bond Issuers", Moody's, January 2004, p 26].

<sup>9</sup> The expected value to the seller under default is equal to the expected difference between the forward price when the contract is signed and the forward price at the time of default where the expected value only includes cases where the forward price at the time of default is below the contract price (so that the contract is a net liability to the defaulting purchaser). An at-the-money European put option on the forward price will likewise pay off any positive difference between the forward price at the time the contract is signed and the forward price at expiration so its value is identical to the expected value to the seller under default in that month.

164 required an estimate of the forward price volatility for each intervening month. I  
165 estimated the volatility of the forward price for monthly deliveries one year away  
166 during each intervening month of the year by fitting broker quotes<sup>11</sup> for monthly  
167 volatilities of Cinergy power using a 2-factor volatility function.<sup>12</sup>

168 I multiplied the put option value in each intervening month by the  
169 probability of loss for that month and summed the results to get the expected  
170 default cost associated with monthly deliveries one year away. The result was an  
171 expected default cost to the seller of \$0.91 Million for each month's deliveries  
172 which implies a cost of \$11.0 Million per year.

173 Further details of these calculations are presented in Exhibit REG-2 and  
174 my workpapers to this testimony.

175 **Q. Are you aware of any examples where price quotes to non-investment grade**  
176 **companies have reflected a credit adder to forward prices?**

177 A. Yes. In April 2002 Nevada Power Company ("NPC") had its bond rating  
178 downgraded following a regulatory disallowance. After that downgrade, NPC's  
179 risk manager told me that they had been informed by one of their neighboring  
180 utilities that they would be required to pay a \$3/MWh credit adder to any forward  
181 prices.

182 **Q. Are you aware of other examples where non-investment grade companies**  
183 **have incurred costs related to mark-to-market credit issues?**

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<sup>10</sup> F. Black, "The Pricing of Commodity Contracts", Journal of Financial Economics, 3 (March 1976) pp. 167-179.

<sup>11</sup> I used the average of bid and ask implied volatilities shown for Cinergy options on the option pricing sheet sent by ICAP on the close of business of July 20, 2004.

<sup>12</sup> See EPRI Technical Brief "Forward Curve Dynamics and Asset Valuation" [EPRI TB-108991, October 1997] for a discussion of this standard 2-factor volatility function.

184 A. Yes. The State of New Jersey auctions off its retail load in slices to be served by  
185 bidders to an auction. In the Master Agreement for fixed price bids (“New Jersey  
186 BGS-FP Supplier Master Agreement”) there are provisions that require any non-  
187 investment grade suppliers to provide collateral to cover their entire mark-to-  
188 market exposure on their load obligation. In other words, if a bidder is below  
189 investment grade, it needs to post cash or a letter of credit to cover any difference  
190 between forward prices at the time the auction is completed (the “mark”) and  
191 current forward prices:

192 “At the time the auction is completed, the MtM credit exposure for each  
193 BGS-FP Supplier shall be equal to zero. Subsequently, the differences  
194 between the available Forward Market Prices on the valuation date and the  
195 “mark” prices for the corresponding Billing Months will be used to  
196 calculate the daily exposures for each BGS-FP Supplier. The total MtM  
197 credit exposure will be equal to 1.1 times the sum of the MtM credit  
198 exposures for each Billing Month.”  
199 [New Jersey BGS-FP Supplier Master Agreement, p. 42, Article 6.5]  
200

201 “If at any time and from time to time during the term of this Agreement,  
202 the Total Exposure Amount exceeds the BGS-FP Supplier’s or  
203 Guarantor’s credit limit, then the Company on any Business Day, may  
204 request that BGS-FP Supplier provide cash or letter of credit in an  
205 acceptable form ... in an amount equal to the Margin (less any Margin  
206 posted by the BGS-FP Supplier and held by the Company pursuant to this  
207 Agreement or any other agreement(s) between the Company and the BGS-  
208 FP Supplier for the provision of BGS Supply).  
209 [New Jersey BGS-FP Supplier Master Agreement, p. 45, Article 6.7]  
210

211 Such posting of collateral is costly to such companies and represents another  
212 example of below investment grade companies incurring substantial cost to  
213 alleviate credit concerns about potential default when their obligations are  
214 liabilities to them.

215 **III: Accounts Receivable Costs**

216 **Q. How can you quantify accounts receivable credit costs for a non-investment**  
217 **grade electricity or gas purchaser?**

218 A. Accounts receivable credit costs can be measured as the incremental cost to the  
219 purchaser of arranging for pre-payment of electricity or gas purchases rather than  
220 making payment after delivery as is standard commercial practice in electricity  
221 and gas markets.

222 **Q. Have you done this calculation for the case of Illinois Power?**

223 A. Yes, I have.

224 **Q. What were your results?**

225 A. I find that Illinois Power would face accounts receivable credit costs of \$15.3  
226 Million more per year under Dynegy ownership than under Ameren ownership.

