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Frequently Asked Questions: ***The Coal Controversy in Kansas***

This session, CEP's [blog](#) has listened in and reported on hearings, debates, and votes regarding climate and energy matters in the Kansas legislature.

During recent weeks, many questions have come our way. Most of them are about what reporters are calling the “coal legislation” - the bills that would allow Sunflower Electric to build two 700 megawatt (MW) plants near Holcomb, KS.

CEP couldn't begin to answer every inquiry. So instead, we offer a broad selection of the most frequently asked questions - and our best answers - below. (We will address general questions on the issues first, so if you are interested primarily in legislation-specific answers, please scroll to the end.)

Q: Why do environmentalists object to Sunflower's proposed Holcomb Expansion?

A: The reason most often cited - and the basis for Secretary Bremby's decision on the permit - is the 11 million tons of carbon dioxide that the plants would emit each year. Carbon dioxide (CO₂) is a greenhouse gas (GHG). A major source of CO₂ emissions comes burning fossil fuels. When too many GHGs accumulate in the atmosphere, they lead to global warming, which contributes to climate change.

11 million tons of carbon dioxide is more than 1.65 million cars would emit during the same period. In other words, every year these plants would release more than twice as much carbon dioxide as all the cars in Kansas.

But it's important to realize - concerns about coal plants go well beyond environmentalists. The American Lung Association objects to their increased particulate pollution, which contributes to lung and heart disease, stroke, and asthma (especially in otherwise healthy children).

Perhaps because Kansas City has skirted or been in noncompliance with the Clean Air Act in recent years, we have heard particular concern from that area. One legislator has focused especially on the dangers of mercury emissions, which impair brain development in fetuses.

In face of global warming, some in the faith community have also expressed substantial concern about building coal plants. They worry both on the grounds of creation care, and because climate change will disproportionately harm the world's least fortunate.

Finally, some in the business community question the wisdom of the deal. Innovest, one of the few firms to predict the Bear Stearns debacle, recently warned that the decision to build new coal at this time would expose Sunflower's ratepayers to “significant risk.”

Q: Wouldn't the Holcomb plants be the cleanest burning coal plants in the state?

A: No. And yes.

No - the plants' carbon dioxide emissions would not be limited. The plants would still emit eleven million tons of CO₂ per year. Carbon capture and sequestration technologies will not be feasible for probably the next twenty years.

Yes - because these plants would be new and so would employ the best available control technology for other pollutants. Their emissions of nitrogen oxides, sulfur dioxide, and mercury would be reduced in comparison to emissions from many other plants in the state.

Q: What about the algae reactor? I've heard that would remove most of the emissions. Shouldn't environmentalists be in favor of that?

A: The algae reactor is an experimental technology. Early tests to select strains of algae show promise, and algae could one day contribute substantial amounts of liquid fuel. Research will surely continue, and many (including CEP) applaud Sunflower Electric for supporting that research.

However, the Salina Journal reported that the algae reactor's deployment at commercial scale is many years off, according to NREL's National Bioenergy Center, which began these experiments more than 20 years ago. Sandia National Laboratory's energy systems department, which is working to commercialize the production of algae today, emphasized that the energy required to produce and process the biomass could match or dwarf the emissions captured.

So - well in the future - this process could make money and provide fuel. However, it is not likely to reduce overall emissions.

Q: We've never regulated carbon dioxide before. How is it fair to start now?

A: As a neutral utility executive observed at one of the hearings, emissions regulations on pollutants from coal-burning power plants change fairly often as their threats are understood, legislation changes, and control technologies improve.

Similarly, lead was allowed in gasoline until health threats were recognized, sulfur dioxide from coal plants was uncontrolled until acid rain was understood, chlorofluorocarbons (CFCs) were widely used in consumer products until we learned they were creating an ozone hole.

When legislation eliminated these pollutants or required better control technology, all of these threats became notably reduced.

Q: How could the Sunflower plants' emissions affect the entire state of Kansas? Carbon dioxide is everywhere, no one really knows where it comes from. How can this one plant cause problems for the rest of us?

A: Carbon dioxide (CO₂) is one of the many gases in our atmosphere. It is a very powerful greenhouse gas. By absorbing the sun's radiation, CO₂ holds heat in the earth's atmosphere. This leads to global warming and climate change.

We do know where CO₂ comes from. In the natural carbon cycle, plants metabolize CO₂, animals (including humans) exhale it, decomposing organic materials exude it, and the gas also circulates continuously through the oceans and soils.

However, CO₂ also enters the earth's atmosphere through carbon combustion, usually as the waste product of burning fossil fuels for electrical generation and transportation. Fossil fuels - oil, gas, and coal - are formed from long dead, deeply buried, highly compressed plant and animal matter.

