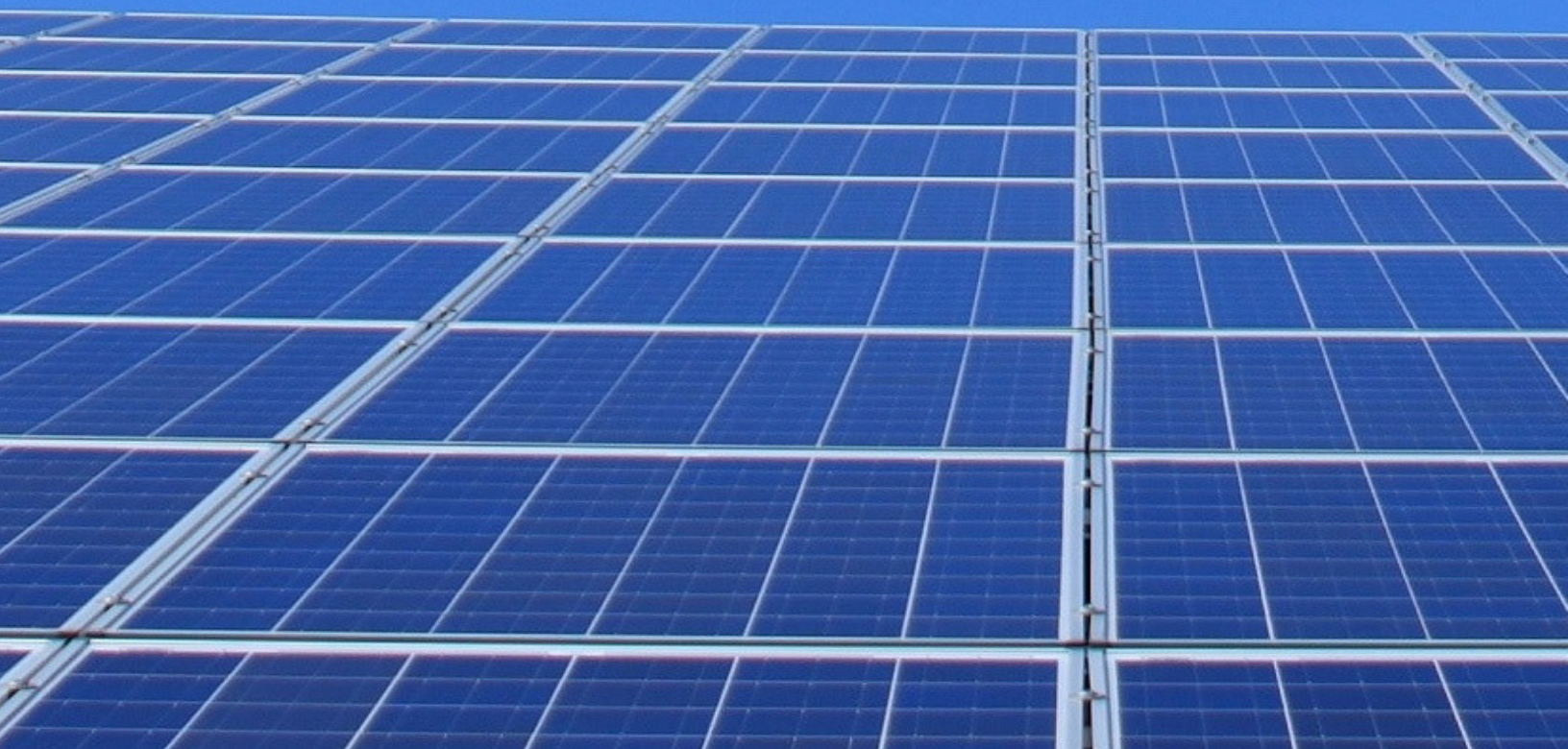
NC SUSTAINABLE ENERGY ASSOCIATION

Increased North Carolina County Tax Revenue from Solar Development - 2020 Update

September 2020



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About North Carolina Sustainable Energy Association:
North Carolina Sustainable Energy Association (NCSEA) is the leading 501(c)(3) non-profit organization that drives public policy and market development for clean energy. Our work enables clean energy jobs, economic opportunities, and affordable energy options for North Carolinians. For over forty years, our mission-driven business model has furthered the transformation of North Carolina energy policy, markets, and systems that create an affordable, resilient, and secure clean energy future.

