



# NORTH CAROLINA SOLAR POLICIES AND INCENTIVES

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## Tax Incentives

### Federal Investment Tax Credit (ITC)

This income tax credit, available to residential, commercial, industrial, utility, and agricultural entities, is equal to 30% of the installation cost of a solar energy system for systems placed in service by December 31, 2019. This credit will reduce to 26% for systems placed in service after December 31, 2019 and before January 1, 2021, and again to 22% for systems placed in service after December 31, 2020 and before January 1, 2022. After December 31, 2021, the residential credit will expire, and the non-residential credit will reduce to 10% indefinitely. Excess credit may be carried forward from year to year.

### Modified Accelerated Cost-Recovery System (MACRS)

Under the MACRS tax incentive, businesses may recover investments in certain property through accelerated depreciation deductions. Solar electric and solar thermal property are eligible for depreciation over 5 years. Equipment placed in service before January 1, 2018 also qualifies for 50% bonus depreciation, while equipment placed in service during 2018 and 2019 may receive 40% and 30% bonus depreciation, respectively.

### North Carolina Solar Property Tax Exemption

North Carolina exempts 80% of the appraised value of a solar photovoltaic (PV) system from property tax. Residential PV systems not used to generate income or in connection with a business may be fully exempt from property taxation as non-business personal property.

## Renewable Portfolio Standard

### North Carolina Renewable Energy and Energy Efficiency Portfolio Standard (REPS)

State law requires all investor-owned utilities to supply 12.5% of retail electricity sales from eligible resources by 2021, including at least 0.20% from solar. Municipal utilities and electric cooperatives must supply 10% of retail electricity sales from eligible sources by 2018. Energy efficiency measures may be used by investor-owned utilities to comply with up to 25% of the requirement through 2021 and 40% thereafter. Municipal utilities and electric cooperatives may use energy efficiency and demand-side management to satisfy their entire requirement. Utilities demonstrate compliance with the REPS by procuring renewable energy certificates (RECs), which represent the environmental attributes of 1 megawatt-hour of electricity generated by a renewable resource.

# Net Metering, Interconnection, and Production

## Net Metering

Customers of Duke Energy Carolinas, Duke Energy Progress, and Dominion North Carolina Power may net meter PV systems up to 1 megawatt (MW) in size. Customers that choose to take service under any tariff other than a time-of-use demand (TOUD) tariff must surrender to the utility all RECs associated with the customer's generation. In general, net excess generation (NEG) during a billing period is carried forward to the following billing period at the utility's full retail rate, and then surrendered to the utility at the beginning of each summer billing season. For customers on TOUD tariffs, on-peak generation is used to first offset on-peak consumption, and then off-peak consumption. Off-peak generation may only offset off-peak consumption.

## NC GreenPower - Alternative to Net Metering

NC GreenPower offers production payments for grid-tied PV systems. Generators must enter into power-purchase agreements (PPAs) with their electric utility and with NC GreenPower. NC GreenPower payments are funded by voluntary contributions from North Carolina electric customers, and NC GreenPower does not provide guaranteed contracts to generators. Owners of small solar-electric systems currently receive \$0.06/kWh from the program, plus approximately \$0.04/kWh from their utility under the PPA, for a total production payment of about \$0.10/kWh. Owners of larger systems must apply through an RFP process.

## Interconnection

Duke Energy Progress, Duke Energy Carolinas, and Dominion North Carolina Power have a three-tiered process for the interconnection of PV systems to the electricity grid: an Inverter Process for systems up to 20 kilowatts (kW), a Fast Track Process for systems larger than 20 kW that meet the eligibility criteria, and a Study Process for systems that fail to qualify for the Fast Track Process. Interconnection fees are \$100 for PV systems up to 20 kW, \$250 for PV systems 20kW-100kW, \$500 for PV systems 100kW-2,000kW, and the FERC fee structure applies to PV systems over 2,000 kW. Additionally, systems in the Study Process must pay a deposit of \$20,000 plus \$1 per kW-AC, not to exceed \$100,000.

## PURPA Standard Offer for Qualifying Facilities

Under federal law, utilities are obligated to purchase power from Qualified Facilities, including small renewable power producers. Currently in North Carolina, renewable energy facilities up to 5 MW may receive a fixed-price contract for up to 15 years.

# Solar Access and Permitting

## North Carolina Solar Rights Law

Cities and counties in North Carolina generally may not adopt ordinances prohibiting PV installations. Deed restrictions, covenants, or similar binding agreements recorded on or after October 1, 2007 may not prohibit the installation of PV systems for residential property. These provisions may not apply when the PV system is visible from the ground and installed facing public areas.

## Template Solar Energy Development Ordinance

In 2013, a working group developed a template ordinance with model requirements and guidance for permitting, setbacks, height limitations, aviation notification, and decommissioning. The template is intended to

provide guidance for communities seeking best practices for the regulation of solar energy system development; it has no legal or regulatory authority itself.