

**ANNUAL REPORT-2010
MONITORING OF
“CONDITIONS CERTAIN” ISSUES
IN NEB. REV. STAT. § 70-1003 (6) to (8)**

OCTOBER 2010

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INTRODUCTION

The 2010 report will be the last of a series of condition certain reports that began in 2001. In the 2010 Nebraska Legislature, Legislative Bill 797 was passed removing the annual requirement of this report. The conditions certain study process was established by Legislative Bill 901 which was passed by the Nebraska Legislature in the year 2000 and codified as Neb. Rev Stat. section 70-1003(5) to (8). LB 901 directed the NPRB to submit an annual report to the Governor, with copies to the Clerk of the Legislature and the Natural Resources Committee, analyzing five items or conditions concerning the electric industry in Nebraska and the region to help determine when and if retail competition should be initiated in Nebraska.

LB 901 is the Legislature's response to the recommendations of LR 455, which was passed in 1996 and completed in 1999. LR 455 consisted of Phase I completed in 1997, which studied the history and the then current status of Nebraska's electric industry, and Phase II which examined the transition of the electric utility industry nationwide and developments at the federal level and in other states related to possible impacts and options for Nebraska's electric industry. Phase II recommended the conditions certain study approach.

To carry out the mandate of LB 901 the NPRB formed Technical Groups¹ comprised of experts from Nebraska's electric industry to conduct research and prepare the part of the study corresponding to each of the five conditions outlined in the legislation and also formed a Review Group to allow for participation in the process by a wide spectrum of interested parties. The Review Group² included representatives from government agencies, consumer groups, public power entities, investor-owned electric utilities, residential, agricultural, commercial and industrial consumers and other groups.

The NPRB retained consultants³ to facilitate the development of the conditions certain study reports through the effort of the technical and advisory groups. During the 10 year reporting process, several states in the U.S. elected to adopt retail choice for their customers; however, most other states lost interest in the retail choice concept for various reasons. Annually, Chapter 5 of the conditions certain study process reported on the successes and failures of customer choice programs in other states, and congressional and regulatory activities at the federal level.

In order for customer choice to be effective in Nebraska, should that be the will of the citizens of the state, it would not be adequate to only have a viable regional transmission organization and adequate transmission in Nebraska or in a region that includes Nebraska, only a viable wholesale electricity market in a region that includes Nebraska, or only wholesale electricity prices in the region comparable to Nebraska prices. For an effective customer choice program, all three of these conditions must be favorable.

¹ See appendix for list of individuals serving on the Technical Groups.

² See appendix for listing of individuals serving on the Review Group.

³ E. C. Pape, Primary and Initial Consultant. R. A. Mortensen, subsequent and final consultant.

EXECUTIVE SUMMARY

The five Conditions Certain issues identified in § 70-1003(6) and studied for the past 10 years were assigned to five separate Technical Groups. This Executive Summary includes a status summary of each of the conditions. Specific findings and considerations are included in the reports issued from 2001 to 2009. For simplicity, this report will not include the detailed study procedures contained in previous reports and only summary information will be included for each condition.

In the 2010 Legislation session, LB 797 was passed removing the annual requirement for the Conditions Certain study and report. As now written in § 70-1003(5) of the Revised Nebraska Statutes, the board may, in its discretion, hold public hearings concerning the conditions that may indicate that retail competition in the electric industry would benefit Nebraska's citizens and what steps, if any, should be taken to prepare for retail competition in Nebraska's electricity market. In determining whether to hold such hearings, the board shall consider the sufficiency of public interest.

This will be the last of the current series of Conditions Certain reports.

Overall Summary

As outlined in page 3 of the introduction to this report, for customer choice to be effective and beneficial to the citizens of Nebraska, all of the following three conditions must be met:

- A viable regional transmission organization and adequate transmission exist in Nebraska or a region that includes Nebraska, and,
- A viable wholesale electricity market must exist in a region which includes Nebraska, and,
- Wholesale electricity prices in the region must be comparable or competitive to Nebraska prices.

The overall results of the 2010 conditions certain report indicate that two⁴ of three conditions have been met, as indicated by the following:

- Viability of a regional transmission organization and adequate transmission exist in Nebraska or a region that includes Nebraska:
 - A viable regional transmission organization now exists with the membership of key Nebraska transmission owners in the Southwest Power Pool on April 1, 2009.
 - Adequate transmission exists in the region to make transactions sought by utilities and marketers and will improve with development through the Southwest Power Pool Transmission Expansion Planning process which will include Nebraska.
 - **This condition is currently met.**
- A viable wholesale market in a region including Nebraska:

⁴ Conditions 1 and 2 have been met.

