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PUBLIC SERVICE COMMISSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ADJUSTMENT OF THE ELECTRIC	)	**CASE NO.**
RATES, TERMS AND CONDITIONS OF	)	**2003-00434**
KENTUCKY UTILITIES COMPANY	)	

PREPARED DIRECT TESTIMONY
OF
CHARLES BUECHEL
ON BEHALF OF NORTH AMERICAN STAINLESS

DATED MARCH 23, 2004

Q. State your name and business address.

A. My name is Charles Buechel. I am President of Utility and Economic Consulting, Inc. My business address is 181 North Mill Street, Suite 7, Lexington, Kentucky 40507.

Q. Describe your education and experience qualifications.

A. I have a B.S. degree and a M.A. degree in Economics from the University of Kentucky. I taught economics and finance classes at Morehead State University for three years until 1979. At that time I took a position as an Economist with the Kentucky Public Service Commission (PSC or Commission). I worked at the KPSC for ten years progressing from Economist to Director of Research to Deputy Executive Director. Initially, my responsibilities focused on implementing the ratemaking standards in the Public Utility Regulatory Policies Act of 1978 (PURPA). After the PSC completed its determinations regarding these matters, my responsibilities were expanded to working on rate cases, certificate of convenience and necessity cases involving generation and transmission facilities, and the implementation of an integrated resource planning regulation. In 1989, I left the KPSC to form Utility and Economic Consulting, Inc. The company, either directly or through sub-contractor arrangements, provides regulatory consulting services to utility companies, regulatory commissions and other clients. My resume is provided as Attachment 1 to this testimony.

Q. What is the purpose of your testimony?

A. I am testifying on behalf of North American Stainless (NAS). My testimony explains why the new Non-Conforming Load Service (NCLS) Tariff, which Kentucky Utilities Company (KU) proposes to apply to the NAS melt shop load, should be rejected by the Commission. I further describe the basis for a reasonable cost based rate for NAS and explain why the changes KU proposes to the Curtailable Service Rider (CSR) should be modified.

Q. Have you previously testified regarding the NCLS Tariff proposed by KU?

A. Yes. I have previously filed testimony in Case No. 2003-00396 relating to KU's request for approval of the NCLS Tariff. The Commission has not issued a decision in that docket.

Q. Where are the NAS facilities located?

A. The NAS stainless steel production facilities are located in Ghent, Kentucky in Carroll County. The facilities are located along the Ohio River about a mile from the KU Ghent Plant.

Q. Who owns the NAS facilities?

A. The NAS facilities are owned by Acerinox, S.A. of Madrid, Spain. In addition to the Ghent facilities, Acerinox operates steel-making facilities in Spain and South Africa.

Q. Could you describe the NAS facilities at Ghent?

A. Certainly. NAS began construction in 1990. The original facilities consisted of rolling mills and finishing lines, while a hot mill component was added in 1999. During the early phases of operation, NAS would process slabs of stainless steel purchased from other producers into finished products. In 2001, NAS constructed and began the operation of a melt shop. The addition of the melt shop meant that NAS could now produce its own slabs and be less dependent on purchasing from other producers. The melt shop consists of an electric arc furnace which melts recycled scrap steel. The molten steel is cast into slabs that are processed into flat rolled stainless steel products. As described in greater detail in Mr. Sanchez' testimony, NAS has invested over $1.3 billion in its facilities in Carroll County, has created over 950 permanent jobs, and has become a cornerstone of economic growth in the region.

Q. Please describe the background of the electricity needs of the NAS facilities?

A. The rolling and finishing operations are served under KU's LCI-TOD Tariff. The electric load of the electric arc furnace (melt shop operation) exceeds the 50,000 kW maximum load ceiling of the LCI-TOD Tariff. Therefore, a special contract arrangement was required to provide service for the melt shop load. That three-year contract expires on March 31, 2004. The melt shop, rolling and finishing operations are energy intensive and require reliable and competitively priced electric power for NAS to be economically competitive in domestic and global stainless steel markets.

