Carbon Cap and Trade: National Policy, Local Impact

South Dakota Public Utilities Commission
April 15, 2009

EXECUTIVE SUMMARY

For several years Congress has been debating climate change and President Barack Obama has made it a defining issue of his new administration.[1] One of the leading solutions proposed to mitigate climate change is a carbon dioxide (CO_2) cap and trade program, much like the program used to reduce sulfur oxide emissions during the last two decades. The effects of such a program would reach further than the environment, specifically into energy prices and the economy. The South Dakota Public Utilities Commission is not an environmental regulatory agency; rather, it is more an economic regulatory agency. As such, the purpose of this report is not to debate the existence of anthropogenic climate change or the need for a cap and trade program. This report is intended to estimate the effects a cap and trade program would have on South Dakotans and identify which iteration of the program would be least detrimental to the state's economy.

Cost estimates submitted by national experts and the state's power providers and analysis performed by the PUC suggests a cap and trade program **would increase electric rates in South Dakota by an average of 48 percent between now and 2015**. As a result, it is important that South Dakota be involved in the creation of such carbon legislation. Any cap and trade program should adhere to the following "carbon regulation principles." Such principles would minimize negative impacts to consumers and might impose less than half the costs of other proposals currently before Congress.

1. Regulations should be enforced economy-wide (rather than focus on only the utility sector), and should consider a global viewpoint.
2. Widespread and reasonable use of carbon offsets should be allowed.
3. A substantial proportion of the initial carbon allowances should be allocated to the regulated load-serving entities. In traditionally-regulated states like South Dakota, those allowances would enable ratepayers to avoid much of the initial price shock of carbon regulation.
4. The goals for reduction of carbon, and the corresponding auction of credits, should be structured to allow sufficient time for technological innovation to occur. Our country does not currently have the tools needed to meet the aggressive carbon reduction goals and must work to develop those tools.
5. Auction proceeds, once established, should not be used to fund other government programs, but should be targeted toward energy research and development and to fairly reduce the impact to all ratepayers.
6. An economic safety valve should be included, to make certain the program will not cause undue damage to the American economy.

The above principles could ultimately reduce the impacts of carbon cap and trade legislation. The South Dakota Public Utilities Commission asks its congressional leaders to support the inclusion of these provisions into all cap and trade legislation.

[1] 2/24/09 President Barack Obama Address to Joint Session of Congress

INTRODUCTION

In March 2009, South Dakota Public Utilities Commissioners Dusty Johnson, Steve Kolbeck and Gary Hanson requested reports from the state's investor-owned utilities and wholesale power providers on the proposed Lieberman-Warner Climate Security Act of 2007's effect on South Dakota's electric ratepayers. The primary goal of the Lieberman-Warner bill was to reduce greenhouse gas emissions 63 percent by 2050 through the enactment of a declining cap on CO_2 and other pollutants. There has been much discussion about this proposed act as well as various amendments and other versions of climate change legislation, such as the Sanders-Boxer bill, being debated in the nation's Capitol. The commissioners requested the providers' analysis and asked representatives of these companies to present summaries of their findings at a Carbon Cap and Trade Forum held March 27 in Sioux Falls, S.D.

Those presenting at the forum made it clear climate change legislation passed at the federal level will have a major impact on South Dakota ratepayers and electric providers. The analyses provided by the power providers highlighted three major concerns. First and foremost, a cap and trade program would substantially increase rates, with some estimates greater than a 100 percent increase in retail rates. Second, the proposed legislation does not provide adequate time to develop effective and efficient low-carbon and carbon capture technologies. Without sufficient commercially-available tools to reduce or capture emissions, a cap and trade plan essentially becomes a largely unavoidable energy tax. And third, the majority of the projected revenue (as much as 80 percent[2]) is proposed to fund projects other than those devoted to carbon capture and non-carbon emitting generation development.

Despite raising cost concerns, the power providers did not argue for inaction. In fact, their analyses pointed out how the specifics of the legislation could mitigate the resulting increase in prices. Details regarding allocation of allowances, allowance banking, the use of carbon offsets, timing, and the use of auction proceeds could have profound effects on the proposed legislation's impact on South Dakotans.

[2] 3/25/09 Missouri River Energy Services letter and analysis requested by SDPUC

BACKGROUND

U.S. Electric Power Generation

Currently, the dominant fuel for electricity generation in the United States is coal. In 2008, coal was the primary fuel source in almost half of the electricity used in this nation. The breakdown of fuel sources is illustrated in the following table.

