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Solar in the Southeast

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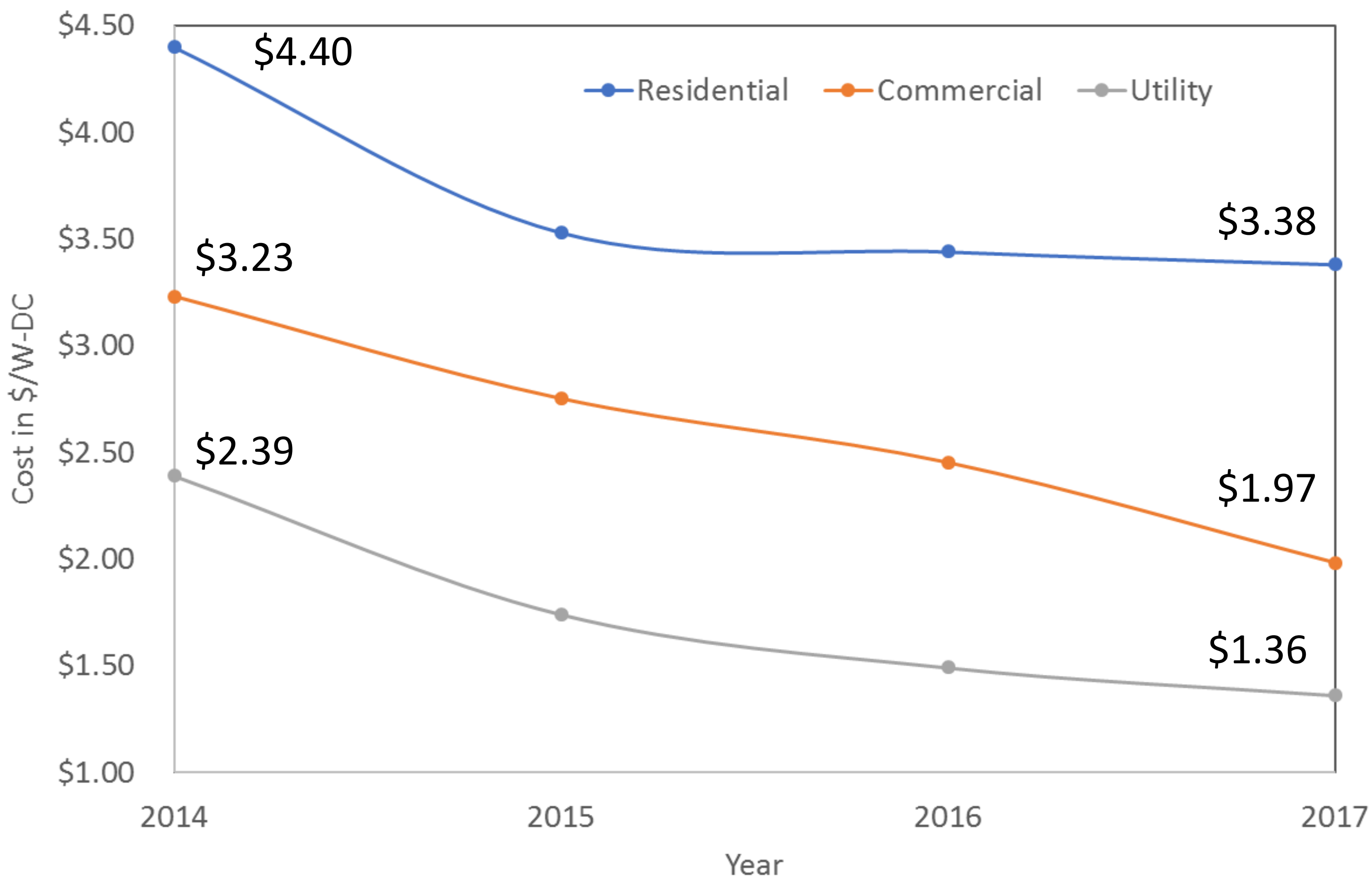
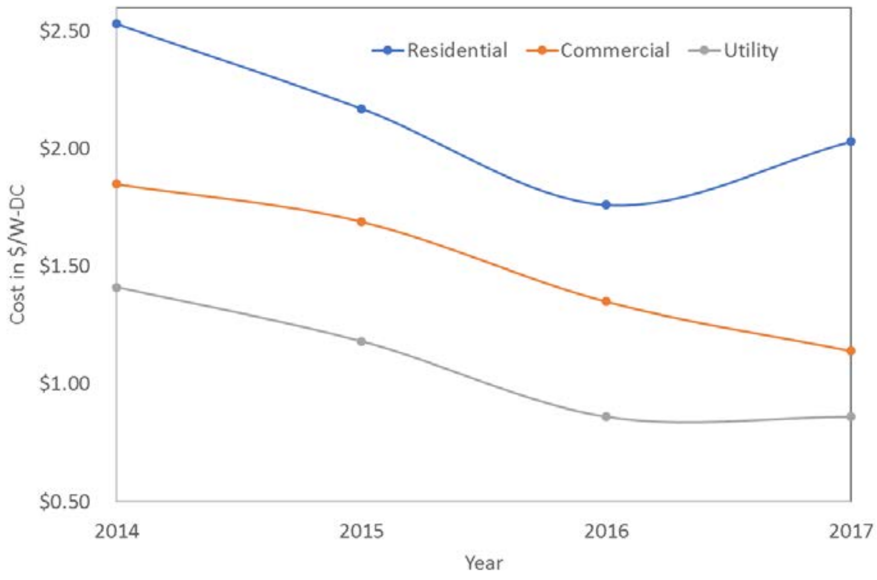
Cost trends



