UNC Chapel Hill

Utilities at a Glance

UNC Chapel Hill Utilities

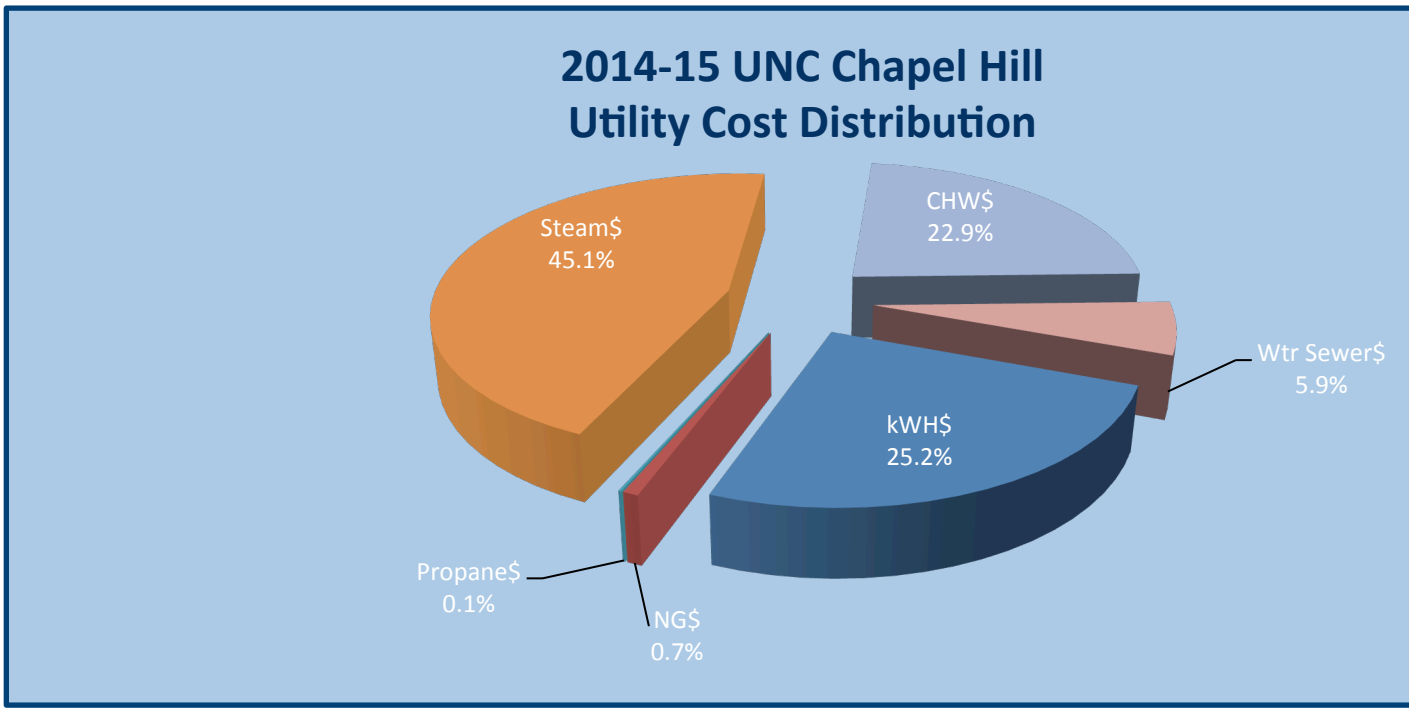
Metric	Basline 2002-2003	Current 2014-2015	% change
Gross square feet	13,477,719	18,950,654	41%
Btu per square foot per year	193,500	136,540	-29%
Cost per million Btu	$ 18.22	$ 35.07	92%
Total Avoided Cost		$264,069,655	
Electric consumption in kWh	233,785,097	300,310,121	28%
Electric Cost	$ 13,249,697	$ 24,322,207	84%
Natural Gas consumption in Therms	795,084	960,210	21%
Natural Gas Cost	$ 725,083	$ 702,614	-3%
#2 Fuel oil gallons	0	0	%
#2 Fuel oil cost	$ -	$ -	%
#6 Fuel oil gallons	0	0	%
#6 Fuel oil cost	$ -	$ -	%
Propane gallons	61,786	133,240	116%
Propane cost	$ 63,298	$ 117,698	86%
Steam thousands of pounds	1,023,450	954,304	-7%
Steam cost	$ 24,096,183	$ 43,474,342	80%
Chilled Water tons	97,308,346	101,012,870	4%
Chilled Water cost	$ 9,390,249	$ 22,137,321	136%
Water thousands of gallons	666,812	673,257	1%
Water & Sewer cost	$ 2,631,427	$ 5,739,893	118%