2008 Generation Percentage by Fuel Source in U.S.[3]

Coal	48.5%
Natural Gas	21.3%
Nuclear	19.7%
Hydro	6.1%
Non-Hydro Renewables	3.0%
Fuel Oil	1.1%
Other	0.3%

When reviewed regionally rather than nationally, the fuel sources vary considerably from one region to the next. Regions with large amounts of coal reserves rely heavily on coal, whereas other regions have different fuel supply options. For instance, states along the Pacific Coast rely mostly on hydro-electric generation and natural gas. New England states depend on natural gas. The southeast U.S. uses mostly coal and nuclear generation. Hawaii is mostly dependent on fuel oil.

Because of its proximity to coal reserves in the states of Wyoming, North Dakota and Illinois, the West North Central Census Region (North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, and Missouri) is more dependent on coal than any other region in the U.S. Coal generates 74 percent of this region's electricity. A breakdown of fuel sources is shown in the table below.

2007 Generation Percentage by Fuel Source in West North Central Census Region[4]

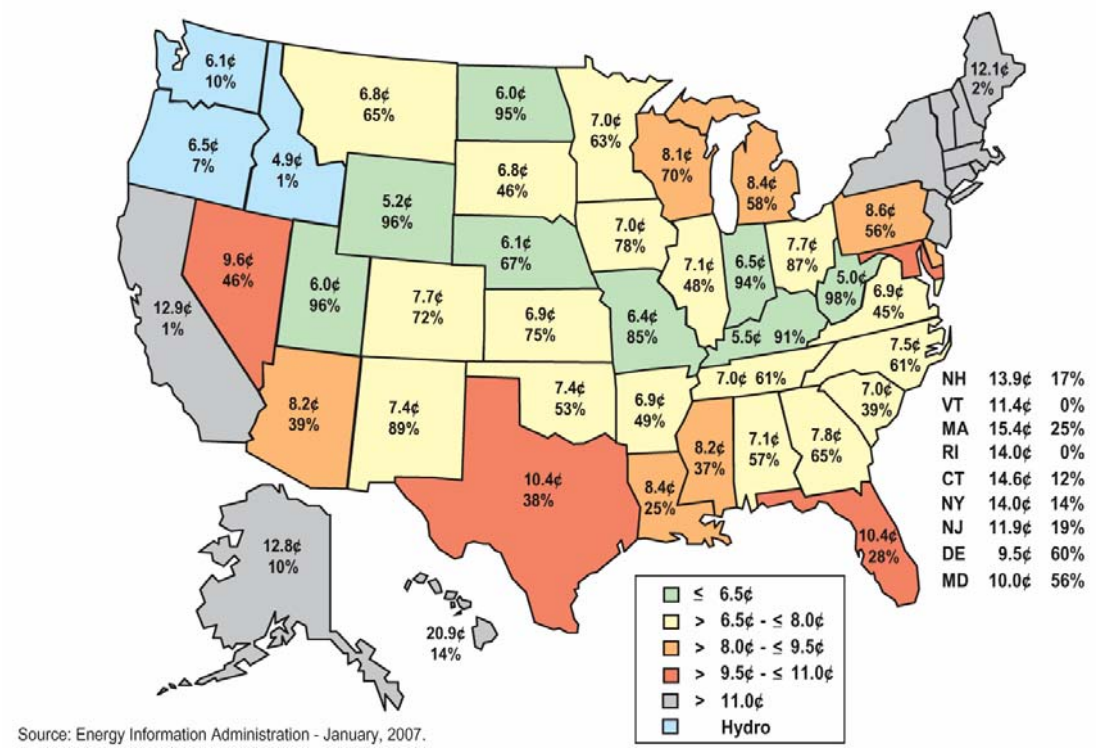
Coal	74%
Natural Gas	5%
Nuclear	15%
Hydro	2%
Non-Hydro Renewables	3%
Fuel Oil	0.5%
Other	0.5%

Looking at generation in South Dakota alone can be deceiving. In 2006, 94.1 percent of generation in the state was fueled by either coal or hydro, with hydro edging out coal at 47.6 percent and 46.5 percent, respectively.[5] As an aside, new wind development in the state will probably augment about 10 percent of that generation in 2009. However, because the Western Area Power Administration sells power from the dams in South Dakota, a majority of the hydro power is shipped out of state. As a result, South Dakota's electricity use pattern falls more in line with its region's generation pattern than the actual generation within its borders.

