

The City of Lindsborg

April 3, 2012



City Hall

Bob Langenberger
Contracts & Energy Services Specialist
Western Area Power Administration
Rocky Mountain Region
5555 E. Crossroads Blvd.
P.O. Box 3700
Loveland, CO 80539-3003

Dear Mr. Langenberger:

The City of Lindsborg continues to implement changes to promote the efficient and conservative use of energy by its customers. The focus of these efforts has been in the area of education. Quarterly, two different publications are mailed to each customer of the City of Lindsborg. The first is *The City View* newsletter. This publication is written and published by the city and each edition provides tips on energy efficiency and conservation. The other publication is called *eco@home*. The city contracts with the American Public Power Association (APPA) and it is mailed to each customer. The information focus is on sustainable use of all resources, including energy. Later this month, this service will include daily energy conservation postings on the city Facebook page.

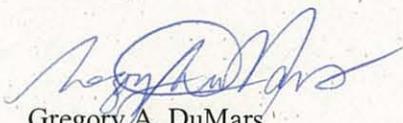
The primary projects for 2012 are the study of meter data to determine rate structures that will more accurately reflect the wholesale cost of city purchased power. The goal is to complete the study in early 2013 and implement new structures during third quarter 2013. The desire is that the new rate structure will encourage conservation and efficiency by the high cost users who drive retail rates to pay their equitable share of wholesale costs, instead of being subsidized by the efficient energy consumers.

The implementation of an air conditioner rebate program called *coolsavings™* will be implemented in 2012. Rebates of between \$300 and \$500 will be given for the replacement of 1.5T – 5T air conditioning units. Lindsborg's peak load is driven by residential air conditioning load, so the goal of this program is to encourage the replacement of 10 year or older units with new energy efficient units. This will assist in lessening the summer peak demand. Lindsborg City Council has committed \$30,000 to the *coolsavings™* program.

It has been, and it remains a goal of the City of Lindsborg to provide efficient and reliable energy to the citizens of the community.

Attached is the Integrated Resource Plan (IRP) for the City of Lindsborg. If you have any questions or need additional information, please call me at (785) 227-3355 or email me at gregd@lindsborgcity.org.

Sincerely,



Gregory A. DuMars
City Administrator

INTEGRATED RESOURCE PLAN (IRP)

Western Area Power Administration's (Western) customers must comply with the requirements of the Energy Planning and Management Program (EPAMP (10 CFR Part 905)) to meet the objectives of Section 114 of the Energy Policy Act of 1992 (EPAAct). A Western customer is any entity that purchases firm capacity with or without energy, from Western under a long-term firm power contract. Integrated resource planning allows customers to meet the objectives of Section 114 of EPAAct.

Integrated resource planning is a planning process for new energy resources that evaluates the full range of alternatives, including new generating capacity, power purchases, energy conservation and efficiency, renewable energy resources, district heating and cooling applications, and cogeneration, to provide reliable service to electric consumers. An IRP supports utility-developed goals and schedules. An IRP must treat demand and supply resources on a consistent and integrated basis. The plan must take into account necessary features for system operation, such as diversity, reliability, dispatchability, and other risk factors. The plan must take into account the ability to verify energy savings achieved through energy efficiency and the projected durability of such savings measured over time. (See 10 CFR § 905.11 (a)).

Who May Use This Form:

Utilities that primarily provide retail electric service that have limited staff, limited resource options, and obtain a significant portion of its energy needs through purchase power contracts are eligible to use this form. Utilities using this form may generate a limited amount of energy if the generating resources are primarily used as back up resources, to support maintenance and outages, or during periods of peak demand.

Completing This Form:

To meet the Integrated Resource Planning reporting requirement, complete this form in electronic format in its entirety. Unaddressed items will be deemed incomplete and the IRP may not be eligible for approval. All of the data fields in this form automatically expand. Additional information may be attached to and submitted with this report. Western reserves the right to require supporting back-up materials or data used to develop this report. If there is any conflict between this form and the requirements defined in EPAMP, the requirements in EPAMP shall prevail.

Submit the completed report with a cover letter to:

Attention: Power Marketing Manager
Western Area Power Administration
Rocky Mountain Region
P.O. Box 3700
5555 E. Crossroads Blvd.
Loveland, CO 80539-3003

EPAMP Overview

The Energy Planning and Management Program (EPAMP) is defined in the Code of Federal Regulations in Title 10, Part 905 (10 CFR 905). The purposes of EPAMP are to meet the objectives of the Energy Policy Act of 1992 (EPAAct) while supporting integrated resource planning; demand-side management, including energy efficiency, conservation, and load management; and the use of renewable energy.

EPAMP was initially published in the Federal Register at 60 FR 54714 on October 20, 1995, and revised in 65 FR 16795 on March 30, 2000, and 73 FR 35062 on June 20, 2008. 10 CFR § 905.11 defines what must be included in an IRP.

Western's Energy Services Web site (www.wapa.gov/es/irp) provides extensive information on integrated resource planning and reporting requirements. If you have questions or require assistance in preparing your IPR, contact your Western regional Energy Services representative.

IRP Content

Cover Page.....	Customer Name & Contact Information
Section 1.....	Utility/Customer Overview
Section 2.....	Future Energy Services Projections (Load Forecast)
Section 3.....	Existing Supply-Side Resources
Section 4.....	Existing Demand-Side Resources
Section 5.....	Future Resource Requirements and Resource Options
Section 6.....	Environmental Effects
Section 7.....	Public Participation
Section 8.....	Action Plan and Measurement Strategies
Section 9.....	Signatures and Approval

INTEGRATED RESOURCE PLAN (IRP) 5-Year Plan

Customer Name:
City of Lindsborg, Kansas

IRP History: Check one as applicable.	
	This is the submitter's first IRP submittal.
X	This submittal is an update/revision to a previously submitted IRP.

Reporting Dates:	
IRP Due Date:	April 7, 2012
Annual Progress Report Due Date:	April 7 th - annually

Customer Contact Information: Provide contact information for your organization. The contact person should be able to answer questions concerning the IRP.	
Customer Name:	City of Lindsborg
Address:	101 S Main, P.O. Box 70
City, State, Zip:	Lindsborg, KS 67456-0070
Contact Person:	Gregory DuMars
Title:	City Administrator
Phone Number:	785.227.3355
E-Mail Address:	gregd@lindsborgcity.org
Website:	www.lindsborgcity.org

Type of Customer: Check one as applicable.	
X	Municipal Utility
	Electric Cooperative
	Federal Entity
	State Entity
	Tribal
	Irrigation District
	Water District
	Other (Specify):

SECTION 1**UTILITY/CUSTOMER OVERVIEW****Customer Profile:**

Enter the following data for the most recently completed annual reporting period. Data may be available on form EIA-861, which you submit to the U.S. Energy Information Administration (EIA).