- A reasonably efficient and workable wholesale market exists in the Southwest Power Pool market which includes Nebraska⁵.
- **This condition is currently met.**
- Wholesale electricity prices in the region must be comparable or competitive with Nebraska prices:
 - Nebraska prices for the 2007 to 2010 study period are approximately 17.8 percent below the regional market, this is approximately a 9.7 decrease over the 2006-2009 study period
 - Regional bulk market prices became significantly more competitive during the 2009 study year and for the 2010 study year conditions have improved from 29.6 to 9.3 percent above market.
 - **This condition has not been met.**

Other condition certain studies in this report include the extent that retail rates have been unbundled and any other information the board believes to be beneficial to the Governor, the Legislature, and Nebraska’s citizens when considering whether retail electric competition would be beneficial, such as, but not limited to, an update on deregulation activities in other states and an update on federal deregulation legislation. Several significant items should be mentioned:

- There has been no significant unbundling of retail rates in Nebraska.
- In other states, customers served by regulated retail markets have generally experienced smaller electric rate increases than customers served by “competitive” retail markets and the expectation of wholesale and retail competition driving down prices has not taken place.
- Retail choice is still no longer significant in utility policy discussions nationally.
- Projected Energy Information Administration annual data for the year 2009 shows that Nebraska’s average retail rate of 7.16 cents/kWh will be approximately 27.6 % lower than the national average retail rate of 9.89 cents/kWh.
- In the most recent EIA⁶ projection shown in detail in Chapter 5, Nebraska ranks second in lowest rates for 2009 compared to states contiguous with Nebraska shown as follows:
 - Wyoming 6.08
 - **Nebraska 7.16**
 - Missouri 7.24
 - Iowa 7.29
 - South Dakota 7.35
 - Kansas 8.07
 - Colorado 8.36

⁵ Continued membership by one or more Nebraska SPP members is currently in question.

⁶ Energy Information Administration.

Condition 1⁷: “Whether or not a viable regional transmission organization and adequate transmission exist in Nebraska or in a region which includes Nebraska.”

Clarifications of Condition 1:

- **Viable regional transmission organization (RTO)**
 - A regional transmission organization has several characteristics which explain its function:
 - Designated by the FERC to direct operation of the regional electric transmission grid in its area.
 - Independent of market participants including transmission and generation owners.
 - Ensure open access, non-discriminatory services and continued reliability of a region to support a competitive wholesale electricity market.
 - Regional in scope and jurisdiction.
 - Viable
 - A viable RTO could be defined as one that is fully organized and functioning with necessary governance, operations staff, and communications and control systems. The RTO would be operating within established guidelines, policies and regulatory approvals, in particular, the approval of the FERC as a Regional Transmission Organization.

- **Adequate transmission**
 - Adequate electricity transmission in a region may include the following features⁸:
 - Safe and reliable transmission system meeting minimum reliability criteria established by NERC and regional guidelines.
 - Balance transmission system investments with physical, economic and environmental considerations.
 - Promote coordinated, efficient operation, expansion and enhancement of transmission and non-wires solutions.
 - Apply appropriate planning concepts to optimize efficient operation and expansion of the transmission grid.
 - Compliance with FERC orders where applicable.
 - Broad features of adequate transmission could include the following:
 - Transmission lines will be operated in such a manner as to not exceed appropriate operating guidelines. Such operations may include curtailment

⁷ Paul Malone, Condition 1 primary author.

⁸ Adapted from Northwest Power Pool Transmission Adequacy Steering Committee Principles for Regional Transmission Adequacy – June 28, 2005.

of regional market transaction when conditions may approach guideline limits.

- Adequate transmission could include utility and regional long range transmission planning to meet system and regional growth.

Relationship of viable RTO and adequate transmission to retail competition

- If the State of Nebraska chooses to establish a competitive market for retail electricity, those retailing entities choosing to participate in the market must have fair, competitive and reliable access to the wholesale electricity market in the region and ultimate access to retail customers.
- A viable RTO and adequate transmission must exist in the region to allow that access.

Condition 1 Study Summary⁹

The Condition 1 study process has paralleled the evolution of control and planning of the nation's high Voltage transmission system from voluntary operations and planning guidelines to mandatory guidelines and regulations provided by NERC and FERC respectively. During this period, power pools such as PJM, NYPP, NPEX, SPP and others have evolved into Regional Transmission Organizations. A new organization known as the Midwest Independent System Operator (MISO) has also come into being. It was primarily a matter of time for these organizations to become FERC approved viable RTOs and for Nebraska utilities and others to consider membership in one of those RTOs.

During the initial years of this Conditions-Certain study, it was determined that this condition had not been met because of initial uncertainty at the Federal Energy Regulatory Commission (FERC) regarding the development of Regional Transmission Organizations (RTO's), in particular the Midwest ISO (MISO) which would hold potential to become a viable RTO for Nebraska. The Nebraska transmission system was adequate to serve Nebraska customers during normal system conditions, however, during abnormal conditions, Nebraska along with other regions depend upon a reliable regional transmission network to maintain adequate reliability. The lack of viable RTO's would contribute to the lack of adequate transmission in Nebraska for contingencies.

During the RTO evolution during the last decade, this report section has monitored the development of MISO and other significant transmission organizations and proposals.

⁹ Detailed discussion of Nebraska's transition to RTO viability and transmission adequacy are discussed in Chapter 1 sections contained in Conditions-Certain reports from 2001 through 2009. These reports were prepared by Paul J. Malone of Nebraska Public Power District. These reports may also be accessed on the Nebraska Power Review Board web site: www.powerreview.nebraska.gov.