Q. What is the status of NAS' melt shop power supply with KU?

A. On September 23, 2003, NAS filed a complaint with the Commission in which it requested an order directing KU to serve all of the NAS facilities, including the melt shop, at rates and terms equivalent to the prevailing KU LCI-TOD Tariff upon expiration of the melt shop special contract. In the Complaint, NAS explained that experience had demonstrated that the rates and terms of the special contract were not appropriate for the melt shop, but NAS nonetheless has honored its side of the contract for the initial three-year period. NAS also explained in the Complaint that the cost of serving the melt shop was less than or equivalent to KU's cost of serving other industrial customers that were receiving service under the LCI-TOD Tariff. The Commission docketed that Complaint as Case No. 2003-00376. On October 10, 2003, LG&E/KU filed new proposed tariffs that would be applicable to "non-conforming loads" in their respective service territories. LG&E/KU have conceded that the NAS melt shop load is the only existing customer in either service retail area that would be subject to this tariff. Based on the estimates contained in Company Witness Bush's testimony (Exhibit B-2) in Case No. 2003-00396, the NCLS Tariff would permit KU to charge NAS in excess of $1.4 million annually more than it would under the current LCI-TOD Tariff. Subsequently, the Commission consolidated Case No. 2003-00396 with KU's rate case, Case No. 2003-00434.

Q. You state that the rates and terms of the original special contract were not appropriate for NAS' melt shop. Please explain.

A. It is my understanding that NAS and KU have each known since shortly after NAS began commercial operation of the melt shop that there was a significant disparity between the original design expectations for the electric arc furnace that are captured in the current NAS contract and the actual operation of the facility. In particular, the actual demand of the melt shop operation averaged about 76,000 kW during the test year and the contract demand is 100,000 kW. Because demand charges under the contract are based on the contract demand, every month NAS pays for approximately 24,000 kW of demand that it does not use and for which KU has no corresponding cost requirements. The net result is rates for the melt shop that are transparently excessive. There is clear evidence of how onerous the rates and terms of the special contract are in KU's own cost-of-service study. In the confidential version of Seelye Exhibit 5, pages 45 through 47, the study on an unadjusted test year basis indicates that KU's return for providing service to NAS was 22.2%. This compares to an overall return for KU of 5.45%; a return of 11.36% for LCI-TOD transmission; and a return of 8.12% for LCI-TOD primary. At approximately 4 times the overall return and twice the return from similar industrial customers, the return that KU has received from NAS is clearly exorbitant. To put it in Mr. Seelye's own words, the NAS return under the proposed NCLS rate "was significantly above the overall rate of return". (See Response to KIUC Data Request 1.39.) More importantly, there is no cost basis for this excessive pricing, which, as noted above, is the result of onerous contract terms and incorrect design assumptions regarding the facility's power needs.

Q. Do you have any general comments concerning KU's proposed NCLS Tariff?

A. Yes. Two immediate observations concerning the proposed tariff are 1) that there is nothing "non-conforming" about the NAS melt shop load relative to any defined service or costs standards other than the definitions KU created for this tariff, and 2) KU's testimony in Case No. 2003-00396 and its responses to data requests in this docket offer inconsistent rationales for the tariff that are not in any event supported by KU's cost of service study.

Q. Please explain.

A. From a rate-setting perspective, there are no "conforming" or "non-conforming" customer loads because there is no standard load profile to which any type of load is supposed to "conform." Manufacturing loads use all manner of equipment and processes, but rate classifications normally only distinguish among loads where there is a demonstrated difference based on the overall cost of service. Today, there are roughly 80 electric arc furnace- based manufacturing facilities operating in 27 states, including Gallatin Steel's facilities in Gallatin County and the former Kentucky Electric Steel facility in Ashland. There is no question that an EAF is a distinctive load, but there is no indication that these are more costly loads to serve. In fact, EAF's are usually served under more attractive rates available due the significant economies of scale associated with serving a very large transmission voltage customer at a single point of interconnection and the importance of these facilities to local economic growth. KU's assertion that it developed its proposed definition of "non-conforming" load for the tariff based on meetings held among KU staff (see response to KIUC Data Request 1-107(a)) does not create a meaningful standard. The tariff is, first and last, a KU unilaterally proposed replacement contract for NAS. The nomenclature of "non-conforming" is inappropriate and should be dropped regardless of the rates and terms that are settled with respect to NAS.

Q. **Please continue.**

A. Mr. Freibert's testimony in Case No. 2003-00396 asserted that KU believed the NCLS tariff was needed because the utility could "potentially" have difficulty following the load swings associated with an EAF load, and that KU designed the tariff definitions with those momentary load swings in mind. I note that KU does not claim to actually have experienced difficulty following the NAS load over the last three years (when the special contract was in effect). Further, in its data responses in this docket, KU now admits that it has not studied the cost of following loads and that "costs are not based on the cost of load following but on the need and use of generation capacity." (See KU response to KIUC Data Request 1-116). I do not consider the vague reference to "the need and use of generation capacity" to be helpful at all in determining the cost basis for determining the need and cost justification for a separate NCLS rate. As I explain in more detail below, KU subsequently has referred to a potential need to purchase Automatic Reserve Sharing (ARS) energy, but all of those costs are fully captured in the production costs allocated using the "BIP" formula employed in KU's cost of service study. Thus, the Company's proposed tariff seeks to assign certain production costs twice through inflated rates charged and terms of service. This is a basic violation of cost-based rate setting and the Commission's long held rate practices of not allowing the double recovery of costs.

