

INTEGRATED RESOURCE PLAN (IRP)

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

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

Who May Use This Form:

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

Completing This Form:

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

Submit the completed report with a cover letter to:

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

EPAMP Overview

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

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

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

IRP Content

Cover Page.....	Customer Name & Contact Information
Section 1.....	Utility/Customer Overview
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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
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INTEGRATED RESOURCE PLAN (IRP) 5-Year Plan

Customer Name:
City of Seneca, Kansas

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

Reporting Dates:	
IRP Due Date:	July 1, 2020
Annual Progress Report Due Date:	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 Seneca, Kansas
Address:	531 Main
City, State, Zip:	Seneca, Kansas, 66538
Contact Person:	Tami Haverkamp
Title:	City Administrator
Phone Number:	785-336-2747
E-Mail Address:	senecaks@gmail.com
Website:	www.seneca-kansas.us

Type of Customer: Check one as applicable.	
<input checked="" type="checkbox"/>	Municipal Utility
<input type="checkbox"/>	Electric Cooperative
<input type="checkbox"/>	Federal Entity
<input type="checkbox"/>	State Entity
<input type="checkbox"/>	Tribal
<input type="checkbox"/>	Irrigation District
<input type="checkbox"/>	Water District
<input type="checkbox"/>	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)	01/01/2019
Reporting Period End Date (mm/dd/yyyy)	12/31/2019
Energy Sales & Usage	
Energy sales to Ultimate End Customers (MWh)	31885
Energy sales for Resale (MWh)	0
Energy Furnished Without Charge (MWh)	0
Energy Consumed by Respondent Without Charge (MWh)	634
Total Energy Losses (MWh entered as positive number)	2163
Total Energy Usage (sum of previous 5 lines in MWh)	34682
Peak Demand (Reporting Period)	
Highest Hourly Summer (Jun. – Sept.) Peak Demand (MW)	8.708
Highest Hourly Winter (Dec. – Mar.) Peak Demand (MW)	6.54
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	07/18/2019
Hour of Highest Hourly Peak Demand (hh AM/PM)	3:00 PM
Peak Demand (Historical)	
All-Time Highest Hourly System Peak Demand (MW)	9.172
Date of All-Time Hourly System Peak Demand (mm/dd/yyyy)	06/28/2018
Hour of All-Time Hourly Peak System Demand (hh AM/PM)	3:00 PM
Number of Customers/Meters (Year End of Reporting Period)	
Number of Residential Customers	1006
Number of Commercial Customers	175
Number of Industrial Customers	63
Other (Specify): Church and School	17
Other (Specify): Government	11
Other (Specify): City (no charge)	26
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.

Seneca is located in the far northeast corner of Kansas in Nemaha County. There is a balance of approximately 80% residential customers and 20% commercial and industrial customers. The largest industrial customer is Koch & Co., a wood and cabinet manufacturing facility, which accounts for about 10% of the city's total sales. Their other large user is J-Six, an agricultural processing plant, comprising over 5% of total retail sales. A good portion of Seneca's customer mix is agricultural based including customers such as Helena, Nemaha County Coop, and Sure Crop.

Seneca has plenty of development sites and aggressively seeks growth in the community. The Highway 36 corridor has been a good place to expand. In addition, in recent years, the community updated the downtown infrastructure by improving the streets and lighting. Health Care and assisted living sectors have shown great potential in Seneca as well as other similar communities.

The city serves electricity, water and sewer services to the community. Natural gas, refuse removal, and cable service are provided through independent providers from which Seneca receives a franchise fee.

The population in Seneca has been fairly stable over the past several years with limited changes in the residential customer counts or commercial and industrial customer base. The community has seen most of its growth from increases in the large customers who have had production increases despite changes in the national economy. The city has monitored their billing more closely to insure better capture of all energy consumed.

The community continues to have issues with having enough affordable housing for lower level manufacturing employees.