For eons, fossil fuel carbon has been sequestered from the natural cycle. When we burn it, we release additional carbon dioxide that throws off the balance of today's carbon cycle and climate.

In fact, we can measure carbon dioxide emissions - especially from industry and electrical generation - with precision. That is in part how a greenhouse gas inventory is created, as Kansas is now doing.

One plant can create problems for the rest of us in terms of the environment, by adding more CO2 emissions. It can also create future regulatory problems for the state, such as under some possible scenarios of cap and trade.

Q: I keep hearing that Secretary Bremy created regulatory uncertainty. Did he?

A: Regulatory uncertainty about carbon dioxide has existed at the federal level for some time. Last year the United States Supreme Court ruled in *Massachusetts v. EPA* that carbon dioxide qualifies as a pollutant under the Clean Air Act. EPA Administrator Stephen Johnson has called for public comment this spring toward formal rulemaking.

Many of the country's largest corporations and biggest emitters - Duke Energy, Dow Chemical, General Motors, Shell, and other - are calling for climate legislation: so the federal government can offer than regulatory certainty.

Q: Why do opponents of the plants claim that federal carbon regulation is on the horizon, and that these emissions will cause problems for Kansas in the future?

A: International concerns over climate change have put additional pressure on the United States to reduce its greenhouse gas emissions. The 110th Congress has considered over 195 pieces of climate legislation, and the Lieberman-Warner Climate Security Act, (which would create a federal cap-and-trade system for greenhouse gases including carbon dioxide) has passed out of committee.

22 states have completed climate action plans and 14 more are in process. Major regional initiatives to control greenhouse gases are also underway. All three presidential candidates say they will act to dramatically reduce greenhouse gas emissions.

Q: Why should Sunflower suffer when the rest of the state's power plants get a free pass?

A: Westar, the state's largest investor-owned utility, recently entered into voluntary agreements to reduce particulate and carbon dioxide emissions from their plants and to pursue energy efficiency. They also - for financial reasons - shelved plans for a coal plant in favor of wind and natural gas.

KCPL, another of the state's investor-owned utilities, settled a dispute with Sierra Club by planning substantial investments in energy efficiency and wind power. Midwest Energy has been a leader in energy efficiency for years.

In expectation of carbon regulation, many utilities throughout the state are working to improve their energy profiles.

Q: Doesn't coal provide the cheapest electricity? I want my rates to go down, not up.

A: Yes, coal power from existing plants is less expensive than any new generation.

And no. New coal-fired generation - in fact, new electric generation of any kind - will force rates upward. Why?

- The cost of constructing new power plants - including coal plants - rose 27% in 2007 and is 130% higher than in 2000. (See Power Capital Costs Index.)
- Commodity prices for components of those plants are soaring. Nickel has shown an average annual escalation of 60% since 2003, copper 69%, iron and steel 19%.
- Merrill Lynch projects a 200% increase in the cost of coal itself in 2008. The price of Powder River Basin coal used in Kansas already rose over 100% in 2007. Peabody Coal, the #1 U.S. coal trader, predicts record shipments to China and India and record prices.
- Looming federal carbon regulation is projected to cost from \$20 to \$45 per ton. (CO2 trades on the European Union market at around \$30/ton today.)

- Using a conservative \$20 per ton cost of carbon, the Electric Policy Research Institute estimates that new coal generation costs could reach around 9-10 cents per kilowatt hour (kWh).

All new energy will cost more than we are used to paying. Rates are going up, period. Morgan Stanley, one of the world's leading investment banks and a huge financier of the electric sector, testified at the invitation of the Kansas House and Senate energy committees that the U.S. will spend upwards of \$900 billion on new electricity infrastructure over the next 15 years. During this time, Americans can expect their rates to at least double.

Since all new energy will cost more, the question before us now is - what impact will our electric generation have on national security, water, air, climate, wildlife, and the economy?

Q: What about transmission? Don't we need new coal plants to get transmission built to carry wind energy?

A: No, we don't need the Holcomb plants to bring new transmission to Kansas.

The Southwest Power Pool (SPP) has approved two new lines that would originate in Spearville, one heading north and one heading east. Westar and ITC Great Plains are competing to build them. They would serve a substantial, wind-rich area.

However, that said, only the construction of the Holcomb Station Expansion would have justified expanding Kansas transmission to provide an interconnection with the western grid and its growing markets in Colorado and California. Without the Holcomb plants, that connection would be much delayed if it were built at all.

However, that lack does not appear to pose a threat to Kansas wind development. Colorado and Wyoming have enormous wind resources of their own, with an estimated 8,000 megawatts of wind energy potential. Colorado's Renewable Portfolio Standard also gives extra credit for in-state wind, including that derived from net metering. Kansas wind developers do not see the west as an eager market for Kansas wind.