Q. Please comment on KU's assertion that the proposed NCLS Tariff will provide significant savings to NAS.

A. The pertinent question is whether the proposed NCLS rate will establish reasonable rates and terms of service. Obviously, the windfall payments to KU that result from the disparity between NAS' actual operation and the contract requirements cannot continue. The NCLS Tariff proposal should be less costly than the current NAS contract, but that does not in any sense establish that the

NCLS Tariff is reasonable. Further, with respect to KU's rate comparison, it appears that KU has overstated the savings to NAS, and the tariff includes features that could recapture much of the windfall revenues from the expiring contract. Specifically, Seelye Exhibit 12 indicates that the NAS "rate switch" to the NCLS Tariff will produce an annual cost savings of approximately $1.9 million for NAS or revenue loss for KU. To put this reduction in perspective, KU would still earn a 14.09% return from NAS (assuming NAS can continue to utilize the Curtailable Service Rider (CSR)). This compares to an overall KU system return of 3.93%; a 9.06% return from LCI-TOD transmission; and 6.46% return from LCI-TOD primary. (See pages 53 through 55 of confidential version of Seelye Exhibit 5). In short, even if Mr. Seelye's assumptions shown on Exhibit 12 are accurate, the proposed NCLS rates are excessive. As discussed later in my testimony, there is reason to believe that NAS may not be able to continue to use the CSR due to proposed changes in the terms and conditions of service, in which case the return from NAS would be substantially higher than 14.09%.

Q. Is there any justification for NAS, the only NCLS customer, providing a higher return to KU than other similar industrial customers?

A. No. KU does not provide any such justification. In response to KIUC Data Request No. 1-106, KU claims that NCLS customers have unusual load characteristics that "can result in significant costs". However, KU has not specified or quantified those costs. Nor has KU addressed whether that same load has characteristics that result in reduced costs. As noted above, KU has alluded to two costs. Those are load following costs and the costs of purchasing ARS energy due to the unusual nature of the NAS load. However, when specifically asked to identify and quantify this "load following" cost, KU responded that 'NCLS is a bundled rate derived from a bundled rate and contains all costs including the cost of "load following"'. (See KU Response to KIUC Data Request No. 113.) Thus, the cost of following this load, as with all other loads, is a cost of production that has been allocated like any other production cost and cannot be used to justify a higher return from NCLS customers. The same is true of ARS purchases. The ARS purchases are a cost of production that is allocated like any other production cost. Charging an NCLS customer a higher rate to recover ARS purchase costs, by definition, double recovers those costs. Also, as I discuss later in my testimony, it is clear that changes in customer loads, including an NCLS customer load, is not the primary reason for the ARS purchases. Therefore, neither load following costs nor the cost of the ARS purchases provides sufficient justification for the higher return from NAS.

Q. Does NAS believe it will realize the $1.9 million annual savings that KU suggests it will receive under the proposed NCLS Tariff?

A. No. The savings that KU has offered in one hand, it takes away with the other hand. The other hand in this case is the other terms and conditions of the NCLS tariff. In particular, the NCLS Tariff calculates billing demands on a 5 minute demand interval after converting measured kW to kVa. As discussed in my testimony in Case No. 2003-00396, no other customers on the KU system or the LG&E system, or, for that matter, any other system in Kentucky, are billed based on a 5 minute demand interval. As Mr. Sanchez explains, by changing the billing demand interval from 15 minutes to 5 minutes, the number of billed kW is increased by 10-13%. The increased billing demand units significantly erode the reduction KU proposes and increases the return beyond the 14.09% figure reported in Seelye Exhibit 5 (assuming that NAS continues to subscribe to the CSR rider, which I discuss below).