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 (3 full-time employees)

- 1- City Electrician: Primary oversight of electrical operations and line work
- 2- Lineman: Assisting in maintenance duties

City Hall (3 full-time employees)

- 1- City Administrator: Management over all city departments, and responsible for managing the wholesale power supply of the city by participating in power supply pools
- 1- City Clerk: Management of documents of city government
- 1- Assistant City Clerk: Directly over utility billing and other duties

The City has limited staff time that they can allocate towards management of their electric department. The administrative staff is assigned to duties outside of the electric department so the development, administration and tracking of any energy related programs is difficult due to these time constraints.

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)
2010	8.8	35426
2011	8.5	36324
2012	8.8	37415
2013	8.0	35485
2014	9.1	37548
2015	8.8	34735
2016	8.6	33998
2017	8.9	34777
2018	9.2	36847
2019	8.7	34299

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)
2020	8.7	34682
2021	8.7	35030
2022	8.8	35205
2023	8.8	35381
2024	8.9	35558
2025	8.9	35736
2026	9.0	35914
2027	9.0	36094
2028	9.0	36275
2029	9.1	36456
2030	9.1	36638

Narrative Statement:

The city has seen some growth but this has been offset by efficiency improvements and reducing losses, so that demand and consumption have actually declined slightly over the past decade. The city believes that the majority of available tools to control peak demand, reduce losses and effect energy consumption savings have already been implemented and expects future consumption growth to be driven by the commercial and industrial customer load. The forecast is based on a one-half percent increase per year through 2030.

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 Seneca is currently a member of the Kansas Municipal Energy Agency (KMEA) power pool known as the EMP3. It is one of 3 pools managed by KMEA. The city left their old supply (KPP) and started taking service from KMEA beginning January 1, 2014. Currently, there are 12 cities in the EMP3. This power pool provides the city with all of its power requirements above the 652 kW Western Area Power Administration (WAPA) resource currently subscribed. The city also obtains its transmission and ancillary services as well as capacity through the power pool group.

The EMP3 has a number of different resources they have offered for consideration but each individual city can nominate a specific resource and each city is individualized. Seneca has two contracts with NextEra Energy to provide a base resource that is energy only without capacity. The primary resource is for 7x24 energy and the secondary contract is for 5x16 energy year-round. Required capacity is purchased from the other EMP3 pool member cities at an agreed upon price.

Seneca is on the operating board and helps to determine what that capacity rate will be for all cities in the pool purchasing or selling capacity.

All load following is provided by KMEA as part of the pool.

Existing Generation Resources:

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

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

Existing Purchase Power Resources:

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

Resource Description	Fuel Source (If applicable)	Contracted Demand (MW)	Type of Service (Firm, Non-firm, Requirements, Other)	Expiration Date (Year)
Western Area Power Adm		.652/.577	Firm	2054
NextEra Energy (24x7)		2.5	Firm	2027
NextEra Energy (16x5)		.8	Firm	2027
KMEA EMP3 Load Following		Load Following	Firm	Rolling 2 year notice to terminate

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.)
Air-conditioning load shed devices on about 190 Air-conditioners to shed about 760 kW on system	Estimated annual savings is \$20,520 based on \$2.25/kW capacity payments. This is based on 760 kW savings on peak hour kWhs conserved are minimal

SECTION 5

FUTURE RESOURCE REQUIREMENTS AND RESOURCE OPTIONS

Balance of Loads and Resources (Future Resource Requirements):

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

The City currently is meeting its needs through all purchased capacity and energy in collaboration within the EMP3 power pool. In 2020, the city has 3 main identifiable resources being brought into the city. A base load of 2.5 MWs from NextEra that is delivered as an energy only product around the clock at a fixed price that changes annually. Additionally, the city acquired a 16 hour block of .8 MWs (energy only) for weekdays year round from NextEra to cover more of the daytime load and limit their market exposure.

The WAPA hydro piece the city has is a cost-based resource that continues through 2024 but is being extended through 2054.

The city buys the balance of its energy requirements from the SPP power pool through the load following arrangements of the EMP3/KMEA power pool. KMEA will manage all our TCR's on a monthly basis.