227 Standard industry practice for electricity and gas purchases requires  
228 payment by the 20<sup>th</sup> of the month following delivery.<sup>13</sup> Prepayment prior to each  
229 month's deliveries requires each month's payments to be made roughly 50 days<sup>14</sup>  
230 earlier than would otherwise be required. Since the weighted cost of capital  
231 represents the average earnings expected from company funds, it is the  
232 appropriate opportunity cost to use for computing the cost of tying up funds for  
233 prepayment requirements.

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<sup>13</sup> See, for example, the WSPP Master Agreement [WSPP Master p. 20B Articles 9.1-9.2] or the EEI Master Agreement [EEI Master p. 17 Article 6.2]. Natural gas forward contracts typically require payment on either the 20<sup>th</sup> or 25<sup>th</sup> of the month following deliveries. (For example, the "Base Contract for the Sale and Purchase of Natural Gas" provided by the North American Energy Standards Board has a default payment date of on the 25<sup>th</sup> of the month following deliveries.)

<sup>14</sup> The 50 day estimate is based on assuming roughly 30 days per month. In fact, prepayments usually need to take place a few days before the start of the month (and, as noted in the prior footnote, gas contracts often allow payment as late as the 25<sup>th</sup> of the following month) so 50 days is a conservative estimate of the number of days of lost earnings.

234                   Using a monthly electricity and gas purchase amount of \$75 Million<sup>15</sup> and  
235                   a cost of capital of 12.43% [Nelson Rebuttal p.7 line 159 – p. 8 line 165] leads to  
236                   an annual accounts receivable cost of roughly \$15.3 Million or 1.7% of annual  
237                   electricity and gas purchase costs.<sup>16</sup>

238   **Q.   Have any such accounts receivable costs ever been approved by another**  
239   **regulatory commission?**

240   A.   Yes. The Federal Energy Regulatory Commission (“FERC”) explicitly ordered  
241   that the California ISO pay suppliers a mitigated market clearing price that  
242   included an adder of “10 percent to the market clearing price ... to reflect credit  
243   uncertainty” from “the real risk of non-payment in California” in the days  
244   following the bankruptcy proceedings of the California Power Exchange [FERC  
245   Order on June 19, 2001 in Docket EL00-95-031 et al., p. 35].

246                   At the time of that FERC order, Moody’s was rating the State of  
247   California (whose Department of Water and Power was the main power buyer at  
248   the time for California load) at a much higher rating than they were rating Illinova  
249   at the time of the announcement that Ameren was planning to acquire Illinois  
250   Power.<sup>17</sup>

251                   In spite of the higher credit rating given to California, using the FERC’s  
252   calculation of accounts receivable cost to estimate the savings under Ameren

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<sup>15</sup> \$75 Million per month represents the \$900 Million annual electricity and gas purchase cost estimated for 2007 by Ameren witness Nelson in his base case [Nelson Rebuttal p. 8 lines 168-170] divided by 12.

<sup>16</sup> Each monthly prepayment of roughly \$75 Million loses 50 days (roughly 14% of a year) of earnings at 12.43%/yr. This implies a loss of \$1.28 Million of earnings for each monthly payment. Over a year this adds up to \$15.3 Million which is equal to 1.7% of the \$900 Million annual electricity and gas purchase cost.

<sup>17</sup> Just prior to the promulgation of the order (June 19, 2001) Moody’s downgraded the rating of the State of California’s general obligation bonds to Aa3 [Moody’s Rating Update, May 15, 2001].

253 ownership of Illinois Power would lead to much higher estimated savings than I  
254 calculated above. Using FERC’s approach (and adjusting down from their 75 day  
255 payment lag cited by the FERC in their decision to the 50 day payment lag  
256 considered here) leads to an estimate of \$60 Million per year in accounts  
257 receivable costs.<sup>18</sup> In other words, based on FERC’s 10% risk premium used in  
258 California, power purchases by Ameren instead of IP would save Illinois  
259 customers \$60 million in costs related to accounts-receivable risks.

260 **Q. Are you aware whether Illinois Power under Dynegy ownership has prepaid**  
261 **for gas purchases in response to suppliers' demands for adequate credit**  
262 **assurance?**

263 A. Yes. In Docket 04-0476 before this Commission, Illinois Power has provided a  
264 lead-lag study report prepared by Navigant Consulting that states that “IP, on  
265 account of its creditworthiness situation, had to pre-pay for the majority of its  
266 supplies of natural gas during the test year.” [Docket 04-0476, WP-B8a, July 23,  
267 2004, p. 10]. In my experience companies that are below investment grade often  
268 need to post collateral (e.g., prepay for supplies) before other parties will transact  
269 with them. This statement provides further evidence that Dynegy ownership  
270 translates to a prepayment obligation for IP.

271 /\* BEGIN CONFIDENTIAL\*/ XXXXXXXXXXXXXXXXXXXXXXXX  
272 XX  
273 XX  
274 XX

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<sup>18</sup> \$60 Million = \$900 Million \* 10% \* (50 days/75 days).