Q. Please elaborate on NAS' concern regarding billing demands under the proposed NCLS tariff.

A. Based on KU's response to NAS Data Request No. 1-1.(c) in this case, KU did not have actual data on 5 minute demand intervals for NAS. Thus, when it filed the proposed NCLS Tariff in Case No. 2003-00396, KU had no 5 minute demand data concerning NAS' load. However, to estimate the test year revenue impact of NCLS, KU installed a 5-minute interval meter on October 3, 2003. Using data from the 5-minute interval meter for the period October 3, 2003 through October 29, 2003, KU compared the 5 minute interval kVa readings to 15 minute interval kW readings. Over the three and one half week period analyzed, KU determined the kVa readings were 5.824% higher than kW readings for similar time periods. Therefore, in arriving at the test year revenue impact of the NCLS Tariff, KU multiplied NAS' actual 15 minute interval demands for the test year by 1.05824 to estimate comparable 5 minute interval kVa demands for billing purposes. (See Response to NAS Data Request No. 1.(c.)).

NAS has several concerns with this approach to estimating billing demands. First, the approach is based on a short sample period that may not be representative of expected NAS demands under a 5 minute demand interval. The operation personnel at NAS have estimated that the switch to the 5 minute demand interval will increase billing demands by 10-13%. (See testimony of Mr. Sanchez). Second, the information previously provided in Exhibit B-2 in Mr. Bush's testimony in Case No. 2003-00396 indicates NAS' on-peak demand would increase by more than 10 percent (from 75 MW to 83 MW) under the 5 minute demand interval. Thus, the savings reduction calculated in Seelye Exhibit 12 is significantly overstated.

Q. Do you have any other concerns with the asserted cost justification for the proposed NCLS Tariff?

A. Yes. As discussed in my testimony in Case No. 2003-00396, KU has not provided any quantifiable cost justification for NAS paying higher rates than other LCI-TOD transmission customers. As in Case No. 2003-00396, NAS has requested that KU demonstrate that there are in fact incremental tangible, quantifiable costs to serve the NAS melt shop. In response to NAS Data Request 1-4, witnesses Thompson and Seelye state that non-conforming loads could result in costs to KU associated with purchasing ARS energy through ECAR during a sudden loss of generation to cover the potential simultaneous instant load increase of a non-conforming load. ARS is priced at the higher of $100/MWh or market. Witnesses Thompson and Seelye state that these costs are addressed in the demand component of the NCLS Tariff.

KU provides no facts to support a claim that NAS, the only prospective customer under the NCLS tariff, causes KU to purchase ARS. It appears KU's ARS purchases are not related to unexpected changes in KU's load, but result from generation production problems. KU's response to NAS Data Request 2-4 in Case No. 2003-00396 shows that KU's ARS purchases are primarily associated with contingencies at KU and LG&E generating facilities. Indeed, most of the ARS purchases for the period 2001-2003 track operational problems at the LG&E Trimble County and Mill Creek stations. KU has not shown that the NAS melt shop operation directly or indirectly contributed to the circumstances that necessitated the purchase of ARS. As Mr. Sanchez explains in his testimony, for the years 2002-03, the NAS melt shop was not even melting steel on 14 of the days on which KU had to purchase ARS. Thus, the ARS purchases are not caused by increases in demand at NAS but by the loss of generation at LG&E owned units.

Q. Please continue.

A. As is noted above, on-going problems at Mill Creek and Trimble County, Unit 1 account for over half of LG&E/ KU's ARS purchases in the years 2002-03. In 2002, these plants accounted for approximately 69.07% of the ARS requirements, and in 2003, they accounted for approximately 64.80%. (See KU Response to NAS Data Request 2.4 in Case No. 2003-00396.) According to KU and LG&E's 2002 Integrated Resource Plan (Vol. 1, page 8-22), Mill Creek's output is 100% dedicated to LG&E customers, while the output of Trimble County, Unit 1 is 75% dedicated to LG&E customers. Thus, there is no link of any kind between the NAS melt shop load operations and KU's need to purchase ARS, and it is inappropriate in any event to charge a KU customer for incremental costs associated with production problems at units that are dedicated to serving LG&E loads.

Q. How does KU recover the incremental costs associated with the ARS purchases?

A. ARS costs are considered a production cost and are treated like other production costs and allocated to all customers based on the cost causation assumptions of the BIP method. However, KU also wants to recover these costs again from the NCLS customer (NAS). As explained in part C of KU's response to NAS Data Request No.1- 4 in this case, KU attempts to accomplish this by using a 5 minute demand measurement. KU cannot be permitted to recover these costs twice. This explains, in a nutshell, why the 5 minute demand interval is not justified and should be rejected.

