

## 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 (EPAct). 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 EPAct.

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](http://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

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# INTEGRATED RESOURCE PLAN (IRP) 5-Year Plan

<b>Customer Name:</b>
<b>City of Osawatomie, Kansas</b>

<b>IRP History:</b> Check one as applicable.	
<input checked="" type="checkbox"/>	<b>This is the submitter's first IRP submittal.</b>
<input type="checkbox"/>	<b>This submittal is an update/revision to a previously submitted IRP.</b>

<b>Reporting Dates:</b>	
<b>IRP Due Date:</b>	7/1/2014
<b>Annual Progress Report Due Date:</b>	4/1

<b>Customer Contact Information:</b> Provide contact information for your organization. The contact person should be able to answer questions concerning the IRP.	
<b>Customer Name:</b>	Osawatomie, Kansas
<b>Address:</b>	439 Main Street
<b>City, State, Zip:</b>	Osawatomie, Kansas 66064
<b>Contact Person:</b>	Don Cawby
<b>Title:</b>	City Manager
<b>Phone Number:</b>	913-755-2146
<b>E-Mail Address:</b>	DCawby@Osawatomieks.org
<b>Website:</b>	www.Osawatomieks.org

<b>Type of Customer:</b> Check one as applicable.	
<input checked="" type="checkbox"/>	<b>Municipal Utility</b>
<input type="checkbox"/>	<b>Electric Cooperative</b>
<input type="checkbox"/>	<b>Federal Entity</b>
<input type="checkbox"/>	<b>State Entity</b>
<input type="checkbox"/>	<b>Tribal</b>
<input type="checkbox"/>	<b>Irrigation District</b>
<input type="checkbox"/>	<b>Water District</b>
<input type="checkbox"/>	<b>Other (Specify):</b>

**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).

<b>Reporting Period</b>	
Reporting Period Start Date (mm/dd/yyyy)	01/01/2013
Reporting Period End Date (mm/dd/yyyy)	01/01/2014
<b>Energy Sales &amp; Usage</b>	
Energy sales to Ultimate End Customers (MWh)	29,470
Energy sales for Resale (MWh)	0
Energy Furnished Without Charge (MWh)	570
Energy Consumed by Respondent Without Charge (MWh)	599
Total Energy Losses (MWh entered as positive number)	3,246
Total Energy Usage (sum of previous 5 lines in MWh)	33,885
<b>Peak Demand (Reporting Period)</b>	
Highest Hourly Summer (Jun. – Sept.) Peak Demand (MW)	8.4
Highest Hourly Winter (Dec. – Mar.) Peak Demand (MW)	6.2
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	8/30/2013
Hour of Highest Hourly Peak Demand (hh AM/PM)	4:00 PM
<b>Peak Demand (Historical)</b>	
All-Time Highest Hourly System Peak Demand (MW)	9.929
Date of All-Time Hourly System Peak Demand (mm/dd/yyyy)	8/2/2011
Hour of All-Time Hourly Peak System Demand (hh AM/PM)	7:00 PM
<b>Number of Customers/Meters (Year End of Reporting Period)</b>	
Number of Residential Customers	1,866
Number of Commercial Customers	214
Number of Industrial Customers	1
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.

Osawatomie was named for two Indian tribes, the Osage and the Pottawatomie, for which the two rivers bordering Osawatomie were named. The Osage River was called the Marais des Cygnes (marsh of the swans) by French explorers and trappers living among the tribes, and the Kansas Legislature later adopted the name "Marais des Cygnes" in Kansas because there is another Osage River in Kansas. Geography placed Kansas in the middle of the nation, and history and fate brought John Brown to Osawatomie (a year after it was founded) where he made his stand against slavery.

Osawatomie is a community of 4,600 people located in the rolling hills of eastern Kansas in southwest Miami County, just 30 miles south of the junction of I-169 and I-35 which is the southern edge of the Kansas City metropolitan area. The City is home to Osawatomie State Hospital, which along with the Missouri/Union Pacific, were the major employers in the community. The railroad moved most of its manpower out of the community in the mid-eighties. In the 1990s, mental health reform saw a continued downsizing at the State Hospital and a change in the mission to intermediate vs. long term care.