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Executive Summary

Over the past decade, North Carolina has been a national leader in solar energy deployment. Most of the solar energy capacity built in North Carolina has come from utility-scale facilities constructed and financed by private solar companies, which have created thousands of jobs and have directly invested a combined $11.6 billion, mostly in economically-challenged (Tier 1 and Tier 2) rural counties across the state.[1]

Increased property tax revenue due to solar development is an economic benefit to counties across North Carolina. Using publicly available property tax data from 70 North Carolina counties, this report quantifies the tax revenue increase on properties that NCSEA identified as having solar electric systems 1 megawatt (MW) or greater in size developed on them. In the original iteration of this report, only the 50 counties with the most capacity through 2017 were included. In the creation of this version, NCSEA collected tax information from the remaining counties in the state that have utility-scale solar. In addition, property tax data from tax year 2019 was included for solar systems installed since 2017 in the originally investigated counties.

Overall, parcels of land with utility-scale solar have paid over $13.5 million after the systems have been installed, compared to about $2.4 million before the solar system was installed. Chart 1 highlights the experience of the 10 counties with the highest individual tax payment increases, showing the total property taxes collected on parcels of land where solar facilities were built, in the year prior to and year after construction. Tax data for the 70 counties included in this study is in Appendix 1.

Table 1. Summary of Annual Property Taxes Paid on Real Estate Parcels with Solar Projects

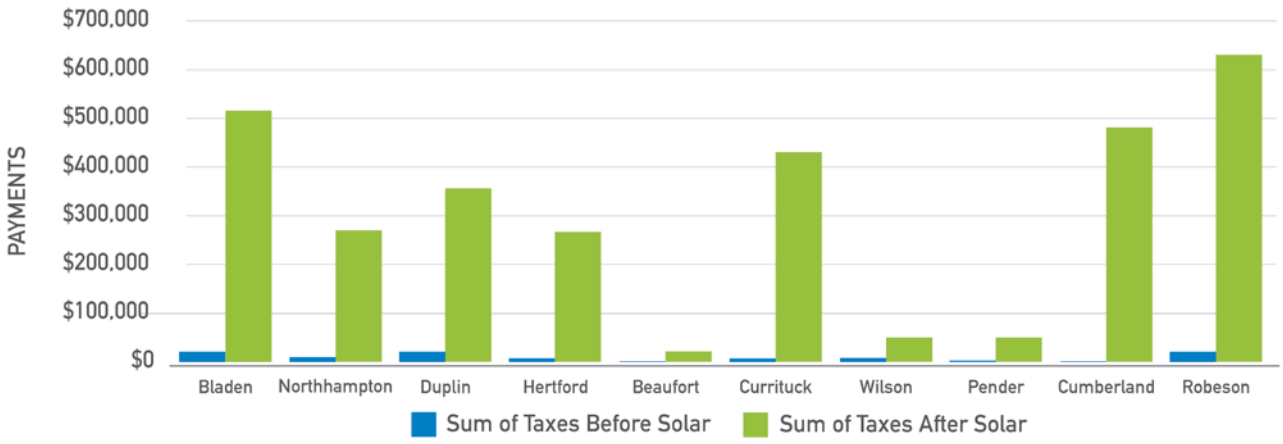
*Data represents taxes collected in the year before and after a large solar project was built.
Source: County Tax Offices, North Carolina Utilities Commission and NCSEA Renewable Energy Database