Uncertainty continued for Nebraska regarding the development of a viable RTO in the region. These uncertainties remained during the evolution of FERC's increasing authority in the regional transmission organization development in the mid-2000 timeframe.

After six years of uncertainty in MAPP, it was reported in the 2008 report that many members began leaving MAPP to join the Midwest ISO. Nebraska utilities had determined that the best interests of their customers may be served by withdrawing from MAPP membership and joining the Southwest Power Pool (SPP). It was determined that the SPP was a viable regional transmission organization and SPP membership would provide that viability to the Nebraska region. The question of adequate transmission would also be answered for Nebraska through participation in the SPP Transmission Expansion Planning (STEP) process and the hour to hour monitoring and control or monitoring of regional transmission operations.

In 2009, NPPD, OPPD, and LES became SPP members. This step satisfies condition 1, which through membership in the SPP, a viable regional transmission organization and adequate transmission will be in existence in Nebraska or in a region which includes Nebraska.

Conclusion:

Condition 1 has been met. A viable regional transmission organization and adequate transmission exist in Nebraska or a region that includes Nebraska.

Condition 2¹⁰: "Whether or not a viable wholesale electricity market exists in a Region which includes Nebraska."

Discussion of Condition 2:

Outline of viable wholesale electricity market requirements

- An operational regional 'market hub' through which transactions may take place.
- Sufficient buyers and sellers to make an active market.
- Clear and equitable trading rules.
- Stable and predictable pricing patterns.
- No single utility is able to exercise market power.

Outline of market power elements

- Market power exists when conditions allow one entity to unilaterally manipulate the market price of electricity.
- There are two distinct types of market power under evaluation within Regional Transmission Organizations
 - Horizontal Market Power
 - Vertical Market Power
- Horizontal market power exists when the market is highly concentrated with very few sellers. In this situation there are often one or two sellers that dominate the market.
- Vertical market power exists if a single company or two has the ability to manipulate market prices by unilaterally withholding generation or transmission from the market during congested conditions.

Relationship of viable wholesale electricity market to retail competition

Before moving toward retail competition, wholesale markets must be viable. The portion of a retail customer's bill that will be open to competition is the electric commodity (acquired from the wholesale market and sold at retail) portion. The transmission and distribution wires will be utilized much the same with any electric commodity supplier – only one set of electric wires can be financially or operationally supported. It is, therefore, important that the wholesale electric market be adequately established and be viable. This condition addresses the viability for Nebraska.

RTO Annual State of the Market Reports

Regional Transmission Organizations are required to prepare a comprehensive State of the Market Report (SOM) annually. Included in the report are sections related to market power. During early Conditions-Certain reports, the market power data was utilized from several RTOs

¹⁰ Deeno Boosalis, Condition 2 primary author.

for comparison purposes. Reports for those years indicated a degree of market power was present, sufficient to indicate that the region including Nebraska was not a fully viable wholesale market because of that market power.

Horizontal Market Power: Horizontal market power exists when the market is highly concentrated with very few sellers. In this situation there are often one or two sellers that dominate the market.

The first horizontal market power test used is simply the market share of the top seller in a defined market. This gives an indication of market concentration. FERC has established that a market share greater than 20% for the largest seller in a market indicates a concentrated market. A similar test calculates the market share of the top three sellers in the market.

The test utilized in regional SOM reports on market concentration is the HHI¹¹ index. This test is calculated by summing the squares of the market shares of all competitors in a given market. An HHI of 1,000 or less indicates a relative freedom from market power while an HHI of over 1,800 indicate excessive market power. A score of 1,000 to 1,800 shows a modestly concentrated market.

Vertical Market Power: Vertical market power occurs when there are artificial obstacles that deny market access to competitors. If a company can limit competitive transmission access to its local market, it alone can set or strongly influence the price in that market.

This type of market power is of particular interest to the electric utility industry because the delivery of wholesale electricity relies on the electric transmission grid that has historically been owned by regional electric utilities. The current FERC policy of open access requires transmission owning utilities to allow others to use their system without discrimination. Even with this provision, vertical market power can still be an issue for electricity because of transmission congestion. Transmission congestion occurs in periods of high demand for electricity. During these times the need to trade and deliver electricity outstrips the physical capacity of the transmission grid. When transmission constraints occur, it divides the overall electricity market into smaller isolated markets because it becomes physically impossible for competitors to deliver their product. Under these conditions it is possible for some electricity sellers to exercise market power. Some of the tests that have been used to identify vertical market power are described below.

The *Pivotal Supplier Test* seeks to determine if a company has the ability to manipulate market prices by unilaterally withholding generation from the market during congested conditions. If the company's generation is absolutely essential to meeting peak wholesale market demands in the constrained market area, the company is a pivotal supplier for the duration of time that condition exists. Running this test requires a system capable of collecting real-time transmission flow and pricing information. This only exists in areas served by Regional Transmission Organizations (RTO) that have implemented a price-based, constrained dispatch methodology over a broad area. For companies operating in this type of RTO, their ability to set market prices is revoked by the RTO during this time of congestion.

The *Price Cap Test* seeks to determine if prices in known congested areas exceed the price that would be expected if a theoretical competitively priced generator were available for that area.

¹¹ Herfindahl-Hirschman Index (HHI).