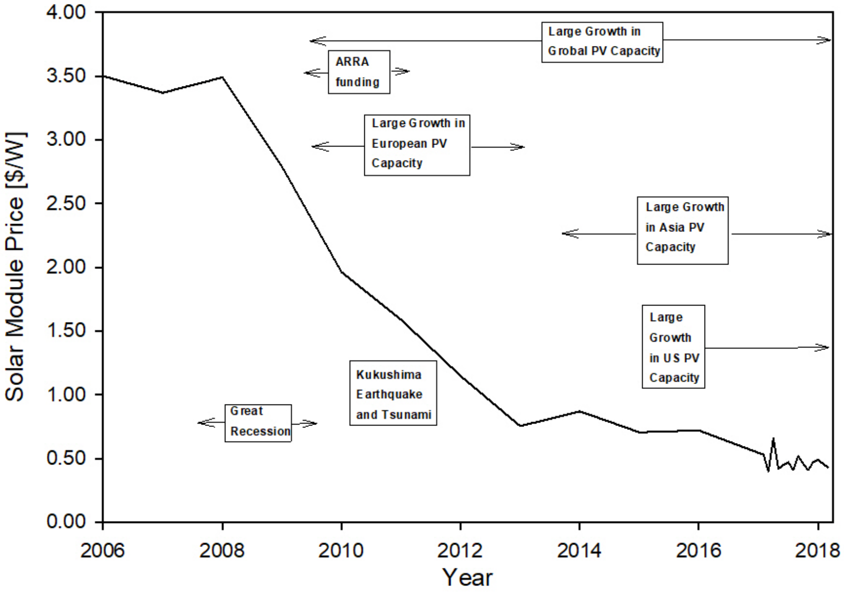
$4.50
$4.00
$3.50
$3.00
$2.50
$2.00
$1.50
$1.00
Cost in $/W-DC
$4.40
Residential
Commercial
Utility
$3.38
$3.23
$2.39
$1.97
$1.36
2014
2015
2016
2017
Year

