ICF CONSULTING, INC.

THE APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF A 161 KV TRANSMISSION PROJECT IN BARREN, WARREN, BUTLER AND OHIO COUNTIES, KENTUCKY

PSC CASE NO. 2005-00207

RESPONSE TO APPLICANT DATA REQUEST No. 1 Received On August 23, 2005.

ITEM 1

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 1: On Page 13 of the Technical Appraisal, prepared by ICF Resources, L.L.C., dated August 15, 2005 ("Technical appraisal") the Consultant states, "the final report shows some transmission element overloads as a direct result of the proposed plan, especially in the transmission systems of CIN, HE and TVA."

a. Explain the basis for this statement.
b. What are the specific "transmission element overloads" that are being referenced?
c. Under what scenarios will these overloads occur?
d. What is the source of information that led to this conclusion?

RESPONSE:

Please refer to page 3, paragraph 1, line 4 of the **CAI addendum study**, "Transmission Service to Warren Rural Electric Cooperative" dated May 26, 2005.

"The new transformer at Salmon increases loading on the Salmon-K30 69 kV line for the three above-listed contingencies. For the worst condition, i.e., the outage of the Memphis-N23 or N23-Weyerhauser 69 kV line sections, the 118 percent overload can be mitigated to 102 percent by opening the 35-AVL circuit breaker at Plano. This reduced the overload condition to 102 percent at peak load. A better solution is to upgrade the Salmon-K30 section of line to higher capacity."

However, based on EKPC's response to ICF's Data Request Question # 9, "List the facilities included in the proposed plan and the major component costs", the upgrade of the Salmon-K30 line is not listed. Hence to the best of our knowledge the 102% overload condition exists.

Additional transmission facility overloads are referenced in the list below:

a. "*Table 3 – Contingency Overload Comparison*"
b. *"Transmission 2000 Contingency Processor – Overload Summary Report, EKPC 2010 Summer Case"*

of "*Study to Provide Transmission Service to Warren Rural Electric Cooperative*", report prepared by Commonwealth Associates Inc., for East Kentucky Power Cooperative.

Further, Table 3 also shows the overloads of Indian Hill-Peabody West 69 kV and Eastview-Stephensburg 69 kV transmission lines. These are referenced as *"some contingency overloads"* in ICF's technical appraisal.

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RESPONSE TO APPLICANT DATA REQUEST No. 2 Received on August 23, 2005.

ITEM 2

RESPONSIBLE PARTY: Maria Scheller

ITEM 2: On Page 17 of the Technical Appraisal, the Consultant begins a narrative on "Capital, Costs Calculations and Assumptions"

a. Please describe how the per unit cost of new transmission lines and the implied rights of way costs in this subsection were developed?
b. Please describe the source(s) for this information.

RESPONSE:

The per unit cost of transmission lines included in the Technical Appraisal under Exhibit 4.1 was taken from the Exhibit 15-1 of the EKPC Responses to ICF's Data Request. See Subtotal 2 Labor and Material per mile cost of EKPC Exhibit 15-1 for relevant lines.

The per unit cost of transmission lines included in the Technical Appraisal under Exhibit 4.2 including ROW was derived from the Exhibit 9-2 of the EKPC Responses to ICF's Data Request as shown below. These values are consistent with Exhibit 4-3 of the Technical Appraisal.

Calculation of per unit costs (including ROW):

Item	2004$	Mile / Unit	Per Unit Cost
	a	*b*	*c = a / b*
New Lines			
Bristow - Magna 161 kV Line (1 miles 954 MCM)	325,000	1	325,000
GMC - Magna 161 kV Line (2.87 miles 954 MCM)	1,219,750	2.87	425,000
Barren Co - Magna 161 kV Line (28.29 miles 954 MCM)	9,489,750	28.29	335,445
GMC - BGMU Tap (Steam Plant) 161 kV Line (5.14 miles 954 MCM)	1,799,000	5.14	350,000
Aberdeen - Wilson 161 kV Line (26.79 miles 954 MCM)	8,707,000	26.79	325,009

Note: Costs and miles were taken from Exhibit 9-2, Response to ICF Data Request (attached below)

The implied ROW costs in Exhibit 4-2 are calculated as the cost per mile with ROW less the cost per mile without ROW.

A copy of Exhibit 9-2 from the EKPC Response to ICF Data Request is included below.

EXHIBIT 9-2

PLAN C (Revised): PROPOSED WRECC SERVICE ALTERNATIVE -
Revised to represent updated plans, routing, etc.