The Price Cap Test is calculated only for generation resources that can materially change the congestion in the area. The price of a “theoretical competitive generator” is set at variable costs of new peaking power plant with the fixed costs spread over the estimated hours of congestion for affected area. If price offers during times of congestion are seldom accepted near this competitive price cap, it indicates prices are not being manipulated.

The *Price Volatility Test* makes the assumption that large swings in prices over short periods of time are associated with transmission congestion. The thought is that only a condition of market power could allow for the price to change that dramatically.

The major elements of vertical market power are addressed in the SPP SOM report and will not be individually addressed but will be summarized from the SOM report.

SPP Horizontal Market Power Analysis

For study years from 2001 through 2008, the MAPP/MISO region was used for determining the existence of a viable market and in these regions, the determination of viability was not met. In April 2009, NPPD, OPPD and LES became members of the Southwest Power Pool and now participate in the SPP market. Below are the results from the most recent SPP SOM report.

SPP Horizontal Market Power	
Market Share – Top 3 Participants	45.9 Percent
Market Share – Top Participant	14.7 Percent
HHI – Including Nebraska Participants	1037

The HHI measure of 1,037 for SPP is very close to the 1,000 mark which is used as the gauge in determining unconcentrated market. The *SPP State of the Market Report*¹² stated, “*The HHIs also indicate a competitive market.*”

SPP Vertical Market Power Analysis

Pivotal Suppliers are generators that are essential to meeting load or reserve requirements in an area that becomes transmission constrained during times of high electricity demand. During those times the pivotal supplier can withhold offering power to the market in order to drive up prices.

The SPP Independent Market Monitor conducted a Price Cap test indicating the SPP has a price cap that is put into effect only in areas where the transmission system becomes congested. It is applicable only to generation resources that can materially change the congestion in the area. Finally, the price cap is set at variable cost of a new peaking power plant (the lowest cost generation that the competitive market would provide) with the fixed costs spread over the estimated hours of congestion for the affected area. An analysis of the SPP Price Cap was conducted to determine how often a price offer is accepted near the SPP Price Cap. According to

¹² SPP State of the Market Report for 2009.

the *SPP State of the Market Report*, “if price offers are seldom accepted near the SPP Cap, then we believe this indicates prices are comfortably below this one measure of a competitive price level.” The results of the test indicated that in 2008 offers within 5% of the price cap were accepted less than three thousandths of one percent of all resource intervals. The *SPP State of the Market Report* concluded, “The bottom line is that price offers were almost never accepted near the SPP Cap.” This would strongly support the position that there is a significant absence of vertical market power.

Conclusion

The final conclusion is that with the absence of market power and the FERC approval of SPP organization and operations, a reasonably efficient and viable wholesale market exists in the SPP market area which includes Nebraska.¹³ Condition 2 is therefore met at the present time.

¹³ This conclusion refers to the major portion of Nebraska in the Eastern U.S. Interconnection. The portion of Nebraska connected to the western interconnection is the subject of occasional transmission disruptions which preclude it from being in a viable wholesale market at this time. The customers in the western region are primarily those of MEAN and Tri-State G&T.

Condition 3¹⁴: “To what extent retail rates have been unbundled in Nebraska.”

The purpose of Technical Group #3 was to determine to what extent retail rates have been unbundled in Nebraska and to provide an understanding of the complexity and costs for the current infrastructure to be unbundled if ultimately required for Nebraska to implement retail competition.

To determine the status of unbundling in Nebraska, all the electric utilities in Nebraska were surveyed to determine their unbundling status. The procedure and results of that survey are shown in detail in Chapter 4 of the Conditions Certain Reports from 2004 to 2009.

For the purpose of this report, unbundling was defined as the separation of utility bills into the individual price components for which an electric supplier charges its retail customers, including, but not limited to, the separate charges for generation, transmission, and distribution of electricity. It was determined during the LR 455 study process that unbundling is an indicator and a significant process for implementing retail competition.

To determine the extent of unbundling a survey was assembled and mailed to the 165 retail electric utilities operating in Nebraska. Responses were received from 161 of the total surveys mailed.

Of those utilities that responded, the study basically found these main points.

- One utility stated that they have formally unbundled.¹⁵
- Over half (78%) of the utilities did not have unbundled cost of service studies.
- Less than half (40%) of the utilities' billing systems will accommodate unbundling.
- Only (50%) of the utilities believe they have enough information to unbundle.

One-time unbundling costs¹⁶ of \$8 million and annual costs of \$1 million were estimated for the cost for unbundling should the citizens of Nebraska elect to open the electric utility industry to retail competition. These costs were based upon estimates from states that have made the transition to retail competition.

To conclude, the extent of current retail unbundling in Nebraska is minimal based on an annual kWh percentage of total state retail electrical sales, however the percentage of retail electricity billing systems that can accommodate unbundling is nearly 40 percent, if such should ever be required.

¹⁴ Jay Anderson, Condition 3 team leader.

¹⁵ Loup River Public Power District unbundled costs for one customer class at that customer's request.

¹⁶ 2004 dollars.

Condition 4¹⁷: “Comparison of Nebraska's Wholesale Electricity Prices to the Prices in the Region.”