Q. Do you have any comments regarding KU's claim that the proposed NCLS is a firm service tariff?

A. Yes. KU describes the NCLS as a firm service tariff, but the tariff requires the customer to accept a potentially unlimited number of "system contingency" curtailments that would occur automatically on 5 minute notice to the customer and lasting no more than 10 minutes. This is a unique requirement that does not appear in any other KU tariff and is a separate service from the curtailable service rider. NAS has provided a form of system contingency curtailments for KU under its existing contract, but the tariff proposes different terms and definitions from those in the proposed NCLS Tariff. It appears that there are few, if any, retail loads that could provide this service to KU other than the NAS melt shop. This recognizes that, in providing this service, the melt shop load is a uniquely flexible and valuable load to KU that enhances system reliability. There is, however, nothing in the KU cost of service study that credits an NCLS load for the system benefits of providing this service. I am not aware of any instance where the Commission has required a customer to take service subject to such curtailment provisions, or approved a form of curtailment service that did not provide an appropriate credit for accepting less than firm service. Mr. Sanchez describes various NAS concerns with this aspect of the proposed NCLS Tariff. My point is simply that an appropriate rate credit is needed if NAS agrees to provide this service.

Q. Do you have any other comments regarding the proposed NCLS tariff?

A. Yes. The tariff includes other terms that vary from the LCI-TOD (upon which KU witness Bush claims the NCLS is based) without any explanation of any kind. For example, the term "Minimum Bill" adds verbiage requiring the customer to pay the demand charge notwithstanding either a) force majeure events or b) KU's ability to actually serve the customer. Absent a specific and reasonable justification, the tariff should apply the same terms and conditions as the LCI-TOD tariff. Also, my concerns regarding KU's proposed use of a demand billing ratchet in the NCLS tariff are addressed in my testimony filed in Case No. 2003-00396.

Q. What is your recommendation regarding the proposed NCLS Tariff?

A. For all of the reasons noted above, I recommend that it be rejected. KU has not provided cost justification for charging higher rates under the NCLS Tariff relative to comparable industrial tariffs. The NCLS Tariff is applicable to only one customer, NAS, not a group of customers as is typical with all other tariffs. There certainly is no justification for measuring NAS' billing demands on a 5 minute demand interval. No other customer in this state has its demand measured based on a 5 minute interval. The switch from the 15 minute demand interval to the 5 minute demand interval is simply a ploy for KU to protect its revenue flow and double recover a portion of its generation costs. If the NCLS Tariff is approved using a 5 minute demand, then the demand charge must be lowered to prevent double recovery of production costs and excessive rates to NAS. My recommendation to the Commission is to reject the NCLS Tariff and approve NAS taking service under the rates and conditions of the LCI-TOD Tariff.

Q. What is the basis for your recommendation to provide service to the NAS melt shop under the LCI-TOD Tariff?

A. Except for the 50,000 kW limit for taking service under the LCI-TOD Tariff, the LCI-TOD appears to be the most reasonable and applicable KU tariff to use in the alternative. Using NAS' test year actual billing demands, which are based on 15 minute demand intervals, KU would continue to receive a generous return for providing service to NAS under the LCI-TOD Tariff. The revenue that KU would receive from NAS under the LCI-TOD (based on NAS test year actual use) is comparable to the revenue KU estimates it would receive from NAS under the NCLS Tariff (based on KU's estimates of NAS demand as shown on Mr. Seelye's exhibits). Assuming the costs to be the same, then KU's return from NAS under the LCI-TOD would be comparable to the 14% estimate in Seelye Exhibit 5.

However, if the CSR is no longer applicable for NAS, then it is likely that KU's return would be even higher. Thus, if NAS is served under the LCI-TOD, KU continues to receive a generous return from providing service to the NAS melt shop and in exchange NAS receives more equitable treatment relative to similar industrial customers. I recommend that the Commission direct KU to modify the LCI-TOD tariff to permit loads greater than 50,000 kw the option of receiving service under the terms of the LCI-TOD or a special contract.

Q. Does NAS have concerns with KU's proposed modifications to the CSR?

A. Yes. KU has proposed an increase in the per kW credit to $4.09 per kW from $3.10 per kW based on an update to its avoided cost of a combustion turbine. However, KU has proposed other modifications as well. KU proposes to increase the hours of interruption from 200 hours per year to 500 hours per year. In addition, the notice of interruption would be reduced from one hour to 10 minutes. KU has not provided any cost-justification or explanations for these two modifications nor has it discussed these changes with affected customers before proposing them. Both of these modifications present significant operational problems for NAS and I suspect they present similar concerns for other interruptible customers. As Mr. Sanchez describes in his testimony, NAS cannot accommodate 500 hours of annual curtailment and satisfy its steel production requirements. If it cannot continue subscribing to the CSR rider, the cost of power to NAS will increase by roughly $2.9 million annually (approximately $2.5 million in melt shop operations according to Mr. Seelye's Exhibits, and another $0.4 million in lost CSR credits applicable to NAS' rolling and melting facilities).

