INTEGRATED RESOURCE PLAN (IRP)

Western Area Power Administration's (WAPA) 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 WAPA customer is any entity that purchases firm capacity with or without energy, from WAPA 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. WAPA 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 (EPAct) 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.

WAPA's Energy Services Web site (https://www.wapa.gov/EnergyServices/Pages/energy-services.aspx) provides extensive information on integrated resource planning and reporting requirements. If you have questions or require assistance in preparing your IPR, contact your WAPA 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
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INTEGRATED RESOURCE PLAN (IRP)
5-Year Plan

Customer Name:
City of Beloit, 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:	May 14, 2017
Annual Progress Report Due Date:	May 14th - 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 Beloit
Address:	215 South Chestnut Street
City, State, Zip:	Beloit, Kansas 67420
Contact Person:	Manfred Milbers
Title:	Power Plant Operations Foreman
Phone Number:	785-738-5121
E-Mail Address:	beloitpp@nckcn.com
Website:	www.beloitks.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 your submit to the U.S. Energy Information Administration (EIA).

Reporting Period	2016
Reporting Period Start Date (mm/dd/yyyy)	01-01-2016
Reporting Period End Date (mm/dd/yyyy)	12-31-2016
Energy Sales & Usage	
Energy sales to Ultimate End Customers (MWh)	42,563
Energy sales for Resale (MWh)	
Energy Furnished Without Charge (MWh)	642
Energy Consumed by Respondent Without Charge (MWh)	
Total Energy Losses (MWh entered as positive number)	5,465
Total Energy Usage (sum of previous 5 lines in MWh)	48,670
Peak Demand (Reporting Period)	
Highest Hourly Summer (Jun. – Sept.) Peak Demand (MW)	12.574
Highest Hourly Winter (Dec. – Mar.) Peak Demand (MW)	
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	07-20-2016
Hour of Highest Hourly Peak Demand (hh AM/PM)	4:00 P.M.
Peak Demand (Historical)	
All-Time Highest Hourly System Peak Demand (MW)	13.991
Date of All-Time Hourly System Peak Demand (mm/dd/yyyy)	07-13-2012
Hour of All-Time Hourly Peak System Demand (hh AM/PM)	4:00 P.M.
Number of Customers/Meters (Year End of Reporting Period)	
Number of Residential Customers	1815
Number of Commercial Customers	469
Number of Industrial Customers	33
Other (Specify):	
Other (Specify):	
Other (Specify):	
Other (Specify):	
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.

Beloit is the County seat of Mitchell County, is located in the Solomon River valley in North central Kansas. The City is at the intersection of State Highways 14 & 9, and US Highway 24, just 41 miles north of interstate 70 and 45 Miles north west of interstate 135. The closest metropolitan area is Salina Kansas, approximately 65 miles southeast. Waconda Lake and Glen Elder State Park are within a 15-minute drive, providing fishing, hunting and camping to the area.

Beloit is both the governmental and Commercial center of Mitchell County, as well as its largest town, with a current population around 4000. For small and large business sales, the major employers in the utility's service territory are two farm equipment manufacturers, five educational facilities, two health care facilities, City, County and State government, and the local cooperative. Other business customers include light manufacturers, two motels and retail stores. No other new large businesses are expected in the next 5-years.

Residential -----16,157.09 MWH 38%
Commercial---- 12,428.78 MWH 29%
Industrial-------- 13,977.20 MWH 33%

The city provides electricity, water and sewer services to the community. Natural gas, refuge removal, and cable service are provided through independent providers of which the City receives a franchise fee.

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.

Electric Distribution Department (7 full time employees)

- 1- City Electrician/Journey Lineman: Primary oversight of electrical operations and line work.
- 1- Line Foreman
- 1- Journey Lineman
- 2- Lineman
- 2- Apprentice Lineman: Assisting in Maintenance duties.

Power Plant (6 Full time Employees)

- 1- Plant Foreman/Operator
- 1- Operator III Maintenance/Operator
- 4- Operator I

City Hall (5-Full Time Employees)

- 1-City Administrator/City Manager: Management over all city operations and Departments.
- 1-Financial Officer/City Clerk: In Charge of the city's finances and management of documents of city government.
- 1- Deputy City Clerk: Payroll processing and other duties.
- 1- Utility billing Clerk: Directly over utility billing and other duties.
- 1- Office Secretary: Helps with Utility billing and other duties.