Category	Amount
Total Taxes Before Solar	$2,427,745
Total Taxes After Solar	$13,537,572
Total Increase	$11,109,827
Total % Increase	458%
Average Increase	$84,174
Average % Increase	1,824%
Average Increase per System	$18,862
Average Increase per MW	$2,596

1. RTI International. *Economic Impact Analysis of Clean Energy Development in North Carolina—2019 Update.* May 2019.

Chart 1. Before and After Property Tax Revenue for 10 Counties with Most Solar PV

*Data represents taxes collected in the year before and after a large solar project was built.
Source: County Tax Offices, North Carolina Utilities Commission and NCSEA Renewable Energy Database



North Carolina Property Taxes and Abatements Primer

In North Carolina, real estate taxes are the responsibility of counties and cities. The taxes are based on a valuation of all property in a county/city. The taxes consist of two parts - 1) real property taxes, consisting of land and buildings, and 2) personal property taxes, consisting of equipment such as trucks, machinery, and solar equipment. Solar systems increase both real property and personal property taxes (Map 1). Solar increases the real property taxes paid on a parcel of land by classifying the land as having a "commercial" use, which increases the assessed real property taxes. Solar increases personal property tax revenue because valuable new solar equipment is installed on the property. Often, solar systems additionally pay a roll-back tax that reclaims three back years of real property tax if the property formerly had a 75 percent tax reduction for agricultural use. In almost all cases, the private owners of the solar facilities, and not the rural landowners, pay all three of these taxes.

Discussions of eliminating North Carolina's personal property tax abatement for solar energy have claimed that solar costs the counties instead of benefiting them. This study makes clear that this is not the case because even though the personal property tax on the new solar equipment receives an 80 percent reduction in valuation (N.C. G.S. § 105-275 section 45), the personal property tax collected after solar has been developed is significantly more than what was previously collected. Furthermore, the real property taxes are still assessed at a 100 percent valuation.

As one of the 35 active property tax exemptions in the state under North Carolina General Statute § 105-275, the personal property tax abatement for solar energy is clearly attracting new development across the state and providing significantly more property tax revenue than counties received prior to solar installation. These new tax dollars can be used on schools and local services and are an effective economic development tool for otherwise struggling rural parts of the state.

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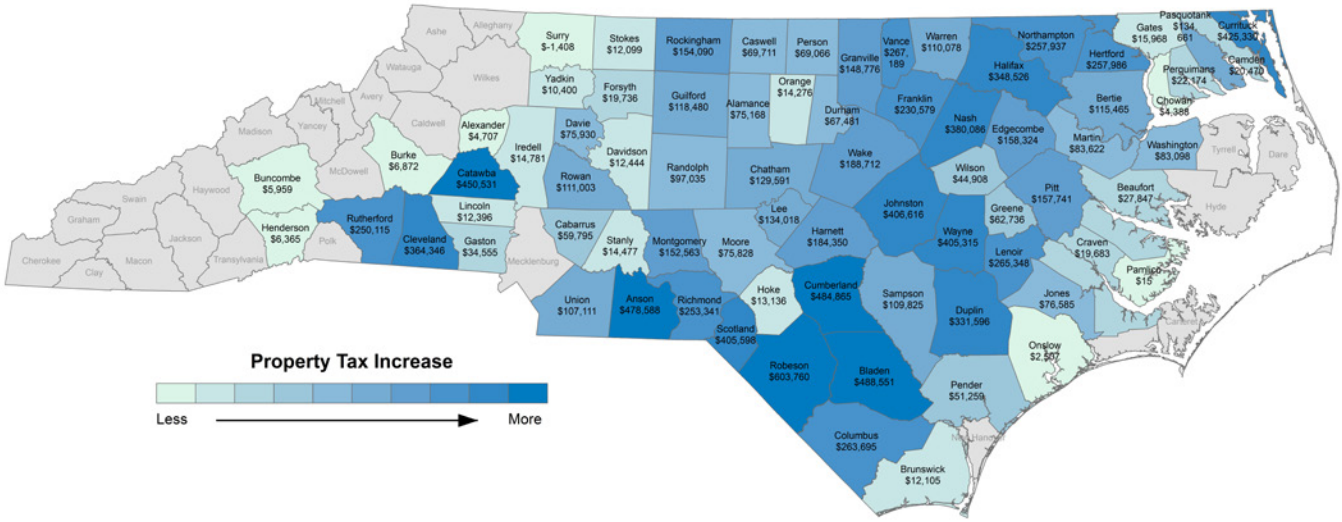
Map 1. Increase in Annual Property Tax Revenue for Tax Year After Solar System Developed