The loss of CSR credits would dramatically increase NAS' cost of production and provide a significantly higher return to KU. Due to the significant impact of the CSR on NAS' operations as well as its costs of production, the operations personnel at NAS are continuing to assess the proposed changes to determine if it can continue to utilize the CSR.

Q. Would NAS continue to accept interruption under the current rates, terms and conditions of the CSR?

A. It is my understanding that NAS would consider continuing to be interrupted under the current CSR at its present rates, terms and conditions during its production ramp up. Assuming that interruptible load has some value to KU, it seems reasonable to offer customers the option to take interruptible service under either the current CSR or the proposed CSR. To provide customers this option would allow KU and the interruptible customers to develop mutually agreeable conditions for the continued provision of interruptible service.

Q. Does this conclude your testimony?

A. This concludes my direct testimony in this case.

Attachment A

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AREAS OF SPECIALIZATION

Mr. Buechel has worked on numerous consulting assignments for electric, gas, water, and telephone utilities. The primary focus of many of these assignments has been regulatory matters, however, he has consulted on other matters, including corporate and strategic planning, incentive regulation, least-cost planning, workforce management, and competitive bidding.

Prior to consulting, Mr. Buechel spent over nine years on the Staff of the Kentucky Public Service Commission. During his tenure at the Commission, he was public utility economist, Director of Research Division, and Deputy Executive Director. His assignments at the Commission included: the preparation of an integrated resource planning regulation; coordinating a statewide load management committee to investigate time-of-day rates and other load management issues; directing staff in rate cases and special investigations; writing orders as directed by the Commission; establishing a management audit program; and testifying in selected cases.

SELECTED CONSULTING EXPERIENCE

Kentucky Public Service Commission – Testified on behalf of the KPSC in Docket No. ER03-262-09 before the Federal Energy Regulatory Commission. The testimony related to the regulatory approval process in Kentucky for American Electric Power Company to join the PJM regional transmission organization. The issue before FERC was whether the KPSC approval process was prohibiting AEP from meeting its merger commitment to join an RTO.

Pacific Gas & Electric Co.– Senior Consultant for affiliated audit for 2001 and 2002 calendar years to verify compliance with California PUC restructuring requirements. Assignment included assessment of company plan and audit of affiliate transactions. Acted as the lead consultant on areas that addressed Nondiscrimination Standards, Disclosure and Information Standards, and Competitive Services. Recommendations from these reports addressed means of improving compliance.

Public Service Electric & Gas Company – Retained by the New Jersey Board of Public Utilities to assess compliance with all Affiliate Compliance and Code of Conduct Rules enacted as a result of restructuring.

Seattle City Light – Retained by the City Council to perform an audit of the municipally-owned Seattle City Light electric utility. Assigned issue was governance of the municipal utility. The audit yielded recommendations for training the council members to better understand the issues and to add additional resources for oversight of the utility.

Indiana Utility Regulatory Commission – Senior Consultant for an audit of Indianapolis Power & Light's quarterly performance reports regarding its compliance with meeting agreed reliability targets.

Federal Energy Regulatory Commission – Senior Consultant for an operational audit of the California Independent System Operator. The audit was performed for FERC. Assigned issues of primary focus were market design, the relationships among the parties and governance of the ISO.

Arizona Corporation Commission – Senior Consultant to provide advice and assistance to the Commission regarding the on-going implementation of its industry restructuring initiative.

Louisville Electric & Gas and Kentucky Utilities – Actively participated in the development of a comprehensive performance-based regulation mechanism and provided support for development of tariff, preparation of testimony, and witness preparation and worked with attorneys to prepare briefs.

Public Service Electric & Gas – Senior Consultant in the evaluation of cost of service studies and unbundling plan for the Restructuring Plan submitted to the New Jersey Board of Public Utilities.

Entergy - Consultant in this financial audit of affiliated transactions between Entergy Corporation, Entergy Services, Inc., and subsidiaries responsible for the review of affiliated transactions, allocation, accounting procedures and control, improper disclosure, and insulation and segregation of regulated and non-regulated affiliates.

California Public Utilities Commission - Regulatory Lead Consultant for an assignment to assist with the evaluation of a two-year experiment to implement performance-based ratemaking for San Diego Electric and Gas Company's gas procurement and generation and dispatch functions.