UNC Chapel Hill

Year End Utility Comparison

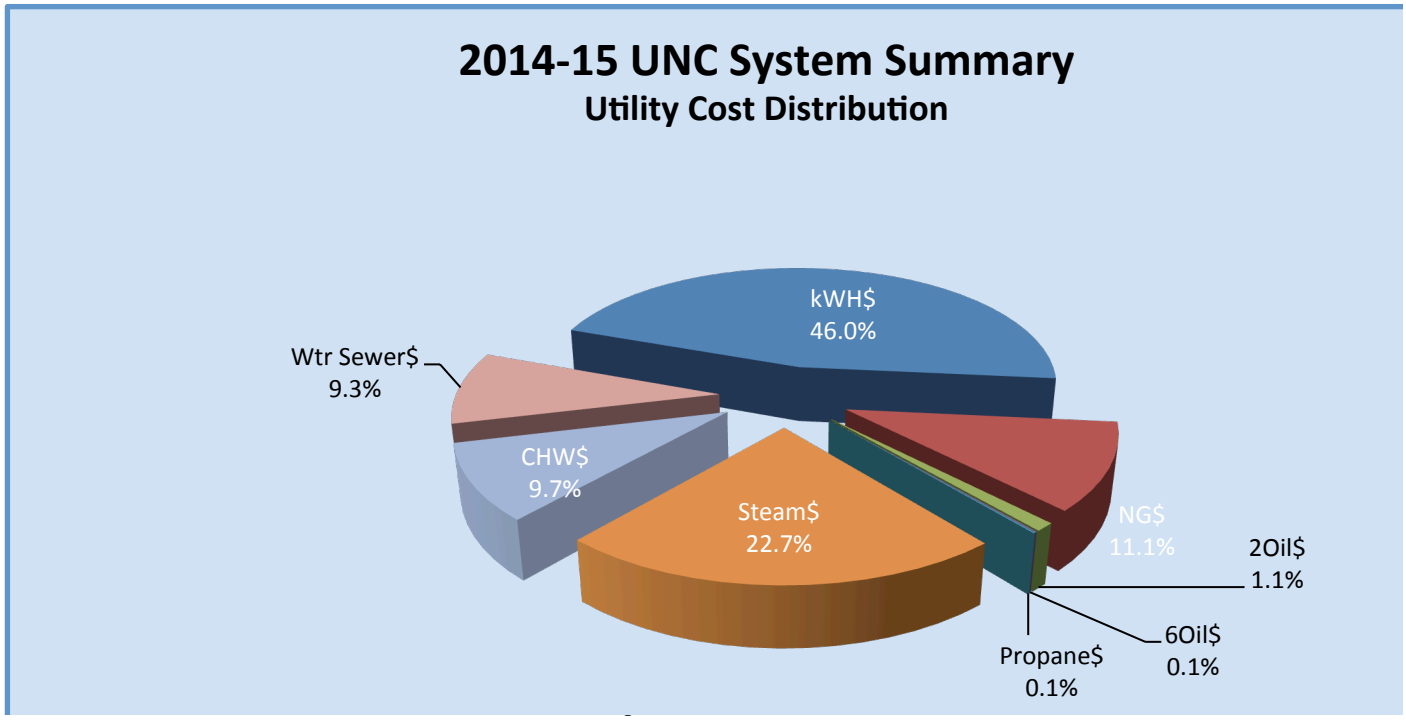
UNC CH Utilities Summary 2014-2015

kWH$	NG$	2Oil$	6Oil$	Propane$	Steam$	CHW$	Wtr Sewer$
$ 24,322,207	$ 702,614			$ 117,698	$ 43,474,342	$ 22,137,321	$ 5,739,893



UNC System Utilities Summary 2014-15

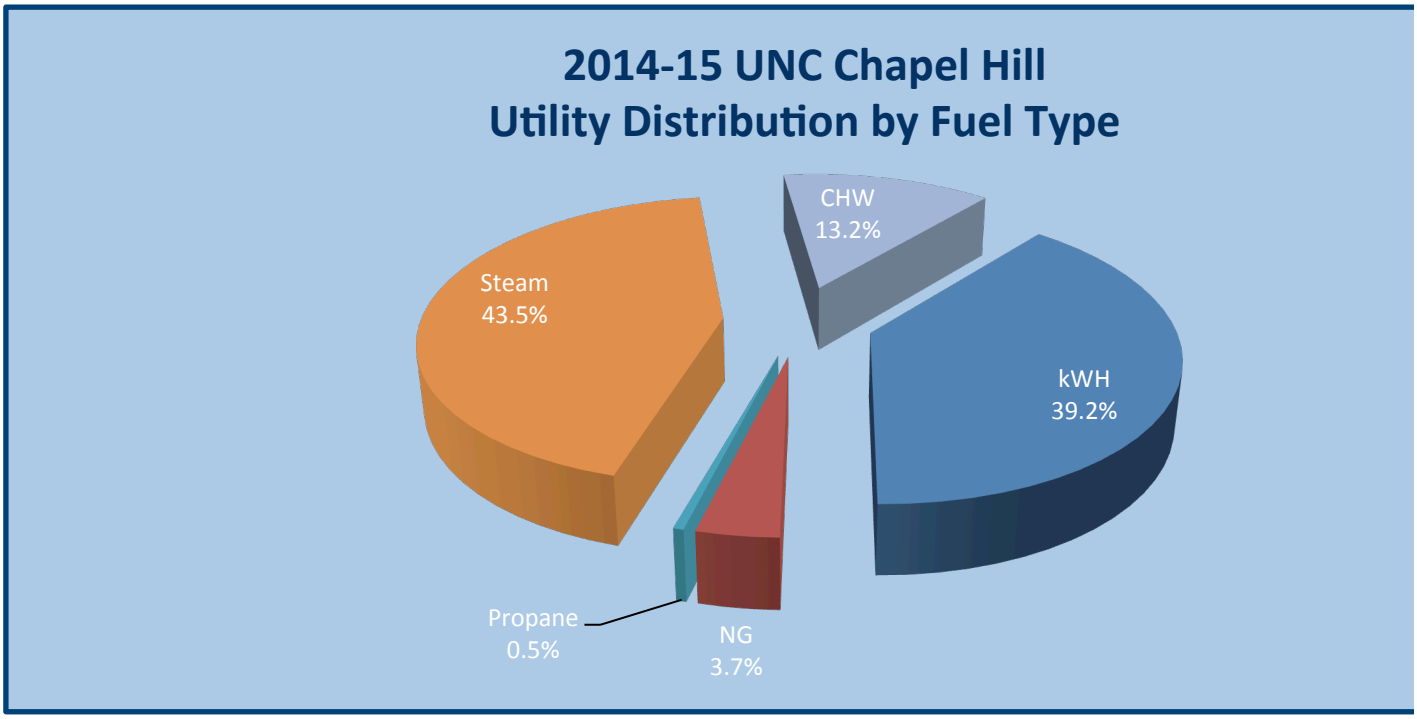
kWH$	NG$	2Oil$	6Oil$	Propane$	Steam$	CHW$	Wtr Sewer$
$ 106,341,037	$ 25,650,437	$ 2,433,883	$ 240,540	$ 219,997	$ 52,453,892	$ 22,389,388	$ 21,535,495



