

MINUTES OF THE HOUSE ECONOMIC DEVELOPMENT AND TOURISM COMMITTEE

The meeting was called to order by Chairman Lana Gordon at 3:30 P.M. on February 19, 2008 in Room 519-S of the Capitol.

All members were present except:

Judy Morrison- excused
Don Myers- excused

Committee staff present:

Ryan Hoffman, Kansas Legislative Research Department
Jason Long, Office of the Revisor of Statutes
Matt Todd, Office of the Revisor of Statutes
Ann Deitcher, Committee Assistant

Conferees appearing before the committee:

Mike Michaelis, Vice-President, Kansas Economic Development Alliance
Brian J. Moline, Chairman, Alliance for Sound Energy Policy
L. Earl Watkins, Jr., President & CEO, Sunflower Electric Power Corp.

The Chair introduced Mike Michaelis who explained that KEDA was a state-wide organization whose membership was open to all individuals whose professional background and primary interests and activities were dedicated to economic development on behalf of the state of Kansas. (Attachment 1). He added that the purpose of KEDA was to assure a continued healthy economy for the state of Kansas.

Questions and answers followed.

Next on the agenda, was Brian Moline who spoke of the recent decision by the Kansas Department of Health and Environment to deny the Holcomb Station expansion air permit, in the absence of a steady, reliable regulatory framework, saying his organization felt this set a terrible precedent for economic development in Kansas. (Attachment 2).

He told the Committee that currently, coal reliably provides more than 75% of Kansas electricity and is the primary reason we have one of the lowest electricity rates in the country. The most abundant, affordable and reliable natural energy source that America has, it currently fuels more than three-fourths of Kansas' electricity and nearly 50 percent of U.S. electricity. U.S. coal reserves are nearly six times that of our nation's oil and natural gas reserves combined and more than three times their energy equivalent of Saudi Arabia's oil.

Mr. Moline said this was why the Alliance for Sound Energy Policy supported passage of **House Substitute for SB 327**.

Questions and answers followed.

Earl Watkins addressed the Committee regarding the economic benefits of the Holcomb Expansion project. (Attachment 3).

Speaking of the project background, he said that the Holcomb Station expansion meets the growing energy needs of 67 electric cooperatives in Kansas and neighboring states.

CONTINUATION SHEET

MINUTES OF THE House Economic Development and Tourism Committee at 3:30 P.M. on February 19, 2008 in Room 519-S of the Capitol.

Currently, the project includes building two additional supercritical pulverized coal units, each capable of generating 700 megawatts of electricity. The units would be owned by other utilities, but operated by Sunflower employees. They recruited other utilities to participate in this project, selling them on the Kansas business climate and the solid operating record of Holcomb Unit one.

Mr. Watkins said that these project revenues and cost savings would be utilized by Sunflower to offset capital and operating expenses that would have otherwise been charged to Sunflower's Member Systems. They calculate that these revenues, fees and cost reductions would result in a \$750 million benefit for ratepayers in central and western Kansas.

Questions and answers followed.

The meeting was adjourned at 4:30 pm. The next meeting is scheduled for Wednesday, February 20, 2008.



Encourages the Kansas Legislature to take the following action:

1. Endorse program enhancements recommended by the Kansas Department of Commerce and the Kansas Department of Revenue.
 - a. Modify the IMPACT Act to utilize the program more fully to meet the needs of Kansas companies, as well as remain competitive in recruitment and retention efforts .
 - i. Convert from debt service to cash thereby maximizing investment value to the State and to businesses.
 - ii. Eliminate 95% withholding limit.
 - iii. Set targets for rural and small business opportunities.
 - iv. Allow unallocated funds to carry over.
 - b. Streamline and simplify investment and job creation tax credit programs.
 - i. Simplify qualified investment calculation
 - ii. Repeal: Enterprise Zone incentives, High Performance Incentive Program, and Business and Job Development credits.
 - iii. Introduce legislation to create Opportunity Zones, Investment credits, and Job Creation credits.
 - c. Allow monetization of economic development tax credits.
 - d. Clarify statutes to allow use of tax credits across corporate entities.
2. Develop a program that will encourage people to relocate to Kansas. This could include assistance with relocation costs, affordable housing, childcare, and tax breaks for individuals moving to rural Kansas and/or incentives for firms in Kansas to increase wages, benefits, and services to entice families to relocate to Kansas.
3. Develop a balanced energy policy to insure a reliable, low-cost supply of energy for residential and business needs utilizing both fossil fuels and renewable sources.
4. Continue aggressive promotion and branding of Kansas.
5. Increase the amount of Economic Development Initiatives Fund money (lottery dollars) provided to the Kansas Department of Commerce to improve the competitiveness of the state in business retention and development.
6. Develop a statewide comprehensive housing plan that includes incentives for workforce housing.
7. Develop incentives to encourage renewable resource technologies and energy conservation.
8. Leverage Kansas' position as a farm belt state and the major animal health, plant health and bio-energy research within it to attract bioscience industries drawn to available land and a talented workforce.

Economic Development & Tourism

Date: 2-19-08

Attachment # 1-1



Testimony before the House Economic Development Committee

February 19, 2008

Madam Chair and Economic Development Committee members, thank you for allowing us to testify before you today. I am Mike Michaelis, a Vice President of the Kansas Economic Development Alliance, better known as KEDA. With me today are several members of the board (introductions).

For those of you not familiar with our group, let me tell you that KEDA is a state-wide organization whose membership is open to all individuals whose professional background and primary interests and activities are dedicated to economic development on behalf of the state of Kansas. The Board of Directors has statewide representation and is composed of eleven (11) members, which includes the Secretary of the Kansas Department of Commerce (KDOC) or an appropriate division director designated by the Secretary of the Kansas Department of Commerce to serve on the Board.

The purpose of KEDA is to assure a continued healthy economy for the state of Kansas. We do this by:

- Encouraging the expansion of employment opportunities and a broadening of the tax base
- Expanding existing industry and attracting new industry to the state
- Improving the quality and the practice of economic development as well as professional and ethical conduct
- Enhancing the competence of those engaged in economic development through educational programs
- Championing legislative action which will enhance the attractiveness and competitive position of the state of Kansas as a location for new and existing business

Each year, KEDA brings membership together for a day in the Capital to educate membership and inform legislators about issues affecting economic development activities across the state. In the material you have before you, we have included a position paper that explains some of the issues we feel are important to economic development efforts in the state. Let me briefly touch on each of those listed.

1. We endorse program enhancements recommended by the Kansas Department of Commerce and the Kansas Department of Revenue. Senate bills 525 and 497 will make some of the changes we would like and would support. Not only will these bills make the state more competitive in recruitment and retention efforts, but they will also better utilize the money available to make a difference. The only changes we would recommend to the bills would be a lower threshold for capital investments from the proposed \$300,000 to \$50,000. This change would increase the likelihood that the program could be used effectively to promote economic activity in rural Kansas as well as in micropolitan and metropolitan areas while at the same time promoting entrepreneurship and the growth of small business and large alike.
2. As most of you know, much of Kansas has a strong economy but at the same time, much of Kansas is experiencing a labor shortage. We urge you to be creative and find ways to encourage people to move to Kansas so they can share in our great way of life, strengthen our economy, and fill the jobs available in Kansas. We suggest programs that could include assistance with relocation costs, affordable workforce housing, childcare, and tax breaks for individuals moving to rural Kansas and/or incentives for firms in Kansas to increase wages, benefits, and services to entice families to relocate to Kansas.
3. We urge you to develop a balanced energy policy to insure a reliable, low-cost supply of energy for residential and business needs utilizing both fossil fuels and renewable sources. We ask this not only for security of our citizens, but for the future recruiting efforts of The Kansas Department of Commerce and every Economic Development Organization across the state. Unclear policies equate to an unfriendly label tagged on the state by site selectors and consultants looking for a place to locate expanding or relocating firms.
4. We want to see a continued effort to aggressively promote and brand the State of Kansas. This effort aids not only in the recruitment of businesses but potential employees as well.
5. We ask that you increase the amount of Economic Development Initiatives Fund money (lottery dollars) provided to the Kansas Department of Commerce to improve the competitiveness of the state in business retention and development.
6. We would like to see you develop a statewide comprehensive housing plan that includes incentives for workforce housing. This is another way to increase the number of employees coming to the state to fill jobs.
7. We would also like to see you develop incentives to encourage renewable resource technologies and energy conservation.
8. And finally, we would urge that you leverage Kansas' position as a farm belt state and the major animal health, plant health and bio-energy research within it to attract bioscience industries drawn to available land and a talented workforce. Look for opportunities outside the research areas near research institutions and metropolitan areas. Include the entire state.