Reporting Period	
Reporting Period Start Date (mm/dd/yyyy)	01/01/2011
Reporting Period End Date (mm/dd/yyyy)	12/31/2011
Energy Sales & Usage	
Energy sales to Ultimate End Customers (MWh)	27,411
Energy sales for Resale (MWh)	0
Energy Furnished Without Charge (MWh)	0
Energy Consumed by Respondent Without Charge (MWh)	1,230
Total Energy Losses (MWh entered as positive number)	2,752
Total Energy Usage (sum of previous 5 lines in MWh)	31,393
Peak Demand (Reporting Period)	
Highest Hourly Summer (Jun. – Sept.) Peak Demand (MW)	8.5
Highest Hourly Winter (Dec. – Mar.) Peak Demand (MW)	4.6
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	07/21/2011
Hour of Highest Hourly Peak Demand (hh AM/PM)	5:00 PM
Peak Demand (Historical)	
All-Time Highest Hourly System Peak Demand (MW)	8.9
Date of All-Time Hourly System Peak Demand (mm/dd/yyyy)	07/19/2006
Hour of All-Time Hourly Peak System Demand (hh AM/PM)	4:30 PM
Number of Customers/Meters (Year End of Reporting Period)	
Number of Residential Customers	1,441
Number of Commercial Customers	226
Number of Industrial Customers	0
Other (Specify):	

Customer Service Overview:

Describe your customer service territory and the services provided. Include geographic area, customer mix, key customer and significant loads, peak demand drivers, competitive situation, and other significant or unique aspects of the customer and/or service territory. Provide a brief summary of the key trends & challenges impacting future resource needs including population changes, customer growth/losses, and industrial developments.

The City of Lindsborg is located in Central Kansas, at approximately 20 miles south of Interstate 70 and two miles west of Interstate 135. As of the 2010 census, Lindsborg had a population of 3,58. The two largest neighboring towns are Salina, 15 miles to the north, with a population of 45,679; and McPherson, 15 miles to the south, with a population of 13,770. Lindsborg is at the northern end of McPherson County, near the Saline County line. In 2010 the combined population of Saline and McPherson counties was 83,151. The projected population for the year 2015 is 87,974.

Three business development groups in Lindsborg actively pursue business and industry, and strive to attract diversity in the business community. Agriculture is being challenged as the prime factor in the economic picture by education and tourism. Besides farm services, major employers represent manufacturers, health care, schools and retailers. Lindsborg's workforce includes Saline and McPherson counties. The total workforce for the two counties in 2010 was 48,774. The average unemployment rate was 4.1% for McPherson County and 5.6% for Saline County. Occupation of job applications were: manufacturing 8,008; services 11,207; government 5,816; agriculture 649 and unemployed 855. The National Cooperative Refinery employs 511, Hospira, Inc. employs 453, and John Manville employees 304.

During the winter, the average daytime temperature is 25 degrees and the average nighttime temperature is 15 degrees. In the summer months, the average daytime and nighttime temperatures are 90 degrees and 65 degrees, respectively. The average temperature in January is 29.3 degrees. For July the average temperature is 80.9 degrees. The area receives an average annual precipitation of 29.1 inches and an average annual snowfall of 18.5 inches.

The City provides electric, water and sewer utility services to the community. Natural gas service is provided by Kansas Gas Service. Westar Energy, Inc. provides bulk electric transmission service to the area, through which the City purchases all its electricity requirements from Westar and the Western Area Power Administration (WAPA). Lindsborg's water supply is pumped from seven city-owned wells, four inside the city and three located outside of town in the DS&O Rural Electric Cooperative Association's service territory. Sewer charges are based on monthly water usage, with average residential charges being approximately \$37.95 per month.

The City's electric utility serves the 1.39 square mile territory located within the city limits. The surrounding territory is supplied by the DS&O Rural Electric Cooperative Association, Inc. The service territory is 98 percent urban and 2 percent suburban. Weather is the key

determinate of the electric peak load, with the summer cooling load driving the system peak.

The utility has no generating facilities. All electricity distributed by the utility is purchased through an all-requirements contract with Westar Energy, which expires May 31, 2019; and through the WAPA purchase, which expires September 30, 2024. The electricity is distributed by the utility at 7,200-volt and 4,160-volt primary voltages. There are only two retail rates: a residential rate consisting of a \$15 customer charge and a 101.6 mill energy charge, and a commercial rate consisting of a \$15 customer charge and a 101.6 mill energy charge. There is a purchase power cost adjustment adder.

During 2011, the utility served 1,411 residential customers and 226 commercial customers. Electricity sales growth for the five years ended 2011 has been around 0.5%, while customer growth has been at 0.3%.

With regard to the market potential for residential sales, the city's population has been holding steady. A projected modest customer growth translates into only slight growth in residential electricity sales, in the range of 1.0% to 2.0%.

Under the category of commercial sales, the single largest customer is the Bethany College, which has an enrollment of over 625 students. As depicted on Schedule 2, electricity sales to the college have decrease over the last five years at an average annual rate of 4.4%. The college has undergone a green initiative and one of the areas of focus has been energy conservation. As a result, the college decreased its electricity purchases by 673,000 kWh between 2007 and 2011.

The utility's major customers besides the college are: Bethany Home, which is an intermediate care facility housing 126 residents; the Lindsborg Community Hospital, which is a 34-bed facility; the school district, which operates one elementary school, one middle school and a high school within the city; Scott's Hometown Foods grocery; Columbia Industries; the Kaps gas station and convenience store; and Mid-Kansas Co-op. Columbia Industries employs 44 full and part-time employees to assemble storm doors and windows. By way of comparison, the city electric utility department has just three employees.

Lindsborg competes with neighboring communities for commerce and new industry and views its electric, water and sewer rates, as well as its tax rates, as factors in remaining competitive. Lindsborg wants its utility and tax rates to be comparable to those in Salina, 15 miles to the north, and McPherson, 15 miles to the south. McPherson has a municipal utility with some of the lowest rates in the United States, averaging 46 mills per kWh for residential customers and 30 mills for commercial customers. Salina is served by Westar Energy, which has residential rates averaging 65 mills and commercial rates averaging 50 mills. In comparison, Lindsborg's historical residential and commercial rates average 80 mills. The current residential and commercial rates average 101 mills. Lindsborg also wants its electric rates to be competitive with DS&O Rural Electric Cooperative, which serves the area surrounding the city. Presently, residential and commercial rates in

Lindsborg are slightly lower than for DS&O.

The utility's electric energy sources consist entirely of purchased power. As shown on Schedule 4, the utility purchased approximately 80% of its energy and 75% of its capacity from Westar Energy, with the remainder coming from WAPA. In its contract with Westar Energy, the utility agrees to purchase all its requirements, except for WAPA purchases, from Westar Energy until May 31, 2019. Because the utility is tied to the long-term Western Resources contract, there is little opportunity to reduce purchased power cost rates.

Lindsborg owns and operates its electric utility as a service to and for the benefit of the community. As such, the utility's goal is to provide reliable electric service at a reasonable price. As a benefit to the community, the utility provides electric service at no charge to the water and sewer department, city buildings, street lights, and the city ball park, tennis court and swimming pool. The city transfers interest earned on surplus electric department deposits to the general fund. Periodically, net revenues produced by electric operations are also transferred to the city's general fund.

Electricity Utility Staff & Resources:

Summarize the number of full-time equivalent employees by primary functions such as power production, distribution, and administration. Describe any resource planning limitations, including economic, managerial, and/or resource capabilities.

The City of Lindsborg purchases all its power needs and is therefore an electric distribution utility. The distribution department is comprised of 3 FTE's, 1 supervisor with 2 linemen. Administration consists of 4 employees who comprised 1.25 FTE for the electric utility. The Public Works Director spend ¼ of his time as Director of Utilities; Finance Director spends ¼ of time on financial affairs of the utility; Utility Billing Clerk spends ½ of her time with electric utility business; and, the City Administrator spends ¼ of his time with general management responsibilities of the electric utility.

Due to the small size of the utility, it is not economically feasible to have an in-house engineering staff and this service must be contracted. With engineering fees running between \$125 to \$175 per hour, prudent use of consultants is made after determining the impacts both negative and positive that the service will have on the electric utility.

Historical Energy Use:

Enter the peak system demand and total annual energy use for the preceding ten (10) reporting years. For total energy, include retail sales, energy consumed or provided without charge, and system losses.

