



May 18, 2012

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

Dear Mr. Neumayer:

Enclosed for your review is the City of Norton's updated Integrated Resource Plan for 2012. The City is required to submit an updated plan every 5 years to meet the requirements of the Energy Planning and Management Program.

Thank you for being flexible in allowing an extension of the submission deadline. The city sincerely appreciates it.

If you have any questions on the plan, please contact me by telephone at 785-877-5020 or by email at [ntpowerplant@ruraltel.net](mailto:ntpowerplant@ruraltel.net).

Sincerely

A handwritten signature in blue ink that reads 'Curtis Bozarth'.

Curtis Bozarth  
Electric Switch Gear  
Operations Supervisor

# INTEGRATED RESOURCE PLAN (IRP) 5-Year Plan

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

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

<b>Reporting Dates:</b>	
<b>IRP Due Date:</b>	<b>May 4, 2012</b>
<b>Annual Progress Report Due Date:</b>	<b>May 4<sup>th</sup> - annually</b>

<b>Customer Contact Information:</b> Provide contact information for your organization. The contact person should be able to answer questions concerning the IRP.	
<b>Customer Name:</b>	<b>City of Norton</b>
<b>Address:</b>	<b>301 East Washington</b>
<b>City, State, Zip:</b>	<b>Norton Kansas 67654</b>
<b>Contact Person:</b>	<b>Curtis Bozarth</b>
<b>Title:</b>	<b>Electric Switch Gear Operations Supervisor</b>
<b>Phone Number:</b>	<b>785-877-5020</b>
<b>E-Mail Address:</b>	<b>ntpwwerpplant@ruraltel.net</b>
<b>Website:</b>	

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

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

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

<b>Reporting Period</b>	
Reporting Period Start Date (mm/dd/yyyy)	1-1-2011
Reporting Period End Date (mm/dd/yyyy)	12-31-2011
<b>Energy Sales &amp; Usage</b>	
Energy sales to Ultimate End Customers (MWh)	26001
Energy sales for Resale (MWh)	0
Energy Furnished Without Charge (MWh)	45
Energy Consumed by Respondent Without Charge (MWh)	1752
Total Energy Losses (MWh entered as positive number)	2684
Total Energy Usage (sum of previous 5 lines in MWh)	30482
<b>Peak Demand (Reporting Period)</b>	
Highest Hourly Summer (Jun. – Sept.) Peak Demand (MW)	8.5
Highest Hourly Winter (Dec. – Mar.) Peak Demand (MW)	4.3
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	7-20-11
Hour of Highest Hourly Peak Demand (hh AM/PM)	16:00 PM
<b>Peak Demand (Historical)</b>	
All-Time Highest Hourly System Peak Demand (MW)	9.5
Date of All-Time Hourly System Peak Demand (mm/dd/yyyy)	7-20-2005
Hour of All-Time Hourly Peak System Demand (hh AM/PM)	16:00 PM
<b>Number of Customers/Meters (Year End of Reporting Period)</b>	
Number of Residential Customers	1443
Number of Commercial Customers	307
Number of Industrial Customers	2
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.

Norton, the "Pheasant Capital of Kansas" and county seat of Norton County, is located 11 miles south of the Kansas Nebraska state line and 125 miles east of the Kansas Colorado state line in northwest Kansas at the intersection of U.S. Highway 36 and U.S. Highway 283.

Norton is host to Prairie Dog State Park located at Keith Sebelius Reservoir That provide year round outdoor activities including fishing, hunting, camping and wild life viewing.

The City of Norton offers its residents electricity, water, sewer, and refuse removal. Natural gas and cable service are provided by independent providers which Norton receives a franchise fee. The City also offers a public swimming pool, tennis courts and various park facilities.

The Major employers in the Norton area are the Norton County Hospital, Norton Correctional Facility, Valley Hope Treatment Center, Newage Industrial, Miltech, Natoma Corporation, Nex-Tech and the Kansas Department of Transportation.

Despite declining population, Norton has been able to continue a fairly strong economical structure.

**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.

Norton's Electric Distribution Department has 2 full time lineman.

Norton's City Office (5 total employees)

- 1- City Clerk
- 1- Account Clerk II
- 1- Account Clerk I
- 1- Clerk II
- 1- City Administrator

The City Council voted on 6-15-2011 to "Proceed with eliminating the generation responsibilities, while retaining the distribution responsibilities, at the municipal power plant". As a result of this action the 3 full time power plant employees are now classified as:

- 2 -Electric Switch Gear Operators
- 1- Electric Switch Gear Operations Supervisor

Norton has limited staff and economic resources to apply integrated resource planning and demand side management programs.