Although the Senate Commerce Committee took testimony for Senate Bill 453 last week and it is not listed on our official position paper, I would like to mention that while this bill has created much discussion among members of many Economic Development Organizations, our membership, has not reached a consensus on this bill. In its original form, our members find it hard to determine what the real intent is and the outcome of the bill will be. The concept is good, but it appears to be too vague to implement with any certainty.

Personally, I would like to see recommendations from Kansas Small Business Development, Network Kansas, The Kansas Department of Commerce, and Kansas Inc. followed rather than leave the bill in the original form.

In conclusion, let me say we would be happy to take any questions you may have and to again thank you for allowing KEDA to present our views on these important issues to you today.

TESTIMONY
by
BRIAN J. MOLINE, CHAIRMAN
ALLIANCE FOR SOUND ENERGY POLICY
before the
KANSAS HOUSE OF REPRESENTATIVES
COMMITTEE ON ECONOMIC DEVELOPMENT AND TOURISM
on
TUESDAY, FEBRUARY 19, 2008

Mr. Chairman and members of this Committee, thank you for giving me the opportunity to testify before you today on behalf of the Alliance for Sound Energy Policy. My name is Brian J. Moline. I currently serve as the Chairman of this Alliance. We are a statewide, non-partisan coalition of businesses, industries, consumers, agriculture producers, labor interests, civic leaders, elected officials and other stakeholders interested in ensuring the economic prosperity of Kansas by promoting regulatory stability and a balanced energy policy.

The recent decision by the Kansas Department of Health and Environment (KDHE) to deny the Holcomb Station expansion air permit, in the absence of a steady, reliable regulatory framework, set a terrible precedent for economic development in Kansas. Secretary Bremby's decision called into question the confidence and stability of our state's regulatory system causing businesses, manufacturers, farmers, and others concern about their future investments in our state's economy.

As a result, these statewide organizations representing thousands of businesses, employees, consumers, and others united under the Alliance for Sound Energy Policy. This diverse coalition recognized the need to work with the Kansas Legislature to ensure our state has a reliable regulatory framework and a sensible energy policy on which businesses, industries, and consumers can rely. These factors are essential to ensuring that Kansas remains a competitive place to work and to do business.

Secretary Bremby's decision was a particularly grave disappointment for the people and communities in southwest Kansas. The \$3.6 billion Holcomb Station expansion will provide significant job opportunities throughout the state, including more than 2,000 jobs during the six-year construction period and more than 200 permanent jobs at the power plant. This project's state-of-the-art technologies will enable it to meet all federal regulations in place to protect public health and the environment. KDHE's decision to arbitrarily deny the air permit, contrary to its own professional staff's recommendations, denies our state the expansion of much needed electricity generation and increased revenues.

Further concerns about the future of our state's economic prosperity were echoed by the Kansas Chamber, Wichita Independent Business Association, Kansas Farm Bureau, and others following

Economic Development & Tourism

Secretary Bremby's statements before the Kansas Senate Utilities Committee last week. Bremby indicated at the time he plans to subjectively use his authority to regulate the air permitting process not only for utilities, but other industries including transportation, manufacturing, and agriculture.

The fact that a company could abide by all state laws, follow the permitting process, obtain a favorable recommendation from the state's regulatory experts, and still be denied its application for an environmental permit is completely contrary to the spirit of law we Kansans have lived by for generations.

Collectively, the Alliance believes that prosperity and environmental stewardship stem from sound energy policies, which require the fair and uniform application of Kansas statutes, regulations and rules. We believe that sensible and balanced energy policies safeguard public health, protect consumers, utilize domestic resources, and integrate renewable energy solutions. And, through the growing strength of our organization, we believe we can reasonably affect policies that encourage the development of an affordable, reliable, and diverse energy portfolio to fuel Kansas' future.

As the former chairman of the Kansas Corporation Commission, I understand the importance of a regulatory climate with clear rules and expectations. Businesses, industries, and consumers rely on the fair and consistent manner application of these regulations.

This is especially true in the application of our state's energy policy. As one of the most significant cost pressure businesses that consumers have today, energy issues must be addressed. A balanced, affordable, and sensible energy policy is at the heart of our state's economy, our nation's economy, and our national security. It ensures that our quality of life continues to be the highest in the world.

Energy is the single most important physical resource underpinning America's economic competitiveness, our national security, and our basic, quality of life necessities. Considering its fundamental importance and the frequent cry for energy independence, we commend the Kansas Legislature for engaging in this important discussion.

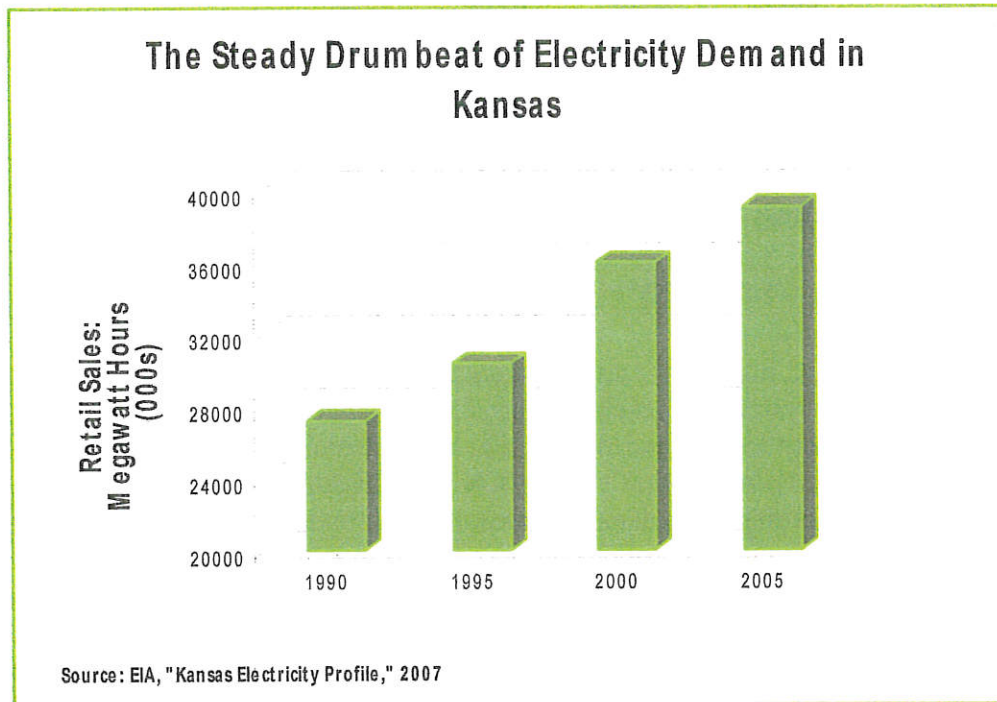
The Kansas State Senate overwhelmingly approved a bill last week that will help our state meet its growing energy demands, maintain its affordable electricity rates, promote economic development and job creation, and protect the environment.

Now the Kansas House has the opportunity to respond by passing House Substitute for SB 327. Representing our state's largest business, industry, agriculture, and labor organizations, the Alliance encourages the House to support this legislation that embraces greater domestic energy development, regulatory stability, job creation, and investment in our state.

With gas nearing \$3.00 per gallon, we feel the financial pain of filling up our cars, but the economic costs associated with turning on your lights or heating your home are not so obvious.