Methodology

All tax data in this report is publicly available from county tax offices. Data was collected March through June 2019 and July through August 2020. NCSEA used its Renewable Energy Database and county GIS maps to identify parcels corresponding to solar installations. Tax data for each parcel was collected from either a county's online tax bill search or by contacting the county tax administrator. The tax data is not from a single tax year. Rather, "before solar" tax payments are from the year before a solar installation went online, and "after solar" data was taken one year after a solar installation went online. The one-time roll-back tax payments are included in the "after solar" data in Appendix 1 and Map 1.

This data does not include business personal property tax paid on public utility-owned solar equipment. Public utilities are taxed by the North Carolina Department of Revenue, which passes tax dollars back to the counties. The counties receive this tax as a lump sum and do not have visibility to the amount of tax paid on a specific public utility asset. There are at least nine solar projects (168 MW combined), including four projects larger than 5 MW, not included in this report. This significantly underreports tax revenue since business personal property tax increases with solar project size. For example, the 65 MW Warsaw Solar Facility in Duplin County, which is owned by a public utility, is not included in this report. A project of the same size, Shoe Creek Solar in Scotland County, paid over $160,000 in tax on solar equipment alone in the year after installation.

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Appendix 1. Tax Revenue Increase Before and After Solar in 70 Counties

Rank by Solar MWs	County	Capacity (MW)	# of Solar Projects	Total Property Tax Paid on Participating Parcels Before Solar	Total Property Tax Paid on Participating Parcels After Solar	Increase	Percent Increase
1	Bladen	255	14	$31,441	$519,992	$488,551	1,554%
2	Northampton	225	15	$18,196	$276,133	$257,937	1,418%
3	Duplin	169	29	$29,983	$361,579	$331,596	1,106%
4	Hertford	145	12	$17,358	$275,344	$257,986	1,486%
5	Beaufort	142	10	$2,275	$30,122	$27,847	1,224%
6	Currituck	140	3	$10,326	$435,656	$425,330	4,119%
7	Wilson	128	13	$14,200	$59,107	$44,908	316%
8	Pender	124	6	$6,313	$57,572	$51,259	812%
9	Cumberland	112	13	$2,828	$487,693	$484,865	17,144%
10	Robeson	111	24	$30,586	$634,347	$603,760	1,974%
11	Anson	109	7	$14,627	$493,215	$478,588	3,272%
12	Wayne	108	26	$19,200	$424,515	$405,315	2,111%
13	Martin	107	16	$14,939	$98,561	$83,622	560%
14	Nash	106	19	$11,518	$391,604	$380,086	3,300%
15	Vance	106	13	$14,967	$282,156	$267,189	1,785%
16	Catawba	105	13	$19,371	$469,902	$450,531	2,326%
17	Edgecombe	105	7	$1,419,082	$1,577,406	$158,324	11%
18	Halifax	104	7	$17,334	$365,860	$348,526	2,011%
19	Lenoir	98	12	$10,478	$275,826	$265,348	2,532%
20	Rutherford	91	6	$6,228	$256,343	$250,115	4,016%
21	Johnston	89	22	$21,150	$427,766	$406,616	1,923%
22	Pitt	89	14	$9,193	$166,934	$157,741	1,716%
23	Franklin	87	10	$9,742	$240,322	$230,579	2,367%
24	Cabarrus	85	3	$1,967	$61,762	$59,795	3,040%
25	Scotland	84	14	$195,054	$600,652	$405,598	208%
26	Cleveland	82	21	$51,837	$416,183	$364,346	703%
27	Richmond	70	6	$5,416	$258,758	$253,341	4,677%
28	Columbus	64	21	$15,314	$279,008	$263,695	1,722%
29	Montgomery	52	8	$4,879	$157,442	$152,563	3,127%
30	Warren	51	8	$5,271	$115,348	$110,078	2,088%
31	Randolph	48	13	$20,295	$117,330	$97,035	478%
32	Harnett	47	11	$6,976	$191,326	$184,350	2,643%
33	Rowan	47	11	$38,133	$149,136	$111,003	291%
34	Moore	46	10	$3,614	$79,442	$75,828	2,098%
35	Chatham	45	11	$14,261	$143,852	$129,591	909%
36	Pasquotank	43	3	$3,597	$138,257	$134,661	3,744%
37	Bertie	42	3	$2,629	$118,093	$115,465	4,392%
38	Granville	39	9	$7,559	$156,335	$148,776	1,968%
39	Sampson	38	10	$9,537	$119,362	$109,825	1,152%
40	Lee	37	8	$32,780	$166,799	$134,018	409%
41	Wake	35	11	$58,913	$247,624	$188,712	320%