In contrast, at a recent transmission summit, SPP identified our region's major markets for wind as southeast toward Atlanta and east toward Chicago - areas that lack access to the wind resources that Kansas and the rest of the west enjoy.

Q: Western Kansas needs this energy, right? Will the lights go out in western Kansas if Sunflower does not get these plants?

A: Sunflower and its member cooperatives, as well as Midwest Energy, do need access to more energy - by most accounts around 200 megawatts by 2012.

However, the lights will not go out. As Sunflower CEO Earl Watkins testified to the House Energy & Utilities Committee, Sunflower and Midwest can buy that energy on the market. Doing so - through means other than long-term power-purchase agreements - would put these cooperatives at the mercy of the market and raise rates.

Everyone would prefer a better solution. The question appears to be: between the 200 megawatts needed, and the 1,400 megawatts proposed, where will that solution fall? And what source will it come from?

Q: Did Governor Sebelius propose a compromise to Sunflower Electric? What were those terms?

A: The Governor released the terms of her offer in her response to the Holcomb bills released on January 21, and restated them in her March 21 veto message on SB 327. According to those terms:

- (1) Sunflower could build one new plant similar in size to the Sand Sage permit previously approved (660 MW);

- (2) Kansas base load power needs would receive top priority;
- (3) The plant would be able to implement carbon sequestration technology;
- (4) Sunflower would commit to a generation portfolio of 20% wind power;
- (5) Sunflower would commit to 100 MW of energy efficiency; and
- (6) Sunflower would allow net metering in its service area.

Governor Sebelius said: “The framework of this proposal seeks to find a middle ground between all parties concerned and allows for the construction of one power plant that is reasonable and sensible in terms of scope and size.”

Q: Why did Sunflower reject the Governor’s offer?

A: During the hearings on the bills, Sunflower CEO Earl Watkins testified that the utility is simply not in a financial position to pursue building new generation on its own.

According to Watkins, like many utilities in the 1980s, Sunflower overbuilt its capacity on the cusp of a recession, which left them in a precarious financial situation. Since then, Sunflower has successfully restructured its debt but is without the cash or assets to secure financing for a new plant.

Thus, Sunflower approached Tri-State Generation, a Colorado cooperative and fellow Class A member of the Western Fuels Association, to be their partner on the project.

The second largest utility in Colorado, Tri-State also needs more energy. They can secure the financing, and would also provide up-front fees and payments of \$90 million, providing Sunflower an equity stake in 200 megawatts from one of the plants. Tri-State would own one of the plants, and would pay Sunflower \$25 million per year in management fees. Tri-State, according to Mr. Watkins, would not finance the deal for less than two plants.

Q: How are coal plants usually financed?

A: Utilities have two choices. Cooperatives can access inexpensive financing through the Rural Utilities Service. Any utility can approach Wall Street for financing.

Concerns about impending carbon regulations have changed this financing picture. Under Congressional pressure, RUS recently suspended financing for new coal plants.

Meanwhile, three major investment banks - Morgan Stanley, JP Morgan, and Citibank - recently published their Carbon Principles. These banks will now consider carbon costs as a factor in financing decisions.

Questions About Legislation Related to the Proposed Sunflower Expansion

Q: When the legislature returns on April 30 for the wrap-up session, exactly how many Sunflower-related bills will they have to consider?

A: There are two major bills are currently before the legislature (with two more possibilities waiting in the wings).

SB 327 was vetoed by Governor, overridden by the Senate, and now awaits an attempt at an override vote by House. **SB 148** has been passed by House and Senate and the Governor has signaled that she will veto it.

If the legislature does not override the veto on **SB 327**, there will likely be an attempt to override the expected veto on **SB 148**.

Q: What’s the difference between these bills? Is there any?

A: The bills all have two major features in common: They would restrict the power of the Secretary of Health and Environment and allow Sunflower to build the plants.

SB 148 goes further than SB 327 and essentially puts Sunflower's denied air permit into statute.

Q: Why is the Governor opposed to having the Secretary's power restricted?

A: Regarding air permits, the Secretary derives his powers from a combination of sources - the executive branch as defined under the Kansas constitution, the federal Clean Air Act, and existing legislation that describes his job. The Secretary's authority to deny the air permit came from the Clean Air Act.

When it comes to issuing air permits, these various sources of authority are all in delicate balance. For example, by restricting the Secretary's ability to allow air permits, the Kansas legislature could get crosswise with the EPA - especially as regards Clean Air enforcement in the Kansas City area.

In case of disputes over air permits, the state also already allows judicial review of the administrative process. Sunflower is pursuing this avenue right now, and a case is pending before the Kansas Supreme Court. Pursuing legislation while this court case is ongoing could create potential problems with the Kansas constitution and the separation of powers.