Year End Btu by Fuel Type for 2014-2015

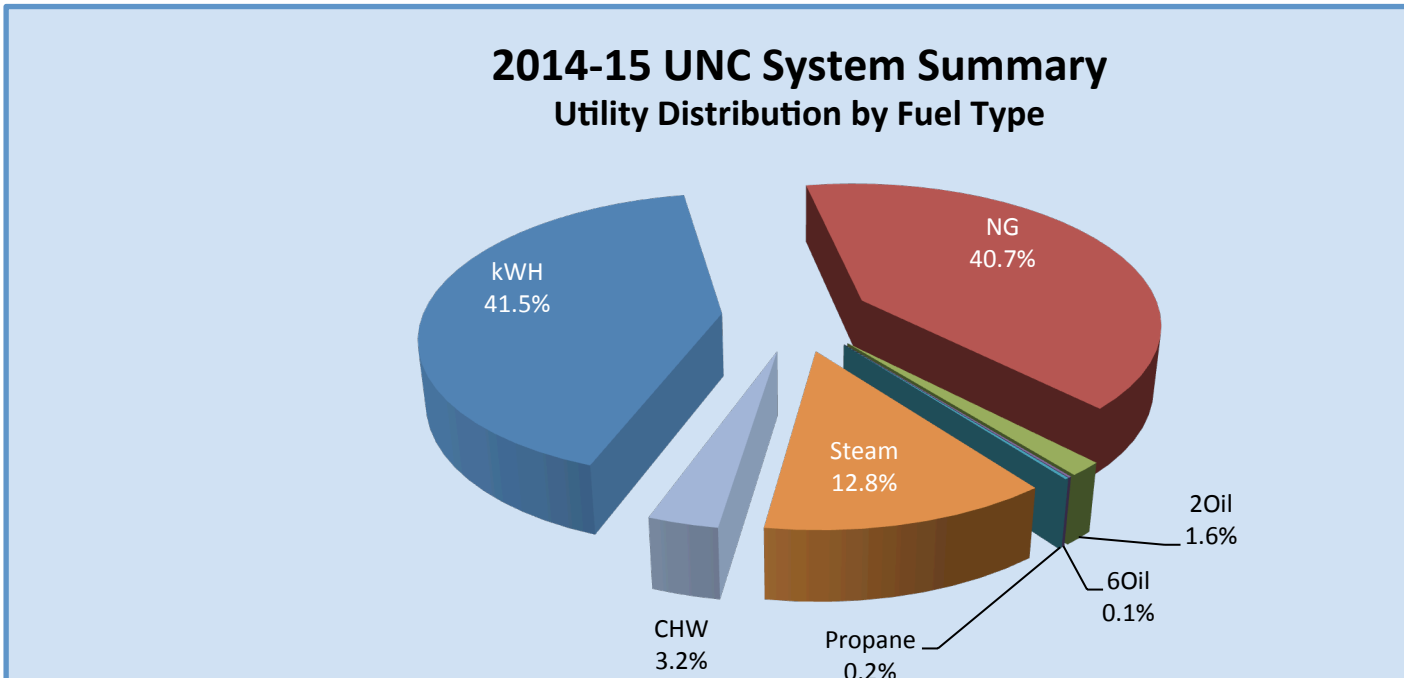
UNC CH Btu by Fuel Type 2014-2015

kWH	NG	2Oil	6Oil	Propane	Steam	CHW	Total Btu
1,024,658,132,852	96,021,000,000			12,211,179,520	1,139,438,976,000	344,655,912,440	2,616,985,200,812



UNC System Btu by Fuel Type 2014-15

kWH	NG	2Oil	6Oil	Propane	Steam	CHW	Total Btu
4,591,246,083,495	4,501,777,515,560	171,709,572,258	14,789,870,472	19,674,195,302	1,416,944,874,000	348,826,898,192	11,064,969,009,279