Hardware Costs

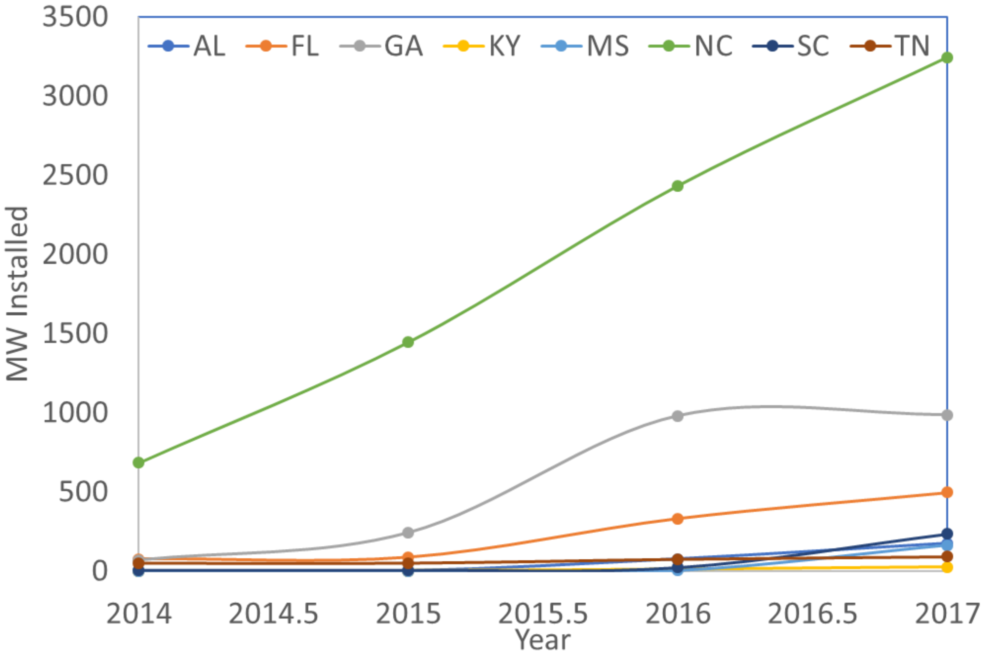


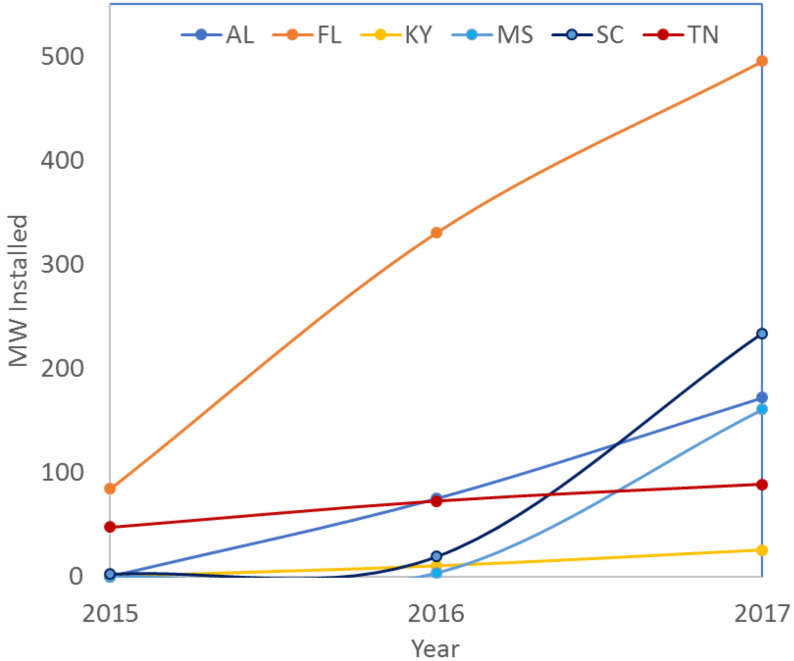
Hardware is 60% of the cost for residential systems, 59% for commercial, and 65% for utility-scale systems

Tariffs are expected to increase module prices by about $0.10/W-DC in 2018, but decrease to $0.04/W-DC in 2022. i.e., a 5% cost increase for residential systems, 9% for commercial, and 12% for utility scale



How do we compare in utility scale?





Additional capacity planned to come on line in 2018 as of Dec 2017:

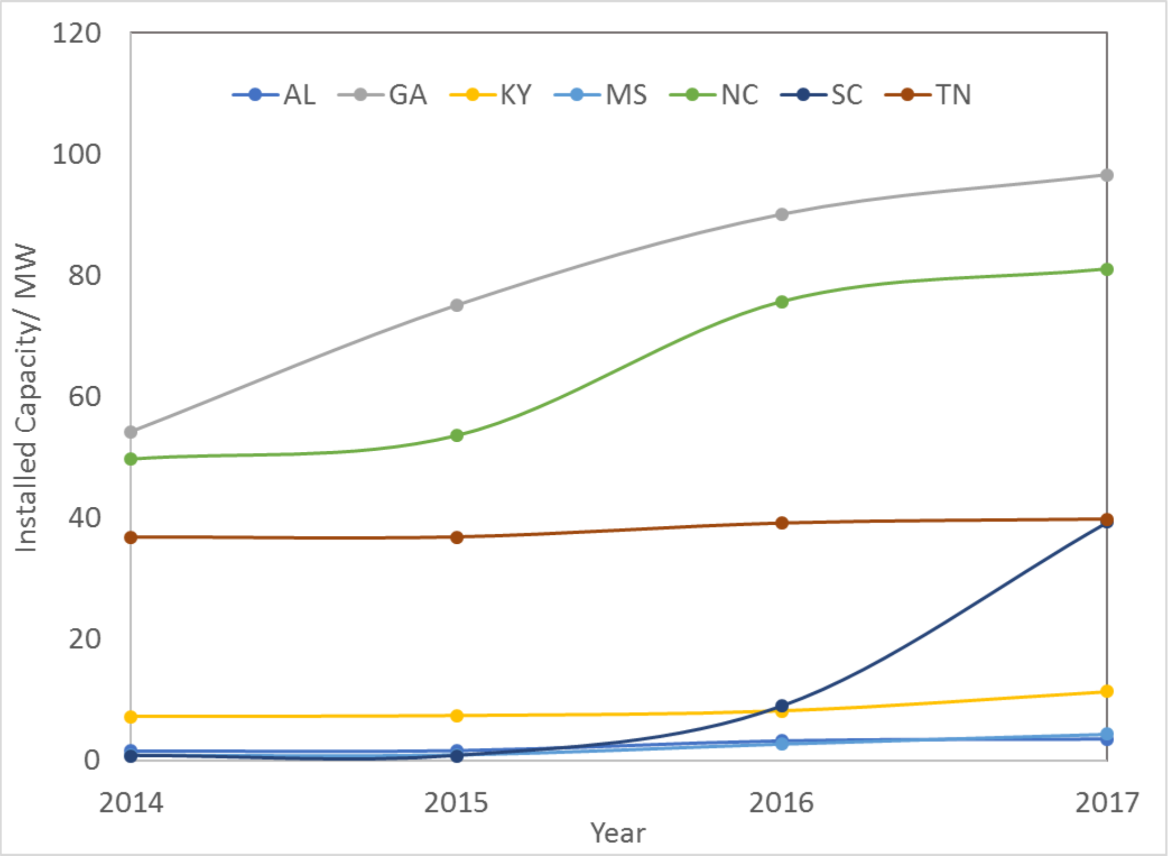
- zero in AL, KY, and MS
- NC – 1 GW
- FL – 596 MW
- SC – 92.7 MW
- TN – 69.7 MW
- GA – 53.7 MW

What is our utility scale generation?

	operating	planned	Retired (since 2007)	Cancelled or postponed
Solar	235.2 (0.9%)	165.2	-	-
Biomass	533.8 (2.1%)	-	-	35
Hydroelectric	4054.4 (16.3%)	-	-	-
Landfill gas	49.7 (0.2%)	-	-	1.1
Nuclear	6875.1 (27.6%)	-	-	2200
Natural Gas	6974.7 (28.0%)	848	368.5	1596.6
Petroleum	637.4 (2.6%)	-	239.2	-
Coal	5526.9 (22.2%)	-	1463.2	-
Total	24,887.2	1013.2	2070.9	3832.7
Renewables	4873.1 (19.6%)	16.3%	-	0.1%
Carbon Free/Neutral	11,748.2 (47.2%)	16.3%	-	58.3%