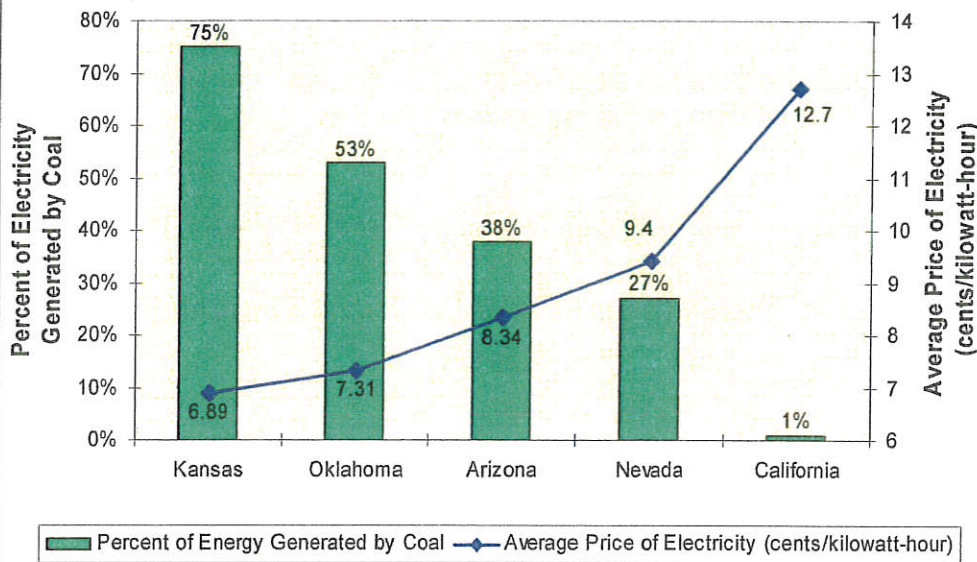
Last fall, the North American Electric Reliability Corporation (NERC) announced that electricity usage in the U.S. is projected to grow more than twice as fast as our supply over the next 10 years. Electricity consumption in Kansas grew 44% since 1990 and will continue to increase over the coming years. It is essential that additional resources be brought into service to meet this growing demand. Given the scale of demand increases, we must consider and include a complete menu of traditional, renewable, and alternative fuels to add to our existing power generation capacity and decrease our reliance on foreign sources of energy.

Electricity Consumption in Kansas Grew 44% since 1990



Currently, coal reliably provides more than 75% of Kansas' electricity and is the primary reason we have one of the lowest electricity rates in the country. Kansans pay an average of \$0.069 per kilowatthour compared to \$0.094 in Nevada, \$0.103 in Texas, and \$0.127 in California. Calls to replace needed baseload coal plants with intermittent and expensive alternatives place electricity reliability and cost at risk.

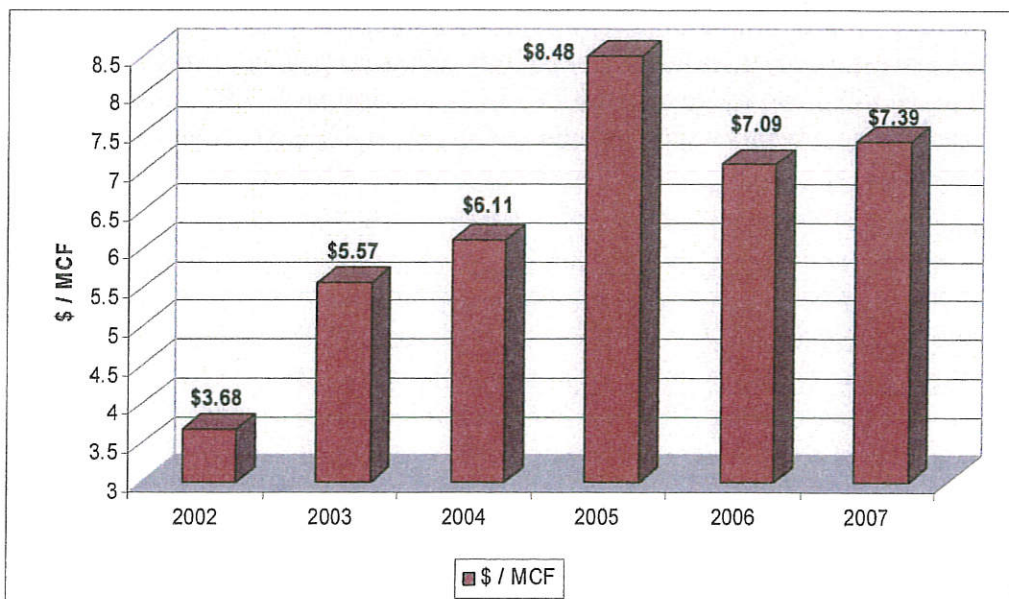
State Differences in Coal Generation and Price of Electricity



Source: EIA

Renewable resources are an important part of America’s energy future, but reliably integrating them into the bulk power system has its challenges. Large-scale wind and solar generation resources are often remotely located and will require new transmission lines to deliver power to population centers. Furthermore, we don’t know how much electricity these renewable sources can consistently produce during peak demand times. Nuclear energy is another important option, but it too requires expanding and strengthening the grid for reliable integration taking as long as 15 to 20 years to complete.

Then, of course, there is natural gas. Like crude oil, America has a growing demand for this precious resource, but a diminishing domestic supply. As a result, costs have far exceeded estimates and prices have increased 100% since 2002 and nearly tripled since 1990.



Source: EIA

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The most abundant, affordable, and reliable natural energy source that America has is coal. Coal currently fuels more than three-fourths of Kansas' electricity and nearly 50 percent of U.S. electricity. Nationwide demand for electricity from coal is expected to increase to 57 percent in the next 25 years. Fortunately, U.S. coal reserves are nearly six times that of our nation's oil and natural gas reserves combined and more than three times the energy equivalent of Saudi Arabia's oil. This equates to approximately 800 billion barrels of oil capable of providing dependable, affordable energy for more than 250 years.

The real issue is not so much about energy independence as it is about the fact that we have locked away vast untapped domestic energy resources ... resources, like coal, we can and must further develop, in an environmentally safe way, to power our growing population and economy.

Emerging clean coal technologies mean that coal has the potential to continuously improve its environmental profile, while offering the U.S. dependable, affordable energy reserves for the next two centuries.

Kansas is blessed with an abundance of energy resources and we cannot afford to discard any of them. They are all important factors and should be a part of the mix. What we need are cleaner, not fewer, choices. The best thing for our families, the economy, and the environment is a sound and balanced energy policy that addresses practical realities.

Due to American resources and American technology, we can reasonably, effectively, and cleanly produce the reliable energy that our country desperately needs. It's a challenge Kansas can help meet.

That is why the Alliance for Sound Energy Policy supports passage of House Substitute for SB 327. If enacted, this legislation will ensure that all Kansas businesses, producers, workers, and consumers will be treated fairly and equally by their state government. The provisions of this bill will prevent arbitrary and unprecedented decisions that jeopardize investment and innovation in the state and our workers. Furthermore, this legislation will place Kansas on a level playing field with its neighboring states. Most importantly, however, this bill will help create new jobs, ensure that existing jobs remain in Kansas, and promote our state's economic prosperity.

Mr. Chairman, the Alliance commends you and your colleagues for taking swift, decisive, bi-partisan action to address these needs so critical to our state's energy security and economic prosperity.

Thank you again for giving us the opportunity to testify before you today. I will be happy to answer any questions you may have.

Attachment: List of Alliance for Sound Energy Policy organization members


**Alliance for Sound Energy Policy
Organization Members
February 19, 2008**

**Applied Industrial Technologies
BSNF Railroad
Building & Construction Trades Council of
Central and Western Kansas
DS&O Rural Electric Cooperative
Evans Cattle Inc.
Finney County Board of Commissioners
Finney County Economic Development Corp
Garden City Area Chamber of Commerce
Grant County Economic Development
Greeley County Community Development
Hodgeman County Economic Development
Hybrid Power Technologies
IBEW Local #304
IBT, Inc.
Insurance Planning, Inc
Iron Workers Local Union #24
Kansas AFL-CIO
Kansas Chamber
Kansas Economic Development Alliance
Kansas Electric Cooperatives, Inc.
Kansas Electric Power Cooperative, Inc.
Kansas Farm Bureau
Kansas Grain and Feed Association
Lane-Scott Electric Cooperative, Inc.
Leavenworth Jefferson Electric Cooperative
Lynn Elliott Co., KC Inc.
Midwest Energy Inc.
MSI**

**Ness County Economic Development
Orion Energy LLC
Parsons Farms
Phillips County Economic Development
Pioneer Communications
Pioneer Electric Cooperative, Inc.
Plumbers & Pipefitters of Kansas Local #441
Prairie Land Electric Cooperative, Inc.
Rahjes Farms
Rooks County Economic Development
Russell County Economic Development
Scott County
Sedgwick County Electric Cooperative
Sedgwick County Farm Bureau Agricultural
Association
Sharp Bros. Seed Co.
Sheet Metal Workers 29
Sunflower Electric Power Corporation
Thomas County Economic Development
Alliance
Total Filtration Services
Trand, Inc.
Twin Valley Electric Cooperative, Inc.
Victory Electric
Wedell Dozing
Western Cooperative Electric Association, Inc.
Wheatland Electric Cooperative, Inc.
Wichita Independent Business Association
Yohon Pumping**



SUNFLOWER ELECTRIC POWER CORPORATION

A Touchstone Energy® Cooperative 

**TESTIMONY OF
L. EARL WATKINS, Jr., PRESIDENT AND CEO
SUNFLOWER ELECTRIC POWER CORPORATION
BEFORE THE HOUSE ECONOMIC DEVELOPMENT & TOURISM
COMMITTEE
February 19, 2008**

Madam Chair and distinguished members of the Committee, my name is Earl Watkins and I serve as the President and CEO of Sunflower Electric Power Corporation. I appreciate the opportunity to speak to you today about the economic benefits of the Holcomb Expansion project.