With the exception of the capacity purchased from WAPA, all capacity requirements for the city are purchased from other cities within the KMEA EMP3 pool. The members of the pool meet annually to establish the price of this capacity-presently set at \$2.25004/kW.

The cities within the pool can only sell peaking capacity that meets the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines Rules (NESHAP RICE rules) that states that all emissions of toxic air pollutants from existing diesel-powered stationary reciprocating internal combustion engines must be reduced. It will control emissions of formaldehyde, acetaldehyde, acrolein, methanol and other air toxics from diesel engines. This has impacted the availability of peaking units to purchase but Seneca knows that the capacity it buys meets these standards.

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
Evergy Full-Requirements Contract	The investor owned utility offers a 10 year cost-based full requirements contract that Seneca researched previously. Product not feasible due to high capacity charge
KPP – 20 year membership	City left KPP membership due to the 20 year “notice to terminate” period now required as city needs to remain more adaptive to market conditions. Costs were also higher than in EMP3 pool
KMEA EMP3 Project	Seneca participates with other cities in the “collaborative” pool, managing their own resources by securing supplies independently, and utilizes KMEA to secure capacity from the pool and a load following resource. The city subscribes to take WAPA and NextEra with the remaining energy from the market for a short term. A number of base load resources are regularly reviewed
Grand River Dam project (GRDA)	Several cities in the EMP3 power pool take their base load requirements from GRDA which is a base, firm capacity and energy resource. Seneca has evaluated it as well for a resource within the pool but rejected it based on the high capacity charge since ample capacity is available at a lower price from among the EMP3 pool cities.
NextEra Energy	The city contracts for NextEra’s 7x24 resource at a fixed price as well as an additional 5x16 resource year-round (also at a fixed price) from Next Era as part of their base load resource within the EMP3 pool.

Local Generation	City has considered and continues to consider various generation options including a solar farm as well as carbon-based generation plant facilities.
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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)).

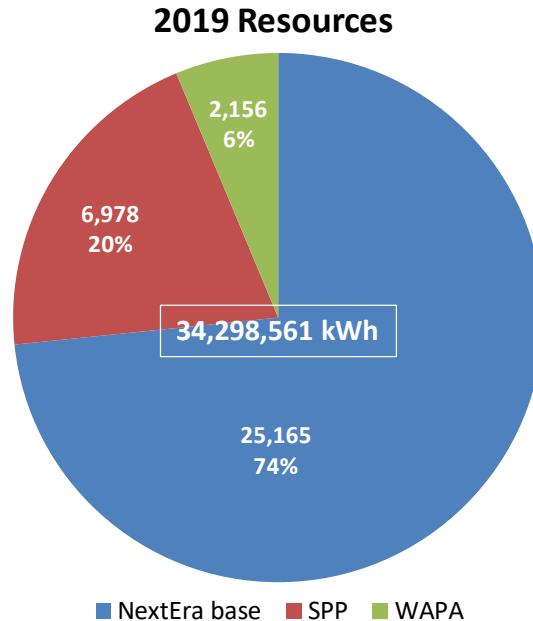
Demand-Side Option	Applicability for Implementation or Further Consideration
Off-peak rates	The city offers a rate ordinance that encourages consumers to take service off-peak versus during times that the city demand is highest. The current limit on the size and amount of load that can be served under this program is being considered for expansion since it has passed the “test “ phase and has proven to work.
Street light replacement	The city replaced all old street lights in city with higher efficiency lamps and continues to monitor this load item for potential improvements.
Key account management	Work with large consumers to move production off-peak and help them to 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.
Internal load control	Develop an energy efficiency program for internal city use to curtail load during peak hours
Residential Load Management Program	The community has had good participation in this program over the years with little or no communication or promotion. The city will enhance the operating system to better control the load shed

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 of Seneca became a member of the KMEA pool EMP3 in 2014, and has been making periodic decisions about the extent of their exposure to hourly market fluctuations by managing the amount of their base load resource.

For 2019, the city allocation was as follows:



The city was exposed to the market for just 20% of their total load in 2019 and the market cost for this remaining power need averaged just 11% of their total purchased power costs.