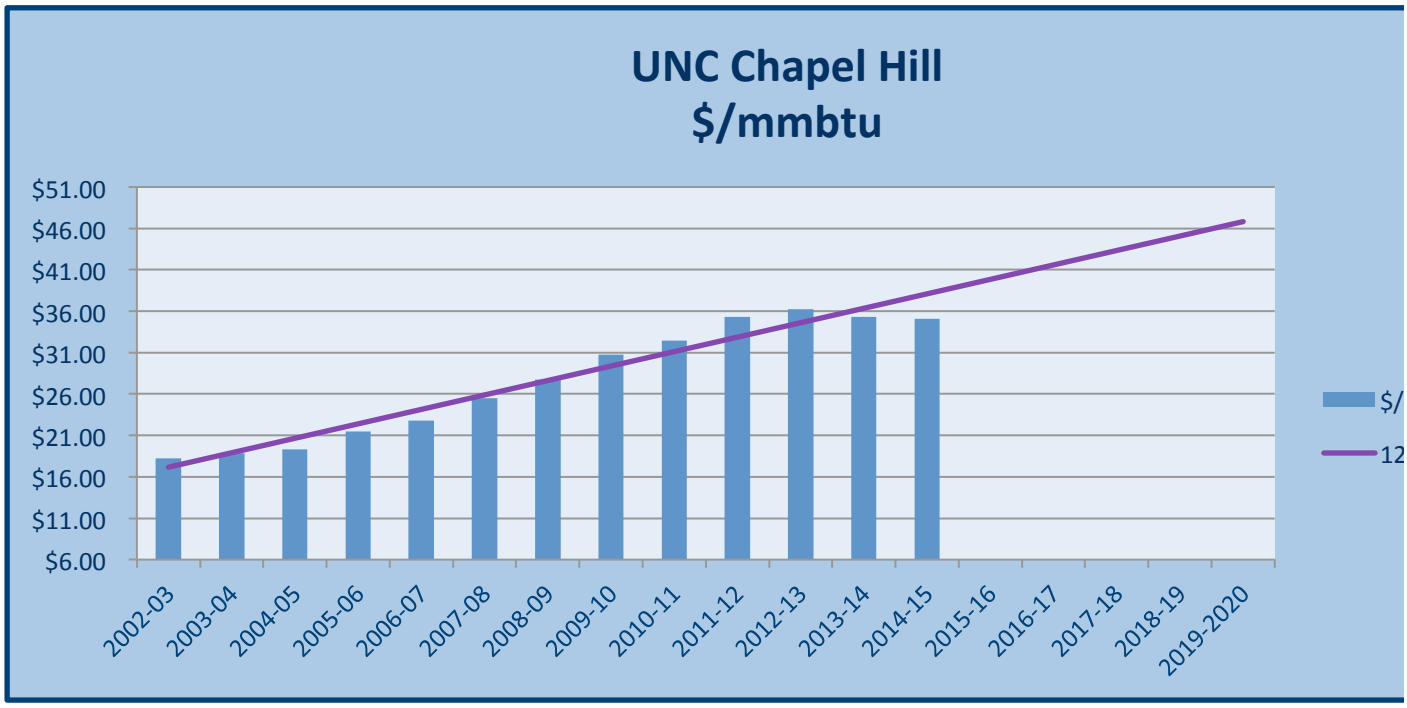


UNC Chapel Hill

Energy $/mmbtu Evaluation 2003-2015 & Trend Through 2020

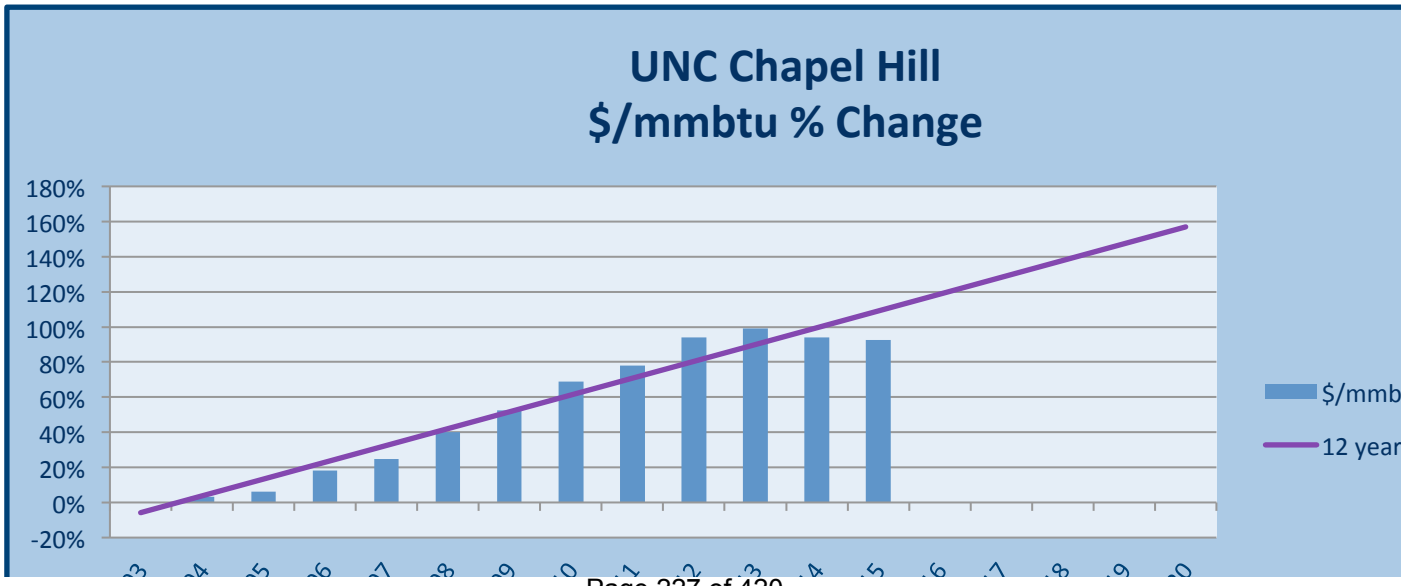
UNC CH Energy $/mmbtu

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
$ 18.22	$ 18.83	$ 19.35	$ 21.51	$ 22.76	$ 25.52	$ 27.77	$ 30.79
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
$ 35.34	$ 36.27	$ 35.35	$ 35.07				



UNC CH Energy $/mmbtu % Change

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
0%	3%	6%	18%	25%	40%	52%	69%
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
94%	99%	94%	92%				

