

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 (EPAAct). 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 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 Integrated Resource Plan (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 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.

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.

WAPA’s Integrated Resource Planning site (<https://www.wapa.gov/power-marketing/irp/>) provides extensive information on Integrated Resource Planning and reporting requirements. If you have questions or require assistance in preparing your IRP, 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
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 Osawatomie, Kansas

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

Reporting Dates:	
IRP Due Date:	July 1, 2026
Annual Progress Report Due Date:	July 1, 2027

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 Osawatomie
Address:	439 Main St.
City, State, Zip:	Osawatomie, Kansas, 66064
Contact Person:	Terry Upshaw
Title:	Director of Utilities
Phone Number:	913-755-6800
E-Mail Address:	tupshaw@osawatomieks.org
Website:	

Type of Customer: Check one as applicable.	
☒	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)	01/01/2025
Reporting Period End Date (mm/dd/yyyy)	12/31/2025
Energy Sales & Usage	
Energy sales to Ultimate End Customers (MWh)	35,472
Energy sales for Resale (MWh)	0
Energy Furnished Without Charge (MWh)	0
Energy Consumed by Respondent Without Charge (MWh)	0
Total Energy Losses (MWh entered as positive number)	4,371
Total Energy Usage (sum of previous 5 lines in MWh)	39,843
Peak Demand (Reporting Period)	
Highest Hourly Summer (Jun. – Sept.) Peak Demand (MW)	8.5
Highest Hourly Winter (Dec. – Mar.) Peak Demand (MW)	8.4
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	07/29/2025
Hour of Highest Hourly Peak Demand (hh AM/PM)	8 PM
Peak Demand (Historical)	
All-Time Highest Hourly System Peak Demand (MW)	10.2
Date of All-Time Hourly System Peak Demand (mm/dd/yyyy)	06/24/2024
Hour of All-Time Hourly Peak System Demand (hh AM/PM)	4 PM
Number of Customers/Meters (Year End of Reporting Period)	
Number of Residential Customers	1,806
Number of Commercial Customers	199
Number of Industrial Customers	0
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.

Osawatomie was named for two Indian tribes, the Osage and the Pottawatomie, for which the two rivers bordering the town were named. The Osage River was called the Marais des Cygnes (marsh of the swans) by French explores and trappers living among the tribes, and the Kansas Legislature later adopted the name “Marais ds Cygnes” for the portion of the river in Kansas because there is another Osage River in Kansas. Geography placed Kansas in the middle of the nation; history and fate brought John Brown to Osawatomie (a year after it was founded) were 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 previously the major employers in the community. The railroad moved most of its manpower out of the community in the mid-1980’s. In the 1990’s, mental health reform saw a continued downsizing of the State Hospital and change in its mission from long-term to intermediate care.

Our key customers are the State Hospital and USD 367.

Currently the City is seeing moderate residential growth and no commercial or industrial growth.

In late 2024 the City partnered with Evergy and constructed a 4.95 MW Solar Array. Any energy produced over the City’s needs at that time is sold into the market. This Array went online in December of 2024.

The City is also in the process of upgrading the distribution system from 2400/4160 to the more efficient voltage of 7200/12470. This is an ongoing project that will take several years to complete.

The City’s mix of customer consumption in 2023 was:

Residential	54.34%
Commercial	32.56%
Government	13.10%

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 assigning in maintenance duties

Distribution Department (4 full-time)

1.0 FTE – Overall department management

2.0 FTE – Lineman: Assisting in maintenance duties

1.0 FTE – Assisting in maintenance duties

City Hall (6 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 account for finances

1.0 FTE – Human Resources Office: Manages payroll, benefits and personnel documents

2.0 FTE – Utility Billing Clerks: Directly handle billing for all utilities

Utility Billin 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 the 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)
2016	N/A	N/A
2017	8.5	33,854
2018	8.5	36,245
2019	8.3	34,782
2020	8	34,270
2021	8.5	34,698
2022	8.5	35,906
2023	10.10	37,602
2024	10.20	38,204
2025	8.5	31,764

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)
2026	9.98	36,278
2027	10.01	36,367
2028	10.03	36,444
2029	10.05	36,521
2030	10.07	36,598
2031	10.09	36,674
2032	10.11	36,751
2033	10.12	36,798
2034	10.14	36,845
2035	10.15	36,892

Narrative Statement:

We develop a load forecast by analyzing historical demand, weather patterns, and customer growth to project future electricity needs. Using statistical models and scenario analysis, we estimate both energy consumption and peak demand under a range of possible conditions to support reliable planning.

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 WAPA 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)).

Our supply-side portfolio includes a mix of purchased power and market resources, including firm hydropower allocations from Western Area Power Administration and Southwestern Power Administration, dispatchable generation from Grand River Dam Authority, Solar Array, and supplemental energy from the Southwest Power Pool market. WAPA and SPA provide reliable, primarily hydro-based firm energy, while GRDA offers dispatchable capacity and energy to support system reliability and peak demand. SPP market purchases are used to balance supply and demand and manage short-term needs, though they are typically non-firm and subject to price volatility. Over the next five years, key considerations include potential variability in hydropower due to water conditions, market price exposure, and the need to maintain sufficient firm capacity to ensure reliable service.