[3] U.S. Department of Energy, Energy Information Administration (http://www.eia.doe.gov/cneaf/electricity/epm/table1_1.html)
[4] 3/27/09 Steve Willard presentation to the SDPUC
[5] http://www.eia.doe.gov/cneaf/electricity/st_profiles/sept05sd.xls

Coal Generation

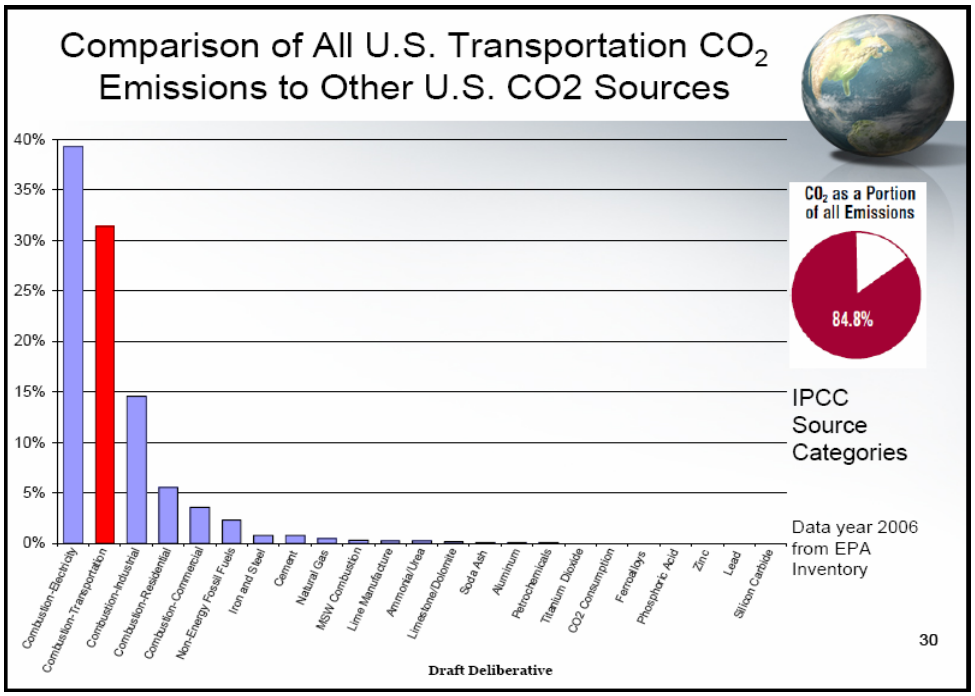
States that rely heavily on coal have done so because they wanted the lowest cost power to be developed. In this area of the country that resulted in coal plants due to the price and availability of that energy source.



As illustrated above[6], South Dakotans paid an average of 6.8 cents per retail kilowatt hour for electricity in 2007. Residents of only 11 states paid a lower average rate and one state, Montana, paid the same average rate.

However, states that have been able to keep rates low historically by sticking with coal will be the most affected by placing a price on CO_2 emissions. South Dakota's reliance on coal is important because coal emits almost twice as much CO_2 per Btu as natural gas and fuel oil, with nuclear, hydro and renewables emitting none. Consequently, those regions relying heavily on coal will be impacted more profoundly by attempts to reduce CO_2 emissions.

[6] 3/27/09 Steve Willard presentation to the SDPUC



According to an EPA Endangerment Guidance Briefing released March 6, 2009, the country's two largest contributors of CO_2 emissions are electricity combustion at 39 percent and transportation at 33 percent.[7] Initial legislation to target CO_2 emissions is being aimed at the electric generation industry, with a number of plans also addressing carbon emitted for transportation.

CARBON DIOXIDE MITIGATION

Lieberman-Warner Climate Security Act of 2007

The Lieberman-Warner Climate Security Act of 2007, or S. 2191, was a piece of legislation proposed to regulate the emissions of greenhouse gases with the use of a cap and trade program.[8] Although the legislation failed to pass, it has been used as a model for the greenhouse gas regulations that many say are imminent. According to Chris Mele, legislative director of energy issues for the National Association of Regulatory Utility Commissioners, "it's coming. The question is when, and the question is how."[9]

One specific point of contention in the bill was how allowances would be dispersed. S. 2191 was to allocate 75 percent of the initial allowances and auction off the rest in 2012. During the next 20 years, the free allocations would decline until only about 40 percent were allocated at no cost, and the rest were auctioned off. In contrast to that plan, President Obama recently

[7] 3/27/09 Steve Willard presentation to the SDPUC
[8] Energy Market and Economic Impacts of S. 2191, the Lieberman-Warner Climate Security Act of 2007 (http://www.eia.doe.gov/oiaf/servicerpt/s2191/index.html)
[9] 3/27/09 National Association of Regulatory Utility Commissioners (NARUC) Energy Legislative Director, Chris Mele's presentation to the SDPUC

released federal revenue projections for the 2012 fiscal year, including an estimate of approximately $80 billion generated from CO_2 allowances via a 100 percent cap and trade auction.[10]

The distribution of allowances was one variable of the Lieberman-Warner Act that has been considered by analysts researching the impacts of the bill. Other variables taken into account across studies included the following:

- New nuclear deployment schedule
- Carbon capture and storage capability
- New renewable generation development schedule
- Natural gas costs
- Actual CO_2 tax per ton

Given these unknowns, the bill's actual impact on South Dakota ratepayers, as calculated by the power providers and reported in the following section, could vary widely.

