

Making Sense of Winter 2018 Electric Bills

December 2017 factors

- Required 10% more home heating than the historical average
 - Required 14% more home heating than December 2016
- There was a 16.5% increase in the billed kWh rate from December 2016 to December 2017 due to changes in the WPCA from a credit of \$10.70 per 1,000 kWh to a charge of \$4.99 per 1,000 kWh. We had an unprecedented 52-months straight that we issued WPCA credits before it reverted to a charge in April 2017. That charge peaked at \$7.49 but as of January 2018 has now dropped to \$2.50 per 1,000 and is expected to drop again in February and zero out by March.

(We discussed the WPCA changes in detail in our member newsletter:

<http://www.tidelandemc.com/system/resources/W1siZiIsIjIwMTcvMDcvMTAvMTVfN0ZfMDZfMzVfVGIkZWxhbmRfMDcxNy5wZGYiXV0/Tideland-0717.pdf>

- Other considerations: Christmas lights and decorations; holiday baking; guests; Examples: Inflatables 2.5¢ per hour (each) so if you had one and it ran 6 hours per day for the month of December that would be \$4.65. A modest Christmas lighting display (about 10 strands of LED lights) plugged in 6 hours a day would cost about \$8.15 for the month.

New Bern, NC

Change Location: Units: English | Metric

Actual Conditions For December 2017

Reports from: NEW BERN, NC [EWN]

(Lat: 35.07 Lon:-77.05)

Choose another month / year: Month Year

Choose another location:

Enter a Different Station:

High Temperatures

Actual: 71°F (on Dec. 23)

Record: 83°F (on Dec. 16 - 1971*)

Average: 18.6°F

Departure: -1.5°F

Low Temperatures

Actual: 21°F (on Dec. 29)

Record: -4°F (on Dec. 25 - 1989*)

Entire Month Normals

High: 57°F

Low: 36°F

Average: 46.5°F

Month To Date Energy Use

Heating Degree Days: 625

Cooling Degree Days: 0

Entire Month Normal: Heat 568 / Cooling 0

January Polar Plunge

- Seven new low temperature records set in the first 8 days of January
- In the first 8 days of January, members' home heating requirements were more than double what a single week in January would usually require
- There was a 13.7% increase in the billed kWh rate from January 2017 to January 2018 due to changes in the WPCA from a credit of \$10.56 per 1,000 kWh to a charge of \$2.50 per 1,000 kWh.
- Snow and ice kept many Tideland members home rather than at school or work which contributed to even higher residential energy use
 - Not only did heat pumps operate longer during the polar plunge, they also predominantly ran in Auxiliary or Emergency heat mode which costs 3 times more than normal heat pump operation
 - Members with water wells had higher pump energy use if they dripped faucets
 - Dripping hot water faucets without cutting off the water heater breaker would result in an extra 108 kWh of energy use per day (\$11.69 per 24 hours); also water heating costs overall increased due to much colder incoming water temperatures
- The co-op set a new peak demand record the morning of Jan. 7 and sold a record 11.4 million kWh in the first 7 days of January
- Electric Space Heater Use: When used at the 1,500 watt setting, an electric space heater costs 16¢ per hour to operate. So just 1 space heater used 12 hours a day costs \$1.92; 24 hours a day would cost \$3.84 a day. In many cases members used multiple space heaters and some reported using ovens to supplement home heat.

Seven New Low Temperature Records Set

New Bern, NC

Change Location: Units: English | [Metric](#)

Actual Conditions For January 2018

Reports from: NEW BERN, NC [EWN]

(Lat: 35.07 Lon:-77.05)

Choose another month / year:

Choose another location:

Enter a Different Station:

Obs. Date	Act. High	Act. Low	Act. Avg	Norm. High	Norm. Low	Norm. Avg.	Norm. Dept.	Rec. High	Rec. Year	Rec. Low	Rec. Year	Precip. Amt	Snow Amt.	Snow Ground	Heat Deg Day	Cool Deg Day
1	28	14	21	54	34	44	-23	80	1985*	14	2018*	0	0	0	44	0
2	31	13	22	54	34	44	-22	80	1985*	13	2018*	0	0	0	43	0
3	39	10	24	54	34	44	-20	77	2000*	10	2018*	0.61	4	0	41	0
4	31	20	26	54	34	44	-18	78	2004*	15	2008*	0.14	5	5	39	0
5	29	5	17	54	34	44	-27	80	2004*	5	2018*	0	0	5	48	0
6	24	7	16	54	34	44	-28	76	1950*	7	2018*	0	0	0	49	0
7	26	5	16	54	34	44	-28	74	1953*	5	2018*	0	0	4	49	0
8	49	8	28	54	34	44	-16	78	1989*	8	2018*	0	0	0	37	0

Heating Degree Days

Look at the heating degree day (HDD) requirements for the first 8 days in January. In a normal January, the HDD total is 644. In the first 8 days of the month, 54% of that total had already been exceeded and we were only one-quarter into the month.

New Bern, NC

First 8 days of January 2018

Change Location: Units: English | Metric

Actual Conditions For January 2018
Reports from: NEW BERN, NC [EWN]
(Lat: 35.07 Lon:-77.05)

Choose another month / year: Month Year
Choose another location:
Enter a Different Station:

High Temperatures
Actual: 49°F (on Jan. 8)
Record: 86°F (on Jan. 19 - 2016*)
Average: 7.1°F
Departure: -23°F

Low Temperatures
Actual: 5°F (on Jan. 5)
Record: 1°F (on Jan. 21 - 1985*)

Entire Month Normals
High: 54°F
Low: 34°F
Average: 44°F

Month To Date Energy Use
Heating Degree Days: 350
Cooling Degree Days: 0
Entire Month Normal: Heat 644 / Cooling 0

January 2017 was unusually warm

For the ENTIRE month of January 2017 there were 496 heating degree days (HDD); this year we had 350 HDD in just the first 8 days of the month.

New Bern, NC

Change Location: Units: English | Metric

Actual Conditions For January 2017
Reports from: NEW BERN, NC [EWN]
(Lat: 35.07 Lon:-77.05)

Choose another month / year: Month Year
Choose another location:
Enter a Different Station:

High Temperatures
Actual: 76°F (on Jan. 13)
Record: 86°F (on Jan. 19 - 2016*)
Average: 20.2°F
Departure: 5°F

Low Temperatures
Actual: 14°F (on Jan. 9)
Record: 1°F (on Jan. 21 - 1985*)

Entire Month Normals
High: 54°F
Low: 34°F
Average: 44°F

Month To Date Energy Use
Heating Degree Days: 498
Cooling Degree Days: 0
Entire Month Normal: Heat 644 / Cooling 0