The City has seen increased steady usage increases the 21<sup>st</sup> Century, thanks to the digital age. However a flood in 2007 which overtopped a small portion of the Corp of Engineer's levy set the community back just before the financial crisis caused the beginning of the Great Recession in 2008.

The City expects a small growth in load in the next 3 to 5 years. However, the City is aggressively marketing just under 300 acres of developable land given to the City by the State for economic development purposes. The City is offering the land free to commercial or industrial developers that will provide significant investment in the community.

The City's mix of customer consumption in 2013 was

Residential	17,524	59.5 %
Commercial	11,854	40.2 %
Industrial	<u>92</u>	<u>0.3%</u>
Total	29,470	

The City's peak load conditions typically occur during the warmer months from May through September.

The City's largest customer's is Osawatomie School District (approx 7.8% of the City load), YMCA (5.1%), Moon's Grocery Store (4.3%), LifeCare Nursing Home (2.2%), and Vintage Park (1.2%). This group of customers equates to 20.6% of the entire system.

### 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.

#### Power Production Department (3 full-time and 1 part-time)

- 1.0 FTE - Plant Superintendent: Overall department management
- 2.6 FTE - Operator: Plant Operator and assisting in maintenance duties

#### Distribution Department (4 full-time)

- 1.0 FTE - Line Foreman: Overall department management
- 2.0 FTE - Lineman: Assisting in maintenance duties
- 1.0 FTE - Groundsman: Assisting in maintenance duties

#### City Hall (6.0 full-time)

- 1.0 FTE - City Manager: Management over all city departments
- 1.0 FTE - City Clerk: Management of documents and finances of city government
- 1.0 FTE - Accountant: Manages accounting of finances
- 1.0 FTE - Human Resources Officer: Manages payroll, benefits and personnel documents
- 2.0 FTE - Utility Billing Clerks: Directly handle billing for all utilities

Utility Billing Clerks are paid entirely from utility funds (50% electric, 25% water, 25% sewer). A portion of the other City Hall positions are funded from utility funds. With this streamlined group, the City has constrained resources to apply for new initiatives.

### 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)
2004	8.3	33,400
2005	9.0	36,300
2006	9.5	35,400
2007	9.1	37,300
2008	8.8	37,500
2009	8.8	31,100
2010	9.6	37,000
2011	9.9	36,500
2012	9.4	35,380
2013	8.4	35,493

**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)
2014	9.0	35,937
2015	9.1	36,386
2016	9.3	36,841
2017	9.4	37,301
2018	9.6	37,767
2019	9.7	38,240
2020	9.8	38,718
2021	10	39,202
2022	10.1	39,682
2023	10.3	40,188

## Narrative Statement:

The forecasted Peak Demands and Total Energy numbers were based on the last 4 or 5 years of historical consumption. With 2009 being an abnormal year for energy consumption and 2013 being an abnormal year for demand, it appears the energy should increase by approximately 1.25 % a year and the demand is expected to rise 1.5% a year.

We expect steady growth in load in the next 3 to 5 years.

## 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 Osawatomie is a member of the Kansas Municipal Energy Agency (KMEA) Energy Management Project #1 (EMP1). Currently, there are 5 KCPL communities that have pooled together to form the EMP1. The City of Osawatomie uses all their own resources to meet their load first and then looks to the pool for the additional power supply and other services necessary.

The City's purchased power resources include 3 mW of GRDA, 2.5 mW of KCK BPU Nearman, 400 kW of Southwestern Power Administration, and 854/744 kW of WAPA. The City also has 3 diesel generators totaling 6.6 mW. The generators have just upgraded all generating units to meet the 2013 Reciprocating Internal Combustion Engines (RICE) standards.

The City's peak typically ranges from 9.5 to just under 10 mW each summer.