The purpose of the fourth “conditions-certain” study was to make “a comparison of Nebraska’s wholesale electricity prices to the wholesale prices in the region.”

Before moving toward retail competition, there should be the reasonable chance of the customers’ ability to obtain lower electricity prices. The portion of a retail customer’s bill that will be open to competition is the electric commodity (wholesale) portion. The transmission and distribution wires will be utilized much the same with any electric commodity supplier. Only one set of electric wires can be financially or operationally supported. It is therefore important that the wholesale electricity prices in the region be at or below Nebraska’s prices. This issue addresses Nebraska’s wholesale electric prices compared to the region.

Annually, the team developed approximations of the prices of the regional wholesale market and compared to production costs of Nebraska utilities. Shown in detail in reports¹⁸ published annually as part of the Conditions Certain 10-year reporting process is the study methodology developed by the study team. That detail is not reported in this summary report.

These approximations provide a tabulation of the results comparing median market product pricing indices and applying mWh-weighted fixed cost allocations to Nebraska production costs for 4-year running averages with the most recent being 2007 through 2010. During the initial 8 years of the study, Nebraska production costs ranked below the market product. The last two years of this study period the market price is less than the Nebraska production costs. (See Chart 2 below) The major difference in the last two years vs. the other years is the significant drop in natural gas prices in 2009-2010. Natural gas price is the main driver of on-peak electricity market prices. Since Nebraska utilities generate a low amount of electricity using natural gas units, its production costs are not as dependent on natural gas prices as the market.

Results Summary for the 2007-2010 Study Period

The results for the 2007 - 2010 study periods still show Nebraska production costs to be less than the market. In 2007 – 2008, Nebraska production costs were well below the market. In 2009, the market was below Nebraska production costs and for 2010, it is projected that the market will still be lower. The main reason for this is the lower market price caused by low natural gas prices. Another reason (and part of the reason for lower natural gas prices) is the sluggish economy throughout the region. This reduces the demand which in turn lowers market prices since the supply (i.e., resources) was developed for a healthy economy.

¹⁷ Jim Fehr, Condition 4 primary data coordinator.

¹⁸ Detailed information on the study methodology can be found in the 2009 Conditions Certain Report in Chapter 4.

The comparison table for Nebraska Production Costs shown below provides information on the 2007 to 2010 study period showing the transition of Nebraska comparisons to the regional market from 40 percent below in 2007 to 9.3 percent above in 2010. The historical conditions certain comparison shows the percentages from the 1998-2001 study period to the 2007-2010 study period. The rolling average shown remains in the positive below market percentage, however, if the natural gas costs remain low over the next several years, even this would move into the negative level.

COMPARISON TABLE for NEBRASKA PRODUCTION COSTS

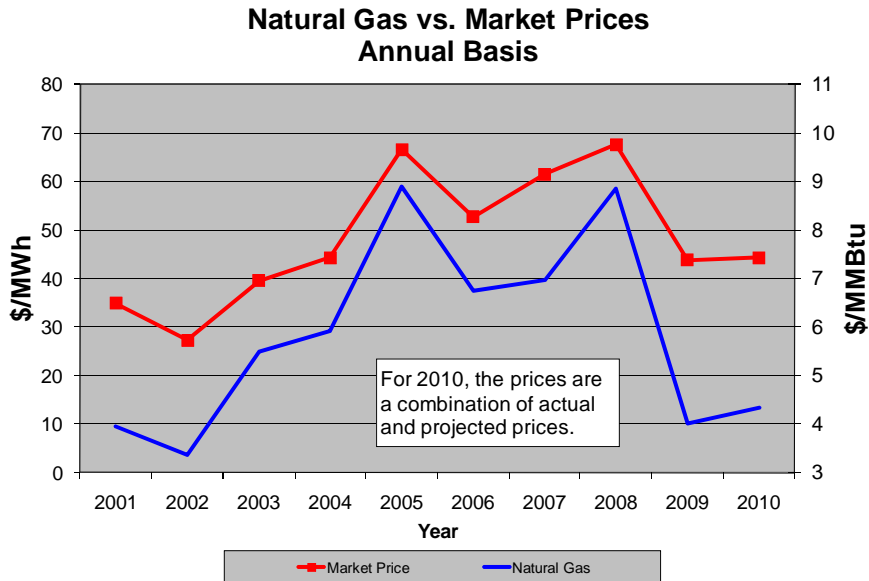
PERCENTAGE BELOW MEDIAN MARKET PRICING		
Year	MWh - Weighted Fixed Cost Allocations	Market Price - Weighted Fixed Cost Allocations
2007	40.0%	40.2%
2008	41.0%	41.0%
2009	-29.6%	-29.3%
2010	-9.3%	-9.3%
Straight Average	10.5%	10.7%
Four Year Average (MWh-weighted)	17.8%	17.9%

