

## **Solar and Wind Energy Development Opportunities: Tax Implications**

### **Landowner**

1. Rental rates of land for solar farms have been anecdotally reported within a range of \$750 to \$1,400 per acre per year. These rents, net of property taxes and other maintenance costs required of the landowner and insurance generate “ordinary” income, which is reported on federal and state income tax returns. These rents will generally be greater than cash rent values for agricultural production for crops such as cotton, tobacco, peanuts and other commodity crops for example. Increased income may create more local spending on goods and services, however, on an aggregate basis there may be a minimal increase because not every landowner will enjoy a solar farm rental activity. Landowners can find a list of Solar Land Lease Issues from NC Clean Energy Technology Center.<sup>1</sup>
2. Property tax on agricultural land under Present Use Value (PUV) may change due to the predominant income generating activity that may now be deemed to be a “commercial” rent, which is not an agricultural activity. If this is the case, the three-year rollback (recovery of deferred property tax) plus additional costs, if any, such as interest, will be an additional near-term cost for the landowner upon such a conversion to a “commercial” activity.<sup>2</sup>
3. If local and state legislation, regulation and rules allow for the bifurcation of activities upon the land, then the landowner may be able to retain agricultural PUV if solar panels are constructed such that a qualifying agricultural activity might occur underneath, e.g. grazing of livestock. The land may then be eligible to continue in agricultural PUV since the landowner may then meet the income requirement for PUV. A presentation by Tina Stone and Michael Brown, N.C. Department of Revenue, September 26, 2014, includes material that indicates if agricultural production continues in conjunction with solar energy production, PUV for the land may still qualify for agricultural use. Each case is to stand on its own merits and be evaluated separately on a case-by-case basis.
4. Landowners considering to engage in a long-term lease with a solar power company should consult their county assessor’s office to learn of the property tax consequences that may be a result of converting agricultural land to an alternate use such as a solar farm.

---

<sup>1</sup> <http://nccleantech.ncsu.edu/wp-content/uploads/Solar-Land-Lease-Issues.pdf>

<sup>2</sup> Present Use Value Guidebook (January 1, 2015), Chapter 13, pages 141- 162 Primary Statutes: G.S. 105-277.4(c) & (d), G.S. 105-277.5, G.S.40A-6 and G.S.136-121.1

## Business

1. Businesses which desire to engage in solar energy production may qualify for income tax credits at both the federal and North Carolina levels.
  - a. Federal Energy Tax Credit is an investment income tax credit of up to 30 percent of the cost basis of the equipment – Internal Revenue Code (IRC) § 48. A brief document describing the history of this credit can be found at [www.seia.org](http://www.seia.org).<sup>3</sup>
    - i. This credit, at the 30 percent level, is scheduled to sunset December 31, 2016.
    - ii. New solar farms must be placed in service prior to the above sunset to qualify for the federal credit. After December 31, 2016, the commercial credit decreases to 10 percent.
  - b. North Carolina Renewable Energy Income Tax Credit (RETC): G.S.105-129.16A
    - i. Credit is 35 percent of the cost of the “renewable energy property.”
      1. Maximum commercial credit is \$2.5 million for each installation.
      2. Non-commercial limit is \$1,400-\$10,500 depending on purpose.
    - ii. Credit is taken against N.C. income tax or franchise tax.
    - iii. Credit is taken in five equal installments beginning when the renewable energy property is placed into service.
    - iv. The state’s RETC is scheduled to sunset December 31, 2016.
2. Businesses are able to deduct expenses.
  - a. Capital Expenses via depreciation
    - i. Modified Accelerated Cost Recovery System (MACRS) depreciation at 200 percent declining balance.
    - ii. IRC Section 179 – expensing typically won’t be applicable because the investment cost of project is greater than investment limit. Typical investment limit costs are reported to be \$10-\$15 million for ~30 acres.
    - iii. IRC Section 168(k) – deduction (Bonus Depreciation) may be allowed if Congress passes extension legislation in 2015.
  - b. Ordinary Business Expenses
    - i. Business will be subject to property tax on the business plant: Designated solar equipment at 20 percent of appraised value, see below.

## Government

1. Federal Government
  - a. Credit: discussed above as related to business opportunities to generate electricity from solar farms.
2. State Government
  - a. Credit: discussed above as related to business opportunities to generate electricity from solar farms.
3. Local Government
  - a. Property Tax on Solar Electrical Systems see below:

---

<sup>3</sup> <http://www.seia.org/sites/default/files/ITC%20101%20Fact%20Sheet%20-%20201-27-15.pdf>

**G.S. 105-275(45) – Taxation of Solar Electric Systems:** Designates solar energy electric systems used directly and exclusively for conversion of solar energy to electricity as a special class of property. Excludes 80 percent of the appraised value of the solar systems from taxation.

(Effective for taxes imposed for taxable years beginning on or after July 1, 2008; SB 1878, s.5, S.L. 2008-146.)

**Prepared by: Guido van der Hoeven, Extension Specialist / Senior Lecturer, [gvanderh@ncsu.edu](mailto:gvanderh@ncsu.edu).**  
Department of Agricultural and Resource Economics, NC State

Published by the N.C. Cooperative Extension Service

**NC STATE UNIVERSITY**

College of Agriculture and Life Sciences