

City of Gardner, Kansas

Utility Department – Electric Division

Integrated Resource Plan (IRP)

2015 Annual Progress Report

Annual Progress Report Due Date: April 1, 2015

Customer Contact Information:

Customer Name: Gardner, Kansas
Address: 1150 E. Santa Fe
City, State, Zip: Gardner, Kansas 66030
Contact Person: Open (City Administrator)
Title: Utility Director
Telephone Number: 913-856-0939
E-Mail Address: jkoontz@gardnerkansas.gov
Website: www.gardnerkansas.gov
Municipal Utility

SECTION 1 - UTILITY / CUSTOMER OVERVIEW / CUSTOMER PROFILE:

REPORTING PERIOD:	
Reporting Period Start Date:	January 1, 2014
Reporting Period End Date:	December 31, 2014
ENERGY SALES & USAGE:	
Energy sales to ultimate end customers (MWh)	134,608.3
Energy Sales for Resale (MWh)	0
Energy Furnished Without Charge (MWh)	493.5
Energy Consumed by City w/o charge (MWh)	0
Total Energy Losses (MWH entered as positive #)	8,222.1
Total Energy Usage (sum of previous 5 lines in MWh)	143,323.9
PEAK DEMAND (REPORTING PERIOD)	
Highest Hourly Summer (Jun – Sep) Peak MW	37.1
Highest Hourly Winter (Dec – Mar) Peak MW	27.3
Date of Highest Hourly Peak Demand (mm/dd/yyyy)	08/25/2014
Hour of Highest Hourly Peak Demand (hh AM/PM)	5:00 PM
PEAK DEMAND (HISTORICAL)	
All-time Highest Hourly System Peak Demand (MW)	38.4
Date of All-Time Hourly System Peak Demand	08/02/2011
Hour of All-time Hourly Peak System Demand (hh)	6:00 PM
NUMBER OF CUSTOMERS/METERS (YEAR END)	
Number of Residential Customers	7,272
Number of Commercial Customers	375
Number of Industrial Customers	0
Other: City of Gardner	1
Other: School District #231	18

The electric utility was reorganized in 2014. Table 6-1 from the attached Electric Assessment report, prepared by Burns & McDonnell, shows the City’s new utility’s staff summary. As of the date of this report there are a number of vacancies, in both management and staff, within the electric utility.

SECTION 2 - FUTURE ENERGY SERVICES PROJECTIONS (LOAD FORECAST)

The City forecasts demand and energy growth of 1% over the next five years. The City uses a trending formula based on the previous five year peak demands. However, if the build-out of the logistics park occurs faster than anticipated, demand and energy growth could increase more than forecasted.

The benefits of the Logistic Park of Kansas City and BNSF’s Intermodal facility are captured in this video:

https://www.youtube.com/watch?feature=player_embedded&v=n9kaxw4zt-w

As facilities are added to the logistic park additional electric growth will occur in Gardner.

SECTION 3 - EXISTING SUPPLY-SIDE RESOURCES

In 2014 the City purchased over 99% of its energy needs as follows;

Supply-side Resource	Percentage of Total	MWhs
Grand River Dam Authority	46.29%	66,602
Western Area Power Admin.	1.58%	2,275
KMEA – EMP1	13.98%	20,113
Omaha Public Power District	38.11%	54,840
Internal Generation	0.04%	54

Existing Generation Resources:

Resource Description	Fuel Source	Rated Capacity (MW)	In-Service Date	Estimated Retirement Date
GE CT	Gas	13.5	1990	2040
GE CT	Gas	13.5	1990	2040

Existing Purchase Power Resources:

Resource Description	Fuel Source	Contracted Demand (MW)	Type of Service	Expiration Date (Year)
GRDA	Coal	9.0	Firm	04/20/2026
OPPD	System	10.0 – 20.0	Firm	12/31/2018
Western	Hydro	.7	Firm	9/30/2024
KCPL (EMP1)	Variable	Load Following	Firm	2015
EMP 1 Marketing	SPP EIS / IM	Variable	Market Sale/Purchase	Indefinite

Gardner Electric is participating in a Kansas Municipal Energy Agency (KMEA) power supply study to find a supply resource to replace the loss of the City’s OPPD purchased power contract and for forecasted growth in peak demand. The KMEA study has been placed on hold. It is anticipated the study will resume in the fall of 2015. The OPPD power supply contract’s expiration date is December, 2018.

SECTION 4 - EXISTING DEMAND-SIDE RESOURCES

The electric utility has yet to establish its planned demand-side management programs. However, included in the 2015 electric utility capital improvement budget is an upgrade to the System Control and Data Acquisition (SCADA) system.

The upgraded SCADA system will allow the electric utility to better monitor distribution circuits and reduce losses while providing faster restoration of services. The better monitoring will also enable the electric utility to measure the impacts of our pilot DSM projects.

SECTION 5 - FUTURE RESOURCE REQUIREMENTS AND RESOURCE OPTIONS

Supply-side Option	Applicability for Implementation or Further Consideration
KMEA – EMP 1	The City’s participation in EMP 1 allows the most cost effective resources to be dispatched to meet its loads, then, make available any excess resources to the Southwest Power Pool (SPP) integrated marketplace.
Intermediate	Currently working with KMEA power supply committee
Wind	Currently working with KMEA power supply committee

Future Demand-side (DSM) Options being considered and evaluated include customer energy use education, energy efficiency measures, distribution system upgrades to improve the delivery of energy, and the possibility of load control/management pilot programs targeted at residential and commercial air-conditioners.

Outlined in Section 8 – Action Plan, the City historically focused only on the need for supply-side resources to meet capacity requirements. Moving away from what the City currently does to the goal of operating under an integrated resource plan, where both supply-side and demand-side resources are considered together, will require a multi-year commitment by the City. Therefore, year one of the action plans will identify the human and funding capital required to implement this IRP.

The City’s budget preparation cycle runs from January through April each year. Therefore, the 2015 budget is already completed. However, certain preliminary steps will be taken in 2015 to research current practices in DSM, appoint an internal IRP administrator, and develop “low-hanging fruit” DSM programs, such as, energy education and home energy audits.

As summarized in the attached Electric Utility Assessment report, vacancies in key management positions have delayed implementation of many 2014 and 2015 planned demand-side actions.

SECTION 6 - ENVIRONMENTAL EFFECTS

The electric utility purchases over 99% of its annual energy requirements. Therefore, the environmental policies of these power suppliers provide the efforts taken to minimize the adverse environmental effects of their resources.

SECTION 7 - PUBLIC PARTICIPATION

The annual progress report was posted to the City’s website and made available for inspection at city hall. In addition, the progress report was presented to the Utility Advisor Commission and City Council at open meetings.

SECTION 8 - ACTION PLAN & MEASUREMENT STRATEGIES

As previously mentioned, electric utility management vacancies have impacted the original IRP’s first and second year action plan deliverables. As a result, the original IRP action plan is being modified. Year one and two objectives have been combined. It is anticipated those objectives outlined in year one will be completed in year two (i.e. by year end 2015).