

DIRECT TESTIMONY
OF
OF RICHARD A. VOYTAS
ON BEHALF OF
UNION ELECTRIC COMPANY

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24 planning process and its reliability needs. I will also explain why this transaction
25 is consistent with, and necessitated by, a recent Stipulation and Agreement
26 (“Stipulation”) involving AmerenUE which resolved certain retail rate related
27 issues in Missouri. This Stipulation has been approved by the Missouri Public
28 Service Commission (“MoPSC”).

29 **Q. Please describe the parties to the transaction.**

30 A. AmerenUE is a first-tier subsidiary of Ameren Corporation (“Ameren”), and
31 provides electric service to over 1 million retail and wholesale customers in
32 Missouri and in parts of Illinois, as well as gas service to approximately 130,000
33 customers in those states. AmerenUE’s peak load in 2002 was 8,643 MW, and its
34 peak usage periods occur during the summer months. AmerenUE’s peak load for
35 its Illinois service territory in 2002 was 513 MW or just 5.9% of its total peak
36 demand. AmerenUE is located within the Mid-America Interconnected Network,
37 Inc. (“MAIN”) regional reliability council. As a member of MAIN, AmerenUE
38 must meet certain minimum short term and long term planning reserve margin
39 requirements, which currently are 15% for 2003 and 17% for 2006, respectively.
40 AmerenUE has capacity resource needs of 543 MW in 2003 to maintain a 15%
41 reserve margin. AmerenUE’s resource needs in 2006 increase to 991 MW using a
42 17% planning reserve margin.

43 On May 1, 2000, pursuant to the Illinois Electric Service Customer Choice
44 and Rate Relief Law of 1997 (“Customer Choice Law”), Central Illinois Public
45 Service Company d/b/a AmerenCIPS (“AmerenCIPS”) transferred ownership of
46 its generation assets to AEG. Since that time, AEG has acquired and repowered

47 additional generation units. AEG currently owns approximately 4,600 MW of
48 generating capacity located in Illinois and Missouri, including the 548 MW it
49 proposes to transfer to AmerenUE. AEG currently sells the output from its
50 generating facilities to Ameren Energy Marketing Company (“AEM”) under both
51 cost-based and market-based rates, as well as to others pursuant to its market-
52 based rate authority. AEM then either sells the power on the market or sells the
53 power to AmerenCIPS for sale to AmerenCIPS’ retail customers in Illinois. All
54 sales of power from AEG to AEM and then from AEM to AmerenCIPS for resale
55 to AmerenCIPS’ bundled customers take place under FERC-approved power
56 sales agreements whereby the prices paid to sellers are cost-based rates based on
57 the rates AmerenCIPS is allowed by the Illinois Commerce Commission (“ICC”) to
58 charge its retail customers. AEG is an affiliate of AmerenUE and has been
59 recognized as an exempt wholesale generator by the Federal Energy Regulatory
60 Commission (“FERC”).

61 **Q. Please describe the transaction.**

62 A. In this transaction, AEG proposes to sell and transfer to AmerenUE the following:
63 (1) four 44 MW combustion turbine generator (“CTG”) units and four 35 MW
64 CTG units from AEG’s Pinckneyville, Illinois generation facility, which represent
65 100% of the capacity at that facility; and (2) two 116 MW CTG units from AEG’s
66 Kinmundy, Illinois generation facility, which also represent 100% of the total
67 capacity of that facility. The terms of the subject transaction are set forth in (1) the
68 “Asset Transfer Agreement - Pinckneyville Generation Station Between Ameren
69 Energy Generating Company And Union Electric Company,” which accompanies

70 my testimony as Ameren Exhibit 1.1, and (2) the “Asset Transfer Agreement -
71 Kinmundy Generation Station Between Ameren Energy Generating Company
72 And Union Electric Company,” which accompanies my testimony as Ameren
73 Exhibit 1.2 (collectively “Asset Transfer Agreements”). Under these two
74 agreements, AEG will sell these facilities to AmerenUE at their net book value
75 (subject to certain adjustments as set forth in the agreements), which, as of
76 September 30, 2002, were \$161.5 million for Pinckneyville and \$96.4 million for
77 Kinmundy. Once this transaction closes, AmerenUE will own approximately 548
78 MW of additional generation capacity.