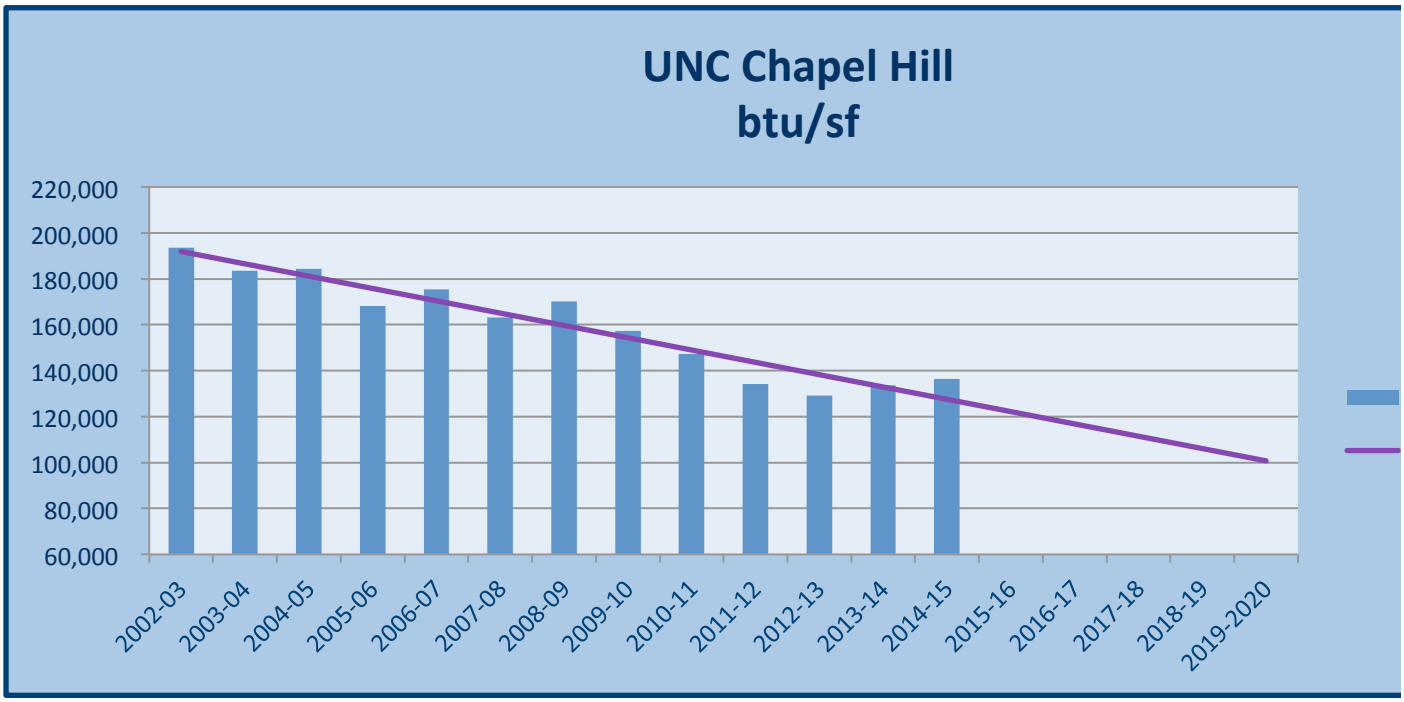


UNC Chapel Hill

Energy btu/sf Evaluation 2003-2015 & Trend Through 2020

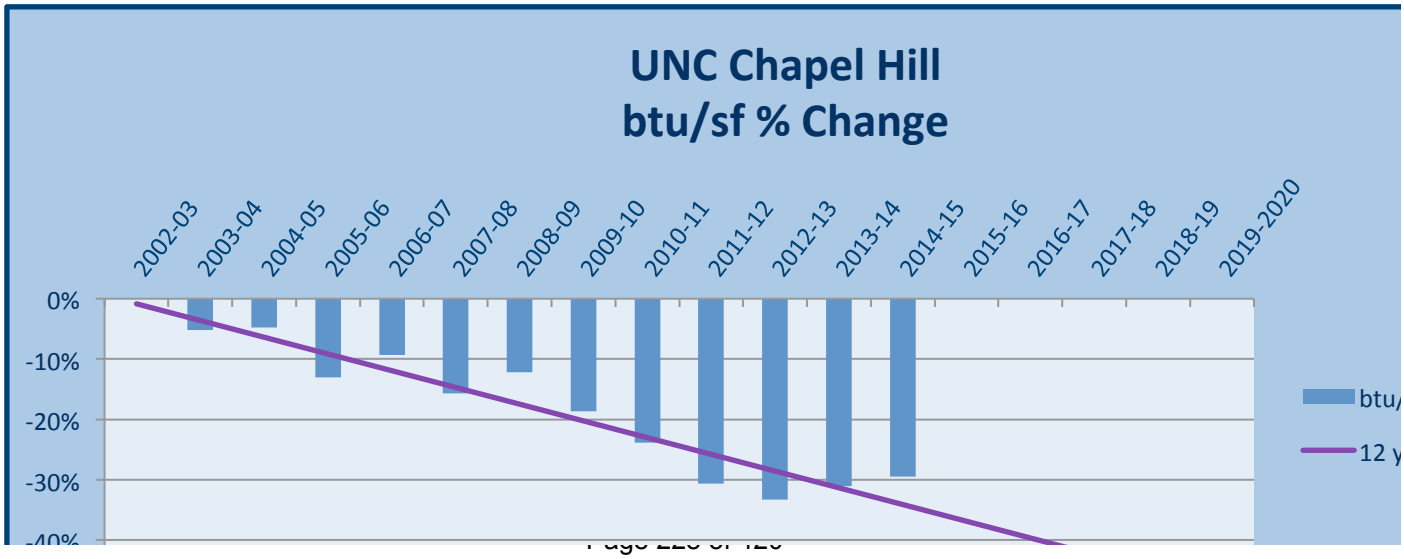
UNC CH Energy btu/sf

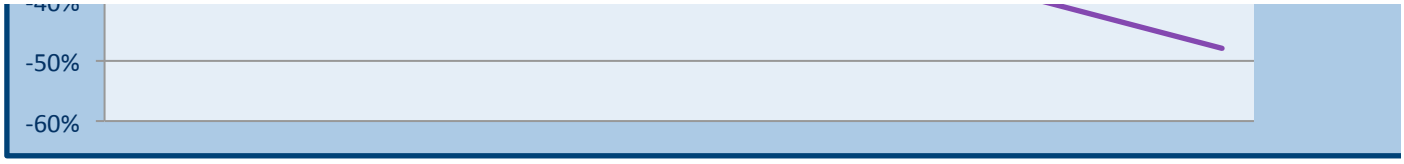
2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
193,500	183,399	184,212	168,252	175,542	163,093	170,032	157,347
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
134,288	129,083	133,521	136,540				