With this streamlined group, the city has constrained resources to apply towards resource planning and 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)
2007	12.940	50,790
2008	12.357	49,820
2009	12.232	48,635
2010	13.371	50,091
2011	13.983	55,393
2012	13.991	53,575
2013	13.045	55,259
2014	13.872	52,782
2015	12.500	49,341

2016	12.574	48,670

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)
2017	12.637	49,351
2018	12.700	50,042
2019	12.764	50,743
2020	12.828	51,453
2021	12.892	52,173
2022	13.047	52,903
2023	13.112	53,644
2024	13.178	54,395
2025	13.244	55,157
2026	13.310	55,929

Narrative Statement:

Annual peak demand and energy sales are expected to increase gradually over the five year planning horizon, 2017 to 2022. Total energy sales are expected to increase 1.4% annually, from 48,670 MWH in 2016 to 52,903 MWH in 2022. The corresponding peak demand is expected to increase from 12.574 MW in 2016 to 13.047 MW in 2026, an annual increase of 0.5%.

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's electric system is interconnected with Sunflower Electric services. Through its interconnection with Sunflower, the City purchases power off the transmission grid. This interconnection was energized in 1976, updated and moved in 1999 and feeds the City's electric system through a new 34.5 KV transmission line.

Beloit has signed a contract with KMEA and the EMP-2 Group to help the city find the cheapest power available. EMP-2 has a resource sharing arrangement with the cities of Beloit, Pratt, Russell, Lincoln, Osborne, Ashland, Hoisington, Sharon Springs, Stockton, Washington, Garden City, Meade and Anthony.

The City has the capability of producing its own Electric power with its 6-Engines at the generation plant.

The 6-Engines at the power plant are used for peaking, but the City has a contract with Sunflower Electric in which Sunflower can call on the City to run the engines and Sunflower purchases that capacity.

The city has purchase power contracts with the following Companies: Sunflower Electric, Western Area Power Administration (WAPA), Grand River Dam Authority (GRDA), and KMEA/EMP-2.

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)
Peaking Unit #1, Fairbanks Morse	DF	1.0	1950	NA
Peaking Unit #2, Fairbanks Morse	DF	1.0	1950	NA
Peaking Unit #3 Cooper Bessemer	DF	2.0	1963	NA
Peaking Unit #4 Cooper Bessemer	DF	3.0	1964	NA
Peaking Unit #6 Cooper Bessemer	DF	3.6	1969	NA
Peaking Unit #7 Cooper Bessemer	DF	5.6	1980	NA

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)
WAPA		2.252 Summer 1.955 Winter	Firm	2054
GRDA		5.0	Firm	2026
Sunflower Electric			Load Following	2026

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.)
The Water Plant has taken steps to replace inefficient, old, and leaking tower pumps.	Unknown
Changed out street lighting from metal halide to high pressure sodium and LED's as needed.	Unknown
To increase distribution efficiency, the utility has undertaken an ongoing program to enhance current flow by converting the distribution line system from 2400-volt delta to 12470 volt-Y.	Unknown
Changing out transformers from 2400-kV to 7200/12470-kV (Non-efficient transformers upgraded to 2010 efficient standards).	Unknown
Rebuilt capacitor banks on 7200/12470 to help keep the power factor closer to unity.	Unknown
Have down sized some transformers to make transformer sizes closer to the load.	Unknown
Repaired all of the LTC's on the 3 transformers And replaced the oil.	Unknown
Trimmed trees from the power lines in the alleys and road ways.	Unknown
Infrared scanning is used on the system including all substations and switchgear to detect hot spots.	Unknown

SECTION 5	FUTURE RESOURCE REQUIREMENTS AND RESOUCE 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.

While City-Owned generation is not a principle source of electric energy, the facilities are a critical element of electric capacity needed to meet peek loads. Although total City-owned generation name-plate capacity is rated at 19,350 KW, the utility only claims 15,600 KW for accredited continuous peaking capacity.