79 **Q. How did AmerenUE arrive at the decision to enter into the transaction?**

80 A. As part of its resource planning process, AmerenUE conducted an Asset Mix
81 Optimization Analysis (“AMO Analysis”) to determine the least cost mix of
82 generating assets required to allow AmerenUE to meet its long term needs and to
83 comply with MAIN’s requirements. AmerenUE initially completed the AMO
84 Analysis in late 2001 and updated it in 2002. Both the 2001 AMO analysis and
85 the updated 2002 AMO show that the addition of a mix of simple cycle and
86 combined cycle combustion turbines during the entire planning horizon would
87 satisfy AmerenUE’s needs on a least cost planning basis.

88 In response to MAIN’s generating reserve requirements, and also in
89 response to resource planning requirements of the MoPSC, AmerenUE evaluated
90 a number of options for obtaining the energy and capacity necessary to meet its
91 peak load requirements. These options included the following: building new
92 generating capacity, buying existing generating facilities from AEG, buying

93 existing facilities from non-affiliated Independent Power Producers (“IPPs”), and
94 purchasing power on the market. Each of these options is discussed below.

95 **Q. Please describe the market purchase option.**

96 A. In the fall of 2001, AmerenUE issued a Request for Proposal (“RFP”) for capacity
97 and energy with the intent of purchasing up to 500 MW of capacity for the time
98 period of 2002 through 2011. In the process of evaluating the 21 bids received as
99 part of the RFP process, a 25 year analysis of the cost to build peaking capacity
100 was developed to assist in the evaluation. The reason for the 25 year analysis was
101 to capture both the short term benefits of purchasing from the currently depressed
102 market for capacity and energy and the long term benefit of deferring the
103 construction of needed regulated capacity. The results of this analysis, which
104 were presented to the MoPSC Staff and Missouri Office of Public Counsel
105 (“OPC”) on January 15, 2002, showed that the Net Present Value (“NPV”) of the
106 least cost RFP options, coupled with the construction of simple cycle CTGs at the
107 end of the 10 year contracting period (2002-2011), were comparable to the
108 purchase of generating assets from AEG, with certain AEG assets (Kinmundy and
109 Gibson City) being slightly superior to the purchases and other AEG assets
110 (Pinckneyville and Columbia) being slightly inferior.

111 During the process of evaluating the RFP bids, the MoPSC Staff expressed
112 a concern with power purchases and expressed a clear and marked preference for
113 AmerenUE owning hard assets. The MoPSC Staff’s perception of power
114 purchases in January 2002 was that such purchases should be viewed only as the
115 deferral of the need to build needed generating assets. Staff reiterated this

116 perspective with respect to other Missouri electric utilities, most notably Aquila.
117 Staff's preference to owning generating assets was also expressed in Staff witness
118 Dr. Michael Proctor's direct testimony in AmerenUE's recent rate proceeding,
119 Case No. EC-2002-1. In his testimony, Dr. Proctor stated that the normalized cost
120 of generation capacity should be the cost of the new peaking units that were built
121 at AEG rather than the actual cost of the power purchase contracts that
122 AmerenUE entered into to meet its capacity needs in the test year. More
123 specifically, Dr Proctor used the cost of AEG's Columbia and Pinckneyville
124 Plants as being representative of the normalized cost of capacity.

125 Consequently, after meeting and working with the MoPSC Staff on the
126 evaluation of market purchases of capacity and energy as well as other options,
127 Staff and AmerenUE agreed to focus on building and/or owning generating assets
128 as the long-term least cost method of meeting AmerenUE's resource needs.

129 **Q. Please discuss the option of purchasing existing generating assets outside the**
130 **Ameren control area.**

131 A. This option was excluded from the analysis due to the lack of firm transmission
132 service for large blocks of capacity and energy from the generators to the Ameren
133 border. The inability of generators to obtain firm transmission service to the
134 Ameren border was documented for most bidders in AmerenUE's evaluation of
135 RFPs for capacity and energy for the summers of 2001 and 2002. Potential
136 transmission facility upgrades and the uncertainty associated with the timing of
137 the completion of the upgrades made this option an unrealistic choice.

138 **Q. Please discuss the possibility of purchasing existing IPP assets within the**
139 **Ameren's control area.**

140 A. As part of the process of deciding to purchase the Pinckneyville and Kinmundy
141 Plants, AmerenUE considered the purchase of existing assets within the Ameren
142 control area that are currently owned by non-affiliated Independent Power
143 Producers (IPPs). During this process AmerenUE looked at two assets. Neither
144 of these assets proved to be suitable due to AmerenUE's concerns about the
145 creditworthiness of the owners of the assets and also existing transmission
146 constraints associated with these plants.