Reporting Year	Peak Demand (MW)	Total Energy (MWh)
2002	8.0	27,146
2003	8.5	27,123
2004	7.8	26,771
2005	8.3	28,033
2006	8.9	27,132
2007	8.3	27,962
2008	8.2	27,246
2009	7.5	26,262
2010	8.2	28,823
2011	8.5	28,641

SECTION 2**FUTURE ENERGY SERVICES PROJECTIONS****Load Forecast:**

Provide a load forecast summary for the next ten (10) years; **and** provide a narrative statement describing how the load forecast was developed. Discuss any expected future growth. If applicable, you may attach a load forecast study and briefly summarize the results in this section. (See 10 CFR § 905.11 (b) (5)).

Load Forecast:

Reporting Year	Peak Demand (MW)	Total Energy (MWh)
2012	8.6	28,144
2013	8.6	28,353
2014	8.7	28,564
2015	8.7	28,777
2016	8.8	28,990
2017	8.9	29,206
2018	8.9	29,442
2019	9.0	29,640
2020	9.1	29,860
2021	9.1	30,081

Narrative Statement:

In 2009, Lindsborg participated in a statewide municipal generation study. The study was completed by Sawvel & Associates. The forecast timeline was through 2029 and assumed a 1.0% peak demand and energy growth net of 5.0% DSM/energy efficiency measures. The assumed 1.0 % growth in load and energy tracks to what the history for the past 5 years had shown. One assumption in the study was a load factor of 39.7%, but for 2011 the actual load factor was 40.8%.

SECTION 3**EXISTING SUPPLY-SIDE RESOURCES****Existing Supply-Side Resource Summary:**

Provide a general summary of your existing supply-side resources including conventional resources, renewable generation, and purchase power contracts (including Western Area Power Administration contracts). Describe the general operation of these resources and any issues, challenges, or expected changes to these resources in the next five (5) years. (See 10 CFR § 905.11 (b) (1)).

The City of Lindsborg electric utility purchases all its power needs through power supply contracts. Currently, Lindsborg is served by Westar Energy and the Western Area Power Administration. The contract with Westar Energy commenced on May 31, 2010 and expires on May 31, 2019. It is a 10-year full requirements contract. The generation mix for Westar Energy is coal, nuclear, natural gas, wind and purchased power. Under the current Westar Energy Generation Formula Rate (GFR) contract, the city is not allowed to develop or use any other generation, except for Federal PMA hydropower. Lindsborg has a contract with the Southwest Power Administration, but due to transmission constraints cannot take delivery. The city receives an allocation of hydropower from the Western Area Power Administration (WAPA). By contract, Lindsborg receives 2 MW of capacity and 5,516 MWh of energy. By Federal regulation, WAPA may reallocate a portion of capacity and energy on a periodic basis.

The City of Lindsborg does not have any of its own generation resources.

Existing Generation Resources:

List your current supply-side resources, including conventional resources and renewable generation. If you do not own any generating resources, insert N/A in the first row. Insert additional rows as needed.

Resource Description (Identify resources as base load, intermediate, or peaking)	Fuel Source	Rated Capacity (MW)	In-Service Date (Year)	Estimated Expiration/Retirement Date (Year)
N/A				

Existing Purchase Power Resources:

List your current purchase power resources. Define whether the contract provides firm service, non-firm service, all requirements or another type of service. Include Western Area Power Administration resources. If applicable, include a summary of resources that are under a net metering program. Insert additional rows as needed.

Resource Description	Fuel Source (If applicable)	Contracted Demand (MW)	Type of Service (Firm, Non-firm, Requirements, Other)	Expiration Date (Year)
Westar Energy, Inc.	Mixed	Full	Firm	2019
Western Area Power Admin.	Hydro	2	Firm	2024

SECTION 4**EXISTING DEMAND-SIDE RESOURCES**

Demand-side programs alter a customer's use pattern and include energy conservation, energy efficiency, load control/management, education, and distribution system upgrades that result in an improved combination of energy services to the customer and the ultimate consumer.

Existing Demand-Side Resources:

List your current demand-side programs, including energy conservation, energy efficiency, load control/management, education, or maintenance plans, or system upgrades. Programs may impact the utility distribution system, municipally owned facilities, and/or end-user energy consumption. Refer to Section 9 of this form for a list of example programs. Insert additional rows as needed.

(See 10 CFR § 905.11 (b) (1)).

Program Description	Estimated Program Savings (MW and/or MWh if known) (Include annual impact and impact over the life of the program if known.)
eco@home – quarterly publication mailed to every utility customer to educate on responsible and efficient energy use	Unquantifiable
Thermostat Rebate Program - \$25 rebate for the installation of a 7-day programmable thermostat	Unknown
Compact Florescent Light Giveaway – gave away 700 CFL's that contained a \$1.00 off coupon towards the purchase of a CFL from local vendor	Unknown
2 Customers with Solar Panel generation -1 Residential -1 Commercial	0.107 MWh
1 Customer with Ground Source Heat Pump (another to come online in 2012)	0.238 MWh
coolsavings Air Conditioner Rebate Program (kicks off April 1, 2012; rebate for replacement of 10 year or older ac unit)	

SECTION 5**FUTURE RESOURCE REQUIREMENTS
AND RESOURCE OPTIONS****Balance of Loads and Resources (Future Resource Requirements):**

Provide a narrative statement that summarizes the new resources required to provide retail consumers with adequate and reliable electric service during the 5-year resource planning period. Identify any federal or state regulations that may impact your future resource requirements. If you are not experiencing or anticipating load growth and a need for new resources, describe your current procedure to periodically evaluate the possible future need for new resources.

The City of Lindsborg has a firm power supply contract with Westar Energy that expires on May 31, 2019. This covers the 5 year planning resource planning period. But the City of Lindsborg continues to work with the Kansas Municipal Energy Agency (a joint action agency) on future resource planning and power supply options.

Identification of Resource Options

Identification and comparison of resource options is an assessment and comparison of existing and future supply-side and demand-side resources available to a customer based upon size, type, resource needs, geographic area, and competitive situation. Resource options evaluated must be identified. The options evaluated should related to the resource situation unique to each Western customer as determined by profile data such as service area, geographical characteristics, customer mix, historical loads, projected growth, existing system data, rates, financial information, and load forecast. (See 10 CFR § 905.11 (b) (1)).

Considerations that may be used to develop potential resource options include cost, market potential, consumer preferences, environmental impacts, demand or energy impacts, implementation issues, revenue impacts, and commercial availability. (See 10 CFR § 905.11 (b) (1) (iii)).

Future Supply-side Options:

List the future supply-side resource options that were considered and evaluated, including, but not limited to conventional generation, renewable generation, and power purchase contracts. Include a brief discussion on the applicability of each option for further consideration or implementation based on your system requirements and capabilities. If new resources are not required during the 5-year resource planning period, please indicate that below. Insert additional rows as needed. (See 10 CFR § 905.11 (b) (1)).

Supply-Side Option	Applicability for Implementation or Further Consideration
	No new power supply options are needed over the 5-year planning horizon cover by this integrated resource plan.

Future Demand-side Options:

List the future demand-side resource options that were considered and evaluated. Demand-side programs alter a customer's use pattern and include energy conservation, energy efficiency, load control/management, education, and distribution system upgrades that result in an improved combination of energy services to the customer and the ultimate consumer. Include a brief discussion on the applicability of each option for further consideration or implementation based on your system requirements and capabilities. Insert additional rows as needed. (See 10 CFR § 905.11 (b) (2)).