The city utility believes that their decision to join the EMP3 pool and the underlying base load decisions that they have made as part of that pool have been beneficial to the city's electric customers through lower costs and a continued reliable energy supply. The city is not currently contemplating any change from the EMP3 pool and is presently satisfied with the 2 component NextEra baseload in combination with the WAPA resource, but continues to examine alternate baseload proposals. The city is also currently examining the feasibility of various options for adding solar generation locally or through access to a pooled solar resource.

The city started taking service through EMP3 in January 2014. In the preceding 5 years with KPP as the service provider, the average cost/mWh was \$57.19. After joining EMP3, the average from 2014-2019 was \$52.42. This steady decline in costs has benefited all the city's customers and the city expects its membership in the group to continue to benefit customers over other available supply options.

SECTION 6

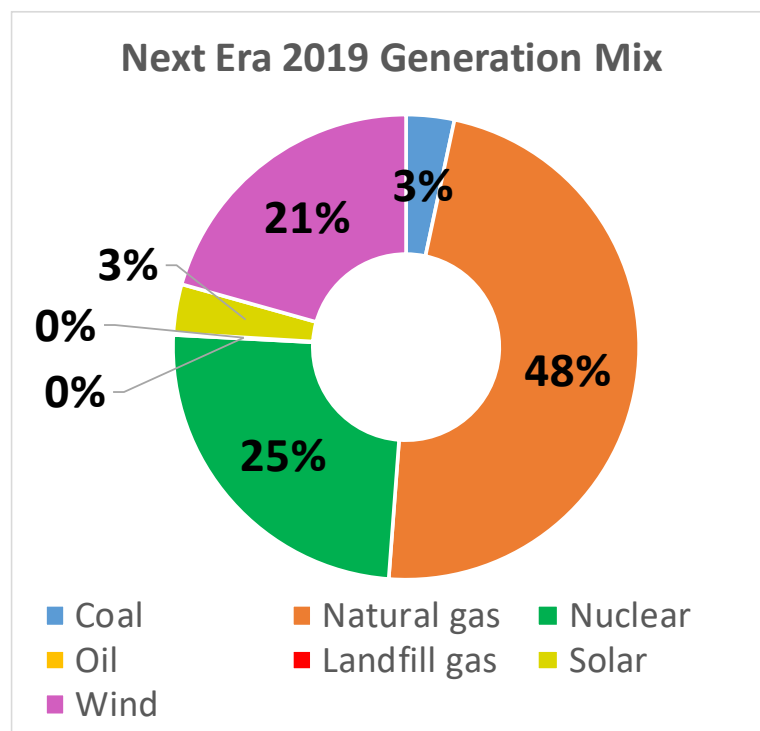
ENVIRONMENTAL EFFECTS

Environmental Effects:

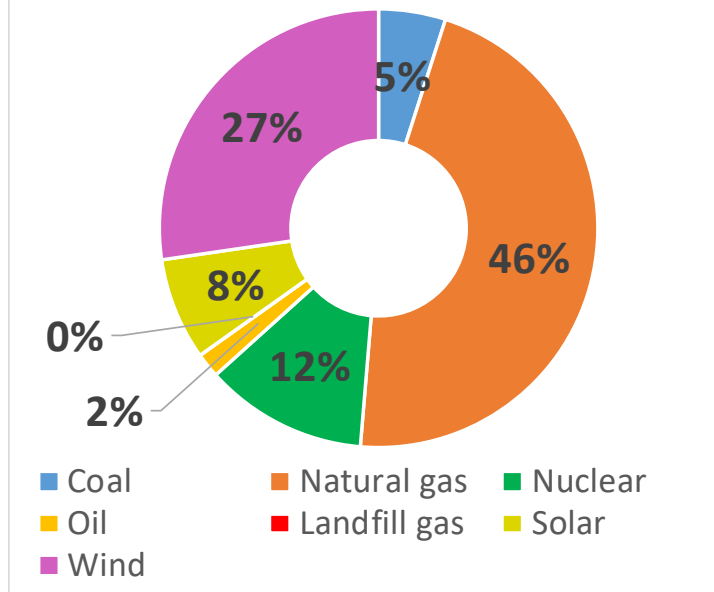
To the extent practical, Western customers must minimize environmental effects of new resource acquisitions and document these efforts. IRPs must include a qualitative analysis of environmental impacts in summary format. Describe the efforts taken to minimize adverse environmental effects of new resource 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)).

