

**KAYSVILLE CITY
POWER AND LIGHT**

**ANNUAL REPORT
2017**

**109 YEARS
OF SERVICE**

KAYSVILLE CITY POWER DEPARTMENT

ANNUAL REPORT 2017

GARY HATCH	POWER SUPERINTENDENT	FULL-TIME
BRUCE RIGBY	RESOURCE AND SERVICE MANAGER	FULL-TIME
BRETT THOMAS	OPERATIONS SUPERVISOR	FULL-TIME
BRANDON CHILD	LEAD LINEMAN	FULL-TIME
DANNY BLACK	LEAD LINEMAN	FULL-TIME
TYLER PARKIN	LEAD LINEMAN	FULL-TIME
STEVE RICE	JOURNEYMAN	FULL-TIME
WESLEY JONES	JOURNEYMAN	FULL-TIME
JOSH FERRIN	JOURNEYMAN	FULL-TIME
BRIAN JOHNSON	JOURNEYMAN	FULL-TIME
GARRETT MILLWARD	APPRENTICE LINEMAN	FULL-TIME
CHRIS BANZ	APPRENTICE LINEMAN	FULL-TIME
MARTY WILLEY	BLUE STAKES	FULL-TIME
JEFF FILLIN	METER READER	FULL-TIME
STACIE HARWARD	ADMINISTRATIVE	FULL-TIME

2017 POWER SYSTEM REPORT

KWH

	<u>CUSTOMERS</u>	<u>KWH</u>
RESIDENTIAL	8,768	95,621,631
CITY OWNED NET BILLED	62	996,043
COMMERCIAL	759	51,091,512
INDUSTRIAL	1	1,872,000
STREET AND AREA LIGHTS	1,060	731,382
TOTAL	9,590	<u>150,312,568</u>

TOTAL ENERGY ACCOUNTED FOR:	150,312,568
TOTAL ENERGY DELIVERED TO METER:	154,147,844
TOTAL LOSSES	3,835,276
PERCENT SYSTEM LOSSES	2.5%

GROWTH STATISTICS FROM 2016 TO 2017

CUSTOMERS

2016 RESIDENTIAL	8,517
2017 RESIDENTIAL	8,768
PERCENT INCREASE	2.9%

SYSTEM LOAD GROWTH

2016 KW DEMAND	45,836
2017 KW DEMAND	46,358
PERCENT INCREASE	1.14%
PERCENT DECREASE	

SYSTEM ENERGY GROWTH

2016 KWH USAGE	146,859,559
2017 KWH USAGE	149,581,186
PERCENT INCREASE	1.85%
PERCENT DECREASE	

NUMBER OF ELECTRICAL CUSTOMERS
AND TYPE OF LOAD SERVED

TYPE OF CUSTOMER	NUMBER OF CUSTOMERS		
	2016	2017	% OF LOAD
RESIDENTIAL	8,517	8,768	65%
COMMERCIAL	743	759	34%
INDUSTRIAL	1	1	1%
AGRICULTURAL/PUMPING			
MILITARY			
OTHER-CITY OWNED		62	
TOTAL	9,261	9,590	100%

CUSTOMER SALES BY CLASS

Total sales to your customers 149,581,186 KWH.

Revenues from energy sales to your customer is \$13,349,954.00

	KWH SALES	% OF TOTAL	REVENUES IN \$	% OF TOTAL	AVG. COST PER KWH
RESIDENTIAL	95,621,631	65%	\$9,002,023.00	68%	9.41¢
CITY OWNED	996,043		\$88,788.00		8.9¢
COMMERCIAL	51,091,512	34%	\$4,127,314.00	31%	8.08¢
INDUSTRIAL	1,872,000	1%	\$131,829.00	1%	7.0¢
AGRICULTURAL					
OTHER					
TOTAL	149,581,186		\$13,349,954.00	100%	

KWH SALES

	2016	2017	%
RESIDENTIAL	93,766,483	95,621,631	3.0%
CITY OWNED		996,043	
COMMERCIAL	50,967,876	51,091,512	0.2%
INDUSTRIAL	2,125,200	1,872,000	-12.0%
AGRICULTURAL			
OTHER			
TOTAL	146,859,559	149,581,186	

REVENUE IN \$

	2016	2017	%
RESIDENTIAL	\$8,778,655.00	\$9,002,023.00	2.54%
CITY OWNED		\$88,788.00	
COMMERCIAL	\$4,098,355.00	\$4,127,314.00	0.7%
INDUSTRIAL	\$145,289.00	\$131,829.00	-9.30%
AGRICULTURAL			
OTHER			
TOTAL	\$13,022,299.00	\$13,349,954.00	

SYSTEM DESCRIPTION

Incorporated area of municipality 10.5 square miles.

Service area of utility 10.5 square miles.

Transmission and distribution lines 155.5 miles.

Number of employees in electrical department 15 .

Numbers of customers served outside the city limits 4 . (Wheel Rocky Mnt. Power)

Service area outside of the city limits 0 square miles.