The remainder of the capacity supply consists of ~2000 KW from Western Area Power Administration (WAPA). Starting in the fall of 2007 the City began receiving 3,000 KW from a contract with Grand River Dam Authority (GRDA). In the fall of 2010, the City began receiving an additional 2,000 KW from GRDA for a total of 5,000 KW from GRDA.

The 22,600 KW Capacity is more than adequate to meet the utility's peak day requirements. The utility has been supplying summer peak demands in the range of 12,500 to 14,700 KW. Given a targeted 18.0% capacity reserve margin and its current capacity sources, the utility can serve a peak load of about 18,532 KW.

With Sunflower, WAPA, and GRDA resources and the City-owned generators the City has enough resources to meet the needs 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 WAPA 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
Sunflower Electric	The city utility will purchase most of its power from them.
GRDA	The city utility has a long lasting contract still in effect until 2026.
WAPA	The city Utility has a contract with WAPA thru 2054.
EMP-2	The EMP-2 group will always look for better resources in the next 5-years.
Wind	The city does not currently have a policy for this, but if a customer wants install a wind turbine, they would need to purchase a net metering system.
Solar	The City currently has one customer with solar panels connected to the distribution system.

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
Peak Shaving	Peak shaving is not appropriate because the utility has more than adequate capacity, meaning its avoided capacity cost is zero.
Flexible Load Shape	Flexible load shape DSM programs are primarily directed at decreasing winter and summer peak demand by targeting water heater and air conditioning end uses. A Flexible load shape program to control air conditioning is an option the utility will consider in the future, especially if peak demand growth over the next five years increases faster than currently forecasted.
Energy Conservation and Efficiency	The City will continue to educate customers about the savings of electricity usage and continue implementing Energy Efficiency measures throughout the City properties.

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 only forecasting moderate growth over the next 5-years and the supply-side resources the City currently has in place will be sufficient for the next 5 years. The City will also continue to upgrade and maintain the distribution system for reliability and efficiency and continue to encourage the customers to conserve energy when possible

SECTION 6	ENVIRONMENTAL EFFECTS

Environmental Effects:

To the extent practical, WAPA 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). WAPA 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 made arrangements to take delivery of its WAPA allocation, which helps to minimize the need for alternative resources.

With the new RICE/NESHAP requirements, we installed a combination silencer/catalyst on each plant engine to reduce the amount of Co emissions into the air.The City Power Plant reports annually to KDHE as well as the Department of Energy. Due to the EPA, the RICE/NESHAP Rule has introduced even higher emissions standards that will need to be met. The City spend upwards of $800K to meet the RICE Rule requirements. A micro-processer analyzes data minute by minute and records that data from the engines. The data is then monitored by the plant operators and later sent to KDHE for review and approval.

The city will purchase most of its power from Sunflower Electric, which currently obtains part of its energy from renewable resources, including two wind farms.

The City will also continue to upgrade and maintain the distribution system for reliability and efficiency and continue to encourage the customers to conserve energy when possible.

All of the actions described above help to minimize the impact on the environment

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)).*

We have public power week. As far as public commit they let us know about the utility rates when changes are talked about. (We will start to communicate with the public by placing ads in the local paper.

We will help educate the general public in ways to help conserve power during the hot times of the day, by placing ads in the local newspaper. We would also place Information in the utility bills that get sent out every month, to encourage the public participation.

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 goal of the city is to maintain the lowest cost energy supply for their customers and be a good steward of natural resources and the environment. We also want to be able to supply reliable, stable priced energy to help our community thrive.

The City is only expecting moderate growth during the 5-year resource planning period and the supply-side resources the City has in place are sufficient to meet City's needs over the next 5 years. Therefore, the City does not need to add any new supply-side resources.

The City will focus its efforts on maintaining and upgrading the distribution system for reliability and efficiency, continue to educate customers on the efficient use of electricity, and implement energy efficiency measures throughout City properties when possible. Over the resource planning period, the City will be working to implement the following actions:

- The power plant has installing combination silencer/catalyst for the new RICE/NESHAP laws
- The power plant has updated its cooling system to help cool the plant engines.
- We will try to install more circuits coming out of the plant to help improve the voltage and take some load off of some already loaded circuits.
- The City will continue to trim trees from the power lines.
- We will also continue to convert its 2400 volt system into 12470 volt system.
- The City will continue to change out some poles, transformers and replace them with more efficient transformers.
- Educate customers about the savings of electricity usage.
- Continue implementing Energy Efficiency measure throughout the City properties.