**Historical Energy Use:**

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

Reporting Year	Peak Demand (MW)	Total Energy (MWh)
2002	9.4	24709
2003	8.9	30471
2004	8.9	29618
2005	9.5	30870
2006	8.9	30962
2007	8.3	31158
2008	8.1	31093
2009	7.9	29186
2010	8.2	30413
2011	8.5	30482

**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:

<b>Reporting Year</b>	<b>Peak Demand (MW)</b>	<b>Total Energy (MWh)</b>
<b>2012</b>	8.5	30786
<b>2013</b>	8.5	31094
<b>2014</b>	8.6	31045
<b>2015</b>	8.7	31719
<b>2016</b>	8.8	32036
<b>2017</b>	8.9	32356
<b>2018</b>	8.9	32680
<b>2019</b>	9.0	33006
<b>2020</b>	9.2	33337
<b>2021</b>	9.3	33670

Narrative Statement:

Over the past 10 years the City of Norton has averaged a peak demand of 8.6 MW and an average total energy of 29895 MW.

Norton's population has been decreasing over the past 10 years, but it is expected to hold steady in the future. The City does not see any large electric customers moving into the Norton area. Norton anticipates maintaining the current large electric users, and growth will be little at best.

Norton is forecasting a 1% annual growth in peak demand and energy use over the next 10 years. However, the biggest contributing factor in change to year-to-year electrical use for the City has been and will be the weather

## 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)).

On June, 15 2011, the City Council voted to stop generation from the Norton Power Plant. As a result of this decision, the City entered into a new contract with Sunflower Electric to supply firm power to Norton. Norton also receives 1789kW summer allocation and 1382 kW allocation from Western Area Power Administration.

The contract with Sunflower Power will end on 12-31-2012. At that time, Norton will enter into a contract with Prairie Land Electric which is the local rural electric company for the Norton area. Prairie Land is also one of the 6 member cooperative of Sunflower Power.

Under the new contract Prairie Land Electric will supply power to the city of Norton at cost plus 1 mill. This contract will be for 10 years.

**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.

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

**Check on wapa allocation**

<b>Resource Description</b>	<b>Fuel Source</b> (If applicable)	<b>Contracted Demand (MW)</b>	<b>Type of Service</b> (Firm, Non-firm, Requirements, Other)	<b>Expiration Date (Year)</b>
WAPA		1.789 Summer 1.382 Winter	Firm	2024
Sunflower		Load Following	Firm	2012

**SECTION 4****EXISTING DEMAND-SIDE RESOURCES**

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

**Existing Demand-Side Resources:**

List your current demand-side programs, including energy conservation, energy efficiency, load control/management, education, or maintenance plans, or system upgrades. Programs may impact the utility distribution system, municipally owned facilities, and/or end-user energy consumption. Refer to Section 9 of this form for a list of example programs. Insert additional rows as needed. (See 10 CFR § 905.11 (b) (1)).

<b>Program Description</b>	<b>Estimated Program Savings (MW and/or MWh if known)</b> (Include annual impact and impact over the life of the program if known.)
All light at the City Office and Police Station have been replaced with high-efficiency fixtures.	Unknown
The City is in the final stage of water treatment renovation in which all controls, pumps and motors have been updated.	Unknown
The city continues to replace streetlights with high-efficiency fixtures	Unknown
The Norton School's have entered into an "Energy 360" plan which is updating all lighting and making school more energy efficient.	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.

The City of Norton will be under contract with Prairie Land Electric starting January 1, 2013 for 10 years to supply all power for the City. Therefore, no additional supply-side resources are needed at this time.

**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)).

<b>Demand-Side Option</b>	<b>Applicability for Implementation or Further Consideration</b>
Continue to provide information to public on energy conservation	Information is available at city office
Replace motor and pumps at city facilities with energy efficient equipment	This will be on a as needed basis
Work with Prairie Land on improving load factor for the city	Will look at this in 2013 when new contract starts

**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)).

Norton will enter into a 10-year contract with Prairie Land Electric on January 1, 2013. Prairie Land Electric will provide Norton with power at cost plus 1 mill, which provides the City with an economic power resource for a 10-year period.

Norton City Council decided to close the City owned power plant and obtain all of its power through power purchase contracts due to uncertainty of future environmental requirements and the added expense to upgrade the generating equipment and units to meet the RICE NESHAP requirements.