Project Name	Estimated Cost	Effective Year of Cost	Inflated Cost + IDC	Install Date (Year)
Bristow -Magna 161 kV Line (1 miles 954 MCM)	325,000	2004	341,250	2004
GMC -Magna 161 kV Line (2.87 miles 954 MCM)	1,219,750	2004	1,317,191	2005
Magna Substation Terminal Facilities	618,000	2004	667,369	2005
GMC Substation Terminal Facilities -Phase 1	290,000	2004	313,167	2005
GMC Substation Terminal Facilities -Phase 2	870,000	2004	1,009,609	2008
Barren Co -Magna 161 kV Line (28.29 miles 954 MCM)	9,489,750	2004	11,012,572	2008
Barren Co Substation Terminal Facilities	715,000	2004	829,736	2008
GMC -BGMU Tap (Steam Plant) 161 kV Line	1,799,000	2004	2,087,686	2008

EXHIBIT 9-2 (continued)

BGMU Tap (Steam Plant)-West Bowling Green Jct. 161 kV Line (5.89 miles 954 MCM)	2,117,000	2004	2,456,715	2008
West Bowling Green Jct.-Memphis Jct. 161 kV Line (3.93 miles 954 MCM, Double Circuit 161 & 69 kV)	1,392,000	2004	1,615,374	2008
West Bowling Green Jct.-Memphis Jct. 161 kV Line (3.93 miles 954 MCM, Single Circuit)	685,740	2004	795,781	2008
West Bowling Green Jct.-Aberdeen 161 kV Line (23.48 miles 954 MCM)	8,174,000	2004	9,485,683	2008
Memphis Jct Substation Terminal Facilities	556,000	2004	645,221	2008
Aberdeen Substation 161 kV Terminal Facilities	618,000	2004	717,171	2008
Aberdeen Substation 69 kV Terminal Facilities	200,000	2004	232,094	2008
Aberdeen -Wilson 161 kV Line (26.79 miles 954 MCM)	8,707,000	2004	10,104,214	2008
Wilson (BREC) Substation Terminal Facilities	1,100,000	2004	1,276,517	2008
East Bowling Green Substation Terminal Facilities	313,000	2004	363,227	2008
E.Bowling Green -GMC 161 kV Line (.15 miles, 954 MCM, reconductor)	24,000	2004	27,851	2008
Summershade-Barren County 161 kV Line Temp. Upgrade (20.14 miles, upgrade 795 ACSR operating temp. to 212F	17,000	2004	19,728	2008
New Salmons 161-69 kV Substation	2,825,000	2004	3,278,328	2008
Salmons-City OF Franklin 69 kV Line (3.9 miles, reconductor with 556 MCM)	357,000	2004	414,288	2008

EXHIBIT 9-2 (continued)

Plano Switching Substation 69 kV	612,000	2004	710,208	2008
Dewey Lake Junction-Plano 69 kV Line (1.1 miles 556 MCM)	341,000	2004	395,720	2008
69 kV Line Retirements (Steam Plant-Natcher Parkway Jct., etc.)	250,000	2004	290,118	2008
Caneyville 69 kV Tap Line (Purchase or Lease of TVA's Existing Tap Line)	225,000	2004	261,106	2008
Total ($1,000,000)	43.8		50.7	

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RESPONSE TO APPLICANT DATA REQUEST No. 3 Received on August 23, 2005.

ITEM 3

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 3: On Page 24 of the Technical Appraisal, the Consultant has prepared a narrative on "Supply, Demand and Balance" which states that EKPC has "very thin reserve margins during the winter peak periods from 2008 through 2010."

c. In assessing EKPC's generation reserves, what generation resources were factored in to the calculated reserve margin?
d. Was short term purchased power factored into this calculation? If so, please describe how purchased power was addressed.

RESPONSE:

ICF used responses provided by EKPC to ICF's Data Request – Question 5, "Provide EKPC's generation facilities planned to serve WRECC and other load through 2010." In their response, EKPC provided their planned generation facilities and the combined loads of EKPC and WRECC from 2005 through 2010. No data on purchased power or purchased power resources were provided. Hence, ICF derived the reserve margins based on the data provided by EKPC on their planned generation resources to serve the combined load of EKPC and WRECC.

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PSC CASE NO. 2005-00207

RESPONSE TO APPLICANT DATA REQUEST No. 4 Received on August 23, 2005.

ITEM 4

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 4: On Page 23 of the Technical Appraisal, the Consultant states that "EKPC needs to provide a statement that demonstrates that they have provided these results to the neighboring systems over a reasonable time period and if either received their "no objection" or their failure to comment." Please identify what specific materials or other information should be provided to the Consultant or the Commission to demonstrate that EKPC has satisfied this recommendation.

RESPONSE:

EKPC should provide written documentation to demonstrate that,

a. The Proposed Plan and the results of the study used to develop the Proposed Plan have been provided to these entities operating the neighboring transmission systems including CIN and HE.
b. They should provide written documentation from these entities indicating their comments or demonstrate that no communication has been received from these entities over a reasonable period of time.