San Diego Gas & Electric Company - Consultant responsible for this mid-term evaluation of the Company's Base Rates Performance-Based Ratemaking mechanism which included analysis and assessment in the areas of price and corporate performance.

Big Rivers Electric Corporation – Provided support and assisted with the preparation of the Company's regulatory filings before the Kentucky PSC for approval to implement a proposed lease of its generating assets to a subsidiary of LG&E Energy.

Delta Natural Gas – Assisted with the preparation of an application to increase rates and modify rate design. Testified on rate design changes for larger commercial and industrial customers as well as other specific charges.

Resume of Mr. Chuck Buechel

East Kentucky Power Cooperative, Inc. - Senior Consultant for a project to audit the fuel procurement function at East Kentucky Power Cooperative. The assignment is being performed for the Fuel and Environmental Committee of the Board of Directors.

Louisville Gas and Electric Company/Kentucky Utilities Company - Provided strategic, regulatory and operational advice regarding merger between these two utilities. Assisted with preparation of merger application and provided regulatory strategy regarding synergy savings.

Kentucky Public Service Commission - Engagement Director for a project to prepare a joint response for a consortium of four utilities in Kentucky. The response is to the Kentucky Public Service Commission Administrative Case No. 341, An Investigation into the Feasibility of Implementing Demand-Side Management Cost Recovery and Incentive Mechanisms. The response discusses the advantages and disadvantages of various regulatory incentives with regard to DSM and conservation.

Louisville Gas and Electric Company - Lead Consultant in the preparation of its application to establish a holding company. The application included proposed guidelines to be used in financial dealings between the subsidiary companies, as well as the allocation of costs between the companies.

New England Telephone Company - Consultant for the management audit of its affiliated interests. The audit was performed for the Department of Public Utilities of Massachusetts. Primary responsibilities included providing regulatory advice and consultation to the audit team.

Kentucky Utilities Company - Engagement Director for a project to provide advice and consultation with regard to the preparation of an application for a certificate of convenience and necessity to construct additional peaking capacity. The filing was prepared to comply with a comprehensive regulation on integrated resource plan adopted by the Kentucky Public Service Commission. Areas of responsibility included preparing the responses for the sections of the IRP regulation, which were concerned with demand-side management.

Columbia Gas of Ohio, Inc. - Consultant for its management and operations audit. The audit was for the Public Utility Commission of Ohio. Areas of responsibility include requirements forecasting and flexible transportation program.

Pennsylvania Gas & Water Company - Consultant for a comprehensive management audit. The audit is being performed for the Pennsylvania Public Utilities Commission. Areas of responsibility include requirements forecasting, rates and regulatory relations, and financial management and planning.

West Texas Utilities Company - Consultant for a management and operations audit. The audit was performed for the Public Utility Commission of Texas. Areas of responsibility included financial planning and economic analysis, and system planning.

Resume of Mr. Chuck Buechel

East Kentucky Power Cooperative, Inc. - Engagement Director for the performance of an audit of evaluation of competitive bids it received for providing generating capacity to meet its needs. The purpose of the audit was to provide assurance to EKPC's management that each of the proposals is provided fair and consistent treatment. The audit was needed because the company had also provided a bid.

Big Rivers Electric Corporation - Engagement Director for an assignment to implement a comprehensive planning process. The process is centered on an annual planning cycle, which incorporates the corporate and strategic plans with the divisional plans and budgets.

Kentucky Public Service Commission - Witness testifying on behalf of GTE Products Corporation in Kentucky Public Service Commission Case No. 10498, a request by Columbia Gas of Kentucky, Inc. to raise its rates. The testimony supported the continuation of a flexible rate for the transportation of natural gas to industrial customers with alternative fuel capability.

Henderson County Water District - Lead Consultant for a comprehensive operations review. The study was sponsored by the district's Board of Directors. Areas of responsibilities included operations planning, organization and staffing, system management, and customer service.

Lexington Fayette Urban County Government - Principal Investigator for a report regarding the feasibility of regulating landfill operations at the Kentucky Public Service Commission.

Kentucky-American Water Company - Lead Consultant for a project to review and comment on drafts of testimony and a consultant's report on the need to expand its water treatment capacity. The testimony and report were the subject of a mock hearing.

Kentucky Public Service Commission - Witness testifying on behalf of AT&T Communications in Kentucky Public Service Commission Administrative Case No. 323, an investigation into permitting intraLATA toll competition. The testimony related to the validity of a customer survey submitted by AT&T in the proceeding.