HISTORICAL LB901 STUDY PERIOD COMPARISON					
Study Period Years	% Nebraska Systems Below Market	Nebraska Cost		Market Price	
		Annualized Volatility	Monthly Std Dev	Annualized Volatility	Monthly Std Dev
1998-2001	18.6%	34.4%		84.5%	
1999-2002	15.3%	41.2%		92.2%	
2000-2003	18.1%	43.4%		62.4%	
2001-2004	20.8%	49.5%		45.6%	
2002-2005	28.3%	35.8%	\$1.97/MWh	34.2%	\$3.29/MWh
2003-2006	39.6%	32.0%	\$2.17/MWh	34.3%	\$5.68/MWh
2004-2007	41.3%	25.5%	\$1.77/MWh	29.0%	\$5.98/MWh
2005-2008	43.7%	30.9%	\$2.39/MWh	33.9%	\$7.10/MWh
2006-2009	27.5%	34.1%	\$2.57/MWh	41.5%	\$6.29/MWh
2007-2010	17.8%	34.8%	\$2.61/MWh	37.7%	\$5.08/MWh

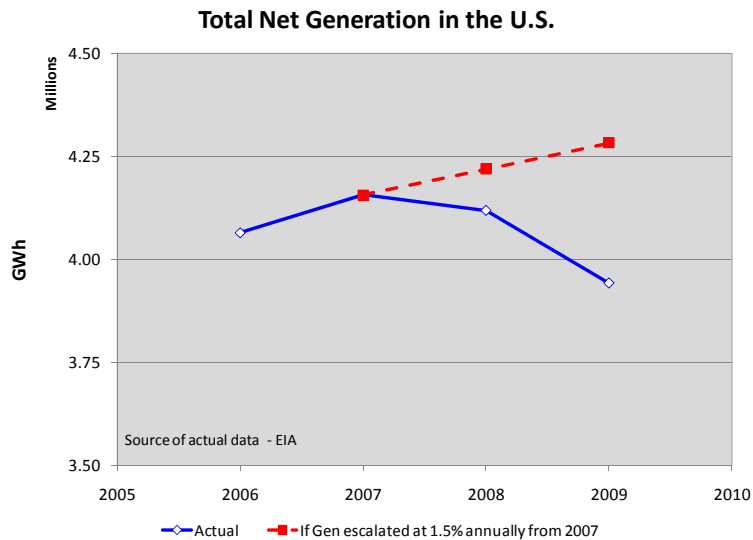
Note: Monthly Standard Deviation calculation was started in the 2005 report

The Nebraska power systems and market 5 x 16 Price Comparisons show the Nebraska MWH weighted values continually below the market average.

The Natural Gas vs. Market Price table below illustrates that market prices follow the price of natural gas. Market prices are typically set by the marginal unit.¹⁹ A unit using natural gas as its fuel is the marginal unit for many of the on-peak hours.

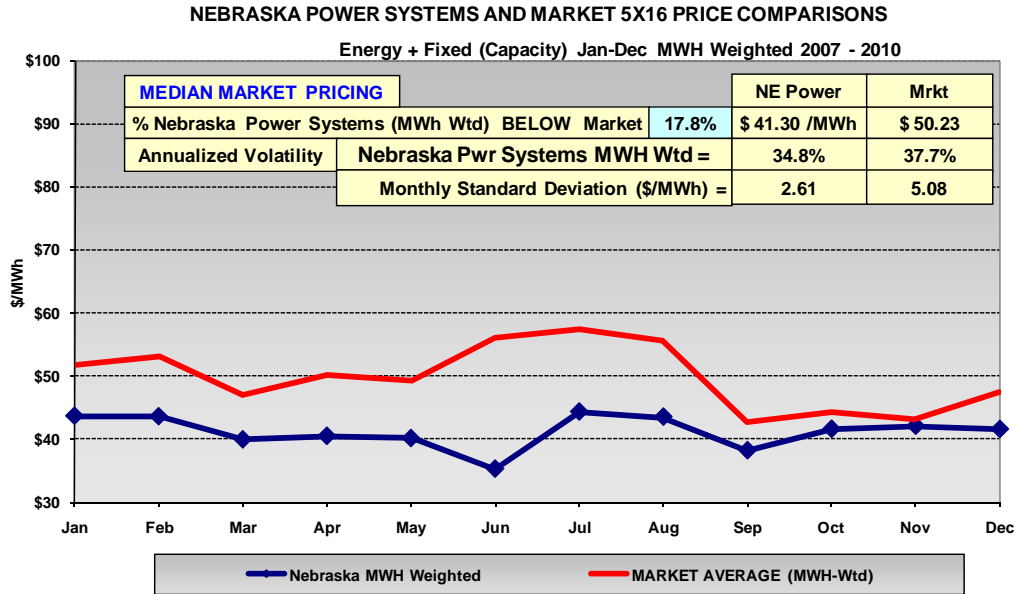


The following graph indicates the effects of the U.S. economy in the past three years on the total net generation in the U.S. This effect on generation must be taken in consideration when reflecting on the reduced price of natural gas and the significant changes of Nebraska prices to the market.



¹⁹ The marginal unit is defined as the unit needed to serve the last MW of load.

The following table provides a monthly comparison for the four-year study period (2007-2010) between the median market product pricing indices to Nebraska production costs. In every month, Nebraska production costs are lower. Nebraska power systems annualized volatility and monthly standard deviation are lower than the market.