Price of CO_2 Allowances

South Dakota power providers submitted cost estimates based on several CO_2 price scenarios. As the analyses below illustrate, allowances range from $18 to $76 per ton in 2015 for a mean of $42 per ton, and from $38 to $271 per ton in 2030 for a mean of $105 per ton.

Price per ton of CO_2[11]

	2015	2030
Charles River Associates Institute	$48	$76
Nicholas Institute	$18	$38
Clean Air Task Force	$18	$50
Massachusetts Institute of Technology	$48	$86
National Association of Manufacturers	$55-64	$227-271
Environmental Protection Agency	$29-40	$61-83
Energy Information Administration	$30-76	$135-220

When considering that one ton of CO_2 emissions equates almost exactly to one MWh of coal generation, the numbers in the table above can be used as the price per MWh for all coal generation. Most providers used the ranges given in the aforementioned studies to perform an analysis on their own generation mixes, and then derived the impacts to their customers.

Potential Revenue

A fundamental concern raised by South Dakota power providers in response to the commission's request was this: Any tax proceeds from this legislation need to either be directed back to the ratepayers who provided them or be used to fund greenhouse gas reduction technology. The proceeds should not be used to fund non-related projects. This matter of fundamental fairness addressed in the companies' reports was also repeated by many during the March 27 forum.

[10] 3/25/09 Missouri River Energy Services letter and analysis requested by SDPUC
[11] 3/26/09 Steve Willard presentation to the SDPUC

Here's how one power provider put it:

> *What makes this an even more bitter pill is the apparent intention of the budget proposal to use only 20% of the resulting revenue for research and development of technologies necessary to sustain emissions targets upon which the projected revenues are based. The remaining 80% of these new revenues are proposed to be used to sustain existing tax cuts and to balance the federal budget. In plain English, this is a perpetual tax increase on all South Dakota electric customers.*[12]

The following excerpt from analysis done by the Edison Electric Institute was shared by one of South Dakota's investor-owned companies:

> *Any system established through public policy or legislative actions MUST minimize energy rate increases to ratepayers. This is particularly poignant for those of us who work and live in the Midwest where electric generation is primarily coal based. One sector of the American public should not be overtly penalized for using a natural resource to generate electricity that is the least costly, most readily available, and most efficient resource. By fostering the concept of a cap and trade system on coal generation, a hidden tax is created placing residents and businesses of the Midwestern states at a distinct disadvantage of incurring sky rocketing utility costs while utility rates along the western coast or in northeast areas of the United States remain relatively stable. Is it prudent to create a public policy that imposes disproportionate costs on the heartland of the nation while the two coasts see minimal impact?*[13]

PROJECTED IMPACT ON SOUTH DAKOTANS

Ratepayer Impacts

All analyses submitted to the commission have one common denominator: the price impact to South Dakota residential, commercial and industrial ratepayers will be substantial if fundamental changes to this legislation are not made. As each provider's generation mix is unique, so are the results of their analysis.

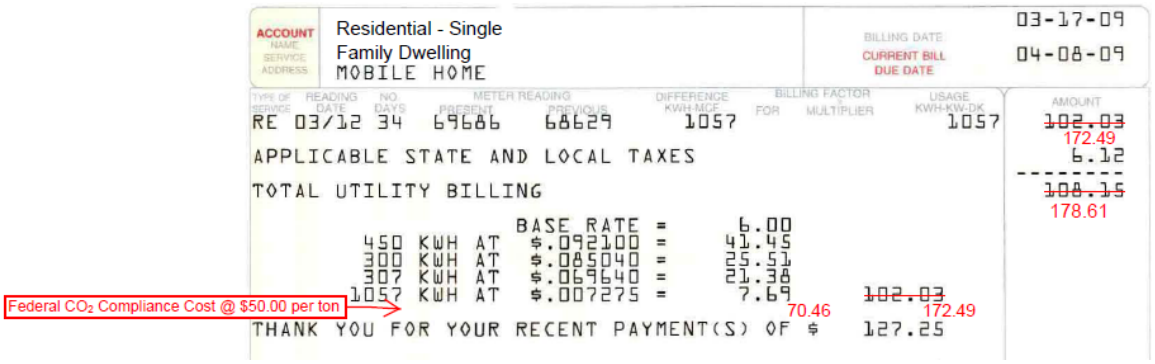
Summary of Rate Impacts

Provider	Percentage Impact to Retail Rates
Basin Electric Power Cooperative	Decrease of $0.0026/kWh to Increase of $0.0305/kWh[14]
Black Hills Power	Increase of 34% to 85%
Heartland Consumers Power District	Increase of 25% to 165%
MidAmerican Energy	Increase of 18% to 462%
Missouri River Energy Services	Increase of 15% to 68%
Montana-Dakota Utilities	Increase of 28% to 93%
NorthWestern Energy	Increase of 27% to 106%
Otter Tail Power Company	Increase of 32% to 80%
Xcel Energy	Less than the expected 57% regional increase