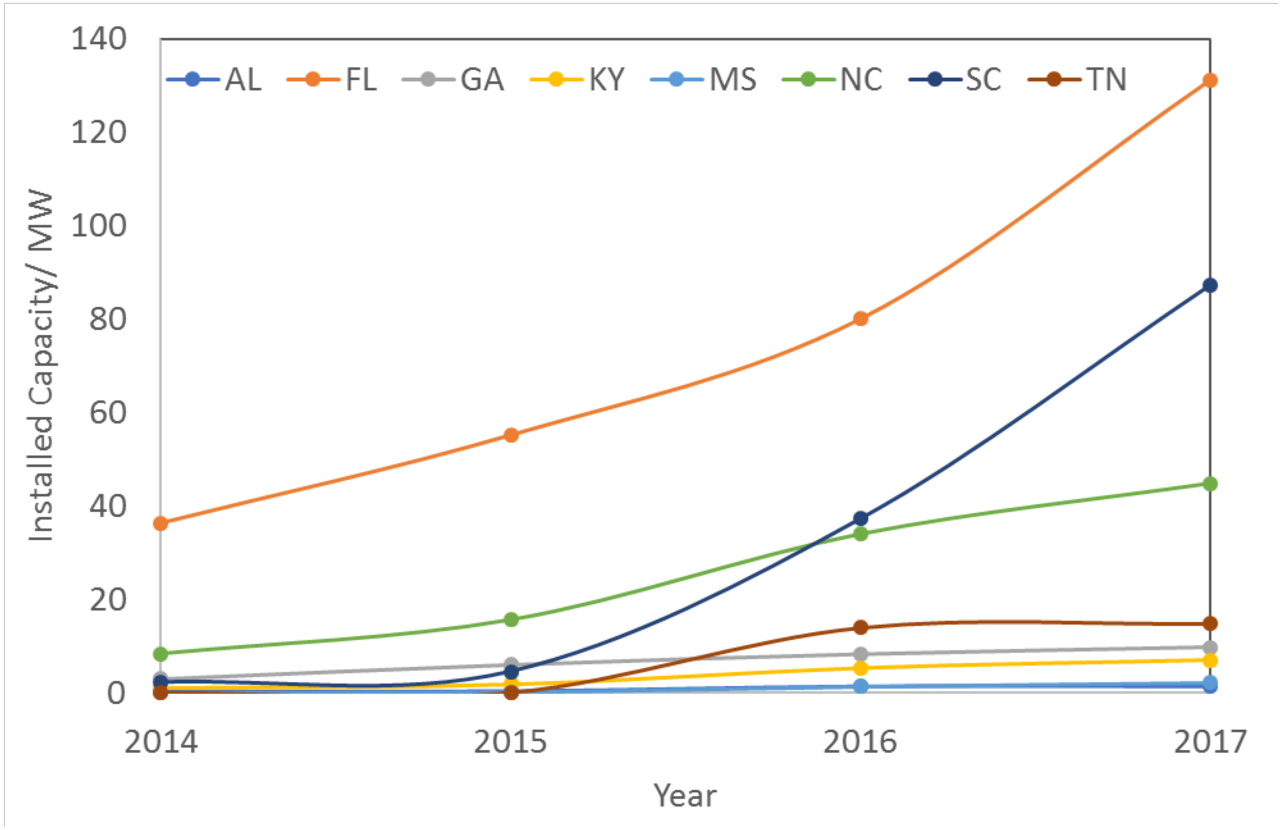
- Hydro includes pumped storage and conventional
- Natural gas includes combustion turbine and combined cycle
- If VC Summer were built, SC utility scale generating capacity would be 51.5% carbon free or neutral

How do we compare for C&I?



- C&I has been relatively flat in AL, MS, KY, TN
- Expected to surpass KY in C&I installed capacity at any time

How do we compare in residential scale?



- SC has a higher residential capacity than either GA or NC, which have double the population of SC
- Florida has 4X the pollution of SC, but only ~50% more installation capacity

SC Residential Solar Installations

	# of Installations	Total Capacity/ kW-AC	Number % leased	Capacity % leased	Ave. size leased/ kW-AC	Ave. size owned/ kW-AC
Coastal	3100	23,487	31.3%	36.8%	8.9	7.0
Midlands	3284	28,414	46%	49%	9.3	8.1
PeeDee	440	3380	0	0	0	6.5
Piedmont	3051	28,593	38%	47%	10.1	8.8
State Total	9875	83,872	38.7%	43.6%	9.5	7.8

Solar Jobs

	2016 mean per employer	Average Expected Hires in 2017, per employer	Average % Increase expected per employer in 2017	2017 mean per employer	Average Expected Hires in 2018, per employer	Average % Increase expected per employer in 2018
designer & engineer	2	1	50%	2	2	100%
electrician & installer	11	4	36%	5	4	80%
general business	3	1	33%	3	2	67%
sales & marketing	11	3	27%	4	1	25%
total	27	9	33%	14	9	64%

Note: It is very difficult to directly track the number of jobs in the solar industry due to reporting requirements. However, the new LLR designation of solar installer will help dramatically. The numbers the Solar Foundation reports are likely over inflated because they consider anyone who participates as a portion of their job across broad categories (i.e does not report FTE)

QUESTIONS ???

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- Solar Business Alliance

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