147 **Q. Please discuss the purchase of assets owned by AEG.**

148 A. In addition to AEG's Pinckneyville and Kinmundy Plants, AmerenUE also
149 considered AEG's other peaking and combined cycle generating facilities: the
150 Columbia Energy Center, Gibson City Plant and Grand Tower Plant.

151 Columbia Energy Center is a 144 MW simple cycle generating plant
152 consisting of four (4) combustion turbines located in Columbia, MO. This
153 facility was initially preferred by AmerenUE over the Gibson City, Grand Tower
154 and Kinmundy plants because of its location relative to the AmerenUE
155 transmission system and the operating flexibility and reliability of the particular
156 combustion turbines involved. However, AmerenUE determined that there are
157 various issues that make it infeasible to transfer the Columbia asset from AEG to
158 AmerenUE, including tax related issues, as well as concerns about the plant's
159 ownership structuring under the Public Utility Holding Company Act.

160 The Gibson City Plant is a 232 MW simple cycle generating plant
161 consisting of two (2) combustion turbines located in Gibson City, IL with each
162 rated at 116 MW. The primary concern with this facility is transmission outlet

163 capability. Gibson City plant does not have adequate transmission outlet
164 capability to support the rated output of the plant. The plant currently operates
165 under an operating guide that automatically reduces the output if either of the two
166 outlet lines exceeds their rated capacity. Ameren sought to build additional
167 transmission outlet capability but was denied the required certification by the
168 ICC. In part, the ICC concluded that additional outlet capability, consistent with
169 generally accepted first contingency planning criteria, was not required under the
170 circumstances. As a result, this facility is limited to 174 MW because of these
171 transmission constraints. This significantly increases the real cost of the capacity
172 associated with this facility.

173 Grand Tower Plant is a 551 MW combined cycle generating plant
174 consisting of two (2) SWPC 501F combustion turbines, two (2) heat recovery
175 steam generators and two (2) steam turbine/generator units. This plant was re-
176 powered from a coal fired plant in 2000. This plant was eliminated from
177 consideration for purchase by AmerenUE because of the high net book value
178 relative to the simple cycle facilities also being considered.

179 The Pinckneyville Plant was placed in service in two phases. The first
180 phase, consisting of four (4) simple cycle combustion turbines each rated at
181 approximately 44 MW at summer peak conditions, came on line prior to the
182 summer 2000 peak. The second phase, consisting of four (4) combustion
183 turbines each rated at approximately 35 MW at summer peak conditions, came on
184 line prior to the summer 2001 peak. Pinckneyville has a net book value of
185 \$511/kW.

186 The Kinmundy Plant was placed into service prior to the summer 2001
187 peak. It consists of two (2) combustion turbines each rated at approximately 116
188 MW at summer peak conditions. These units have dual fuel capability to burn
189 either natural gas or oil. Kinmundy has a net book value of \$415/kW.

190 **Q. Please describe the performance characteristics of the Kinmundy and**
191 **Pinckneyville Plants.**

192 A. Both the Kinmundy and Pinckneyville Plants have proven themselves to be
193 superior performing generating assets.

194 **Q. Did AmerenUE consider building new generation at a green field site?**

195 A. Yes. The cost of building a green field combustion turbine generating plant can
196 be broken into three major categories: the cost to purchase the combustion
197 turbines, the cost of installation and the cost of acquiring and developing the site.

198 *The Cost to Purchase the Combustion Turbines* -- The current state of the
199 industry is one in which many regions of the country are overbuilt with capacity
200 reserve margins higher than required for reliable operation of the grid. As a
201 result, the demand for combustion turbines is down, and those seeking to purchase
202 new combustion turbines are in a stronger bargaining position compared to two
203 years ago when the demand was higher. Because of this, the purchase price of the
204 equipment would likely be slightly lower today as compared to two years ago.
205 However, as discussed below, this advantage is offset by several other factors
206 which make building at a green field site unattractive.

207 *Installation Cost* -- AmerenUE's current estimates for the construction of
208 simple cycle combustion turbines are consistent with the actual cost incurred at
209 Kinmundy and Pinckneyville.