275 XX  
276 XX  
277 XX  
278 XX  
279 XX  
280 XX  
281 XX

282 /\* END CONFIDENTIAL\*/

283

284 **IV: Illiquidity Costs**

285 **Q. How can you quantify illiquidity credit costs for a non-investment grade**  
286 **electricity or gas purchaser?**

287 A. To get a rough estimate of the increase in costs a non-investment grade purchaser  
288 or electricity or gas would face, one can compare the cost increases seen in  
289 electricity and gas markets in going from highly liquid instruments to more  
290 illiquid ones. An illiquid instrument is an instrument that has very few parties  
291 interested in trading it and so the cost increases associated with illiquid  
292 instruments can be used as a surrogate measure of the costs associated with  
293 having few counterparties willing to trade with a non-investment grade electricity  
294 or gas purchaser.

295 Power and gas traders regularly find that when they try to purchase or sell  
296 a product that is outside of the usual trading products (e.g., other than on-peak,  
297 off-peak, or all-hours firm power at a major trading hub for electricity) they face

298 additional illiquidity costs. Examples of this in electricity include the relatively  
299 higher costs to purchase super-peak hour electricity versus peak hour contracts  
300 (higher, that is, than would be expected based on historical price ratios between  
301 super peak and peak hours), the higher costs to purchase option contracts far from  
302 “at-the-money”, and the lower prices associated with the sale of unit-contingent  
303 power than those associated with firm power.

304 The common understanding of these cost increases is that there are fewer  
305 counterparties interested and willing to trade the illiquid instruments as they are  
306 less easily hedged. Hence, additional margin is required to entice counterparties  
307 to transact. The increase in costs seen in transacting such instruments is likely to  
308 be similar to the increase in costs seen by a non-investment grade company whose  
309 credit risk is not easily hedged. Hence the scale of margins seen on these types of  
310 instruments can serve as a surrogate measure of illiquidity credit costs.

311 **Q. Have you performed an estimate of the level of illiquidity cost Illinois Power**  
312 **is likely to incur under Dynegy ownership?**

313 A. Yes, I have.

314 **Q. What were your results?**

315 A. I find that Illinois Power would face illiquidity credit costs of roughly \$20  
316 Million more per year under Dynegy ownership than under Ameren ownership.

317 To estimate the increase in costs due to illiquidity, I have examined bid-  
318 ask spreads for forward electricity sales into Cinergy. The higher the market  
319 liquidity the lower the typical bid-ask spreads. I have used daily screen-prints  
320 taken from ICE by Ameren staff during the last Rider MVI data collection period

321 and computed average bid-ask spreads by contract during that period. I find that  
322 highly liquid near-term months typically have a bid-ask spread of at or below  
323 \$1/MWh while more illiquid longer term months reach a bid-ask spread of up to  
324 \$3/MWh. In other words, bid-ask spreads increased by about \$2/MWh in going  
325 from highly liquid to more illiquid products. If, as is usually assumed, we  
326 consider the midpoint price to be the true “market price” then one half of the bid-  
327 ask spread would represent the increase in purchase costs due to illiquidity. In  
328 other words, about \$1/MWh would be the increase in purchase costs in going  
329 from the highly liquid contracts to the more illiquid ones. As the calendar year  
330 contracts were priced at roughly \$45/MWh, \$1/MWh represents an illiquidity  
331 premium of 2.2%. Applying this premium to \$900 Million in annual electricity  
332 and gas purchases leads to an estimated illiquidity cost of roughly \$20 Million per  
333 year.

334 Further details of these calculations are presented in Exhibit REG-3 and  
335 my workpapers to this testimony.

336 **Q. Can you provide any evidence that acquisition by Ameren will increase the**  
337 **number of counterparties willing to trade with Illinois Power?**

338 A. Yes. As noted by Staff witness Lounsberry, after Ameren acquired Central  
339 Illinois Lighting Company (“CILCO”), CILCO had “more gas suppliers and  
340 ISDA counterparties” that would trade with it [Lounsberry Rebuttal, p. 10, lines  
341 198-202].

342

343 **V: Summary and Conclusions**

344 **Q. Can you please summarize your findings?**

345 A. Yes. I have described three sources of additional credit related costs associated  
346 with having below investment grade credit ratings. These sources of savings are  
347 the same as those previously identified by Ameren. Those costs are: Mark-to-  
348 Market costs, Accounts Receivable costs, and Illiquidity costs. Table REG-1  
349 above summarizes my calculations of how much additional credit related costs  
350 Illinois Power would incur in their purchase of electricity and gas under Dynegy  
351 ownership as opposed to under Ameren ownership. As shown in the table, I find  
352 that ownership by Ameren will lead to a decrease in electricity and gas credit  
353 related costs of \$46 Million each year.

354 **Q. Does this conclude your surrebuttal testimony?**

355 A. Yes, it does.