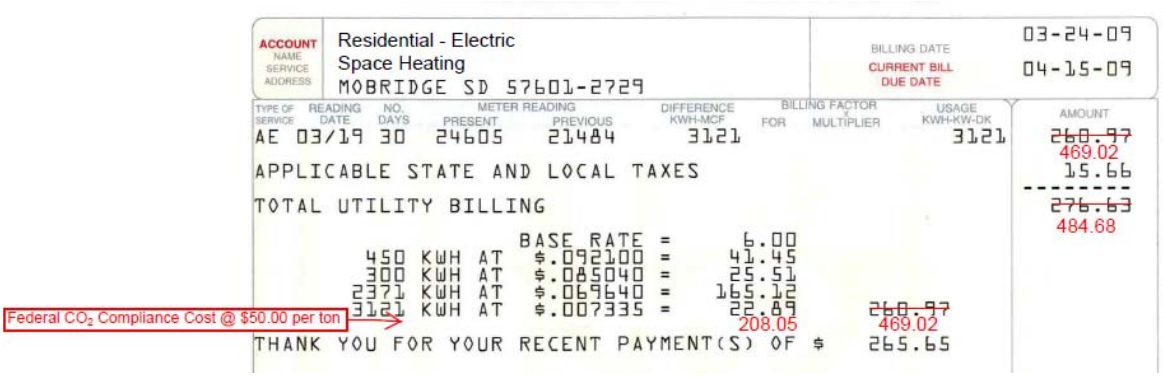
[12] 3/25/09 Missouri River Energy Services letter and analysis requested by SDPUC
[13] 3/26/09 Northwestern Energy letter and analysis requested by SDPUC
[14] The percentage is not given, as BEPC is a wholesale provider.

Examples of customer bills were also submitted by South Dakota providers that reflect the cost of the CO_2 tax:

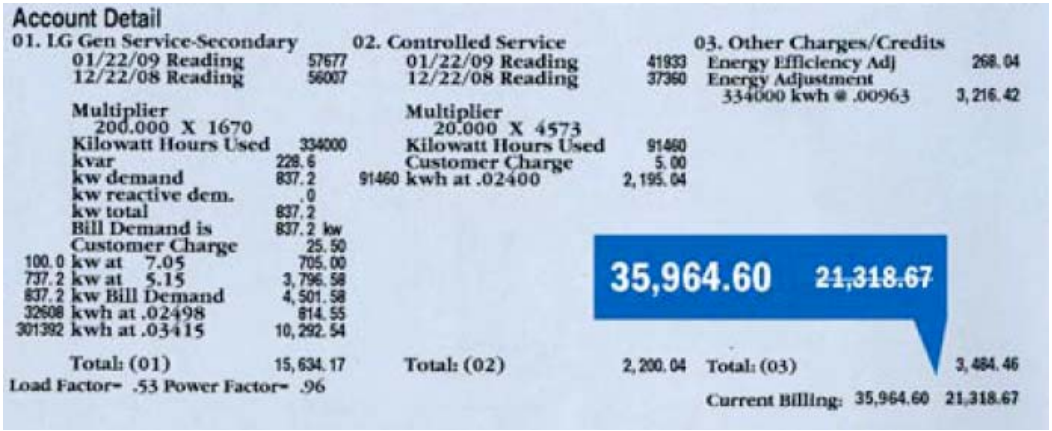
A single family living in a mobile home with an invoice of $108.15 for March 2009 would owe $178.61 with the added $50/ton CO_2 tax.[15]



A small service business with a current monthly bill of $441.04 would owe $739.68.[16]



A large commercial customer with a bill of $21,318.67 would owe $35,964.60.[17]



[15] 3/26/09 Montana-Dakota Utilities letter and analysis requested by SDPUC
[16] 3/26/09 Montana-Dakota Utilities letter and analysis requested by SDPUC
[17] 3/26/09 Otter Tail Power Company letter and analysis requested by SDPUC

One power provider used this example:

> *The typical residential customer using 800kWh per month or 9,600 kWh per year will pay an additional $274 per year or 31% more. The typical commercial and small business customer will see an average increase of 33%, and the larger industrial customers will see an average increase of 50%.*[18]

They also pointed out the specific impact from auctioning all allowances:

> *Midwestern states could see average rate increases of 50 to 68% from 2012 to 2030 under a cap and trade program that employs a 100% auction methodology, such as that contained in the President's budget proposal. For South Dakota consumers, that could mean additional annual costs to ratepayers that could reach $239 million in 2015, increasing to as much as $516 million in 2030.*[19]

Another summarized the problem with current cap and trade proposals with this statement:

> *In a rush to address climate change before the technology to capture and sequester carbon is proven, the Administration and Congress may be on the verge of passing a regressive carbon tax that would hit our South Dakota and Midwest customers and economy hard, especially in the midst of an economic recession…Customers in coal-reliant states, including South Dakota, will bear the brunt of legislation promoted by leadership in less coal-reliant states including California (1% coal generation) and the Northeast (2% coal generation). Thus carbon is as much or more a regional issue than it is a partisan issue.*[20]

To make sense of the large range of analyses offered, the commission reduced each provider's data to a reasonable apples-to-apples comparison. We found, as close as possible, the rate impact reported for each provider at a carbon price of $30/ton in the near-term range of 2012 to 2018. Given those estimates, we weighted each impact by retail sales and calculated that carbon regulation would increase electric rates in South Dakota by an average of 48 percent.

Mitigating the Impact

Regardless of the impacts mentioned above, power providers submitting information for this report and all entities represented at the forum agree our country must work to reduce CO_2 emissions in a reasonable and responsible fashion. Through their analyses, they identified ways to soften the price increases.

Although the increased price of carbon-based generation will have a negative effect on the economy, a provision allowing the use of carbon offsets could counter that effect to a certain extent. Agricultural producers could find a new source of revenue by making small changes in their practices, such as by adopting no-till farming. Also, an increase in the cost of carbon-based generation would make wind power more economical, which could drive wind development. If legislation allowed for the conversion of renewable energy credits to emissions offsets, wind development could be even more prolific.

There was general consensus among providers that the U.S. must work with other countries so this country does not suffer economically in rushing to address emissions, while those

[18] 3/25/09 Missouri River Energy Services letter and analysis requested by SDPUC
[19] 3/25/09 Missouri River Energy Services letter and analysis requested by SDPUC
[20] 3/26/09 Black Hills Power letter and analysis requested by SDPUC

contributing the other 80 percent of the world's emissions do nothing. Not only must we coordinate our plans internationally to reduce emissions, we must also learn from mistakes made in other countries. For instance, the cap and trade program implemented throughout Europe originally allocated too many allowances, resulting in a net increase of emissions.[21] By working with other countries, we can ensure we do not simply inflate U.S. energy prices, allowing other countries to gain an economic advantage and replace our emissions reductions with their own.

As previously mentioned in this report, the funds collected as a result of auctions and compliance must be used to mitigate the negative results of such regulations. Again, among providers there was agreement those funds should be spent on reducing the burden on ratepayers and advancing technological research and development. Without the funds being returned at least in part to the ratepayers, cap and trade legislation would create an unaffordable tax increase for many South Dakotans. Also, the technology needed to reduce our dependence on coal as a base load generation source does not currently exist.

South Dakota power providers have been working toward reducing their dependence on coal, and providing leadership by seeking the needed technological breakthroughs. For instance, Xcel Energy has more wind capacity than any other investor-owned utility in the nation. They have also been working to relicense nuclear plants and are working to convert two coal plants to natural gas. Based on reports submitted to the commission, the state's utilities are on track to meet the Renewable and Recycled Energy Objective of 10 percent by 2015. Also, many power providers are working to implement energy efficiency programs that would provide an annual net benefit of nearly $5 million. Black Hills Power is working on a U.S. Department of Energy grant application for a carbon capture and storage project. If awarded the grant, they will work to secure capital and customers to build and operate a demonstration power plant as early as 2015.[22] The timeline of this project illustrates the current state of this technology's development. Without sufficient funds invested in research and development of carbon sequestration, nuclear reprocessing, long-term nuclear waste storage, and electricity storage, we will not have the tools needed to reduce our carbon footprint.

The one unknown of cap and trade legislation that may have the most profound impact on South Dakota is how emission allowances are allocated. There was a general consensus among providers that President Obama's proposal to auction 100 percent of allowances would be the most devastating to South Dakota rates. One provider stated that "[a] gradual phase-in of the percentage auctioned would help customers avoid rate shock and allow technology to catch up."[23] Most providers agreed such a phase-in makes the most sense for ratepayers bearing additional costs.