Demand-Side Option	Applicability for Implementation or Further Consideration
Rebuilt distribution system	The distribution system rebuild was completed in 2007 that converted the system from 4160 kva to 7200 kva. Also added an additional 12500 kva circuit for future growth. Net effect was a decrease in distribution system line loss of 2.2%.
Possible change in commercial rate structure	Currently gathering demand and energy data from all commercial customers to study a change to a demand rate based billing structure.
Possible change in residential rate structure	Gathering demand and energy data on 10 demographically diverse residential customers to determine a change in rate structure that is equitable to both the customer & utility
Air Conditioner Rebate Program (coolsavings [®])	Instituting an air conditioner rebate program to provide incentive to replace 10 year or older 1.5T – 5T air conditioner units.
Net Metering Policy	Currently have a parallel generation policy, studying net metering models as to best model to implement.

Resource Options Chosen:

Describe the resource options that were chosen for implementation or further consideration and clearly demonstrate that decisions were based on a reasonable analysis of the options. Resource decisions may strike a balance among applicable evaluation factors such as cost, market potential, customer preferences, environmental impacts, demand or energy impacts, implementation issues or constraints, revenue impacts, and commercial availability. (See 10 CFR § 905.11 (b) (1) (iv)).

All of the previously mentioned options listed in the Demand Side Options (page 13) are being considered for implementation.

coolsavings[®] Air Conditioner Rebate program is being implemented. Lindsborg load is driven by the residential customer base. The peak demand is driven by residential air conditioner load. \$30,000 has been committed to this program. The incentive is to replace old inefficient air conditioner units with new efficient units that meet minimum EER and SEER standards. The impacts will be that the customer will see lowered electric bills due to efficient space cooling systems, yet there comfort level will remain the same. The utility will see a decline in the summer peak load which is driven by air conditioner electric demand. This decline in peak load will also have a positive impact on the utility's wholesale cost structure.

Rate Structure Design: The rate structures for both the commercial base and residential base will be studied with the idea of a change in structure. Currently, the rate structure is a base rate with an energy charge. Energy inefficient customers are treated the same as energy efficient customers under the current bill system. The study will be done with the goal of those customers who drive the cost structure of the utility will bear there fair share of the cost, as opposed to being subsidized by efficient customers. In essence, the goal is to have the retail rate structure mirror the wholesale rate structure. For commercial customers, the study will look at a demand based rate structure. For the residential customer base, the study will look at a demand based rate structure and the possibility of a time-of-use block rate structure.

Net Metering Policy: The City of Lindsborg currently has a parallel generation policy but has not implemented a net metering policy. A bi-directional meter is installed for all parallel generation that is behind the meter. Different net metering policies are being studied to identify the one that encourages behind the meter generation, but is also equitable to the utility.

SECTION 6

ENVIRONMENTAL EFFECTS

Environmental Effects:

To the extent practical, Western customers must minimize environmental effects of new resource acquisitions and document these efforts. IRPs must include a qualitative analysis of environmental impacts in summary format. Describe the efforts taken to minimize adverse environmental effects of new resource acquisitions. Describe how your planning process accounts for environmental effects. Include a discussion of policies you conform with or adhere to, and resource decisions that have minimized or will minimize environmental impacts by you and/or your wholesale electricity supplier(s). Western customers are neither precluded from nor required to include a qualitative analysis of environmental externalities as part of the IRP process. If you choose to include a quantitative analysis, in addition to the summary below, please attach separately. (See 10 CFR § 905.11 (b) (3)).

During the 5 year planning period, the City of Lindsborg is under a full requirements contract with Westar Energy, Inc. Westar Energy complies with a statewide renewable portfolio standard, so de fact does the City of Lindsborg. If the City of Lindsborg comes under a stricter RPS than Westar Energy, by contract, Westar must ensure that the resource mix for the Lindsborg utility meets the requirements of the stricter RPS.

Additionally, under the full requirements contract, Lindsborg is contractually prohibited from adding any additional resources to supply its wholesale power needs.

Lindsborg does embrace energy efficiency programs. A \$0.001 per kWh adder is included in the retail rates for energy efficiency programs. These programs promote the efficient and conservative use of energy. This efficient and conservative use reduces the generation load to serve Lindsborg's needs, therefore minimizing environmental impacts reduced demand and energy consumption through fossil fuel based generation.

Lindsborg has made arrangements to take delivery of WAPA power, a hydroelectric renewable energy source, that reduces the need for fossil fuel based generation.

SECTION 7

PUBLIC PARTICIPATION

Public Participation:

Customers must provide ample opportunity for full public participation in preparing and developing an IRP. Describe the public involvement activities, including how information was gathered from the public, how public concerns were identified, how information was shared with the public, and how your organization responded to the public's comments. (See 10 CFR § 905.11 (b) (4)).

The Integrated Resource Plan (IRP) was on the agenda for four public meetings.

- a) February 21, 2012 Utilities Committee meeting. The IRP filed in 2007 was reviewed and open for public input. None received.
- b) March 5, 2012 City Council meeting. A preliminary draft of the IRP was reviewed and open for public input. Council agenda are publicly distributed prior to meetings. No public input received.
- c) March 20, 2012 Utilities Committee meeting. The updated and revised IRP was presented to the committee and available for public input. The revised IRP reflected Council input. No public input received.
- d) April 2, 2012 City Council meeting. Plan presented for consideration and approval.

SECTION 8

ACTION PLAN & MEASUREMENT STRATEGIES

Action Plan Summary:

Describe the high-level goals and objectives that are expected to be met by the implementation of this resource plan within the 5-year resource planning period. Include longer term objectives and associated time period(s) if applicable. (See 10 CFR § 905.11 (b) (2)) and (See 10 CFR § 905.11 (b) (6)).

Consistent with the timeframe set out in the regulations of Western's Energy Planning and Management Program, this electricity resource plan will cover the five years 2013 to 2017. The actions to be implemented under the plan are defined by the following basic parameters:

1. the marginal costs of capacity and energy are equal to the rates in the all-requirements contract with Westar, plus distribution losses.
2. the load shape objectives are load shifting during the summer and valley filling during the winter.
3. energy conservation for city use would be beneficial.
4. the rate impact measurement (RIM) criteria is appropriate.
5. budgetary constraints and the effect of DSM activities on utility transfer payments are critical considerations.

A first step in implementing the plan will be to collect data that can be used to screen DSM programs from a list of possible programs. Given the basic parameters outlined above, the possible programs to be considered have been selected and attached here as Schedule 10. The screening process employed the rate impact measurement test and considered the limited utility staff and resources.

One major consideration is the utility's lack of demand meters and the absence of a demand component in the commercial rate design. It would be very difficult to encourage customers to shift their demand away from peak periods if the utility is unable to measure the results with demand meters and reward the customers with a lower demand charge. For these reasons, the utility will give this rate design issue priority. Given Bethany College's past investments in energy conservation measures, the utility will explore the possibility of joining with the college to install demand meters as part of a DSM program. In 2011, the implementation of demand meters on customer accounts is being initiated. The goal of the program is to gather the load data necessary to partner with commercial customers to shift demand. If the desired results are not realized, then a demand rate structure will be considered.

Screening the DSM program long list will constitute a major implementation step. In addition to running the rate impact measurement test, data will be collected on end-use saturations, peak use by end-use and customer acceptance. Marginal cost and discount rate information will be gathered and environmental considerations will be

incorporated. A comparison of marginal costs with marginal revenues will provide immediate insight into whether DSM programs might meet the RIM test.