Sunflower System

Sunflower is a not-for-profit cooperative charged by our members with the mission of meeting their needs with reliable power and energy at the lowest possible price that is consistent with prudent utility practice. Sunflower is owned by six rural electric cooperatives in central and western Kansas including:

- Lane-Scott Electric Cooperative, Inc., Dighton
- Pioneer Electric Cooperative, Inc., Ulysses
- Prairie Land Electric Cooperative, Inc., Norton
- The Victory Electric Cooperative Association, Inc., Dodge City
- Western Cooperative Electric Association, Inc., WaKeeney
- Wheatland Electric Cooperative, Inc., Scott City

These six electric cooperatives also own Mid-Kansas Electric Company, the company formed to purchase the Aquila Kansas Electric system. This transaction was completed in April, 2007.

Sunflower's headquarters are located in Hays and we also have employees located in Clifton, Colby, Concordia, Dodge City, Garden City, Great Bend, Holcomb and Liberal. Sunflower and our Members are a family of 763 employees who live in 31 communities in central and western Kansas.

We take our mission seriously as we seek to help our Member cooperatives serve the needs of 400,000 central and western Kansans that include 32,700 farmers who manage more than 28 million acres, 12,800 businesses, 54,000 people who live below the federal poverty level, and 64,000 people over the age of 65.

Economic Development & Tourism

Date: 2-19-08

Attachment # 3-1

Project Background

The Holcomb Station expansion meets the growing energy needs of 67 electric cooperatives in Kansas and neighboring states. The new generation not only reinforces the region's power supply needs, but the investment and creation of jobs from plant construction and operations will provide a solid tax and employment base for western Kansas.

The Project is proposed for the 10,000-acre site of the existing 360-megawatt Holcomb Station, located approximately four miles south of Holcomb, Kansas. Currently, the project includes building two additional supercritical pulverized coal units, each capable of generating 700 megawatts of electricity.

In the 1970s when Holcomb Unit 1 was planned, our board envisioned building infrastructure that could support additional development at the site. Since the conception of this project, utilizing those common facilities – coal handling, rail, water treatment, and administrative facilities – has been a large part of the benefit Kansans will receive because of this development.

The units would be owned by other utilities, but operated by Sunflower employees. By spreading our fixed costs among more megawatts, achieving economies of scale for many purchases such as coal, and earning development fees for the project, central and western Kansas ratepayers will benefit. To complete our goal, we recruited other utilities to participate in this project. We sold them on the Kansas business climate and the solid operating record of Holcomb Unit one.

These project revenues and cost savings will be utilized by Sunflower to offset capital and operating expenses that would have otherwise been charged to Sunflower's Member Systems. We calculate that these revenues, fees, and cost reductions will result in a \$750 million benefit for ratepayers in central and western Kansas.

Our passion for this project is based on the fact that we are proposing to build the cleanest coal-fired power plants in the United States. Our existing plant at Holcomb is the cleanest coal-plant in Kansas and we are proud to carry on that tradition with this new generation of plants that are decidedly cleaner than our existing unit that was built in 1983. In fact, the units we propose to build will consume 700,000 less tons of coal annually than they would use if we used the 1980 technology.

Construction and operation of the Project will also result in the purchase of many goods and services for the power plant and by the workforce. Goods

and services during construction will be obtained from various local, national, and international vendors. Certain construction materials will likely be obtained locally, while major equipment will be obtained nationally and internationally.

Dr. Ralph Gamble, Professor at Fort Hays State University, completed an economic impact study for this project. The results of this study show that the economic benefit during the construction project and the long term benefit of this project are tremendous.

The total cost of the two units is \$3.6 billion.

Construction Impacts

- Over 2,400 jobs will be created in Kansas during the construction period.
- These construction-related workers will earn over \$78 million in wages.
- Over \$9 million in tax revenue will be generated because of the construction project.

Permanent Impacts

- Over 300 permanent jobs will be created in Kansas because of the power plant expansion.
- These workers will earn over \$16 million annually from these jobs.
- Kansas will take in almost \$700,000 from these wages in sales taxes.

Total Annual Project Impacts, Two Units			
	Jobs	Earnings	Local & State Sales Taxes
Temporary Impacts			
Western Kansas	1501	\$42,349,442	\$1,161,301
Eastern Kansas	967	\$35,951,022	\$453,799
Kansas	2,466	\$78,300,64	\$9,334,256
Out-of-State	11,857	\$321,905,176	NA
Permanent Impacts			
Western Kansas	274	\$14,822,980	\$299,919
Eastern Kansas	53	\$1,362,918	\$54,311
Kansas	329	\$16,157,450	\$683,971
Out-of-State	280	\$7,396,847	NA

Benefits for Sunflower Electric

During the years we've been developing this project, the load on the Sunflower Members systems have grown. Base load generation is needed to supply new biofuel needs, natural gas compression stations, oil and gas exploration, new irrigation load, and the addition of the former Aquila Kansas Electric system have created the need for Sunflower Members to add generation. Midwest Energy is seeking long term base load resources to replace contracts that expire in the next several years. As Sunflower looked at our options, providing base load generation from coal was determined to be the best option.

Sunflower is also working with Kansas State University's National Institute for Strategic Technology Acquisition and Commercialization (NISTAC) to develop the Sunflower Integrated Bioenergy Center, which will develop a bioenergy park – like an industrial park – for bioenergy businesses. The system includes an ethanol plant, biodiesel plant, algae reactor, dairy, and anaerobic digester.

What makes this center unique is that the businesses will be integrated to utilize co-products from one process to provide inputs for other processes. The power plant is integrated into this process because flue gas from the power plant will be used in a reactor which will grow algae. The algae needs water, nutrients, sunlight and CO2 to grow. The algae will be processed to provide starch for use in ethanol production, oil for biodiesel production and protein for animal feed. This complex will require a \$400 million investment and create 160 direct jobs.

Some have said we have lived on a cheap energy policy that discourages conservation. We don't agree. Low cost electricity for central and western Kansas is vital to economic growth. Rural customers are already paying higher energy costs than customers in urban areas. This is due, in part, to the higher costs to serve areas of sparse populations, but it is also due to a fuel mix differential. Although Kansas receives 75% of its electricity from coal, in the Sunflower system, only 50% of our electricity is generated from coal. The balance comes from natural gas or wind.

Not Just a Coal Project

This is not, however, just a two-plant project. It is much more. It will result in the construction of an expansive transmission system that will enable the development of wind projects in Kansas and through out central United States.

The transmission lines required to be constructed for the project will make it possible for the development of up to 1,500 MWs of wind to be transmitted to the east and south, and up to 3,000 MWs to the west, where more valuable markets exist for wind energy. With the development of wind, this project will provide for additional revenues for landowners and more jobs for Kansans.

The Holcomb Expansion project provides great opportunity for Kansas. Low cost electricity, new jobs, investment, and new technology for coal generation and bioenergy are all outcomes of this opportunity.

Thank you for allowing me the opportunity to share the economic impacts of the Holcomb Expansion project for Kansas.



April 2007



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Project Background

The expansion of Holcomb Station is in response to growing energy needs among electric cooperatives in Kansas and neighboring states. The new generation reinforces the region's power supply needs, and the investment and jobs created from plant construction and operations, will provide a solid tax and employment base for western Kansas.

The Project is proposed for the 10,000-acre site of the existing 360-megawatt Holcomb Station, located approximately four miles south of Holcomb, Kansas. Currently, the project includes two additional supercritical pulverized coal units, each capable of generating 700 megawatts.