FIVE LARGEST LOADS

CUSTOMER	TYPE OF CUSTOMER	KWH SALES	ANNUAL ELECTRICAL BILLING
DAVIS SCHOOL DISTRICT	COMMERCIAL	7,440,544	\$649,527.00
DATC	COMMERCIAL	3,490,645	\$266,714.00
CENTRAL DAVIS SEWER	COMMERCIAL	3,271,495	\$208,537.00
SMITHS	COMMERCIAL	3,049,600	\$191,824.00
LDS CHURCH	COMMERCIAL	1,964,449	\$244,651.00
TOTAL		19,216,733	\$1,561,253.00

KAYSVILLE CITY POWER AND LIGHT
ACHIEVEMENTS

1. Crews have completed the voltage conversion from 4KV to 12 KV system.
2. Continued pole inspections. Preventive maintenance or replacement was performed in all indicated areas.
3. Infrared camera inspection is performed throughout the year, and repair problem areas where line loss or inefficiencies could create an issue.
4. Tree trimming contractors cleared the right of way resulting in reduced service interruptions due to tree growth, snow and wind.
5. Crews continued to identify, repair and .or replace older material and hardware to upgrade our service to all customers.
6. Continued training our crews in safety, equipment and newer technology.

HISTORICAL NOTES OF INTEREST AVERAGE RESIDENTIAL USAGE

YEAR	NUMBER OF CUSTOMERS	ANNUAL KWH SOLD	AVERAGE KWH PER CUSTOMER PER MONTH
2008	7,517	83,683,898	927
2009	7,595	85,036,003	933
2010	7,722	86,123,993	929
2011	7,815	96,227,471	1,026
2012	7,929	91,383,058	960
2013	8,080	92,730,894	956
2014	8,258	89,920,454	907
2015	8,413	90,845,153	900
2016	8,517	93,766,483	917
2017	8,768	95,621,631	909

AVERAGE COMMERCIAL USAGE

YEAR	NUMBER OF CUSTOMERS	ANNUAL KWH SOLD	AVERAGE KWH PER CUSTOMER PER MONTH
2008	680	41,244,144	5,054
2009	697	42,143,213	5,039
2010	702	43,732,710	5,191
2011	714	46,438,548	5,420
2012	716	43,407,920	5,052
2013	725	44,753,485	5,144
2014	725	45,643,406	5,246
2015	734	47,335,466	5,374
2016	743	50,967,876	5,716
2017	759	51,091,512	5,610

SYSTEM LOSSES

2016 3.6

2017 2.5%

2017 OUTAGE AND TROUBLE CALL SUMMARY

CATEGORIES	EVENTS	EVENTS	% OF TOTAL
	2016	2017	
SCHEDULED OUTAGES	33	36	39%
EQUIPMENT	18	29	32%
VEHICLE ACCIDENT	5	5	5%
EQUIPMENT REPLACEMENT	3	4	4%
TREE	1	3	3%
UNSCHEDULED	18	3	3%
EQUIPMENT DAMAGE		2	2%
OTHER CAUSES			
BIRD	2	2	12%
WIND		2	
FAILURE OF GREATER TRANSMISSION		1	
SQUIRREL		1	
HUMAN ACCIDENT		1	
ELECTRICAL FAILURE	3	1	
EQUIPMENT WORN OUT	2	1	
CONTACT WITH FOREIGN OBJECT		1	
TOTAL	85	92	100%

KAYSVILLE CITY
2017 SYSTEM RELIABILITY REPORT
AVERAGE SERVICE AVAILABILITY INDEX (ASAI)

KAYSVILLE 2017

This is the index which has been referred to for several years in the industry as the Index of reliability. It is the ratio of total customer hours that service is available divided by the total customer hours demanded in a time period. An example of customer hours demanded in a year would be the twelve (12) month average number of customers served times the number of hours during the year (i.e. 8760 hours). The expanded formula used for calculating this index is:

Number of customers times hours served, minus sum of customers off, times hours off for each outage, divided by number of customers, times hours served.

Kaysville City 1998 ASAI was 99.868%
Kaysville City 1999 ASAI was 99.983%
Kaysville City 2000 ASAI was 99.942%
Kaysville City 2001 ASAI was 99.9956%
Kaysville City 2002 ASAI was 99.938%
Kaysville City 2003 ASAI was 99.97%
Kaysville City 2004 ASAI was 99.999%
Kaysville City 2005 ASAI was 99.939%
Kaysville City 2006 ASAI was 99.878%
Kaysville City 2007 ASAI was 99.95%
Kaysville City 2008 ASAI was 99.90%
Kaysville City 2009 ASAI was 99.98%
Kaysville City 2010 ASAI was 99.98%
Kaysville City 2011 ASAI was 99.80%
Kaysville City 2012 ASAI was 99.98%
Kaysville City 2013 ASAI was 99.94%
Kaysville City 2014 ASAI was 99.98%
Kaysville City 2015 ASAI was 99.97%
Kaysville City 2016 ASAI was 99.9962%
Kaysville City 2017 ASAI was 99.79%