Once DSM programs are selected, the next implementation step will be to design an evaluation plan to measure the success of the DSM programs. This may include the acquisition of software to run cost/benefit analyses. While implementing only successful programs is the ideal goal, the evaluation plan also will be used to modify programs that are experiencing problems and to eliminate programs that prove to be ineffective.

The DSM evaluation will measure both the process and the impact of the programs. The process evaluation examines the efficiency of a program in such areas as administrative costs, service problems and participant satisfaction. The impact evaluation examines the effectiveness of a program in such areas as energy use, peak demand and program participation.

The last step will be to start the programs and monitor them. The results will be reported in the next electricity resource plan, for the years 2013-2017.

Between 2013 and 2017, the utility will select, design and implement DSM programs. Programs to be implemented will be selected from the list shown on Schedule 10, based on final cost and quantitative factors. Program costs, participation levels, energy and demand impacts, and current market penetration will be estimated during the first year. For each selected program, a program budget and schedule will be designed. The utility will then implement those recommendations that are economically and technically feasible to implement.

Specific Actions:

List specific actions you will take to implement your plan over the 5-year planning horizon.

New Supply-Side Resource Acquisitions:

List new resource options your organization is planning to implement, investigate, or pursue in the next five years. Include conventional generation, renewable resources, net metering programs, and purchase power contracts. Include key milestones such as the issuing an RFP, executing a contract, or completing a study. (See 10 CFR § 905.11 (b) (2)).

Proposed New Resource	Begin Date	Est. New Capacity (MW)	Milestones to evaluate progress and/or accomplishments
Net Metering Policy	06/2012	Unknown	Adoption by City Council. Annual data collection & reporting of customers under the net metering program
Commercial Demand Rate Structure	Already begun	Unknown	Data collection has begun. Rate Design Study in 2013 Implementation of demand rates 2014
Residential Rate Structure	Already begun	Unknown	Data collection has begun. Rate design study in 2013. Implementation of new rate structure 2014.

New Demand-Side Programs & Energy Consumption Improvements:

List energy efficiency, energy conservation, and load management programs your organization is planning to implement or evaluate in the next five years. Include key milestones to evaluate the progress of each program. Insert additional rows as needed. (See 10 CFR § 905.11 (b) (2)).

Example programs could include:

- Education programs & communications
- Energy efficient lighting upgrades
- Energy audits
- Weatherization & Insulation
- Window/doors upgrades
- Boiler, furnace or air conditioning retrofits
- Programmable thermostats
- Equipment inspection programs
- Use of infrared heat detection equipment for maintenance
- Tree-trimming/brush clearing programs
- Electric motor replacements
- Upgrading distribution line/substation equipment
- Power factor improvement
- Loan arrangements for energy efficiency upgrades
- Rebate programs for energy efficient equipment
- Key account programs
- Load management programs
- Demand control equipment
- Rate designs
- Smart meters (Time-of-Use Meters)

Proposed Items	Begin Date	Est. kW capacity savings per year	Est. kWh savings per year	Milestones to evaluate progress and/or accomplishments
Programmable thermostats	Already in place	Unknown	Unknown	Database of customers receiving rebate. Annual analysis to measure impact.
coolsavings [®] Air Conditioner Rebate Program	4/2012	Unknown	8%	Database of customers participating in program. Annual analysis to measure impact.
eco@home 1/4ly publication	Continue	Unknown	Unknown	Surveys to determine readership and acceptance.
Commercial & residential rate design	2013	Unknown	Unknown	Contract for rate design study. Adoption of recommended rate design. Implementation of new rate design 2014.

Measurement Strategies:

Describe your plan to evaluate and measure the actions and options identified in the IRP to determine if the IRP's objectives are being met. The plan must identify and include a baseline from which you will measure the IRP implementation's benefits. (See 10 CFR § 905.11 (b) (6)).

eco@home will be measured through online surveys for readership & acceptance. Unable to accurately quantify the savings impact of the education program.

Programmable Thermostats will be measured in terms of how many rebates are paid. For customers receiving a rebate, database is developed to track kWh usage after installation of programmable thermostat and compare to customers' prior consumption history.

coolsavings[®] Air Conditioner Rebate Program will be measured in terms of how many rebates are paid. For customers receiving a rebate, database is developed to track kWh usage after replacement of 10 year or older air conditioner with an energy efficient air conditioner and compare to customers' prior consumption history.

Commercial Rate Design will be measured against the one-year data collection period as the base line. The collection period will provide commercial kW and kWh data for comparison purposes. Upon implementation of rates in 2014, the data from 2014 forward will be measured against the 2012 data collection period.

Residential Rate Design will be measured against historical kWh consumption for the residential customer class. The demand (kW) will be measured by subtracting the 2012 base line kW data from the total kW demand to determine a baseline residential kW baseline. Upon implementation of rates in 2014, the data from 2014 forward will be measured against the 2012 baseline residential baseline.

SECTION 9**SIGNATURES AND APPROVAL****IRP Approval:**

Indicate that all of the IRP requirements have been met by having the responsible official sign below; **and** provide documentation that the IRP has been approved by the appropriate governing body (i.e. provide a copy of the minutes that document an approval resolution). (See 10 CFR § 905.11 (b) (4)).

Judy Neuschafer	Mayor
(Name – Print or type)	(Title)
	
(Signature)	(Date)

Other Information:

(Provide/attach additional information if necessary)

IRP Posting Requirement:

10 CFR § 905.23 of the EPAMP as amended effective July 21, 2008, facilitates public review of customers' approved IRPs by requiring that a customer's IRP be posted on its publicly available Web site or on Western's Web site. Please check the method in which you will comply with this requirement within thirty (30) days of receiving notification the IRP has been approved:

	Customer will post the approved IRP on its publicly available website and send the URL to Western.
XX	Customer would like Western to post the approved IRP on Western's website.

IRP Updates:

Western's customers must submit updated IRPs every five (5) years after Western's approval of the initial IRP.

IRP Annual Progress Reports:

Western's customers must submit IRP progress reports each year within thirty (30) days of the anniversary date of the approval of the currently applicable IRP. Annual progress reports can be submitted using Western's on-line reporting tool, which can be accessed at: www.wapa.gov/es/irp

LINDSBORG CITY COUNCIL
APRIL 2, 2012 – 6:30 P.M.
Minutes

Members Present –Ken Branch, Betty Nelson, W. R. Chestnut, Becky Anderson, Rick Martin, Brad Howe, Russ Hefner, David Higbee, & Judy Neuschafer

Absent - None

Others – Greg DuMars, Jerry Lovett-Sperling, Gary Shogren, Tim Berggren, Tim Dunn, Carla Wilson, Larry Lindgren, Bill Gusenius, Sharon Bruce, Chris Venables & Dan Carr

The meeting was called to order at 6:30 p.m. and the Pledge of Allegiance was said. Invocation was given by Mayor Neuschafer

Public Input – None

Amendments to the Agenda – None

Minutes – David Higbee moved to approve the minutes of the March 5, 2012 regular meeting and the March 27, 2012 special meeting. Motion seconded by Russ Hefner and passed.

Mayor's Report – Mayor Neuschafer read a proclamation for United States Coast Guard Band Day.

Appointments – Golf Course Advisory Board – 3 year term: Brian Bengtson and Nancy Lysell; 2 year term: Jim Copple & Bob Kissick; 1 year term: Joel Weide, Ted Kessinger & Ken Sjogren. Russ Hefner moved to approve the appointments. Motion seconded by W R Chestnut and passed.