No additional supply-side resources will be needed once the contract with Prairie Land Electric goes into effect.

## 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)).

On June, 15 2011 the City Council voted to stop generation from the Norton Power Plant. Items that contributed to stopping generation: a new cooling system for the generating unit, the RICE/NESHAP act, the overall updating of the power plant equipment, and the opportunity for a new contract from Prairie Land Electric.

Our current power supplier is involved in wind generation and also complies with all EPA requirements.

Norton takes delivery of WAPA power which is a renewable hydroelectric energy source reducing the need for fossil fuel generation.

Norton will continue to work with the large electric users and the general public to encourage them to conserve energy.

All of the above actions help to minimize the impact on the environment by either reducing emissions, utilizing renewable resources, or reducing energy use.

**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 5 year IRP report was reviewed by the Norton City Administrator and the Norton City Council, and copies are available to the public at the City Office.

Norton City Council approved the IRP 5 year plan for the City of Norton on May 16 2012.

The city will continue to have copies available for public review at the City Office.

Addition comments will be accepted throughout the year and will be implemented in the yearly IRP report.

## 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 City of Norton will enter into a 10 year contract with Prairie Land for all power requirements above the City's WAPA allocation. The City will work with Prairie Land to insure the most efficient electric system as possible.

The City Electric Department will continue to maintain and up dating the City's electric distribution system.

Overall the City of Norton will continue to promote the efficient use of energy to its customers.

**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)).

<b>Proposed New Resource</b>	<b>Begin Date</b>	<b>Est. New Capacity (MW)</b>	<b>Milestones to evaluate progress and/or accomplishments</b>
Prairie Land Electric Power Purchase Contract	1-1-2013	Load Following	10 year contract signed and in place by 1-1-2013

**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)

<b>Proposed Items</b>	<b>Begin Date</b>	<b>Est. kW capacity savings per year</b>	<b>Est. kWh savings per year</b>	<b>Milestones to evaluate progress and/or accomplishments</b>
Light updating in city office	2011	Unknown	Unknown	Completed by 2013
Update street lighting	Cont.	Unknown	Unknown	Replace with new fixtures as old fixtures fail
Upgrade distribution system as needed	Cont.	Unknown	Unknown	Upgrade as needed and funds available
Tree trimming	Cont.	Unknown	Unknown	Completed annually as part of maintenance plan

**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 use 2011 as its baseline. The City will annually review its peak demand and energy use relative to the 2011 load forecast included in this plan and make adjustments as needed for significant deviations.

Once a year, the IRP will be reviewed, to evaluate progress versus the plan. Norton will submit an annual IRP progress report as required by the Energy Planning and Management Program. The annual progress reports will be available for public review.

**EXCERPT OF MINUTES OF A MEETING OF THE  
GOVERNING BODY OF THE CITY OF NORTON, KANSAS  
HELD ON MAY 16, 2012**

The City Council (the "Governing Body") of the City of Norton, Kansas (the "City") met in regular session at Norton City Hall, 301 E. Washington St., on May 16, 2012 at 5:30 p.m. The following Governing Body members were present:

Harriett Gill, Donna Foley, Ron Briery, Jerry Jones and Jerry Moritz

The following Governing Body members were absent:

Roberta Ryan

The Mayor declared that a quorum was present and called the meeting to order.

\*\*\*\*\*

(Other Proceedings)

Rob Lawson presented the Western Area Power Association IRP 5-year plan. He stated the City is required to complete this plan according to our WAPA agreement. Rob stated Supervisor Curt Bozarth did a good job preparing the plan. Motion was made by Donna Foley and seconded by Jerry Jones to approve the 5-year plan. Vote taken. Motion carried.

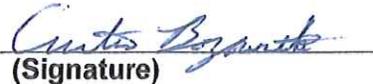
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(Other Proceedings)

Motion was made by Ron Briery and seconded by Donna Foley to adjourn. Council adjourned at 6:38 p.m.

**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)).

<b>Curtis Bozarth</b>	<b>Electric Switch Gear Operations Supervisor</b>
(Name – Print or type)	(Title)
 (Signature)	<b>5/18/2011</b>
(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:

<input type="checkbox"/>	Customer will post the approved IRP on its publicly available website and send the URL to Western.
<input checked="" type="checkbox"/>	Customer would like Western to post the approved IRP on Western's website.

**IRP Updates:**

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

**IRP Annual Progress Reports:**

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