210 *Site Acquisition and Development Cost* -- This category includes the cost
211 of purchasing the land, connection to natural gas supply and connection to the
212 transmission system. In general, the better sites are those that are close to where
213 existing gas pipelines intersect with transmission lines. As you move away from
214 either of these two, the cost of site development increases. When the construction
215 boom began a few years ago, those building new generation first (including non-
216 affiliated IPPs) built on the most desirable sites. The cost for AmerenUE to
217 acquire and develop a green field site today is estimated to be higher than the cost
218 that was incurred by AEG to acquire and develop the Pinckneyville and
219 Kinmundy sites. These increased costs include higher costs associated with
220 connecting to the transmission system and the cost of reinforcing the existing
221 transmission system to ensure that the full output of the project will flow at
222 system peak conditions.

223 The purchase of AEG's Pinckneyville and Kinmundy facilities versus
224 other options is superior from both an operational and economic standpoint. Both
225 facilities are known performers that have served the Ameren system reliably and
226 can be expected to do so after this transaction closes.

227 **Q. How does the price of the AEG units compare with prices from recent plant**
228 **sales?**

229 A. The price AmerenUE will pay to purchase these units from AEG is less than or
230 comparable to other similar facilities. The cost per kW of Pinckneyville facilities

231 based on a net book value is \$511/kW while the cost of the Kinmundy units on
 232 this same basis is \$415/kW. As part of my analysis, I examined from publicly
 233 available data the prices per kW for facilities that are comparable in terms of
 234 operational flexibility and reliability, that have recently been sold. It is important
 235 to look at these facilities with similar operating characteristics not only to get an
 236 “apples-to-apples” comparison, but also because a less expensive unit might not
 237 have black start capability, or may be more costly, or less efficient to operate, or
 238 less reliable than the Pinckneyville and Kinmundy facilities. The results of my
 239 study, which are summarized in the table below, show that the price AmerenUE
 240 will pay for the facilities is in line with market prices.

Power Plant Sales

Plant	Audrain County	Madison Generating Station & CinCap VII (Henry Co., IN)	Manchief Power Station	Neenah	DePere Energy Center
Seller	Duke Energy	CinCap (Cinergy)	El Paso	Mirant	Calpine Corp
Buyer	NRG Energy	PSI Energy	TransCanada PineLines	Alliant Energy	Wisconsin Public Service
Capacity (MW)	640	706	275	309	155
Sale Price (\$M)	\$325	\$450	\$127	\$109	\$72
Sale Price (\$/KW)	\$508	\$637	\$462	\$353	\$465
City	Vandalia	Madison & Cadiz	Brush	Neenah	De Pere
County	Audrain	Butler & Henry	Morgan	Winnebago	Brown
State	MO	OH & IN	CO	WI	WI
Online Date	May-00	Jun-00 & Aug-01	Jul-00	May-00	Jun-99
Date of Sale	May-01	Nov-02	Nov-02	Feb-03	Dec-02
Number of Units	8	11	2	2	1
Unit Type	Combust Turb	Combust Turb	Combust Turb	Combust Turb	Combust Turb
Unit Description	GE PG7EA	GE PG7121EA & Unavail	SWPC V84.3A1	GE PG7FA	GE PG7FA

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243 **Q. In Docket No. 01-0516, AmerenUE discussed certain transmission constraints**
 244 **that were factored in the decision to build peaking capacity at the Venice**

245 **Plant site rather than purchase it from the market. Please explain whether**
246 **those constraints affect this transaction.**

247 A. In Docket No. 01-0516, my testimony addressed issues related to the application
248 for a certificate of public convenience and necessity for the installation of a
249 second CTG at AmerenUE's Venice, IL plant. One of the factors cited in the
250 decision to build rather than purchase capacity and energy from the market was
251 the limitations of the transmission systems both within and outside of
252 AmerenUE's Illinois and Missouri service areas. The fact that several
253 transmission paths into Ameren as well as several transmission paths within
254 Ameren were fully subscribed at the time was cited as a risk associated with the
255 purchase option.

256 Transmission service is still limited today. The limitations appear to be
257 somewhat mitigated due to the decision by several power marketers to terminate
258 their energy trading operations. The ability to secure firm transmission service is
259 on a case specific/location specific basis. Both the Pinckneyville and Kinmundy
260 peaking plants are designated Ameren system resources. Both plants have full
261 outlet transmission capability, and thus transmission availability is not a limiting
262 factor in this instance.

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

264 A. Yes, it does.