East Kentucky Power Cooperative, Inc. - Engagement Director for a project which reviewed its load research program, made conclusions regarding the statistical validity of its previous efforts, and provided recommendations for future studies.

OTHER BUSINESS AND PROFESSIONAL EXPERIENCE

President, Utility and Economic Consulting, Inc., February 1989-Present. The company provides utility, regulatory, management, and economic consulting services. The consulting engagements described above were performed since the formation of UEC.

Deputy Executive Director for the Public Service Commission of Kentucky, 1986-January 1989. Primary responsibilities included:

- Managing staff, through their directors, to ensure that cases were processed according to operating procedures and in a timely fashion.

- Working directly with the staff to develop regulatory policy positions for presentation to the Commissioners. One of the key policies developed involved a revised regulatory scheme to promote a more competitive environment for the delivery of natural gas.

- Preparation of a proposed comprehensive planning regulation for the Commission. The regulation, which is applicable to the state's electric utilities, specified filing requirements for the reporting of load forecasts and resource information including demand-side management and supply-side options.

Director, Division of Research, for the Public Service Commission of Kentucky, 1983-1986. Primary responsibilities included:

- Managing and providing direction for the economic research staff. The staff provided economic advice to the Commission concerning regulatory issues arising in the electric, telephone, gas, and water industries. This included making case assignments, reviewing the economists' work, preparing budgets, as well as other administrative duties.

- Participating in cases before the Commission. This involved working with other staff personnel, reviewing utility filings, preparing data requests and cross-examination of witnesses, advising the Commission, and preparing orders as instructed by the Commission.

- Load Management Coordinator. This position required coordinating, leading discussions, and making presentations to two statewide load management committees - a steering and a technical committee. The committees were composed of Commission staff, utility executives, and consumer representatives. The committees met quarterly to discuss and review the implementation of time-of-day rates for large commercial and industrial customers. Various other load management techniques were also reviewed and considered.

- Project Coordinator, Case No. 8666 - An Investigation Into Alternative Load Forecasting Methods and Planning Considerations for the Efficient Provision of Electric Generation and Transmission Facilities. In this docket, the Commission hired the services of a consultant to perform the following tasks: review the forecasting methods of the state's electric utilities; provide alternative forecasts; examine the potential benefits of conservation; evaluate alternative construction scenarios assuming the formation of a statewide power pool; and estimate the financial impact of the alternative scenarios. Primary duties were to be the intermediary between the consultants, Commission, the utilities, and other parties; to conduct review sessions on the consultant's work; and to evaluate the draft and final reports produced by the consultant.

- Project Officer for comprehensive management audits of Kentucky Utilities Company and South Central Bell Telephone Company. The Commission instituted a management audit program, which involved hiring consultants to review the management practices of all the state's major utility companies. The role of the project officer was to ensure satisfactory and timely performance of the proposed work; to attend selected interviews; and to critically review and evaluate analytical results.

Public Utility Economist for the Public Service Commission of Kentucky, 1979-1983. Primary responsibilities included:

- Assisting the Commission in implementing procedures and policies to meet the federal mandates of the Public Utility Regulatory Policies Act (PURPA). This involved performing cost-of-service studies, developing alternative rate design proposals, and testifying on the ratemaking standards in Section 111 of PURPA.

- Developing the Commission's regulations pertaining to cogeneration.

Assistant Professor, Department of Economics, for Morehead State University, 1976-1979. Primary teaching responsibilities were investments, introduction to economics, and intermediate macroeconomics. Other teaching responsibilities included managerial economics and computer programming in BASIC. Committee work included membership on the Southern Association Self-Study and the Committee on Student Life.

EDUCATION

B.S. in Economics with Honors, University of Kentucky
M.A. in Economics, University of Kentucky
Ph.D. Candidate, University of Kentucky

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF FAYETTE)

The undersigned, Charles D. Buechel, being duly sworn, deposes and states that he is President of Utility and Economic Consulting, Inc., that he has personal knowledge of the matters set forth in the foregoing testimony and exhibits, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Charles D Buechel

Charles D. Buechel

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 22 nd day of March, 2004.

Russell P. Kaoud (SEAL)

Notary Pulblic

My Commission Expires:

April 2, 2007

CERTIFICATE OF SERVICE

I hereby certify that the original and 10 copies of this foregoing Testimony of North American Stainless has been filed with the Kentucky Public Service Commission and a true and correct copy of the foregoing was served by U.S. first-class mail to the following persons indicated on the attached this 23 day of March, 2004.

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