CVB Board – Sharon Bruce. Becky Anderson moved to approve the appointment. Motion seconded by David Higbee and passed

Fire Department – Chris Venables. Russ Hefner moved to approve the appointment. Motion seconded by Rick Martin and passed

April Meetings – April 10th at City Hall for the presentation on the riverfront development at 6:30 p.m. Also the Legislative Coffee at 11:00 on Saturday and the Easter Egg Hunt at noon in Swensson Park.

Planning & Zoning –

Administration & Finance – BILLBOARD RENEWAL – Brad Howe moved to approve \$3780.00 for Luminous Neon for design, rewrap and 36 month contract for the billboard at mile marker 87.35 along Interstate I-135. Motion seconded by Betty Nelson and passed unanimously by roll call vote.

INSURANCE RENEWAL – Brad Howe moved to approve \$60,080 for city insurance coverage through EMC Insurance at Fee Insurance Agency. Motion seconded by W R Chestnut and passed unanimously by roll call vote.

COMMUNITY SURVEY – The committee wanted to bring this item to full council to again discuss the need and timing of getting a community survey. Also noted was the fact that the quote from a more local source resulted in a near doubling of the price of the survey. No action taken.

JO SUNDSTROM CONFERENCE CENTER BIDS – Ken Branch moved to effuse all bids and authorize staff to negotiate with contractors to find options to bring down the cost of the project. Motion seconded by Betty Nelson and passed

Utilities – **NLC SERVICE LINE WARRANTY PROGRAM** – Betty Nelson moved to approve the program for voluntary use by Lindsborg citizens. Motion seconded by Russ Hefner and passed.

KMEA DIRECTOR #2 and ALTERNATE DIRECTOR – Betty Nelson moved to appoint Councilman Brad Howe as Director #2 and Jody Sare as the Alternate Director. Motion seconded by Rick Martin and passed.

INTEGRATED RESOURCE PLAN – Betty Nelson moved to approve the Integrated Resource Plan. Motion seconded by Rick Martin and passed.

Streets & Parks – **LIFEGUARD CHAIR** – Rick Martin moved to approve \$1,179.95 to purchase a Tailwind lifeguard chair from SwimOutlet. Motion seconded by David Higbee and passed unanimously by roll call vote.

Public Safety – no items

Purchase Order – Betty Nelson moved to approve payment of Purchase Order Ordinance 4745. Motion seconded by Russ Hefner and passed unanimously by roll call vote.

Payroll – Betty Nelson moved to approve payment of Payroll Ordinances 4743 & 4744. Motion seconded by Rick Martin and passed unanimously by roll call vote.

Other – CMB LICENSE RENEWAL – Brad Howe moved to approve the renewal of CMB license for Brick House Grill. Motion seconded by Rick Martin and passed.

Adjournment – David Higbee moved to adjourn the meeting. Motion seconded by Brad Howe and passed. Meeting adjourned at 7:36 p.m.

Respectfully submitted,

/s/ Jerry Lovett-Sperling. MMC
City Clerk

City of Lindsborg, Kansas
Electricity Resource Plan (2013-2017)
Average Temperatures

	<u>Average Minimum</u>	<u>Average Maximum</u>	<u>Average</u>
January	17.2	39.1	28.2
February	21.8	46.4	34.1
March	30.5	56.3	43.4
April	40.5	66.4	53.5
May	51.9	75.5	63.7
June	62.1	86.2	74.2
July	67.4	92.1	79.8
August	65.5	89.9	77.7
September	56.5	81.6	69.1
October	43.7	70.1	56.9
November	30.4	53.8	42.1
December	20.9	42.2	31.6

Daily average air temperatures in degrees Fahrenheit.

City of Lindsborg, Kansas
Electricity Resource Plan (2013-2017)
Energy Sales, Customers and Average Use

Schedule 2

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Growth Rates</u>
Energy Sales (kWh):							
Residential	13,103,300	13,337,558	12,811,264	12,589,683	13,954,668	14,034,012	1.4%
Commercial	9,929,976	9,769,755	9,882,704	9,749,580	10,493,072	10,109,241	0.4%
College	4,099,146	3,940,749	3,683,329	3,055,472	3,358,187	3,267,945	-4.4%
City use	891,543	912,924	869,248	867,212	1,016,764	1,230,307	6.7%
Total Retail	<u>28,023,965</u>	<u>27,960,986</u>	<u>27,246,545</u>	<u>26,261,947</u>	<u>28,822,691</u>	<u>28,641,505</u>	0.4%
Revenues:							
Residential	\$1,064,210	\$1,145,063	\$1,194,005	\$1,160,406	\$1,384,817	\$1,532,516	
Commercial	806,482	806,280	878,893	854,999	990,629	1,021,909	
College	332,920	319,988	352,045	307,504	364,890	372,404	
City use	-	-	-	-	-	-	
Total Retail	<u>\$2,203,612</u>	<u>\$2,271,331</u>	<u>\$2,424,943</u>	<u>\$2,322,909</u>	<u>\$2,740,336</u>	<u>\$2,926,829</u>	
Number of Customers:							
Residential	1,421	1,425	1,429	1,432	1,444	1,441	0.3%
Commercial	225	226	226	227	224	225	0.0%
College	1	1	1	1	1	1	0.0%
City use	1	1	1	1	1	1	0.0%
Total Retail	<u>1,648</u>	<u>1,653</u>	<u>1,657</u>	<u>1,661</u>	<u>1,670</u>	<u>1,668</u>	0.2%
Average Use Per Customer (kWh):							
Residential	9,221	9,360	8,965	8,792	9,664	9,739	1.1%
Commercial	44,133	43,229	43,729	42,950	46,844	44,930	0.4%
College	4,099,146	3,940,749	3,683,329	3,055,472	3,358,187	3,267,945	-4.4%
City use	891,543	912,924	869,248	867,212	1,016,764	1,230,307	6.7%
Average Revenue Per kWh (mills):							
Residential	81.2	85.9	93.2	92.2	99.2	109.2	
Commercial	81.2	82.5	88.9	87.7	94.4	101.1	
College	81.2	81.2	95.6	100.6	108.7	114.0	

City of Lindsborg, Kansas
Electricity Resource Plan (2013-2017)
Historical Peak Loads

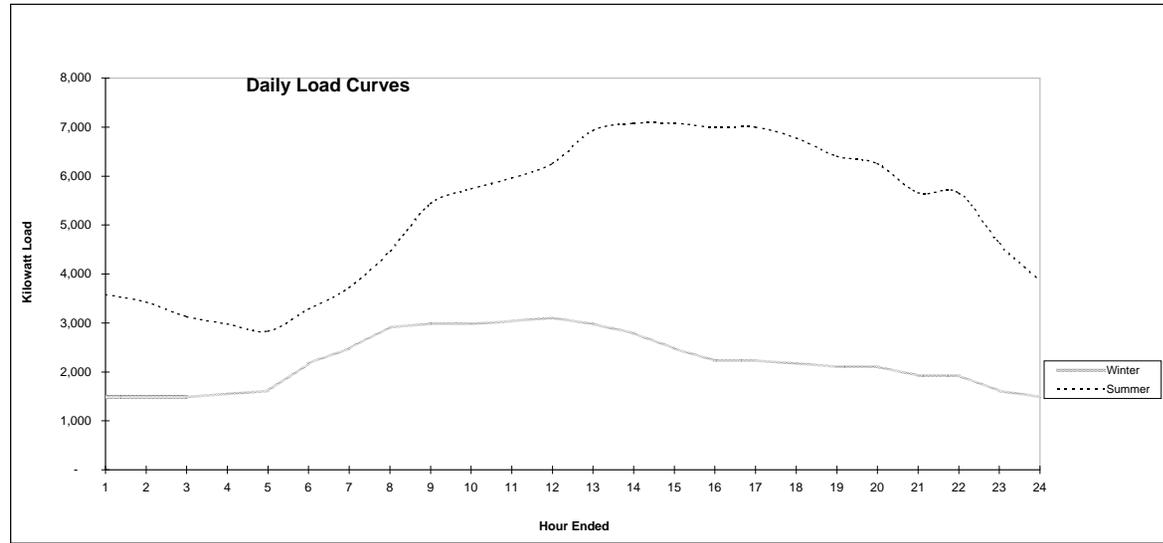
<u>Date</u>	<u>Time</u>	<u>KW</u>
July 19, 2006	4:30 p.m.	8,762
August 13, 2007	5:00 p.m.	8,256
August 4, 2008	4:30 p.m.	8,156
July 14, 2009	5:00 p.m.	7,459
August 10, 2010	4:00 p.m.	8,243
July 14, 2011	5:00 p.m.	8,465
Growth Rates:		
2007-2011		-0.7%