Project Structure

The units will be owned by generation and transmission cooperatives Tri-State Generation & Transmission Association, Inc., Golden Spread Electric Cooperative, Inc., and Sunflower Electric Power Corporation. Together, these wholesale power suppliers serve more than 1.5 million consumer-owners of 66 electrical cooperatives in seven states.

Golden Spread, Sunflower, and Tri-State will jointly own the first new unit. Construction could begin in 2007 and be operational in 2012. Golden Spread will own 400 megawatts of the unit's output, Sunflower will own 200 megawatts (with 75 megawatts being reserved for Midwest Energy through a power purchase agreement) and Tri-State will own 100 megawatts. Tri-State will also own the second 700-megawatt unit, which is projected to be online in 2013.

The total installed cost of the two plants is expected to be \$3.8 billion.

Economic Benefits

The Project will maximize the value of the existing Holcomb Station site for the benefit of Sunflower Electric's six member systems for generations to come. Successful completion of the Project also will:

- Provide participants with a reliable, cost-efficient source of baseload power

3-6

- Improve power system reliability with additional baseload generating capacity
- Stabilize rates by reducing the cooperatives' purchased power
- Bring competitively priced fuel diversity to existing generation portfolios.

Local and Regional Benefits

The benefits created by the Project for communities located in the region include job creation, new tax revenues, and an increased demand for goods and services. Dr. Ralph Gamble, a noted rural economist and professor at Fort Hays State University, conducted an economic impact study to determine the effects of the Project.

Total Annual Project Impacts, Two Units			
	Jobs	Earnings	Local & State Sales Taxes
Temporary Impacts			
Western Kansas	1,501	\$42,349,442	\$1,161,301
Eastern Kansas	967	\$35,951,022	\$453,799
Kansas	2,466	\$78,300,464	\$9,334,256
Out-of-State	11,857	\$321,905,176	NA
Permanent Impacts			
Western Kansas	274	\$14,822,980	\$299,919
Eastern Kansas	53	\$1,362,918	\$54,311
Kansas	329	\$16,157,450	\$683,971
Out-of-State	280	\$7,396,847	NA

The average number of jobs available in western Kansas will grow by more than 1,500 during the construction period. According to the Gamble study, these workers will earn more than \$42 million per year and the taxes collected will increase by more than \$1 million. The total spending of construction crews in Kansas is expected to be more than \$56 million during the construction period.

Benefits During Operation

At full operation, the Project will add nearly 250 full-time equivalent

positions, earning over \$15 million per year, in western Kansas. There will be a need for an additional 100 full-time workers to operate the Holcomb Station after the additional units go into commercial operation. As shown below, it is estimated that more than 2,500 jobs (direct and induced) will be created in Kansas with an annual payroll of \$78 million during the construction period.

Construction and operation of the Project will also result in the purchase of many goods and services for the power plant and by the workforce. Goods and services during construction will be obtained from various local, national, and international vendors. Certain construction materials will likely be obtained locally, while major equipment will be obtained nationally and internationally.

Benefits for Sunflower Electric

Sunflower will earn development and facility use fees in addition to income received for operating and maintaining the new plants. Sunflower will also benefit from being able to spread its labor and administrative expenses over additional generating units. Additionally, lower fuel costs for Unit 1 will result from the economies of scale related to larger coal purchases.

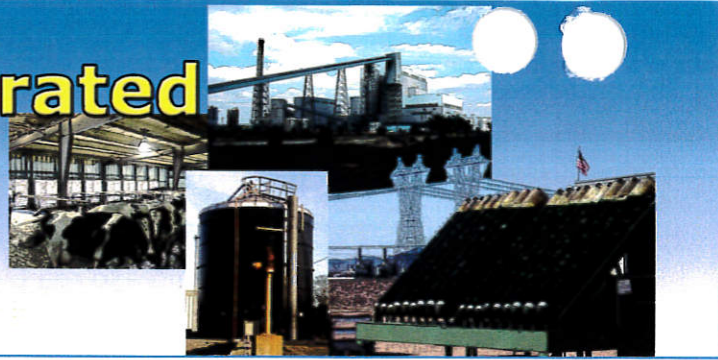
These project revenues and cost savings will be utilized by Sunflower to offset capital and operating expenses that would have otherwise been charged to Sunflower's Member Systems.

Technology Selection

Supercritical pulverized coal (SCPC) technology was selected because, at the scale required for the generation needs of the region, it was found to be the only commercially available technology that met all of the requirements of the Project. Various renewable

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Sunflower Integrated Bioenergy Center



For more information
about the
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Vol. 2

DEVELOPING THE BIOENERGY CENTER Making Dreams Become Reality

With national attention focused on promoting biofuels production, strengthening rural economies, reducing dependence on overseas oil, and taking actions to reduce CO₂ emissions, the Sunflower Integrated Bioenergy Center is being developed on the site of Sunflower Electric Power Corporation's Holcomb Station, a 360 MW coal-based power plant located in Finney County, Kansas.

The location of the Center in southwest Kansas on the 10,000 acres surrounding Sunflower Electric's power plant is advantaged by a strong livestock and agriculture industry, excellent transportation infrastructure, reasonable energy prices, and rural work ethic that is combined with the pioneering spirit of the region.

The Center will integrate several commercial businesses and near-commercial bioenergy technologies. It is anticipated that these subsystems will be individually owned by participants within the complex.

The subsystems include an ethanol plant, a biodiesel plant, a dairy, an anaerobic digester, an algae reactor, and a coal-based power plant.

Each subsystem will benefit from the efficiencies of integration like the re-use of water, consumption of co-products, roads, railways, shared human resources, and the utilization of power plant flue gas. The reduction of transportation and disposal costs for co-products will further add to the cost effectiveness of each individual subsystem.

LEADERSHIP THROUGH COOPERATION

The National Institute of Strategic Technology Acquisition and Commercialization (NISTAC) and Sunflower Electric Power Corporation formed the Sunflower Integrated Bioenergy, LLC (SIB, LLC), to lead the development of the project. Sunflower Electric's interest in rural development and responsible energy production has been an excellent fit with the technology commercialization and project development work of NISTAC.

NISTAC and Sunflower Electric have been aided by the Kansas Bioscience Authority, which has committed resources and expertise as part of its role to promote the bioscience industry throughout the state.

Local, state, and national political support have been essential to the project. Leadership by the Kansas Legislature and the Governor's office resulted in beneficial bioenergy legislation for Kansas in 2007. In addition, Congressman Moran and Senators Brownback and Roberts led discussions with the USDA and the Department of Energy to inform agencies about the Center.

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The founders of the Center also believe that similar synergies or subsets of the design of the Center will likely be replicated elsewhere as the Sunflower Integrated Bioenergy, LLC, is already pursuing requests to develop projects around other power plant locations.

ENGINEERING STUDIES

Black & Veatch Corporation has been hired to complete several tasks including a review of the Center model, a study of water efficiency and use, and a study of the integration among the Center's subsystems. Black & Veatch is a leading developer of coal-based power plants and brings a wealth of engineering expertise to the project.

Because of the timing of the subsystem construction, integration will possibly occur in stages as the portfolio of technologies are assimilated into the ending model. Black & Veatch will be instrumental in the interactions of these individual technologies.

CONSTRUCTION SCHEDULE

Construction will begin at the site when each subsystem contract is complete. The construction schedule currently anticipates groundbreaking for the ethanol and biodiesel subsystems in the fall of 2007. Site engineering is underway in preparation for the necessary roads and electrical infrastructure needed to serve the project.

The Center developers and the Holcomb Expansion Project participants are also working with the city of Holcomb and Finney County to plan for area traffic impacts resulting from the Center's development activities. Current project estimates reflect an expected capital investment of \$399 million, which will result in the creation of 161 full-time jobs after construction is completed. The table on page 3 reflects the projected employment and investment by subsystem component.