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)
Osawatomie #11		2.1	2018	2050
Osawatomie #12		2.1	2018	2050
Osawatomie #13		1.9	2018	2050
Osawatomie #14		2.15	2017	2050
Osawatomie #15		2.04	2017	2050
Osawatomie #16		2.1	2017	2050
Solar Array		4.95	2024	2044

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 WAPA 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)
GRDA	Mix	30	Firm	2051
SPA	Hydro	3.6	Firm	2034
WAPA	Hydro	9.47	Firm	2054
SPP Market	Market		Non-Firm	N/A
Solar Array	Solar	4.95	Firm	2044

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.)
Upgrading distribution system to 12470 volts, including upgrading the 7 th Street substation.	Unknown

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.

Periodically, the City evaluates the need for new resources compared to the City's peak load conditions. Based on the peak load and consumption trend, the City has ample resources to meet the needs of the 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 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
Wind	The City is always open to purchasing wind as a resource, if and when such a resource is available it will be considered.

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
Short-term capacity sale	The city currently sells into the EMP1 group a portion of their excess capacity and will continue to do so as long as excess exist and other members of the pool need it.
Customer Peak Shaving	The City has excess capacity and isn't penalized by peak demands on the system, so 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 the interrupting of shifting their load from on-to off- peak times.
System Upgrade	The city is currently converting to a higher voltage in the distribution system, which will have less line loss, ultimately improving the City's overall conservation of energy

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 part of the KMEA EMP1 pool for acquiring the balance of their energy needs not provided through their GRDA/SPA & WAPA contracts. As part of this pool, the City uses their own resources first and then purchases the remaining energy needs from the SPP market. This marketplace has opened a lot of opportunities to obtain cheaper energy as long as they maintain sufficient capacity for their own needs.

The City continues to examine other supply options periodically for potential cost benefit as well as possible positive environmental impact. The current mix of resources and the benefits of the EMP1 pool have proven satisfactory to the City and its customers in terms of reliability and cost.

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)).

With the addition of the Solar Array in December of 2024, the City has decreased its needs for energy produced from fossil fuels, in 2025 the Solar Array produced over 10,000 MWH, which accounted for approximately 25% of the City’s energy needs.

The City has limited their environmental impact by purchasing approximately 60% of their energy requirements from GRDA, SPA and WAPA. The City has reduced their dependency on coal and believes that they have saved over a million tons of CO2 annually.

The City’s generation meets RICE rule and the City plans to comply with all environmental regulation in the future.

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 City's IRP was developed by City staff during and after public City Council meeting. A specific period of public comment was posted in the local paper and public comments invited. No public comments were submitted for the original 5-year plan. The original IRP was unanimously approved on Aug. 22, 2013. This plan is an update of the original 2014 plan and reflects city implementation of some of the items contemplated in the original IRP.

The City responds to public inquiries and will continue to accept any public comments that may be made regarding the IRP or issues related to its electric utility throughout the year and consider those comments during the yearly update process.

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 to maintain the lowest cost energy supply for their customers and to be 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.

The resource plan will help accomplish these goals by creating an avenue to collaborate and work together with neighboring cities to obtain a 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 the City the flexibility in the even a supplier changes the way that they do business. Osawatomie believes that the electric industry has changed so much over the years that certain governmental entities such as WAPA are good sources for long-term power contracts.

The City plans to continue community involvement in its planning by continuing to accept comments and suggestions from the public as well as customer participation in energy efficiency programs.

The City will continue to upgrades to the distribution system until the entire system is operating at the more efficient 12470 voltage. The city will evaluate the following programs during the next 5 years:

- Additional distribution upgrades
- City Policy/Demand Side Management

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
Additional distribution line upgrades	2026	Unknown	Feasibility and need determinations followed by project implementation as appropriate

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
Line Voltage upgrade from 4160 to 12470	2018	Unknown	Unknown	Reduce line loss percentage
LED Street Lighting	2025	Unknown	Unknown	Conserve energy

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 continues to monitor the public's response to new initiatives and their opinion on the utility's resource plan and the utility's reliability and cost.

Then City will use existing energy information in comparison to any new initiative being considered and the impact that it is likely to have on the City's load profile. Annually, the City will review and adjust, as needed, the load forecast and escalators used in the forecast.

2024 is the base year for any comparison of the impact of any demand side management evaluation. Measurement of energy consumption and changes will be made as available and the City will provide annual progress reports on this and future IRPs to the public and WAPA officials

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

Indicate that all 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)).

Terry Upshaw

(Name – Print or type)


(Signature)

Director of Utilities

(Title)

6/4/2026

(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.