City of Lindsborg, Kansas
Electricity Resource Plan (2008-2012)
Sources of Electricity

Source	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
ENERGY (kWh):					
Purchased Power:					
Westar Energy	23,380,804	22,346,556	21,504,263	25,326,871	25,877,157
Western (WAPA)	<u>6,878,000</u>	<u>6,817,539</u>	<u>6,537,040</u>	<u>6,137,425</u>	<u>5,517,865</u>
Total	<u><u>30,258,804</u></u>	<u><u>29,164,095</u></u>	<u><u>28,041,303</u></u>	<u><u>31,464,296</u></u>	<u><u>31,395,022</u></u>
Percent Western	22.7%	23.4%	23.3%	19.5%	17.6%
CAPACITY (kW)					
Purchased Power:					
Westar Energy	6,309	6,184	5,487	6,600	6,485
Western (WAPA)	<u>1,972</u>	<u>1,972</u>	<u>1,972</u>	<u>1,643</u>	<u>2,000</u>
Total	<u><u>8,281</u></u>	<u><u>8,156</u></u>	<u><u>7,459</u></u>	<u><u>8,243</u></u>	<u><u>8,485</u></u>
Percent Western	23.8%	24.2%	26.4%	19.9%	23.6%

Osborne Pattern

Winter	Summer	Hour Ended	Winter	Summer
1,200	2,400	100	1,488	3,574
1,200	2,300	200	1,488	3,426
1,200	2,100	300	1,488	3,128
1,250	2,000	400	1,550	2,979
1,300	1,900	500	1,612	2,830
1,750	2,200	600	2,170	3,277
2,000	2,500	700	2,480	3,723
2,350	3,000	800	2,914	4,468
2,400	3,650	900	2,976	5,436
2,400	3,850	1000	2,976	5,734
2,450	4,000	1100	3,038	5,957
2,500	4,200	1200	3,100	6,255
2,400	4,650	1300	2,976	6,926
2,250	4,750	1400	2,790	7,074
2,000	4,750	1500	2,480	7,074
1,800	4,700	1600	2,232	7,000
1,800	4,700	1700	2,232	7,000
1,750	4,550	1800	2,170	6,777
1,700	4,300	1900	2,108	6,404
1,700	4,200	2000	2,108	6,255
1,550	3,800	2100	1,922	5,660
1,550	3,800	2200	1,922	5,660
1,300	3,100	2300	1,612	4,617
1,200	2,600	2400	1,488	3,872



City of Lindsborg, Kansas
Electricity Resource Plan (2013-2017)
Summary of Revenues and Expenditures

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Sales of electricity	\$2,271,331	2,373,537	\$2,313,159	\$2,733,826	2,885,434
Other operating revenues	<u>82,659</u>	<u>122,624</u>	<u>122,505</u>	<u>184,739</u>	<u>152,620</u>
Total operating revenues	<u>2,353,990</u>	<u>2,496,161</u>	<u>2,435,664</u>	<u>2,918,565</u>	<u>3,038,054</u>
Purchased power expense	1,511,052	1,495,444	1,402,238	1,791,811	2,051,594
Distribution expenses	404,428	477,542	479,723	447,885	516,325
Customer accounting and administrative expenses	<u>221,508</u>	<u>260,279</u>	<u>256,655</u>	<u>230,662</u>	<u>231,624</u>
Total operating expenses	<u>2,136,988</u>	<u>2,233,265</u>	<u>2,138,616</u>	<u>2,470,358</u>	<u>2,799,543</u>
Operating margin	217,002	262,896	297,048	448,207	238,511
Other income and expense	<u>(9,800)</u>	<u>(8,943)</u>	<u>(113,119)</u>	<u>(156,029)</u>	<u>(1,546,902)</u>
Operating income	<u>\$207,202</u>	<u>\$253,953</u>	<u>\$183,929</u>	<u>\$292,178</u>	<u>(1,308,391)</u>
Operating income	\$207,202	\$253,953	\$183,929	\$292,178	(1,308,391)
Less: Capital expenditures	361,799	5,096	136,804	40,902	69,692
Less: Bond payments	<u>-</u>	<u>-</u>	<u>25,972</u>	<u>121,325</u>	<u>129,375</u>
Cash flow	<u>(\$154,597)</u>	<u>\$248,857</u>	<u>\$21,153</u>	<u>\$129,951</u>	<u>(1,507,458)</u>

* Established Electric Reserve Fund and transferred \$1,450,000 to this fund.

Note: Interest earned on electric utility department funds is transferred directly to the general fund.

City of Lindsborg, Kansas
Electricity Resource Plan (2013-2017)
Load Forecast

Year	Energy Sales (MWh)					kW Peak Demand
	Residential	Commercial	College	City Use	Total	
2002	12,151	10,076	3,976	943	27,146	8,113
2003	12,169	9,979	4,073	902	27,123	7,965
2004	12,011	9,884	4,028	848	26,771	8,532
2005	13,057	10,137	4,007	832	28,033	7,832
2006	13,103	9,930	4,099	892	28,024	8,325
2007	13,338	9,770	3,941	913	27,962	8,762
2008	12,811	9,883	3,683	869	27,246	8,156
2009	12,590	9,750	3,055	867	26,262	7,459
2010	13,955	10,493	3,358	1,017	28,823	8,243
2011	14,034	10,109	3,268	1,230	28,641	8,465
2012	Est. 13,525	9,927	3,292	1,183	27,927	7,930
2013	Est. 13,714	9,967	3,147	1,263	28,091	7,875
2014	Est. 13,661	10,007	3,009	1,347	28,024	7,819
2015	Est. 13,852	10,047	2,876	1,438	28,213	7,765
2016	Est. 14,046	10,087	2,750	1,534	28,417	7,710
2017	Est. 14,243	10,171	2,629	1,637	28,680	7,656
Increase from 2011-2017	209	62	(639)	407	39	(809)
Growth Rates	1.40%	0.40%	-4.40%	6.70%	0.50%	-0.70%

City of Lindsborg, Kansas
Electricity Resource Plan (2013-2017)
Energy Sources

Source	Actual 2011			Projected 2012		
	kWh	Cost	Mills/kWh	kWh	Cost	Mills/kWh
Westar Energy, firm power	25,877,157	1,801,737	69.63	26,191,892	\$1,822,956	69.60
Western (WAPA), firm power	5,517,865	245,729	44.53	5,517,865	245,545	44.50
Totals	31,395,022	2,047,466	65.22	31,709,757	\$2,068,501	65.23

Note: The cost of purchased power includes transmission and transmission line losses.