Report Summary

The results for the 2007 - 2010 study period still shows Nebraska production costs to be less than the market. In 2007 – 2008, Nebraska production costs were well below the market. In 2009, the market was below Nebraska production costs and for 2010, it is projected that the market will still be lower. The main reason for this is the lower market price caused by low natural gas prices. Another reason (and part of the reason for lower natural gas prices) is the sluggish economy throughout the region. This reduces the demand which in turn lowers market prices since the supply (i.e., resources) were developed for a healthy economy.

Condition 5²⁰: “Any provide any other information the board believes to be beneficial to the Governor, the Legislature, and Nebraska’s citizens when considering whether retail electric competition would be beneficial, such as, but not limited to, an update on deregulation activities in other states and an update on federal deregulation legislation.”

Discussion of Retail Choice

During the years leading up to and including the transition of some states to retail choice, the promise has been offered by advocates²¹ that such “choice” would lead to the following:

- Lower prices
- More choices
- Improved service

There have been no major developments in state-implemented electric deregulation since the beginning of the Conditions Certain reporting process in 2000. The information regarding statutory/regulatory deregulation framework provided in previous reports remains generally unchanged. In a nutshell, retail choice initiatives have been modified, scaled back or eliminated in several states in order to minimize the adverse impacts caused by the failure of competitive electricity markets to develop and provide cost reductions to electric consumers. Retail competition remains in a few states²² with various levels of success.

Individual discussions of states²³ with retail competition have been presented in Chapter 5 of previous years’ Conditions Certain reports. These discussions have indicated generally that low cost states have remained relatively low cost by remaining regulated and that deregulated high cost states have remained high cost. Below is a chart comparing electricity costs²⁴ in regulated and deregulated states and the national average:

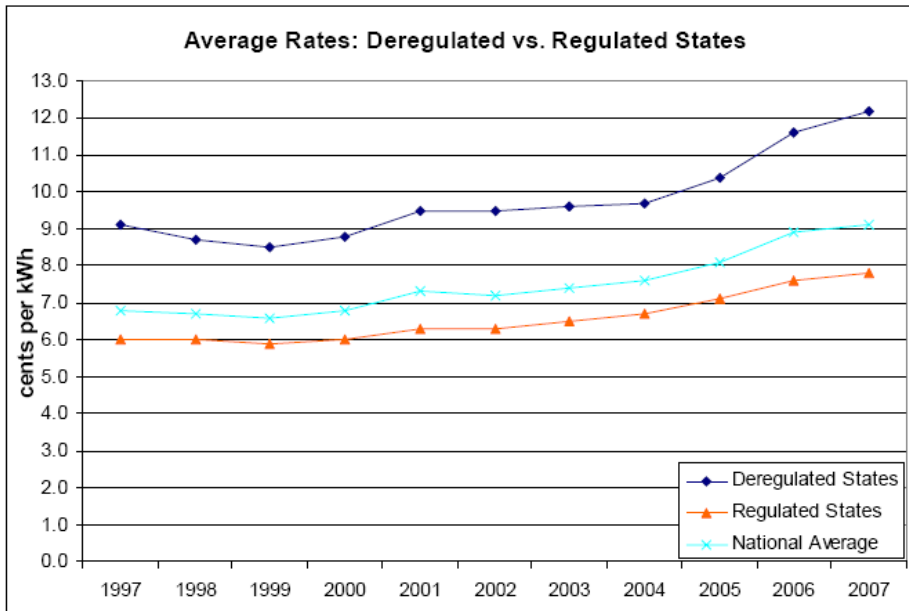
²⁰ John McClure – Primary Author.

²¹ The now defunct Exon Corporation was one of the leading advocates of retail electricity competition in the 1990’s.

²² This report has discussed competition in Illinois, Texas, Pennsylvania, Ohio, and North Carolina.

²³ Texas has been consistently discussed with mixed results. Texas has both regulated and deregulated retail electricity markets.

²⁴ In the past 12-18 months, the recession has reduced demand for electricity and natural gas, which has significantly reduced the price of both in spot markets. How long the spot prices will remain low is unknown.



Source: Retail Electric Rates in Deregulated and Regulated States – American Public Power Association, March, 2008²⁵

National Rate Comparison

Nebraska remains one of the lowest cost states for electricity, ranking 9th lowest overall based on 2009 preliminary data from the Energy Information Administration. The following table provides prices for all states:

Average Retail Price of Electricity Year-to-Date through December 2009 (cents per kWh)

State	2009
Wyoming	6.08
Idaho	6.49
Kentucky	6.50
Washington	6.63
West Virginia	6.64
Utah	6.78
North Dakota	6.81
Oklahoma	7.08

²⁵ Note – data for the year 2008 indicate a proportional increase in magnitude of rates with 13 cents per kWh for deregulated, 10 cents per kWh for National Average and 8.2 cents per kWh for regulated states.