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
No new resources needed. City generation of 15,600 KW and purchase power contracts from Sunflower, Western, and GRDA provide a combined capacity of 22,600 KW which is adequate to meet the forecasted summer peak demands in the range of 12,500 to 13,400 KW.			

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
Energy efficient lighting upgrades.	Cont.	Unknown	Unknown	The city electric department changes out light bulbs and replaces them with more efficient ones.
Use of infrared heat detection equipment	Cont.	Unknown	Unknown	Once a year the city uses the camera on electrical equipment.
Tree Trimming	Cont.	Unknown	Unknown	The city trims trees from the power lines.
Upgrading distribution lines/substation equipment.	Cont.	Unknown	Unknown	The City's electric department replaces lines as needed, and the substations are checked every 5-years.
Power Factor Improvement	Cont.	Unknown	Unknown	The city utility installed some capacitor banks on some of the bigger circuits to keep the power factor closer to unity.
Street Lights	Cont.	Unknown	Unknown	The utility changes out street lighting from metal halide to high pressure sodium as needed.

Proposed Items	Begin Date	Est. kW capacity savings per year	Est. kWh savings per year	Milestones to evaluate progress and/or accomplishments
Customer Education	Cont.	Unknown	Unknown	Existing informal working relationship between the utility and its customers is producing great results.

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 will utilize 2016 as the baseline and monitor actual peak demand and energy use verses the load forecast defined in this IRP. If the City sees major deviations from the plan, the City will determine an updated plan is needed to meet the Cities requirements.

The City staff will meet semi-annually to evaluate if the actions defined in the IRP are being accomplished to meet the objectives in the IRP.

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)).*

Jason M. Rabe **(Name – Print or type)**	City Manager **(Title)**
(Signature)	5/2/17 **(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 WAPA'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 WAPA.
X	Customer would like WAPA to post the approved IRP on WAPA's website.

IRP Updates:

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

IRP Annual Progress Reports:

WAPA'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 WAPA's on-line reporting tool, which can be accessed at:
http://www.wapa.gov/FormsAuth/Login.aspx?ReturnUrl=/irpsubmit/irpsubmit.aspx

CITY OF BELOIT

RESOLUTION NO. 2017-6

RESOLUTION BY THE CITY OF BELOIT, KANSAS, ADOPTING AN INTEGRATED RESOURCE PLAN (IRP) FOR THE DEVELOPMENT OF AN ENERGY MANAGEMENT PLAN FOR THE CITY OF BELOIT, KANSAS.

WHEREAS, the City of Beloit, Kansas, has heretofore agreed to purchase and accept delivery of an allocation of Western Area Power Authority (WAPA) resource and thereby is required to comply with the requirements of the Energy Planning and Management Program (EPAMP (10 CRF Part 905)) to meet the objective of Section 114 of the Energy Policy Act of 1992 (EPAct)and whereas the development and implementation of an Integrated Resource Plan (IRP) allows the City to meet objectives set forth by Section 114 of the EPAct. The City has developed said IRP and has made it available to all customers served by the City of Beloit, Kansas for comment;

THEREFORE BE IT RESOLVED, That the City has prepared and reviewed the IRP and that it meets the requirements as set forth above. And, that the Mayor and City Clerk of the City of Beloit, Kansas, are hereby authorized and directed to execute for and on behalf of the City of Beloit, Kansas, the Integrated Resource Plan (IRP), as presented before the City Council and public.

FURTHERMORE, the Mayor, City Administrator and City Clerk of the City of Beloit, are hereby authorized and directed to take all necessary action to proceed with the further development and implementation of the IRP on behalf of the City of Beloit, Kansas.

ADOPTED AND APPROVED by the governing body of the City of Beloit, Kansas this 2nd day of May 2017.

Tom Naasz

Tom Naasz, Mayor

ATTEST:

Amanda Lomax

Amanda Lomax, City Clerk