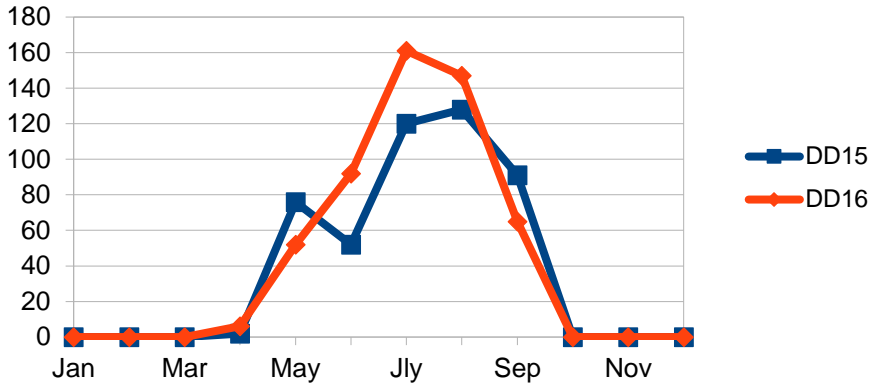


Bristol: Minot Sleeper Library; 2015 vs 2016 Solar/Electrical Power Parameters
Report by Bill Dowey

Degree Days above 68 deg F

Month	DD15	DD16
Jan	0	0
Feb	0	0
Mar	0	0
Apr	2	6
May	76	52
Jun	52	92
Jly	120	161
Aug	128	147
Sep	91	65
Oct	0	0
Nov	0	0
Dec	0	0



2016>2015
 469 523 11.50% 54

Summer 2016 saw 54 more Degree Days above 68 degrees than was seen in 2015 requiring more AC/electric power for cooling.

Summary of generation versus use for the 15 & 16 summers

Library 16 vs 15

Generation	97.80%
Used	112.7%
Banked	41.30%

Earlier meter type was replaced at Library with new dual accounting type, spring 2016.

2016 the library used ~13% more electrical power than in 2015.

The electrical power billing remained at zero for the summer months because the cost was offset by the spring banked power. The banked power was depleted earlier in 2016 leaving very little for offsetting fall and winter billing use as achieved in 2015. There were Electrical power costs starting in Nov and for winter of 2016/17.

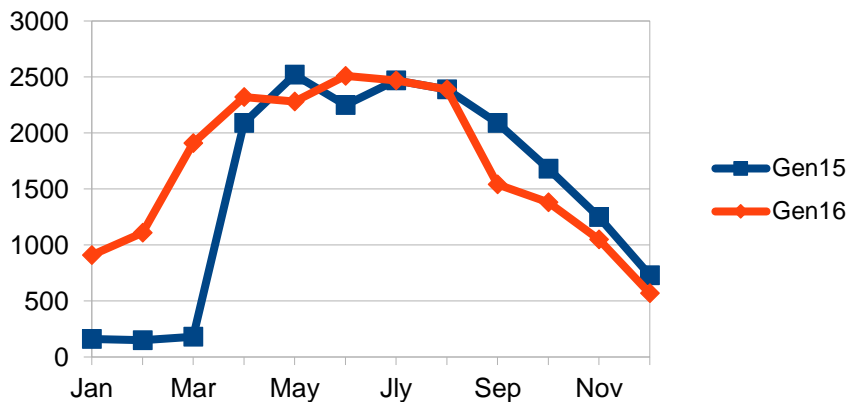
Solar Generation Curves in KWH

Month	Gen15	Gen16
Jan	160	910
Feb	150	1110
Mar	180	1910
Apr	2090	2320
May	2520	2280
Jun	2250	2510
Jly	2470	2470
Aug	2390	2390
Sep	2090	1540
Oct	1680	1380
Nov	1250	1050
Dec	730	568

16 est
 16 est
 significant drops Sep to Dec

2016~2015

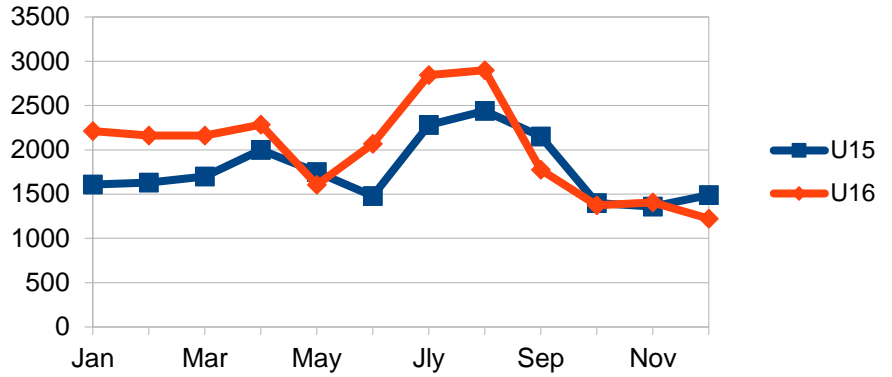
Gen AprSep 13810 13510 0.97827661



Power Used by Library

Month	U15	U16
Jan	1610	2211
Feb	1630	2162
Mar	1700	2161
Apr	2000	2283
May	1750	1606
Jun	1480	2066
Jly	2280	2845
Aug	2440	2899
Sep	2150	1776
Oct	1400	1375
Nov	1360	1405
Dec	1488	1223
Total	21288	24012

Projections
2016>2015
1.12795941

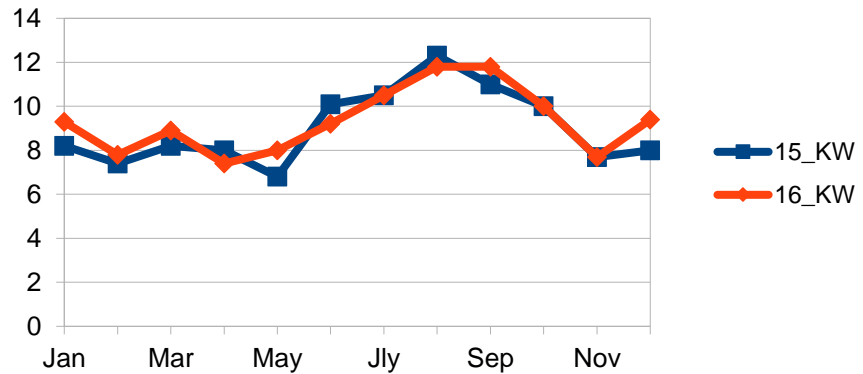


Library saw ~13% increase in power use throughout the year, primarily in summer.

Demand curves in Kilowatts

Month	15_KW	16_KW
Jan	8.2	9.3
Feb	7.4	7.8
Mar	8.2	8.9
Apr	8	7.4
May	6.8	8
Jun	10.1	9.2
Jly	10.5	10.5
Aug	12.3	11.8
Sep	11	11.8
Oct	10	10
Nov	7.7	7.7
Dec	8	9.4

2016~2015



KWH hours in bank

Month	B15	B16
Jan	0	0
Feb	0	0
Mar	0	0
Apr	90	37
May	860	711
Jun	1630	1155
Jly	1820	1045
Aug	1770	271
Sep	1710	35
Oct	1990	40
Nov	1880	5
Dec	1120	0

0.41294416