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PSC CASE NO. 2005-00207

RESPONSE TO APPLICANT DATA REQUEST No. 5 Received on August 23, 2005.

ITEM 5

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 5: The last sentence on Page 3 of the Technical Appraisal states that, "EKPC's transmission system interconnects with the transmission systems of Louisville Gas & Electric ("LGE") and Cinergy, which is a major transmission provider in Ohio and Indiana." Why were TVA and AEP omitted as interconnected transmission systems in this sentence?

RESPONSE:

The omissions were inadvertent. ICF amends the statement on page 3, paragraph 2, line 21 of the Technical Appraisal,

"EKPC's transmission system interconnects transmission systems of Louisville Gas and Electric (LGE) and Cinergy, which is a major transmission provider in Ohio and Indiana." to read as,

"EKPC's transmission system interconnects with the transmission systems of Louisville Gas & Electric (LGE), Cinergy, Tennessee Valley Authority (TVA) and American Electric Power (AEP)."

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PSC CASE NO. 2005-00207

RESPONSE TO APPLICANT DATA REQUEST No. 6 Received on August 23, 2005.

ITEM 6

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 6: On Page 4 of the Technical Appraisal, the Consultant states that "..LGE is the only Kentucky utility that participates in MISO. The other Kentucky Utilities are non-members of MISO's energy markets but operates under MISO's security coordination." Upon what information is this statement made?

RESPONSE:

The reference to LGE was intended to include KU, but the original answer is unclear. ICF amends the statement on page 4, paragraph 2, line 21 of the Technical Appraisal,

"Participation in MISO is voluntary and currently, LGE is the only Kentucky utility that participates in MISO. The other Kentucky utilities are non members of MISO's energy markets but operate under MISO's security coordination. TVA provides security coordination for its service territory, part of which covers the southwestern region of Kentucky. Service in the eastern part of Kentucky is provided by Kentucky Power, which is part of the American Electric Power (AEP) transmission system. AEP's security coordinator is the PJM Regional Transmission Organization.

Combined, MISO, PJM and TVA provide security coordination for the entire interconnected transmission system of Kentucky."

to read as,

"Louisville Gas & Electric and Kentucky Utilities Company collectively referenced as LGE are participants of the MISO energy market. All other utilities are non-members of MISO but operate under MISO's security coordination. TVA provides security coordination for its service territory, part of which covers the southwestern region of

Kentucky. Service in the eastern part of Kentucky is provided by Kentucky Power, which is part of the American Electric Power (AEP) transmission system. AEP's security coordinator is the PJM Regional Transmission Organization.

Combined, MISO, PJM and TVA provide security coordination for the entire interconnected transmission system of Kentucky."

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RESPONSE TO APPLICANT DATA REQUEST No. 7 Received on August 23, 2005.

ITEM 7

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 7: On page 22 and 23 of the Technical Appraisal, ICF states that "however, we find there to be insufficient information available to examine EKPC's selection of path to minimize the need to acquire new rights-of-way." In ICF's opinion, what supplemental information is required to conduct such an examination?

RESPONSE:

Please refer to page 22, paragraph 3, line 24 of the Technical Appraisal:

"However, we also note that since the single largest opposition to transmission line builds in the continental US has been environmental concerns, an assessment of a line routing alternative that adds the goal of minimizing the need for new rights-of-way to the extent possible should be worth considering. Such an analysis would provide valuable insights as to the costs and benefits of avoiding the need for new rights-of-way (to the extent possible) if compared to the current proposed plan."

EKPC should provide cost estimates from a technically feasible alternative(s) that minimizes the need for new rights-of-way beyond what has been proposed in EKPC's plan.

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RESPONSE TO APPLICANT DATA REQUEST No. 8 Received on August 23, 2005.

ITEM 8

RESPONSIBLE PARTY: Kojo Ofori-Atta

ITEM 8: Is ICF familiar with the Electric Power Research Institutes Overhead Electric Transmission Line Siting Methodology Results for the proposed project contained as Warner Exhibit I in the Applicant's Application filed on July 1, 2005?

a. If so, does ICF concur with the relative weighting and ranking of factors considered in the comparison of alternative routes using the EPRI methodology?
b. If ICF does not concur, please identify the specific criteria with which ICF disagrees and explain why ICF is in disagreement with such criteria.
c. If ICF does not concur with the EPRI transmission line siting methodology, please provide ICF's opinion as to the methodology and criteria that should be used in the siting of the proposed project.

RESPONSE:

ICF is familiar with the EPRI model. Please refer to ICF's comment on the transmission line siting methodology on page 22, paragraph 3, line 23 of the Technical Appraisal:

"ICF finds the approach used by EKPC to develop the preliminary line route to be detailed and reasonable."