SUBSYSTEM INTEGRATION

How They Work Together

Algae Reactor

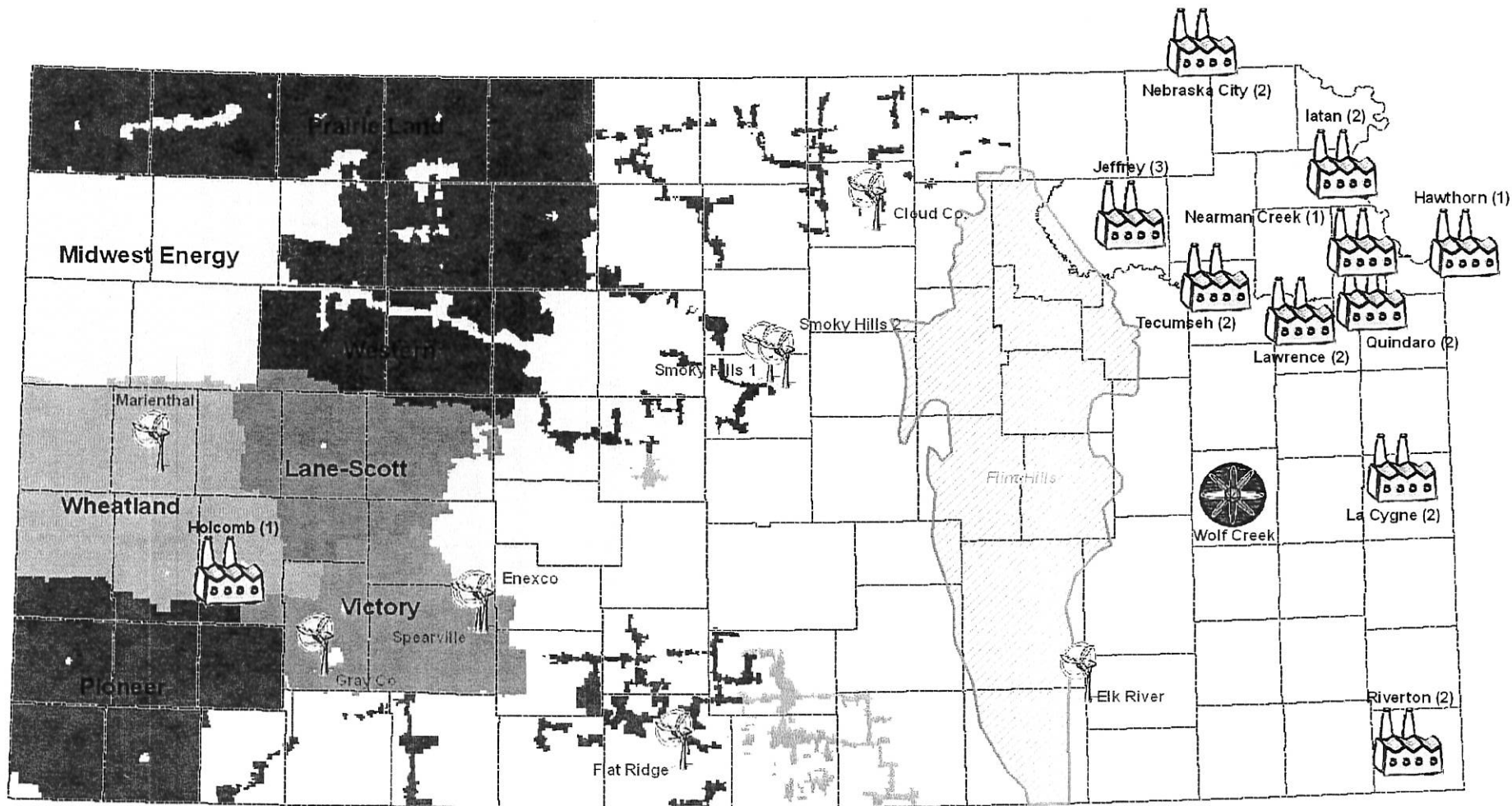
The cultivation of microalgae in the algae bioreactor system provides prospects for renewable energy production. Microalgae are the most primitive plant form—typically a single-cell plant. Because of this simple structure, algae are very efficient in converting sunlight, carbon dioxide, and nutrients into oil (for biodiesel) and starch (for ethanol).

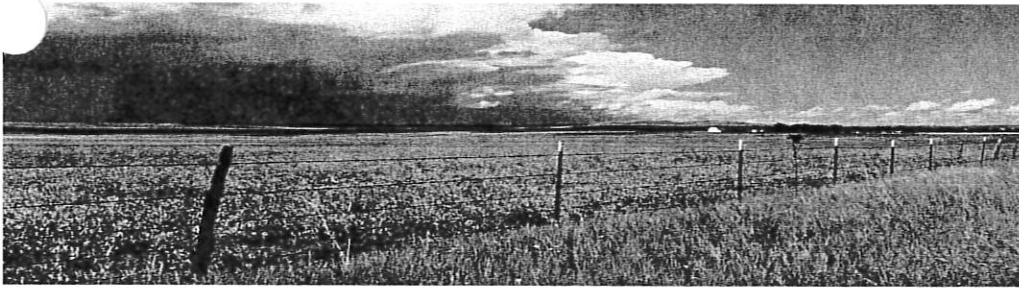
The algae reactor will utilize water acquired from the anaerobic digester, which contains micro-nutrients, and process water from the coal plant. To grow, the algae will use the micro-nutrients from the digesters, along with carbon and nitrogen from the coal plant. A portion of the carbon dioxide and nitrogen oxides from the power plant flu gas are consumed in the bioreactor by algae through photosynthesis. Algae will be harvested daily, sent through a dewatering process, and then processed into co-products including solids and oils.

The outputs from the algae reactor are numerous. The lipid oils in the algae can be processed into biodiesel, carbohydrates fermented into ethanol, and proteins can be used in the production of feed and fertilizers for crops. The carbon-enriched algae biomass can be dried and fed back into the power plant as renewable fuel or further processed to produce transportation fuels and other high-value products. Most of the water can be recycled and used in the coal plant cooling system or returned to the reactor for additional algae growth.

Algae systems have been researched for decades, most notably by the National Renewable Energy Laboratory and NASA. Production was found to be viable, but most work was done when fuel prices were half of what they are today. No large-scale algae reactor is in operation today, but significant venture capital investment has been made recently to develop this technology because of the tremendous potential for biofuel production and CO₂ utilization.

Two of the Holcomb Expansion Project partners, Sunflower Electric and Tri-State Generation and Transmission Association, have contracted with Greenfuel Technologies to begin a study at Holcomb to determine the appropriate algae strains for the algae reactor subsystem at the Center.





Support Pending Energy Legislation SS for HB 2066 & HS for SB 327

We Must Have Sound Energy Policies in Kansas

- *Sound energy policies protect our environment and public health.*
- *Sound energy policies provide for energy security through a diversified generation mix.*
- *Sound energy policies maintain low-cost electric rates and assure reliable electricity.*

We Must Have Regulatory Certainty in Kansas

- *Regulatory certainty promotes a climate of economic prosperity.*
- *Businesses depend on clear rules for expansion and investment decisions.*
- *The professional staff at KDHE recommended approval of Holcomb Expansion permit because the application complied with all known laws, rules and regulations, but it was still denied.*
- *The Project's state-of-the-art technologies enable it to meet all environmental regulations in place to protect public health and the environment.*

We Must Have Low-Cost, Reliable Power for ALL Kansans

- *Our most fragile citizens must be able to afford their electric bill.*
- *Demand for power is growing rapidly in Kansas.*
- *We need new baseload generation to replace the aging Kansas fleet.*
- *Baseload, intermittent, peaking and renewable resources are ALL needed to effectively serve electric needs in Kansas.*

We Must Have Economic Growth in Kansas

- *Electricity is a vital component to economic growth in Kansas.*
- *The Project brings a \$3.6 billion investment and \$750 million to Kansas electric ratepayers from out-of-state sources.*
- *Job opportunities from new generation in western Kansas top 2,400 during construction and more than 485 long-term jobs from the new power plants and bioenergy center.*

BOTTOM LINE:

Support for this legislation is essential because without sound energy policies, regulatory certainty, and economic growth, Kansans are unnecessarily prohibited from enjoying the potential benefits of a growing economy.

ENVIRONMENTAL ATTRIBUTES OF THE HOLCOMB STATION EXPANSION PROJECT

Cooperatives are already making significant investments in renewable energy and energy efficiency:

- Cooperatives value and support renewable energy as part of a balanced energy portfolio.
- This year, Sunflower and Mid-Kansas Electric will have 13 percent of their peak load served by wind power generated in Kansas.
- Midwest Energy will have 16 percent of their peak load served by Kansas wind power.
- Cooperatives work with their consumer-owners through energy efficiency programs to help them better manage energy use.