**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)
Norberg	Diesel	2,250		
Norberg	Diesel	3,100		
Norberg	Diesel	1,250		

**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)
Grand River Dam Authority		3	Firm	2026
KCK BPU Nearman		2.5	Firm	2015
Southwestern Power Adm		.4	Firm	2018
Western Area Power Adm		.854/.744	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)).

<b>Program Description</b>	<b>Estimated Program Savings (MW and/or MWh if known)</b> (Include annual impact and impact over the life of the program if known.)
Since 2010 the City has been replacing copper lines with large sized aluminum lines. The City has eliminated 12 miles of these old lines.	Estimated savings of 4 mWh annually
In recent years, the City had replaced over 100 Mercury Vapor with Metal Halide.	175,000 kWh annually
Key Account program implemented in 2012	We are systematically reviewing our large customer accounts to provide them with recommendations for efficiencies.

**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 National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines Rules**

In 2013, the Environmental Protection Agency (EPA) issued a rule that will reduce emissions of toxic air pollutants from existing diesel powered stationary reciprocating internal combustion engines (NESHAP). It will control emissions of formaldehyde, acetaldehyde, acrolein, methanol and other air toxics from diesel engines. The City has installed the necessary equipment to the existing internal generation to meet the new RICE standards.

The City has approximately 6.6 mW of internal generation plus 6.754-6.644 mW of outside resources = 13.354 plus mW of capacity

City's peak load through the years has stayed steady around 9.5 to 10 mW. Our forecasted number in 2021 is 12.43 mW

Periodically, the City evaluates the need for new resources compared to the City peak load conditions. At this time, the City has ample resources to meet the needs of their community for the next 5 years.

**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
City owned generation	City has developed a utility task force to begin reviewing options to the Nearman supply being removed after the summer of 2015. Early indications are the City can install enough additional generation to serve their entire load and have approximately the same capacity payment as before.
Short term capacity purchase	City will evaluate the opportunity to purchase capacity from other municipalities for a year or two until the City decides on installing additional generation or find other supply to meet unique City load profile.
Wind and Solar	City has been approached by renewable energy sources for short term and long term options.

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**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
Customer Peak Shaving	Currently, the City has excess capacity and the City isn't penalized by peak demands on the system so the economics don't make customer peak shaving viable at this time.
Interruptible Load	The City doesn't have any customers that could potentially participate in interrupting or shifting their load from on peak to off peak times.
Load Control	The City has evaluated a load control management system on their customer's air conditioners and hot water heaters. The economics for this system isn't favorable at this time.
Key account management	Work with large/key consumers to understand the retail rate structure and how the consumer can better manage usage. There is potential to work with these few customers to help them manage their usage and therefore help the city manage as well.
Energy Audit/Infrared Program	Work with large/key consumers to educate them on where they currently consume their energy. The audit program provides a benchmark for the consumer that helps them better use any extra funds to attack the most energy efficient and cost effective upgrades. The infrared program shows the consumer where energy is being lost in their facility.
Efficiency Osawatomie	The City is evaluating a program what would provide low interest loans to retail customers who upgrade their energy consuming equipment to more energy efficient equipment.
Line Voltage Upgrade from 4160 to 12470	The City is planning to upgrade the distribution system over the next 10 years in order to reduce line loss and increase efficiency and capacity.

**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)).

The City is currently involved in the KMEA EMP1. With the new integrated market, the EMP1 members to use their own resources first and then purchases the remaining energy needs from the market. The new SPP marketplace, opens up a lot of opportunities for Osawatomie to receive cheaper energy while they have their own capacity.

Along with the City investigating their own options, KMEA also has a Power Supply Committee which provides ongoing review and analysis of long term energy needs and resources for their members.

**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)).

The City has limited their environmental impact by purchasing over 63% of their energy requirements from GRDA, WAPA, and SPA. The City has reduced their dependency on coal and believed to have saved almost a million tons of Co2 per year.

KCPL has initiated a variety of programs to preserve the quality of the air, land and water on and around its properties. These innovative, award-winning projects aid KCPL in complying with the Clean Air Act, the National Pollutant Discharge Elimination System and other environmental awards.

The City plans to comply with all environmental regulations and plans to stay in compliance, having already upgraded the City's generation fleet to meet the RICE rules.