At the city's original entry into the EMP3 pool, over 45% of City energy was being delivered by KCPL through the base load supply. The KCPL supply was based on a portfolio that was only 20% renewable resources with 48% coal and 32% natural gas/oil.

Since 2017, the city's base load supply (now 73% of the city's total resources) has been obtained from NextEra Energy. NextEra is currently the world's largest generator of renewable energy from sun and wind and has spent over \$90 billion in clean energy infrastructure over the past decade. NextEra reduced its CO₂ emissions rate by 52% between 2005 and 2019 (its current profile being 30% below the national average.) The company's stated goal is to reduce their emissions rate by 67% (from the base year of 2005) by the year 2025.



Next Era 2019 Capacity Mix



The balance of the city's resources are comprised of WAPA Hydropower (6%) and the market (21%).

With the combination of the 7x24 and the 5x16 block from NextEra plus WAPA, the city now has approximately 40% of its baseload capacity coming from renewable resources and just 5% from coal. The remaining baseload supply is comprised of nuclear and natural gas/oil.

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 and the resources selected have been conducted over meetings, discussions between City Staff, KMEA, The City Council appointed Energy Committee and several public City Council meetings

Council meetings are covered in the local newspaper and aired on local television.

The city's energy consultant has helped assemble the IRP taking into account the results of past public meetings. Some of the key issues that have come from these public forums are the desire for the city to maintain their independence, flexibility and control cost. They have inquired about internal generation, the effectiveness of their load control and the importance of public power to the community.

Considerable discussions have occurred regarding the feasibility of purchasing renewable resources independently versus obtaining the renewable resources as part of bigger power purchases. As noted earlier in the IRP, the city continues to review feasibility proposals of various supplemental resources, (including solar) to augment the NextEra baseload and WAPA resources to provide additional capacity for the city utility system and reduce reliance on market resources for peak load purchases.

Additional comments continue to be accepted throughout the year for the yearly updates.

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 Seneca are to maintain the lowest cost reliable energy supply for their customers and be a good steward of natural resources and the environment. The city also wants to be able to supply 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 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 us flexibility in the event a supplier changes the way they do business. Seneca believes that the electric industry has changed so much over the years that certain governmental entities (such as WAPA) are acceptable to engage in long term contracts for power, but caution should be used before entering into long term agreements with private companies where the city has little or no control over their business practices.

Seneca is committed to advancing the efforts of public power so dealing with public power entities will remain a priority as we have done in the past with WAPA, Brown-Atchison, and the Kansas Power Pool, KMEA and EMP3 collaboration pool

The city hopes to continue the community's involvement through accepting public comments and suggestions, as well as their participation in energy efficiency programs.

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
Longer term peak capacity (EMP3 Pool)	1/2020	8.65	January 1, 2021

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
Street light retrofit program	1/2017	600	1200 mWh	6/2022
Load shed A/C program	1/2016	760	100 mWh	6/2022

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)).

City Staff will meet quarterly on this to determine that tasks are being done towards meeting the IRP. A report will be given to the City Council energy committee twice a year to update on progress and public council meeting will be updated annually.

The baseline to compare how things have been will be calendar year 2015 and the city will document changes and compare against overall usage of city. These changes will be noted and graphed for progress review.

WAPA requires Seneca to provide an annual progress report on the status of the action items they have identified as part of this plan. These updates will address the progress that has been made on each of the items listed in the earlier sections.

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)).*

Tami Haverkamp	City Administrator
(Name – Print or type)	(Title)
_____	_____
(Signature)	(Date)

Other Information:

(Provide/attach additional information if necessary)

IRP Posting Requirement:

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

	Customer will post the approved IRP on its publicly available website and send the URL to Western.
X	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