	Westar Energy	Westar Trans.	WAPA Energy	Total Cost
January	99,139.25	17,260.70	20,975.85	137,375.80
February	104,604.42	19,436.81	18,777.25	142,818.48
March	84,506.06	19,342.67	19,557.72	123,406.45
April	79,988.98	19,157.89	23,027.00	122,173.87
May	135,346.38	19,117.53	20,731.68	175,195.59
June	175,413.90	19,088.24	22,234.17	216,736.31
July	200,849.75	19,245.36	25,108.51	245,203.62
August	196,603.99	19,348.70	22,234.17	238,186.86
September	185,904.89	20,928.82	19,176.53	226,010.24
October	116,774.24	19,568.66	17,698.83	154,041.73
November	95,987.32	19,519.86	17,698.83	133,206.01
December	94,760.90	19,841.54	18,508.25	133,110.69
	<u>1,569,880.08</u>	<u>231,856.78</u>	<u>245,728.79</u>	<u>2,047,465.65</u>

Cost per kW \$6.95
 Cost per kWh (mills) 27.10

TOTAL COSTS:

	Westar Trans.	SPP Trans.	KMEA	Total WAPA
January	3,355.10	-	20,975.85	24,330.95
February	3,370.35	-	18,777.25	22,147.60
March	3,812.35	-	19,557.12	23,369.47
April	5,127.82	-	23,027.00	28,154.82
May	3,835.57	-	20,731.68	24,567.25
June	3,122.51	-	22,234.17	25,356.68
July	3,041.19	-	25,108.51	28,149.70
August	2,628.86	-	22,234.17	24,863.03
September	3,237.54	-	19,176.53	22,414.07
October	3,525.36	-	17,698.83	21,224.19
November	3,324.93	-	17,698.83	21,023.76
December	3,884.16	-	18,508.25	22,392.41
	<u>42,265.74</u>	-	<u>245,728.19</u>	<u>287,993.93</u>

FIXED COSTS:

	Westar Trans.	SPP Trans.	KMEA	Total WAPA
January	2,057.31	-	9,506.30	11,563.61
February	2,230.21	-	9,506.30	11,736.51
March	2,542.16	-	9,506.30	12,048.46
April	3,324.56	-	9,506.30	12,830.86
May	2,472.32	-	9,856.54	12,328.86
June	1,802.93	-	9,856.54	11,659.47
July	1,485.91	-	9,856.54	11,342.45
August	1,553.74	-	9,856.54	11,410.28
September	2,235.41	-	9,856.54	12,091.95
October	2,249.77	-	8,257.94	10,507.71
November	2,084.95	-	8,257.94	10,342.89
December	2,348.67	-	8,257.94	10,606.61
	<u>26,387.96</u>	-	<u>112,081.72</u>	<u>138,469.68</u>
		KW delivered		1,659
		Cost per kW/ month		\$6.95

VARIABLE COSTS:

	Westar Trans.	SPP Trans.	KMEA	Total WAPA
January	1,297.79	-	11,469.55	12,767.34
February	1,140.14	-	9,270.95	10,411.09
March	1,270.19	-	10,050.82	11,321.01
April	1,803.26	-	13,520.70	15,323.96
May	1,363.25	-	10,875.14	12,238.39
June	1,319.57	-	12,377.63	13,697.20
July	1,555.28	-	15,251.97	16,807.25
August	1,075.12	-	12,377.63	13,452.75
September	1,002.13	-	9,319.99	10,322.12
October	1,275.59	-	9,440.89	10,716.48
November	1,239.98	-	9,440.89	10,680.87
December	1,535.48	-	10,250.31	11,785.79
	<u>15,877.78</u>	-	<u>133,646.47</u>	<u>149,524.25</u>
		kWh Delivered		5,517,865
		Mills per kWh		27.10

<u>Month</u>	<u>KWh Purchased</u>	<u>KW Peak Load</u>	<u>Load Factor</u>
January	2,448,834	4,414	74.6%
February	2,168,395	4,637	69.6%
March	2,080,212	3,607	77.5%
April	1,907,272	3,594	73.7%
May	2,282,797	6,415	47.8%
June	3,221,610	7,860	55.1%
July	4,170,305	8,411	66.6%
August	3,878,779	8,478	61.5%
September	2,495,266	8,783	39.5%
October	2,159,269	4,702	61.7%
November	2,277,856	4,325	73.1%
December	2,302,562	4,267	72.5%
Annual	<u>31,393,157</u>	<u>8,783</u>	<u>40.8%</u>

City of Lindsborg, Kansas
Energy Resource Plan (2013-2017)
Demand-Side Management Programs - Long List

Valley Filling:

Residential:

- Heat storage.
- Security lighting.
- Compact Fluorescent Lighting.
- Time-of-use rates and metering.

Commercial and industrial:

- Cool storage.
- Security lighting.
- Battery storage system.
- Time-of-use rates.
- Demand rates and metering.

Load Shifting:

Residential:

- Ceiling insulation
- Air conditioning cycling control
- Cooling duct insulation
- Water heating cycling control
- Load management thermostats

Commercial and industrial:

- Air conditioning cycling control
- Cooling duct insulation
- Water heating cycling control
- Load management thermostats
- Commercial cool storage
- HVAC equipment maintenance

City of Lindsborg
 Value of WAPA Power Compared to All Westar Energy Purchases
 Using 2011 Billing Records

Pro Forma Westar Billing Assuming No WAPA Power						Actual		Actual	Compared
Billing Demand	Demand @ \$18.20	kWh Energy	Energy Rate	Energy Cost	Total Cost	Westar Billing	Wester Difference	WAPA Cost	to WAPA
5,414	\$98,534.80	2,448,834	0.01876	\$45,940.13	\$144,474.93	\$116,399.95	\$28,074.98	\$20,975.85	\$7,099.13
5,637	102,593.40	2,168,395	0.02143	46,468.70	149,062.10	124,041.23	25,020.87	18,777.25	6,243.62
4,607	83,847.40	2,080,212	0.02219	46,640.96	130,488.36	103,848.73	26,639.63	19,557.72	7,081.91
4,594	83,610.80	1,907,272	0.02321	44,735.58	128,346.38	99,141.87	29,204.51	23,027.00	6,177.51
7,415	134,953.00	2,282,797	0.02016	46,021.19	180,974.19	154,463.91	26,510.28	20,731.68	5,778.60
7,860	134,563.20	3,221,610	0.02787	89,786.27	224,349.47	194,502.14	29,847.33	22,234.17	7,613.16
8,411	143,996.32	4,170,305	0.02594	108,177.71	252,174.03	220,095.11	32,078.92	25,108.51	6,970.41
8,478	145,143.36	3,878,799	0.02557	99,180.89	244,324.25	215,952.69	28,371.56	22,234.17	6,137.39
8,783	150,364.96	2,495,266	0.02497	62,306.79	212,671.75	206,833.71	5,838.04	19,176.53	(13,338.49)
5,702	97,618.24	2,159,269	0.02049	44,243.42	141,861.66	136,342.90	5,518.76	17,698.83	(12,180.07)
5,325	91,164.00	2,277,856	0.02067	47,083.28	138,247.28	115,507.18	22,740.10	17,698.83	5,041.27
5,267	90,171.04	2,302,472	0.02068	47,615.12	137,786.16	114,602.44	23,183.72	18,508.25	4,675.47
8,783	<u>\$1,356,560.52</u>	<u>31,393,087</u>	23.20	<u>\$728,200.04</u>			<u>\$283,028.70</u>	<u>\$245,728.79</u>	<u>\$37,299.91</u>
	\$154.45								
					2,084,761	1,801,732	283,028.70		