Should Congress decide to regulate CO_2 via legislation, there are alternatives that could be adopted to reduce the additional costs that South Dakota and other state's ratepayers will have to bear. By slowly phasing in emissions auctions, intelligently using auction proceeds to lower rates and drive innovation, working together internationally and allowing the liberal use of carbon offsets, the impact of such regulations could be minimized. However, according to the providers' analyses, minimizing such impacts would still result in at least a 20 percent increase in rates with no guarantee of real emission reductions. As a result of South Dakota's regional reliance on coal power, utilities serving South Dakota are going to be challenged to

[21] 3/27/09 Karen Bridges, ELPC, comments at SDPUC Forum
[22] 3/26/09 Black Hills Power letter and analysis requested by SDPUC
[23] 3/26/09 Black Hills Power letter and analysis requested by SDPUC

economically meet carbon regulations. And those economic challenges will eventually be passed on to South Dakota consumers in increased electricity costs.

CARBON REGULATION PRINCIPLES

According to experts like NARUC's Chris Mele, carbon regulation is inevitable, so "the question is when, and the question is how." Thus, the PUC has developed a list of central principles we believe should be considered when crafting legislation. Some of the following suggestions were given by utilities in the previous section, and others come from NARUC's Resolution on Federal Climate Legislation and Cap and Trade Design Principles[24]:

1. Regulations should be enforced economy-wide (rather than focus on only the utility sector), and should consider a global viewpoint.
2. Widespread and reasonable use of carbon offsets should be allowed.
3. A substantial proportion of the initial carbon allowances should be allocated to the regulated load-serving entities. In traditionally-regulated states like South Dakota, those allowances would enable ratepayers to avoid much of the initial price shock of carbon regulation.
4. The goals for reduction of carbon, and the corresponding auction of credits, should be structured to allow sufficient time for technological innovation to occur. Our country does not currently have the tools needed to substantially reduce carbon and must work to develop those tools.
5. Auction proceeds, once established, should not be used to fund traditional government programs, but should be targeted toward energy research and development and to fairly reduce the impact to all ratepayers.
6. An economic safety valve should be included, to make certain the program will not cause undue damage to the American economy.

MORE INFORMATION

For more information, visit the South Dakota Public Utilities Commission's Web site at www.puc.sd.gov and click on "Energy" to see a list of presenters at the March 27 Carbon Cap & Trade Forum as well as PowerPoint presentations. You will also find a link to the event's audio archive.

[24] Attached as Appendix A

Appendix A

Resolution on Federal Climate Legislation and Cap-and-Trade Design Principles

WHEREAS, The National Association of Regulatory Utility Commissioners (NARUC) formed a Task Force on Climate Policy in March 2007 in order to educate NARUC members concerning climate policy issues and to develop policy proposals for consideration by the NARUC membership; *and*

WHEREAS, The NARUC Board of Directors adopted a resolution sponsored by the Task Force on Climate Policy at the 2007 NARUC Summer Meetings held in New York, New York, on July 18, 2007, that enunciated ten policy principles that NARUC believes should inform federal climate policy; *and*

WHEREAS, The relative merits of a market mechanism proposed for inclusion in any federal climate change legislation, including, but not limited to, a cap-and-trade mechanism, a carbon tax, and a load-side cap, should be carefully evaluated in determining how to achieve the desired emissions reductions consistent with the ten principles previously adopted by NARUC; *and*

WHEREAS, Congress has continued to debate various policy proposals for addressing the environmental and economic consequences of alternative climate change policies since the 2007 NARUC Summer Meetings; *and*

WHEREAS, Since the 2007 NARUC Summer Meetings, the Task Force on Climate Policy has also continued to examine various policy proposals relating to climate change issues; *and*

WHEREAS, The momentum for enactment of federal legislation regulating the emission of greenhouse gases (GHG) appears to have further increased, making the enactment of such legislation within the foreseeable future likely; *and*

WHEREAS, The existence of uncertainty about the nature and extent to which GHG emissions will be subject to future federal regulation makes it difficult for State regulators, regulated utilities, and others to appropriately plan for needed investments in electric transmission and generation infrastructure; *and*

WHEREAS, Despite a diversity of opinion within NARUC's membership regarding the need for national limitations on the emission of GHGs for the purpose of addressing concerns over warming of the Earth's climate, NARUC's members are in general agreement that the enactment of federal legislation limiting such emissions in would be appropriate in order to remove existing uncertainties that are hampering the making of transmission and generation investment decisions; *and*

WHEREAS, NARUC's members are also in general agreement that appropriate federal climate change legislation should be enacted in order to enhance the likelihood that appropriate technologies will be developed and other solutions implemented so as to achieve desired reductions in GHG emissions in the most economical manner possible; *now, therefore, be it*