Appendix 1. Tax Revenue Increase Before and After Solar in 70 Counties (continued)

Rank by Solar MWs	County	Capacity (MW)	# of Solar Projects	Total Property Tax Paid on Participating Parcels Before Solar	Total Property Tax Paid on Participating Parcels After Solar	Increase	Percent Increase
42	Alamance	35	7	$6,094	$81,262	$75,168	1,234%
43	Rockingham	30	6	$15,328	$169,418	$154,090	1,005%
44	Davie	30	4	$3,652	$79,582	$75,930	2,079%
45	Craven	29	6	$2,500	$22,183	$19,683	787%
46	Jones	25	5	$3,403	$79,988	$76,585	2,251%
47	Person	25	7	$8,616	$77,682	$69,066	802%
48	Guilford	22	6	$5,697	$124,177	$118,480	2,080%
49	Washington	21	2	$2,434	$85,532	$83,098	3,414%
50	Union	20	4	$2,993	$110,104	$107,111	3,579%
51	Davidson	17	2	$1,195	$13,639	$12,444	1,041%
52	Durham	16	4	$107,248	$174,729	$67,481	63%
53	Caswell	15	3	$1,366	$71,077	$69,711	5,103%
54	Camden	15	3	$1,826	$22,296	$20,470	1,121%
55	Gates	15	3	$2,547	$18,515	$15,968	627%
56	Orange	15	4	$165	$14,441	$14,276	8,626%
57	Hoke	15	3	$4,074	$17,209	$13,136	322%
58	Yadkin	15	4	$3,336	$13,735	$10,400	312%
59	Greene	14	4	$2,258	$64,994	$62,736	2,778%
60	Gaston	14	3	$4,988	$39,544	$34,555	693%
61	Burke	12	3	$4,148	$11,020	$6,872	166%
62	Perquimans	10	2	$2,809	$24,983	$22,174	789%
63	Stanly	10	2	$3,074	$17,550	$14,477	471%
64	Lincoln	10	2	$1,906	$14,302	$12,396	650%
65	Brunswick	10	2	$3,508	$15,612	$12,105	345%
66	Chowan	10	2	$277	$4,664	$4,388	1,587%
67	Forsyth	5	1	$777	$20,513	$19,736	2,540%
68	Iredell	5	1	$385	$15,165	$14,781	3,843%
69	Alexander	5	1	$163	$4,870	$4,707	2,890%
70	Onslow	5	1	$1,610	$4,117	$2,507	156%