Project will accelerate transmission development that can serve renewables:

- Available and affordable transmission capacity is often cited as the greatest hurdle for wind energy development; on their own, wind developers often cannot afford to build significant transmission and keep wind energy prices low.
- The Holcomb Station expansion requires the immediate construction of high-voltage transmission lines that support additional wind energy development in Kansas.
- The expansion also requires the construction of new high-voltage transmission lines from Kansas to the western U.S. electrical grid, creating unique opportunities to export Kansas wind energy to western markets. Western-tied transmission lines will not be built without the expansion.

Integrated bioenergy center will mitigate carbon dioxide emissions and produce renewable fuels:

- Efforts are already underway with Sunflower, Kansas State University and the Kansas Bioscience Authority to design and develop an Integrated Bioenergy Center at Holcomb Station.
- Center includes an innovative algae reactor system that will capture carbon dioxide emissions for renewable fuels development and drive new rural industries.
- Phase I testing of the algae reactor with Cambridge, Mass.-based GreenFuel Technologies has already been completed.

Expansion supports “green jobs” across Kansas:

- Engineering firms that provide thousands of jobs in eastern Kansas are working on both the expansion and the integrated bioenergy center – these firms are leaders Kansas’ “green economy.”
- Bioenergy center would attract 160 green and agricultural jobs and \$400 million investment
- Transmission investments support green jobs in the Kansas wind energy industry.

Project responsibly provides needed, low-cost baseload power that protects public health:

- By working together, the cooperatives enjoy the economies of scale that larger, more efficient and lower emitting baseload facilities bring, and ensure that their consumer-owners have access to reliable, low-cost power. Using natural gas for baseload generation would significantly increase western and central Kansas cooperatives’ electric rates.
- Out-of-state cooperative investment will reduce Kansas member-owners’ costs by \$750 million over 30 years and support the development of new baseload generation *for* Kansas cooperatives.
- The expansion will not impact the ambient air standards in the vicinity of the plant, in northeast Kansas, or in other locations beyond that which was contemplated in the Clean Air Act.
- Advanced technologies minimize regulated emissions; best available control technologies will significantly reduce sulfur dioxide, nitrous oxides and particulate emissions.
- The project reduces mercury emissions from current levels with the use of aggressive mercury controls on the existing and two new units.

Anaerobic Digestion

An anaerobic digester, a system that harnesses the naturally occurring process of decomposition, is used to process waste and produce biogas and other co-products. The digester will process wastewater and manure from the dairy, thin stillage from the ethanol plant, and possibly glycerol from the biodiesel plant. Bacteria in the digester will produce methane that can be used by the ethanol and/or the power plant. Other co-products from the digester could include ammonia, water and nutrients (nitrogen and phosphorus) for the algae reactor, water for the power plant, and treated sludge that can be used as fertilizer.

Digesters have been used throughout the world for many decades, but they have recently gained popularity because of advances in anaerobic microbiology, reactor technology, and the potential to generate value-added end products.

Biodiesel Plant

Biodiesel is a fuel that has many of the same characteristics as normal petroleum diesel, including similar energy content, improved lubricity, and higher flash points. Biodiesel is derived from "cutting" triglycerides found in vegetable oils and animal fat, using simple alcohol in the presence of an alkali catalyst (transesterification). The biodiesel plant will be a multi-feedstock facility and will receive shipments of vegetable oil (including soy), animal fat, possibly extracted corn oil from the ethanol plant, and eventually algae oil from the algae reactor.

Although the use of biodiesel as a fuel for machinery dates back to the 1930s, the awareness in biodiesel as an alternative fuel has grown dramatically over the past several years. Some experts believe that growth in the biodiesel industry may be limited by the access to or cost of oil sources. Many of the crops that produce oil require large acreages to produce a significant volume of oil. Soybeans, for example, produce around 50 gallons (depending on location) of biodiesel per acre per year. In contrast, one acre of algae could produce 8,000 gallons of biodiesel per year.

Coal-Based Power Plant

The Holcomb site offers several resources for an integrated bioenergy facility. These include access to land, water, rail, natural gas, and carbon dioxide and heat from power plant emissions. The emissions produced by the power plant, when passed through the algae reactor, optimize algae growth by utilizing the warm flue gas that includes carbon dioxide.

Dairy

The dairy brings important components to the Center, and southwest Kansas has characteristics that allow for a growing dairy population. The dairy will provide manure and wastewater to an anaerobic digester where it will be converted to methane. The starch and wet distillers grain from the ethanol plant and possibly solids from the algae reactor will be used by the dairy for cattle feed.

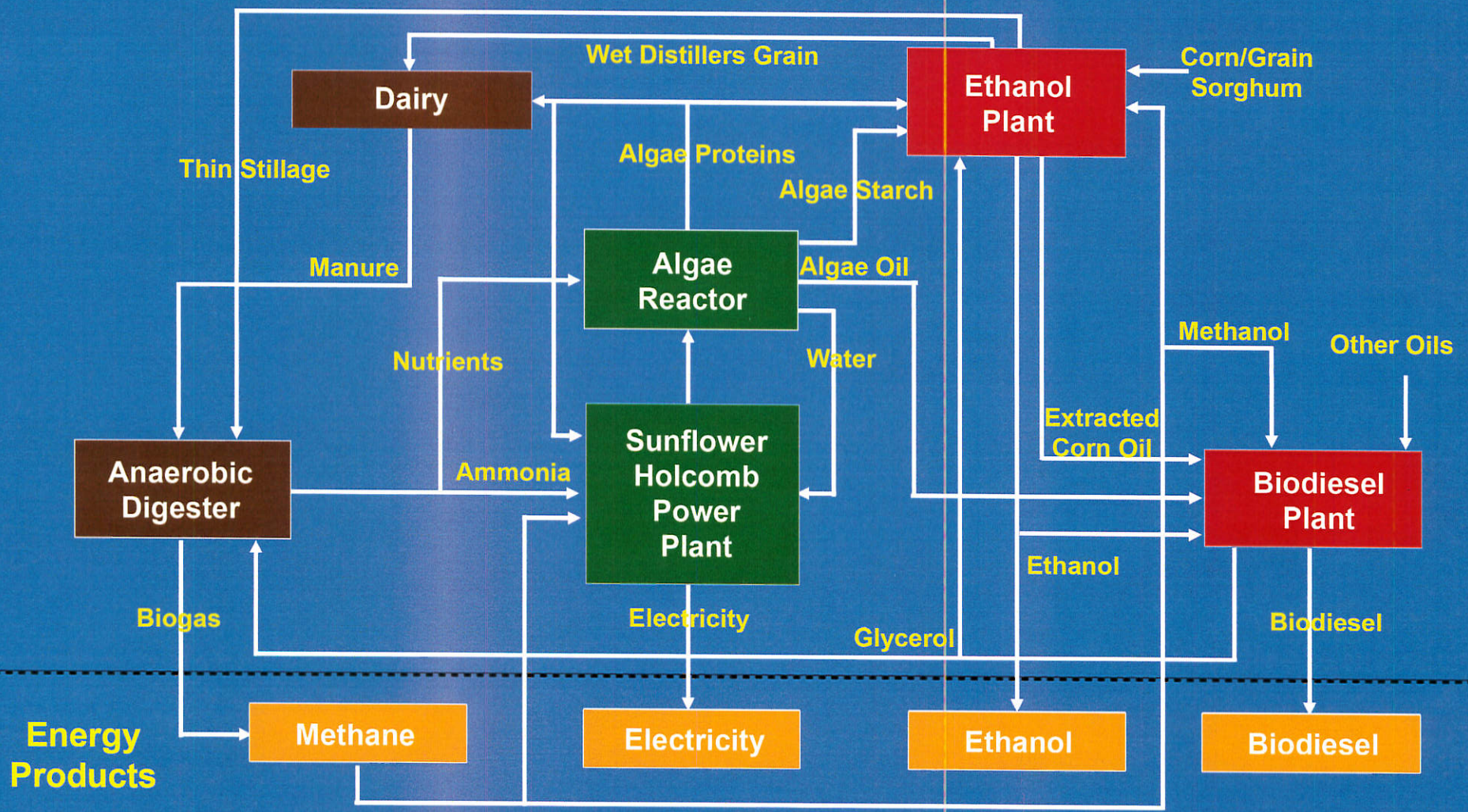
Ethanol Plant

Ethanol is a high octane, clean-burning, renewable fuel that is produced by converting cereal starches found in grain into sugar. The sugar is then converted to ethanol through fermentation. The ethanol plant will consume local corn and milo as well as grain railed from other parts of the country, possibly starch from the algae reactor, and methane (displacing natural gas) from the anaerobic digester. Co-products that will likely be provided include extracted corn oil to the biodiesel plant, thin stillage to the anaerobic digester, and distillers grain to the dairy and surrounding livestock industry.