RESOLVED, That the National Association of Regulatory Utility Commissioners, convened in its November 2007 Annual Convention in Anaheim, California, supports the enactment of federal legislation intended to reduce GHG emissions so long as such legislation relies, to the extent practicable, on an appropriate market mechanism or mechanisms as part of an economy-wide approach to GHG regulation; provides for an appropriate transition period prior to the implementation of full regulation of GHG emissions; creates sufficient certainty to ensure the financing of needed energy infrastructure consistent with the achievement of the environmental objectives intended to be

accomplished by such legislation; and is otherwise consistent with the policy principles developed by the Task Force on Climate Policy and approved by the NARUC Board of Directors at the 2007 NARUC Summer Meetings held in New York, New York, on July 18, 2007; *and be it further*

RESOLVED, That the Task Force on Climate Policy should consider and develop, as appropriate, proposed resolutions for NARUC's consideration addressing additional market mechanisms including, but not limited to, a carbon tax and a load-side cap*; and be it further*

RESOLVED, That, in the event that Congress chooses to implement a cap and trade mechanism for the purpose of limiting electric sector GHG emissions, any such federal climate change legislation should rest upon the following cap-and-trade design principles in order to appropriately balance competing criteria, including, but not limited to, equity, economic efficiency, and ease of administration:

1. Auctioning of all allowances is ultimately the most economically efficient mechanism for achieving emission reduction goals from electric generation. However, the allocation of emission allowances within the electricity sector at no cost is an appropriate transitional measure in order to ensure continued reliability, minimize economic dislocation resulting from the carbon intensity of the existing electricity generation infrastructure, and allow for the development of appropriate new technology.

2 Any emissions allowance allocation program, consistent with an economy-wide approach, should involve a reduction in the number of allowances allocated within the electricity sector over time to ensure that needed reductions in GHG emissions are encouraged through a gradual increase in the cost of carbon-intensive generation sources as compared to the cost of other generation sources.

3. The primary purpose of any transitional emissions allowance allocation process applicable to the electricity sector should be to minimize the initial economic impact of GHG-emissions regulation to end-user customers by phasing in the impact of such regulation over a reasonable period of time.

4. Any emissions allowance allocation program should produce reasonable outcomes, consistent with these cap-and-trade design principles, regardless of applicable electricity market or regulatory structures.

5. Any emissions allowance allocation program should assign all allocated allowances available to the electricity sector to local distribution companies providing a regulated local distribution function for end-user customers (including vertically-integrated utilities, distribution utilities, rural-electric cooperatives, municipal distribution systems, and all other entities providing distribution service directly to end-user customers subject to State regulation or its equivalent). This approach will allow State PUCs or other authorities to ensure that the value of these no-cost allowances will inure to the benefit of end-use consumers. Alternatively, States should be able to adopt other methods for distributing benefits to end-use consumers.

6. The assignment of no-cost allocated allowances to local distribution companies as defined above should be based primarily on the level of GHG-emissions from the resources used to provide service to the local distribution company's load during an appropriate baseline period.

7. Any emissions allowance allocation program should not inappropriately advantage or disadvantage particular regions, local distribution companies (as defined above), or generators, and should ensure that end-user customers receive the benefit of allocated emissions allowances for the purpose of offsetting the increased costs resulting from the institution of GHG-emissions regulation.

8. Any assignment of allocated emissions allowances should seek to accommodate any efforts made in particular regions or States to reduce GHG-emissions in anticipation of the enactment of federal legislation regulating GHG-emissions.

9. In defining the baseline period, proper precautions should be taken to ensure that counterproductive behavior by any allowance market participants is discouraged and that gaming does not occur.

10 Cost-containment measures should be included in any cap-and-trade mechanism in order to minimize abrupt changes in the cost of compliance, including during the initial phases of implementation, which could adversely affect electricity consumers or allowance markets. Such measures should be designed to achieve effective and appropriate environmental benefits while ensuring price stability and predictability, promoting investment in appropriate technologies, and minimizing adverse consumer impacts, including price volatility*; and be it further*

RESOLVED, That any federal climate change legislation should be consistent with existing NARUC policies regarding non-discriminatory wholesale competition; demand response; energy efficiency; renewable generation; generation resource adequacy; fuel diversity; the development of clean coal and improved nuclear technologies; and the development of a comprehensive solution for the existing nuclear waste disposal problem.

Sponsored by the Committees on Electricity, Energy Resources and the Environment, and Gas
Recommended by the NARUC Board of Directors, November13, 2007
Adopted by the Committee of the Whole, November 14, 2007