UNC CH Energy btu/sf % Change

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
0%	-5%	-5%	-13%	-9%	-16%	-12%	-19%
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
-31%	-33%	-31%	-29%				



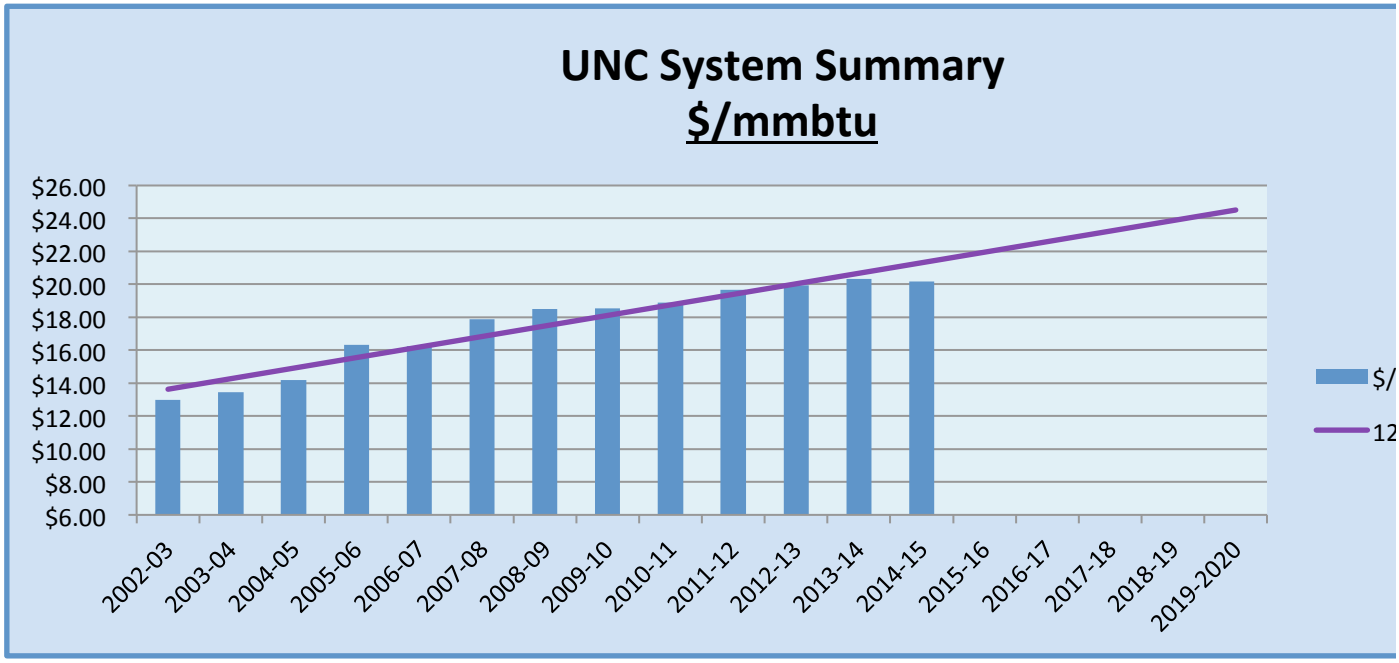


UNC System Summary

Energy $/mmbtu Evaluation 2003-2015 & Trend Through 2020

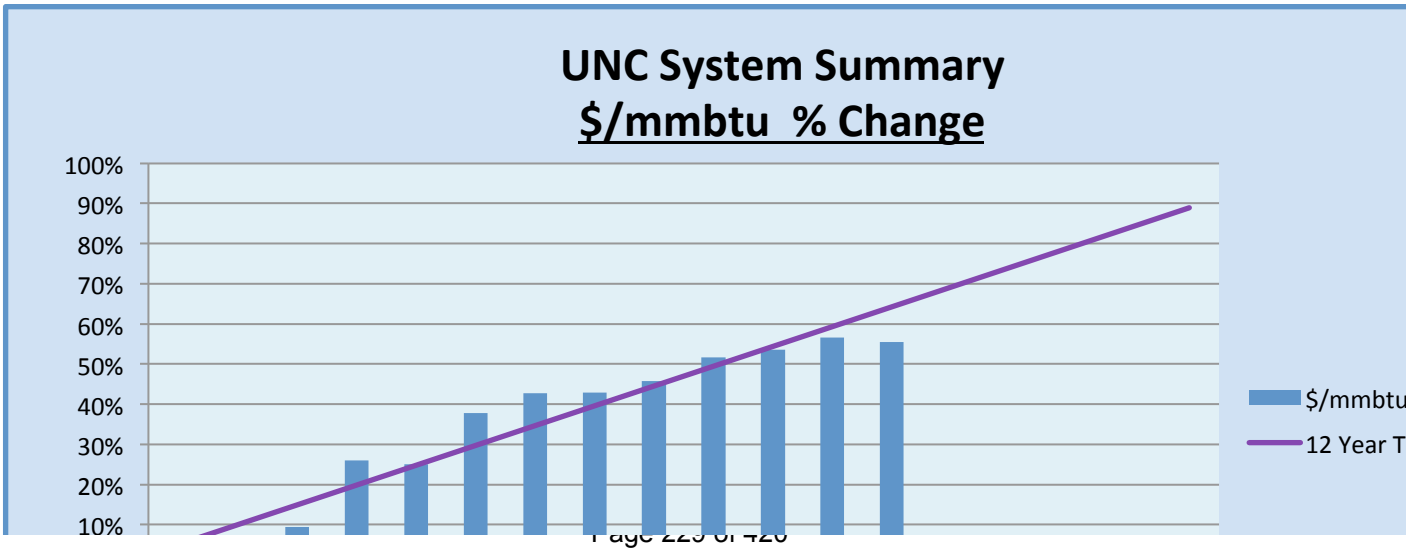
UNC System Energy $/mmbtu

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
$ 12.98	$ 13.45	$ 14.19	$ 16.34	$ 16.23	$ 17.88	$ 18.51	$ 18.54
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
$ 19.68	$ 19.93	$ 20.32	$ 20.17				



