BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF ENTERGY ARKANSAS, INC. FOR APPROVAL OF CHANGES IN RATES FOR RETAIL ELECTRIC SERVICE	))))	DOCKET NO. 06-101-U

DIRECT TESTIMONY

OF

MICHAEL M. SCHNITZER

DIRECTOR, THE NORTHBRIDGE GROUP, INC.

ON BEHALF OF

ENTERGY ARKANSAS, INC.

AUGUST 15, 2006

I. INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, EMPLOYER AND JOB TITLE.

A. My name is Michael M. Schnitzer. My business address is 55 Old Bedford Road, Lincoln, Massachusetts 01773. I am a Director of The NorthBridge Group, Inc., a consulting firm that specializes in the electric industry.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am submitting this Direct Testimony on behalf of Entergy Arkansas, Inc. ("EAI" or the "Company").

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCES AND EDUCATIONAL BACKGROUND.

A. In 1992, I co-founded NorthBridge. Before that, I was a Managing Director of Putnam, Hayes & Bartlett, which I joined in 1979. I have experience working with private sector clients in the electric utility, natural gas, and private power industries, as well as with public and nonprofit agencies. My electricity industry work has focused on regulatory policy, finance and market structure issues.

I have testified before the Federal Energy Regulatory Commission ("FERC") and a number of state commissions on policy and market issues.

I hold a Master of Science degree in Management from the Sloan School of Management of the Massachusetts Institute of Technology, which I received in 1979. My concentration was in finance. I also received a Bachelor of Arts degree in chemistry, with honors, from Harvard College in 1975.

Q. HAVE YOU TESTIFIED PREVIOUSLY IN REGULATORY PROCEEDINGS BEFORE THE APSC?

A. Yes. I have provided testimony in APSC Docket No. 96-360-U.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. As discussed in the testimony of EAI witness Hugh T. McDonald, pursuant to FERC Opinion 480 and Opinion 480-A (the "FERC Decision"),[1] EAI will be required to make payments to other Entergy Operating Companies.[2] The obligation for these payments begins in June 2007 under the Company's proposed Compliance Filing now pending before the FERC. The purpose of my testimony in this docket is twofold. First, I describe the factors that affect the level of EAI payments that will result from the FERC Decision to achieve the rough production cost equalization standard required by the FERC. And second, I discuss the uncertainty in the level

[1] Opinion No. 480, 111 FERC ¶ 61,311, *aff'd* Opinion No. 480-A, 113 FERC ¶ 61,282 (2005).

[2] The Entergy Operating companies include EAI; Entergy Gulf States, Inc.; Entergy Louisiana, LLC (formerly Entergy Louisiana, Inc.); Entergy Mississippi, Inc.; and Entergy New Orleans, Inc.

of these payments from year to year, focusing particularly on natural gas price uncertainty.

Q. COULD YOU PLEASE SUMMARIZE YOUR CONCLUSIONS?

A. Yes, there are two. First, there are a number of factors that will influence the level of EAI production cost equalization payments, the most important of which is future prices for natural gas. Due to differences in fuel mix among the Operating Companies, higher natural gas prices result in greater production cost disparities, and thus higher production cost equalization payments. Conversely, lower natural gas prices result in smaller production cost disparities, and lower production cost equalization payments.

Second, natural gas prices are extremely volatile, and can vary substantially from year to year – by as much as $3 per MMBtu, or more. A $3 per MMBtu change in natural gas price from one year to the next would translate to a $225 million change in the EAI production cost equalization payment.

II. FACTORS THAT AFFECT THE LEVEL OF PRODUCTION COST EQUALIZATION PAYMENTS

Q. WHAT ARE THE FACTORS THAT AFFECT THE LEVEL OF EAI PRODUCTION COST EQUALIZATION PAYMENTS?

A. The variability of EAI's payments resulting from the FERC Decision stems principally from the difference between the System average fuel mix, that is, the fuel mix of all the Operating Companies, and EAI's fuel mix. Table 1 below shows the 2005 actual fuel mix to serve retail load for the System as a whole, and for EAI.