Average Retail Price of Electricity Year-to-Date through December 2009 (cents per kWh) continued

Nebraska	7.16
Louisiana	7.16
Missouri	7.24
Iowa	7.29
South Dakota	7.35
Montana	7.44
Indiana	7.48
Oregon	7.63
Arkansas	7.70
Kansas	8.07
Minnesota	8.13
New Mexico	8..20
South Carolina	8.28
Colorado	8.36
North Carolina	8.43
Tennessee	8.66
Georgia	8.76
Alabama	8.81
Mississippi	8.83
Virginia	8.95
Ohio	8.97
Illinois	9.13
Wisconsin	9.35
Arizona	9.57
Pennsylvania	9.60
Michigan	9.68
Nevada	10.18
Florida	11.43
Delaware	12.17
Vermont	12.75
Maine	12.89
Maryland	13.11
California	13.58

Average Retail Price of Electricity Year-to-Date through December 2009 (cents per kWh) continued

DC	13.75
Rhode Island	14.24
New Jersey	14.80
New Hampshire	15.20
Alaska	15.24
Massachusetts	15.53
New York	15.66
Connecticut	18.21
Hawaii	21.21

Conclusion

A. Initial Assumptions:

Fundamental assumptions going into retail choice have generally not met expectations, those assumptions were that:

- There would be stranded²⁶ assets, primarily generation.
- There would be price reductions.
- Market will meet needs and make correct generation resource choices.

B. Reality since introduction of Retail Competition:

- High cost assets generally remained valuable and did not become stranded.
- Significant price increases existed until recession hit.
- There are questions whether the market will meet future power supply needs.
- Questions also exist whether market forces will supply the proper mix of generation resources.
- Retail choice is no longer driving electricity policy debate²⁷.

²⁶ A major asset such as generation equipment would become stranded if the loss of retail sales from the equipment resulted in a failure to compensate for the cost to own the equipment.

²⁷ Most recent significant articles on retail electricity competition when "googled" include articles written in 2005, 2004, 2004 and 2000.

- Renewable energy (and necessary transmission), energy efficiency and climate change now dominate electricity policy debate.
- Local, state, regional, and national policy initiatives.
- Regional differences in fuel mix (coal, nuclear, hydro, and wind) impacting discussion.
- Expanded natural gas supplies will further increase its role as a fuel source for electricity.
- Future considerations will be given to SmartGrid technology, customer aggregation and distributed generation.

C. Nebraska remains relatively low cost, but is experiencing significant cost increases:

- Fuel
- Fuel Transportation
- Cost to own and operate new generation and transmission facilities

D. Nebraska utilities have or are adding base load coal generation at relatively low cost

- Council Bluffs 4 (Iowa)
- Nebraska City 2
- Whelan 2 (Hastings)

Attachment – 1

“Review and Technical Group Members”

Below is a list of all individuals who have served on the Review Group and/or Technical Groups during the approximately 10 year period of the Conditions Certain annual studies.

REVIEW COMMITTEE MEMBERS

Name	Affiliation
Jim Anest	Agricultural Customer
Jeff Baker	Industrial Customer
Doug Bantam	LES
Chuck Barrett	Commercial Customer
Fred Bellum	AARP
J. Virginia Bigelow	League of Women Voters
Ann Boyle	NPSC
Tim Burke	OPPD
Richard Duxbury	NMPP Energy
Jon Empson	UtiliCorp United
Marvin Fishler	Irrigation Customer
Joe Francis	NDEQ
Jody Gittins	Natural Resources Committee
Gary Hedman	SPPD
Eric Hixon	CNPP&ID
Jay Holmquist	NREA
C. G. Holthus	Commercial Customer
Clint Johannes	NEG&T
Don Kraus	CNPP&ID
Richard Kuiper	IBEW local 763
Gary Mader	Grand Island Utilities
William Mayben	NPPD
Derril Marshall	Fremont Utilities
John McClure	NPPD
Dave Mazour	Tri-Ste G&T
Dan Mechtenberg	Aquila
Nancy Packard	League of Women Voters
Steve Pella	Aquila
Larry Pearce	Nebraska Energy Office
Charlie Perkins	IBEW local 763
Bruce Pontow	NEG&T
Mary Powers	League of Women Voters
Frank Reida	Residential Customer
Rodney Schroeder	Commercial Customer
Marvin Schultes	Hastings Utilities
Adam Smith	Industrial Customer
Jennifer States	Community Action of Nebraska
J. Gary Stauffer	MEAN
Kurt Stradley	LES
Neal Suess	LRPPD
Tim Texel	NPRB
Alfred Thomsen	Residential Customer
Robert White	LRPPD

TECHNICAL COMMITTEE MEMBERS

Name	Affiliation
Bruce Abernathy	LES
Jay Anderson	OPPD
Rich Andrysik	LES
Doug Bantam	LES
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Travis Burdett	Grand Island Utilities
Barry Campbell	NPPD
Don Cox	Hastings Utilities
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Dan Dalgren	OPPD
Chuck Eldred	OPPD
Doug Erickson	TEA
Paul Erickson	Wahoo Utilities
Jim Fehr	NPPD
Kelly Fleming	OPPD
Dennis Florom	LES
Barry Francis	BEPC
Kevin Gaden	MEAN
Jim Gibney	Wahoo Utilities
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Tim Grove	OPPD
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David Ried	OPPD
Donna Starzec	NPPD
Kurt Stradley	LES
Jon Sunneberg	NPPD
Dan Witt	OPPD
Cecelia Shristensen	OPPD