UNC System Energy $/mmbtu % Change

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
0%	4%	9%	26%	25%	38%	43%	43%
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
52%	54%	57%	55%				

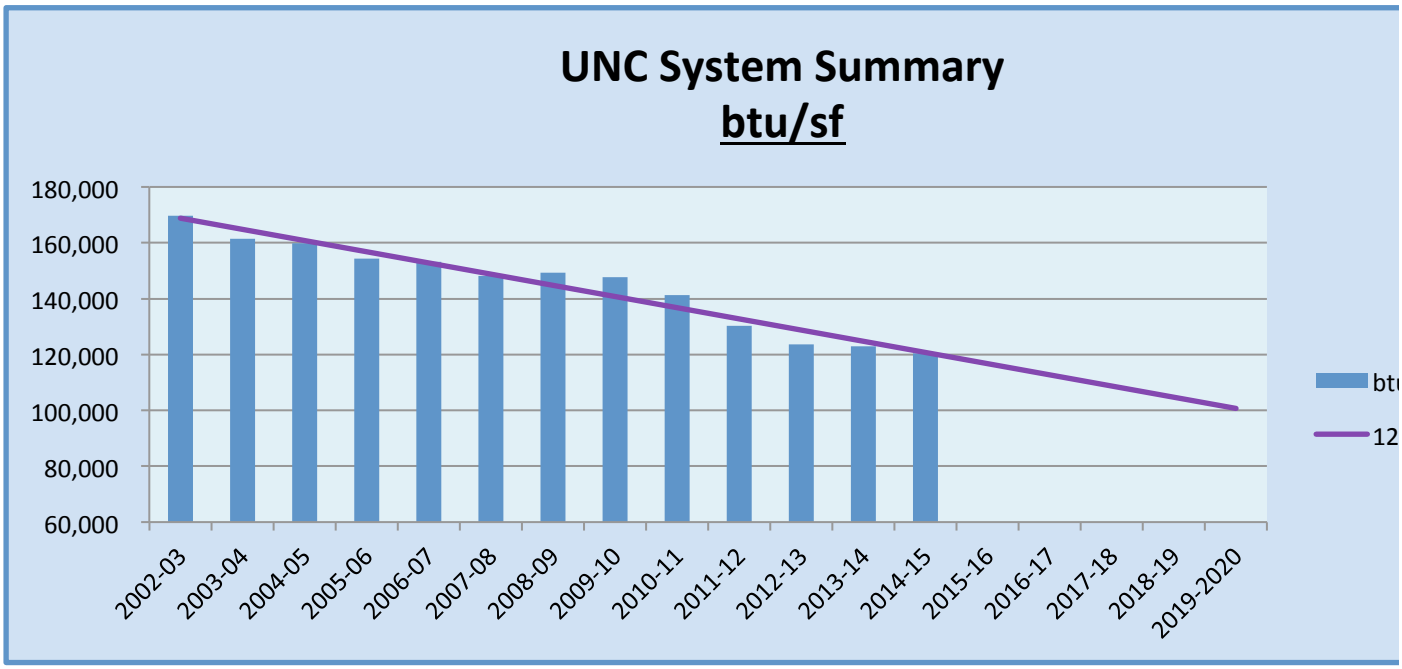


UNC System Summary

Energy Btu/sf Evaluation 2003-2015 & Trend Through 2020

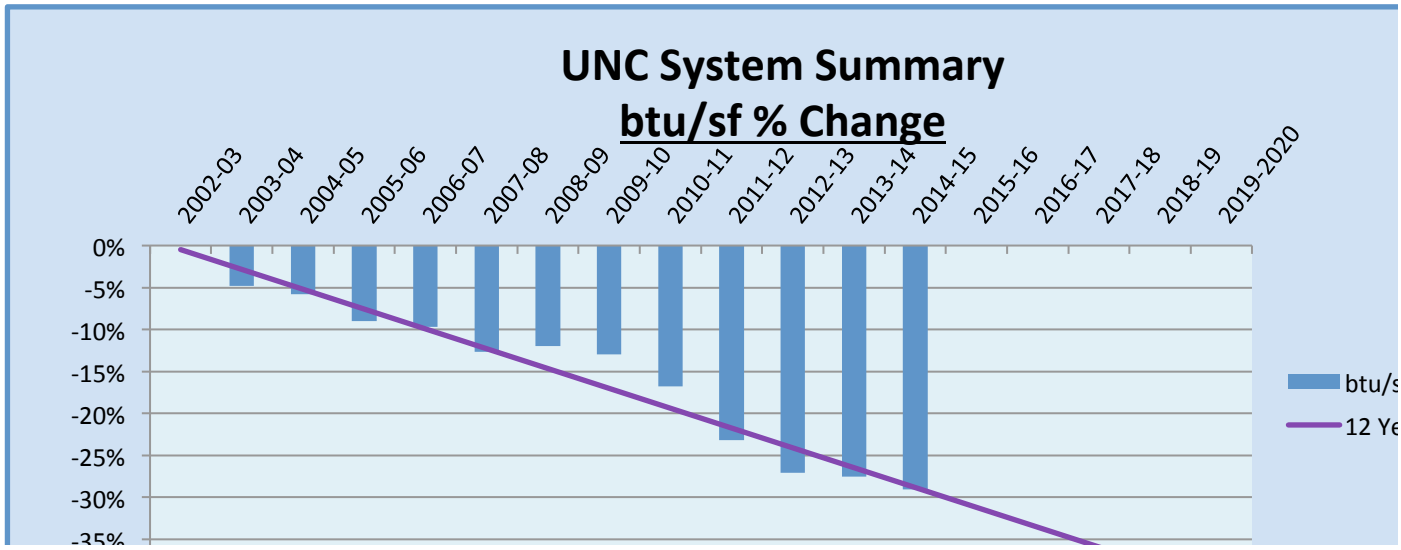
UNC System Energy Btu/sf

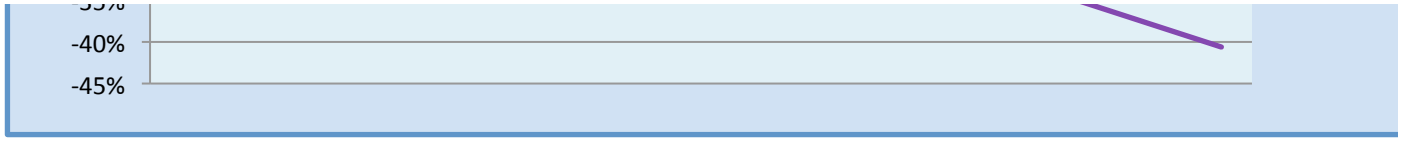
2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
169,641	161,422	159,774	154,418	153,235	148,154	149,352	147,583
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
130,266	123,665	122,926	120,407				



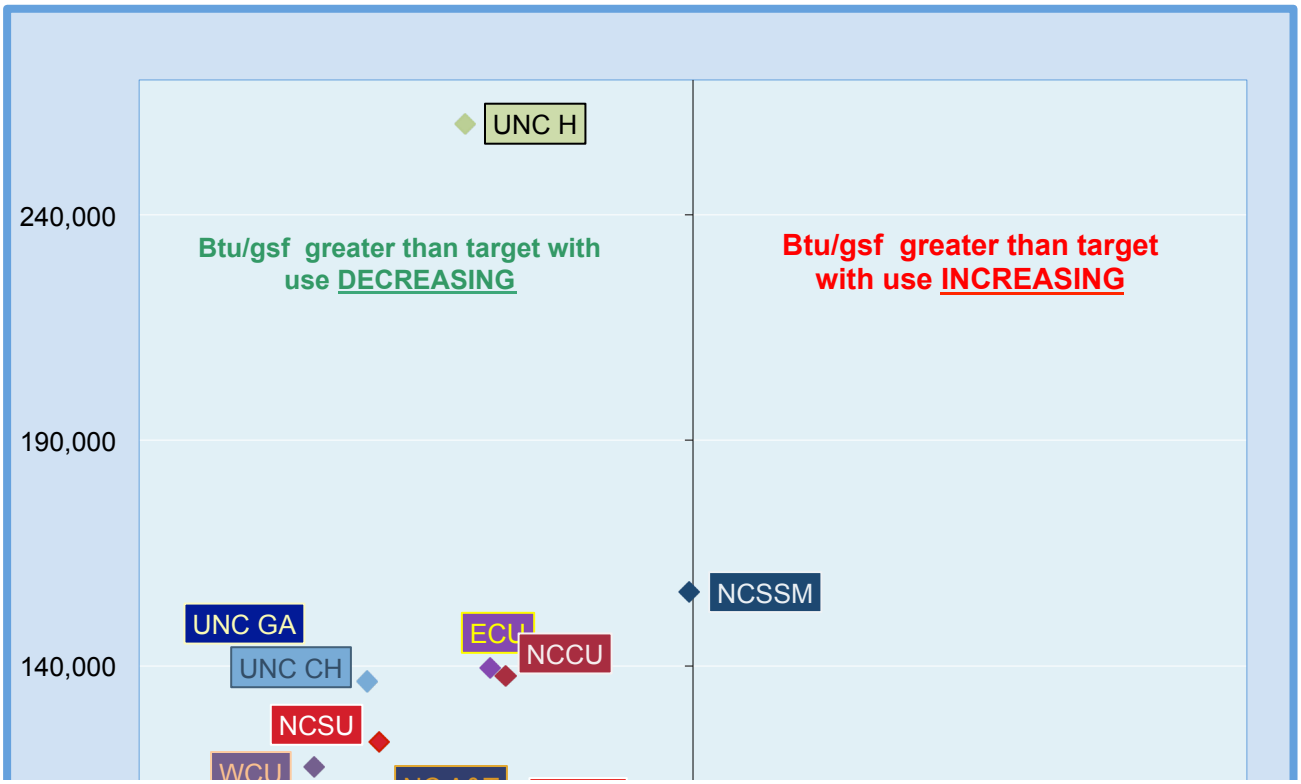
UNC System Energy Btu/sf % Change

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
0%	-5%	-6%	-9%	-10%	-13%	-12%	-13%
2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
-23%	-27%	-28%	-29%				





Btu/gsf and % Reduction



Total Utility $
$ 96,494,075

Total Utility $
$ 231,264,670

2010-11
$ 32.43
2019-2020

mmbtu

Year Trend

2010-11
78%
2019-2020

tu %change

Trend

2010-11

147,334

2019-2020

btu/sf

12 Year Trend

2010-11

-24%

2019-2020

/sf %change

ear Trend

2010-11
$ 18.90
2019-2020

mmbtu

Year Trend

2010-11
46%
2019-2020

% Change

rend

2010-11
141,239
2019-2020

u/sf

Year Trend

2010-11
-17%
2019-2020

sf % Change

ear Trend