**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)).

This IRP has been developed by City Staff during and after public City Commission meetings.

The public will again be invited to review and comment on the IRP during a public comment period from August 5 through August 12. The notice of this review period will be posted in the local paper and the draft IRP will be available on the City's website. A draft copy of the IRP will be available to anyone at City Hall.

The city is also planning to provide information on the public's response. There were no public comments on the IRP.

Additional comments will be accepted throughout the year for the yearly updates.

The City of Osawatomie unanimously approved the IRP on August 22, 2013.

## 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)).

The long term goals of Osawatomie are maintain the lowest cost energy supply for their customers and being a good steward of natural resources and the environment. They also want to be able to supply reliable, stable priced energy to help their community thrive.

This resource plan will help accomplish these goals by creating an avenue to collaborate and work together with neighboring cities to obtain competitive power supply that comes from reliable, environmentally conscious power suppliers.

The city has focused on who they do business with and how they get their power as primary considerations in developing this IRP. Maintaining shorter term options allows us flexibility in the event a supplier changes the way they do business. Osawatomie believes that the electric industry has changed so much over the years that certain governmental entities such as WAPA is the right strategy to contract long term for power, but caution should be used if entering into long term agreements with private companies that the city has little control over their business practices.

The city is hoping to continue its community involvement through comments, suggestions, and increased participation in energy efficiency programs.

The City will evaluate the following programs over the next 5 years:

- Additional distribution line upgrades
- City Policy/Demand Side Management
- More defined Energy Efficiency/Conservation program
- New substation
- Efficiency Osawatomie

**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
Seek renewable resources through EMP1 as demand requires	2014	unknown	Ongoing meetings with KMEA and EMP1
Additional distribution line upgrades	2014	unknown	Feasibility and need determinations followed by project implementation
New substation	2014	unknown	Review options and perform study

### 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
Key Account Program	4/2012	unknown	unknown	Increase power factor and reduce peaks through consulting with large customers
Rate Design	6/2014	unknown	unknown	Increase power factor and reduce peaks through consulting with large customers
Infrared Scanning of equipment	1/2013	unknown	unknown	Increase power factor and reduce peaks through consulting with large customers
Energy Efficiency program	1/2013	unknown	unknown	Reduce average home owner's power consumption and increase use of heat pumps or energy efficient appliances.
Line Voltage Upgrade from 4160 to 12470	2016	unknown	unknown	Reduce line loss percentage
City Policy/Demand Side Management	6/2013	unknown	unknown	

**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)).

The City just began this IRP process and will continue to become more and more in tune with what the public is interested in and how to measure the impact of any new initiative.

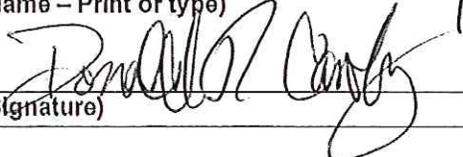
The City will most likely use existing or past energy information compared to any new initiative and the impact it has on the City's load profile. Every year, the City will review and adjust, if needed, the load forecast and escalators used in the forecast.

2012 will be the base year for any comparison on the impact of any demand side management evaluation. Measurement of energy consumption and changes will be made as available, but the solid baseline information will help in the evaluation.

The City will provide annual progress reports on this and future IRP's to the public and WAPA officials.

**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)).

Donald R Cawby (Name - Print or type)	City Manager (Title)
 (Signature)	7-2-2014 (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:

<input type="checkbox"/>	Customer will post the approved IRP on its publicly available website and send the URL to Western.
<input type="checkbox"/>	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](http://www.wapa.gov/es/irp)



July 31, 2014

Dave Neumayer, Power Marketing Manager  
Western Area Power Administrator  
555 E. Crossroads Blvd  
PO Box 3700  
Loveland, Colorado 80539-3003

RE: Osawatomie IRP

Dear Dave –

Please accept this Osawatomie IRP as the final version for your approval.

Thanks for your time. If you have any questions, please contact me anytime.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott", is written in a cursive style.

Scott S Shreve