Projected Impacts		
Subsystems	New Jobs	Investment
Ethanol	50	\$200M
Biodiesel	25	66M
Dairy	65	53M
Digester	6	25M
Algae*	<u>15</u>	<u>55M</u>
Total	161	\$399 Million
*with projected initial commercial build out		

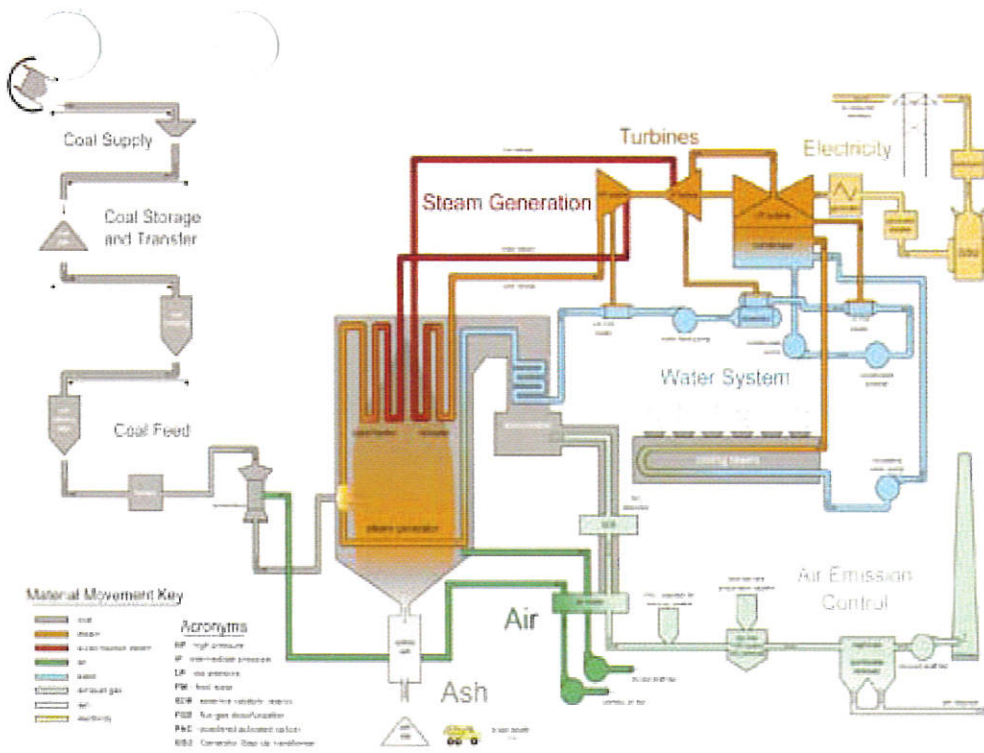
Project developers are also exploring options to power the thermal needs of the ethanol plant with over 90% renewable fuels. This achievement would enable the ethanol to qualify for additional credits under the Renewable Fuels Standard.

Sunflower Integrated Bioenergy Center



Patent Pending

Environmental benefits will include utilization of CO₂, NO_x, SO_x, nitrogen, phosphorus, waste heat, and waste water. The Center will also generate biofuels and carbon credits.



energy sources were considered, but they were not capable of providing for baseload capacity requirements. Natural gas-based generation was not proposed because of the significantly higher cost of natural gas and other factors. Integrated gasification combined cycle (IGCC) generation technology was not proposed, as there are no commercial examples of this technology at the scale required to satisfy the needs of the cooperatives.

Power Plant Major Components

The new units are designed to use sub-bituminous, low-sulfur coal. Once the coal is pulverized, fans blow it through low nitrogen oxide burners into the steam generator where it is burned.

The steam generators in each unit will be comprised of water-filled tubes lining the furnace walls. Burning coal releases thermal energy, which is absorbed by the water in the tubes. The temperature of the water rises and is converted directly into steam. The steam is then piped from the steam generator to the steam turbines.

The steam turbines' stationary and rotating blades are attached to a rotating shaft. As the high-pressure steam from the steam generator passes through the turbine blades, the pressure and thermal energy of the steam is converted to mechanical energy, causing the blades to turn the shafts of the turbines which are connected to the electric generators. The generators convert the mechanical energy of the rotating shafts into electric energy.

After the steam passes through the turbines, it flows into the condensers. The steam is cooled and condensed back into water. The re-circulated water is then pumped back into the tubes of the steam generator to be made into steam again.

Air Emissions

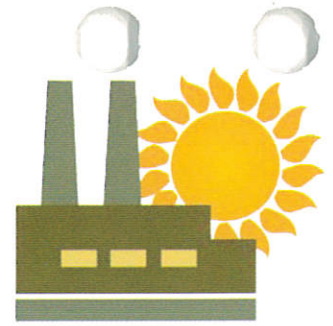
Air emissions will be minimized through various reduction methods. Sulfur dioxide (SO₂) emissions are controlled with a dry-lime flue gas desulfurization (FGD) system. Particulate emissions are controlled with a fabric filter baghouse that will remove more than 99 percent of the particulate matter or dust. NO_x emissions are controlled with a combination of low NO_x burners, overfire air (OFA), and selective catalytic reactors (SCR). Mercury emissions are controlled through the use of powdered activated carbon (PAC). The PAC is injected into the exhaust gas upstream of the FGD system. The PAC with the adsorbed mercury is collected in the baghouse.

The flue gas from the steam generator passes through the emissions control systems, then through the induced draft fans, and is exhausted through the stack. The stacks, each equipped with a continuous emissions monitoring system, will consist of an outer concrete wind shell and an inner flue.

Mercury Controls

The Project will include the injection of powdered activated carbon (PAC) for the control of mercury emissions. The Project will meet the New Source Performance Standards (NSPS) for mercury emissions as well as the provisions of the new Clean Air Mercury Rule.

The plants will be operated in a way that will result in total mercury emissions from all three units combined, including the existing 360-MW Holcomb Station and the additional 700-MW units that make up the Project, will be less than the current emissions from the single unit at the existing Holcomb Station.



Ambient Air Quality

The U.S. Environmental Protection Agency (EPA) developed a series of National Ambient Air Quality Standards (NAAQS) to protect and enhance the quality of the nation's air resources, promote the public health and welfare, and the productive capacity of its population. The Project has been designed to incorporate the latest in air emissions control technologies to help fulfill this directive.

As part of the air quality permitting process for the Project, extensive air quality modeling was conducted to determine the maximum impacts the new units will have on the ambient air quality. These analyses show that the impact of emissions from the proposed units will be only a small fraction of what is allowed by EPA.

Water

The Project will use water rights appropriated to Sunflower and rights purchased by Wheatland Electric Cooperative, Sunflower's largest member cooperative and water supplier. Each new unit will require about 8,000 acre-feet of water annually.

In anticipation of the Project, Wheatland purchased or contracted for the purchase of approximately 34,000 acres of sand hills land. Following conversion from agricultural to industrial rights, Wheatland anticipates having about 34,000 acre-feet of water available for power plant and other uses.

Coal

The project's economics indicate that coal should be the primary fuel source. The supply will be mined in Wyoming's Powder River Basin. While the capital cost of a coal-based plant is significantly higher than a gas-based plant, the fuel costs are much lower. Given current gas prices, the fuel cost from gas is six to seven times more expensive than coal.

While there is increasing demand on the nation's low sulfur coal supplies, Sunflower and Tri-State are both members of a fuel supply cooperative that is one of the largest buyers of coal in the nation.

Transmission Facilities

Transmission facility investments necessary to support the new generation will be met by both new construction and upgrades to the existing transmission infrastructure. At least two high voltage lines will be necessary to move the electricity from Holcomb to Tri-State's primary load areas in Colorado.

Additional transmission lines will also be built or upgraded to move power to the participants in the Project. Preliminary studies indicate a significant investment in transmission infrastructure in Kansas, Oklahoma and Texas will be required.