Indeed, the courts may decide that the Secretary acted without adequate authority - that he didn't "play by the rules." However, when there is conflict between the legislative branch and the executive branch, the judicial branch has the ultimate authority to sort it out.

Q: Do these bills represent a comprehensive and balanced energy policy for Kansas?

A: No. A comprehensive and balanced energy policy would result from inviting many stakeholders to the table and then carefully considering the issues. This is not the process that led to the Holcomb legislation.

The hearings on the Holcomb bills lasted four days, for 1.5 hours each day. Half that time was given over to Q&A by legislators. Most opponents of the legislation had only 5-7 minutes to speak. The Senate and House held their hearings at the same time, creating issues for testimony and public access to the process as a whole.

For example, energy efficiency alone is a huge policy issue. Not only has it been under study by the Kansas Energy Council (KEC), but it is also the subject of two separate, extensive, and exhaustive dockets currently underway at the Kansas Corporation Commission (KCC). The KCC has also made this process easily accessible to the public.

Wind is another major ingredient of a comprehensive energy policy for Kansas, yet it barely appears in this legislation. Again, the KEC spent a great deal of time studying the issue, and the Governor's Wind Working Group is underway.

Speakers from the National Renewable Energy Labs (NREL) came to brief the House Energy and Utilities Committee on RPS standards and net metering only after the Holcomb legislation had already been advanced. Those briefings indicated that provisions in the Holcomb bills fell short of other similar policies across the nation.

Q: I hear that these bills are actually very green, and that passing them would be an important first step for Kansas.

A: Clearly, opinions on this differ.

Originally, this legislation was drafted with provisions for mitigation and reduction of carbon dioxide. During the process, however, these provisions were gutted. Now there are no provisions at all that would offset or mitigate the plants' eleven million tons of CO2 emissions per year. The remaining "green" provisions were substantially revised as well. They sound good, but most of them don't actually do much.

Once you look beneath the rhetoric - that this legislation represents a lot of important “firsts” for Kansas - there’s not much of substance.

SB 327

- The **net metering** provisions only apply to homeowner-sized solar installations, ignoring farm and business needs. They also entirely ignore net metering for wind, which is of special interest for many rural areas.
- The proposed **Renewable Portfolio Standard** has no enforcement mechanism.
- The provision that electric generating facilities must use “**best available control technology**” is already part of the Clean Air Act. When it comes to using best available control technologies for carbon capture, successful and cost-effective technology is not expected to be available for the next twenty years or so. At eleven million tons of carbon dioxide per year, that’s a lot of emissions.
- The call for **energy efficiency for state buildings** was already addressed in a previous executive order.
- The **tax credits for energy efficient heating and cooling and additional insulation** only benefit landlords, not regular homeowners. The credits are also minimal compared to the expenses of the improvements.
- The **Kansas Electric Generation, Science, and Technology Commission** adds a redundant and expensive layer of bureaucracy. At least four other policy bodies - the Kansas Energy Council, the Select Committee on Energy and Environment, the new Joint Committee on Energy and Environment, and new Kansas Energy and Environmental Policy Advisory Group - are already supposed to address these issues.
- The provisions **allowing utilities to recover costs for energy efficiency** are actually quite positive, but they are also contained in at least four other pieces of pending legislation.

SB 148 -SB 148 contains SB 327 in its entirety, plus these additional provisions:

- It essentially **passes Sunflower Electric’s air permit** regarding emissions of nitrogen oxides and sulfur dioxides - but not for mercury. (The first draft of the legislation also regulated carbon dioxide emissions, but that was removed.) Regardless, setting emissions standards is tasked to administrative agencies, not the legislature, according to the separation of powers under the Kansas constitution.
- It requires investor-owned utilities (IOUs) and cooperatives to allow a **retail wind tariff**. Since this second bill was pushed through so fast, there was no time for Kansas wind interests to give public testimony regarding how this would affect their developing industry.
- IOUs and cooperatives must develop **energy efficiency and load management plans** for review by the KCC. Westar and KCPL are voluntarily working on these projects already.
- IOUs and cooperatives must help develop greenhouse gas inventories. Utilities are already working voluntarily with KDHE on this inventory.
- It requires a **cooperative or IOU to partner with a municipal utility** to approach the Southwest Power Pool (our regional transmission authority) to address transmission issues. This is already standard practice already when approaching SPP. It does now make it a matter of law that munis are now responsible for all the costs of these transmission studies.

CONCLUSION:

The massive scale of the proposed Sunflower plants represents a long-term liability - *- not a benefit -* for the entire state of Kansas.

Find out more:

These statistics, as well as notes on the entire legislative process regarding the Sunflower bills, are all contained in the CEP blog - blog.climateandenergy.org. For general questions about climate and energy, please see our main website - www.climateandenergy.org.