Table 1

Energy Mix (% MWh)	2005 System Average	2005 Entergy Arkansas
Nuclear / Hydro	35%	61%
Coal	13%	21%
Oil & Gas	23%	0%
Purchases	29%	18%
Total	100%	100%

As the table indicates, 23 percent of the retail energy for the System was generated at oil and gas facilities now owned by the Operating Companies, including the Perryville and Attala combined cycle combustion turbine plants recently purchased by Entergy Louisiana, LLC ("ELL") and Entergy Mississippi, Inc. ("EMI"), respectively. An additional 29 percent of System energy came from purchases, a substantial portion of which is

from gas-fired generation. Thus, for the System as a whole, upwards of 40 percent of retail energy comes from oil or natural gas units.

For EAI, the situation is markedly different, as shown in Table 1. A much greater share of retail energy comes from nuclear and coal generation, and a much smaller percentage from natural gas/oil. The implication of this, of course, is that System average production costs are quite sensitive to natural gas prices, and EAI production costs are not. As a result, the greatest single driver of production cost disparity (and hence production cost equalization payments) is natural gas prices – higher natural gas prices increase the production cost disparity and lower natural gas prices decrease the production cost disparity.

There are a number of other factors which also affect relative production costs. One factor is the supply/demand balance in the regional wholesale market – tighter market conditions which increase the cost of purchases tend to increase System production costs more than EAI's production costs because EAI is less dependent on purchases than the System as a whole. Another factor is the availability at EAI's Arkansas Nuclear One ("ANO") relative to the availability of the other System nuclear units[3] – higher relative availability at ANO decreases EAI's production costs relative to the System average and lower relative

[3] The other nuclear units in the System include Waterford 3, owned by ELL; River Bend, owned by Entergy Gulf States, Inc.; and the Grand Gulf Nuclear Station, which is owned by a subsidiary of Entergy Corp., System Energy Resources, Inc. ("SERI"). The Operating Companies purchase power from SERI's 90 percent ownership and leasehold interest in Grand Gulf in the following proportions: EAI – 36 percent, EMI – 33 percent, Entergy New Orleans, Inc. – 17 percent, and ELL – 14 percent.

availability has the opposite effect. And finally, over the longer term, new resource additions can also affect relative production costs. But, particularly in the short run, natural gas prices have the greatest effect on relative production costs and hence on production cost equalization payments.

III. NATURAL GAS PRICE VOLATILITY

Q. WHY IS THE UNCERTAINTY OF NATURAL GAS PRICES AN ISSUE IN THIS PROCEEDING?

A. As I have discussed above, natural gas prices have a significant effect on relative production costs and on production cost equalization payments. If future natural gas prices were stable, this effect would not be of significant consequence – relative production costs and production cost equalization payments would also be stable. Unfortunately, that is not the case – future natural gas prices are not stable. And therefore, from one year to the next, we should not expect that production cost equalization payments will be stable.

Q. WHAT EVIDENCE IS THERE THAT NATURAL GAS PRICES ARE NOT STABLE?

A. Table 2 below summarizes average annual natural gas spot prices for the 1993 to 2005 period. As Table 2 shows, annual average prices over this

13 year period ranged from $1.71 to $8.78, and sometimes changed by as much as $2 to $3 in a single year.

Table 2

Average Annual Henry Hub Spot Prices ($ per MMBtu)

Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Avg Spot Price	2.11	1.91	1.71	2.69	2.47	2.08	2.26	4.29	3.98	3.34	5.43	5.84	8.78

These historical data indicate that one year movements in natural gas prices of $2 to $3 per MMBtu or more are possible in the future.

Company analyses indicate that each $1 per MMBtu increase or decrease in the price of natural gas increases or decreases EAI's required payments resulting from the FERC Decision by $70 to $80 million.[4] Using the midpoint of this range -- $75 million per $1/MMBtu gas price change, suggests that a $3 per MMBtu change in natural gas prices from one year to the next would change EAI's required payment by approximately $225 million.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

[4] Entergy Corp. Form 10K filing at Securities and Exchange Commission (March 10, 2006) at 29.

CERTIFICATE OF SERVICE

I, Steven K. Strickland, do hereby certify that a copy of the foregoing has been served upon all parties of record this 15th day of August 2006.

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Steven K. Strickland