Overview of S.L. 2017-192 Competitive Energy Solutions for North Carolina

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Overview

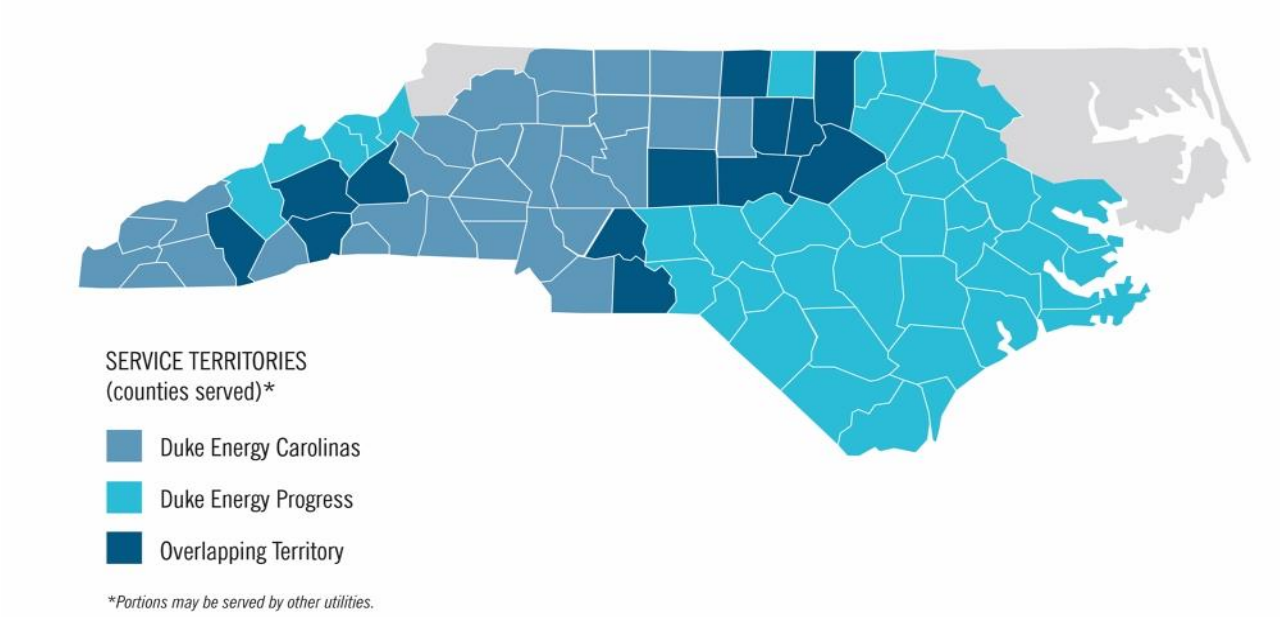
- Product of extensive stakeholder process involving:
  - Legislators
  - Legislative staff
  - Utilities Commission
  - Public Staff
  - Renewable energy industry representatives
  - Environmental interests

Overview

- **Key elements of legislation:**
  - **Reform of the State implementation of the Public Utilities Regulatory Policy Act of 1978 (PURPA)**
    - Standard Contracts for Small Power Producers
    - Competitive bidding process for larger renewable energy facilities
  - **Enactment of the Distributed Resources Access Act**
    - Leasing of third-party owned solar development
    - Net metering
  - **Green Source Rider Program (renewable energy procurement for major military installations, public universities, and other large customers)**
  - **Amend Cost Caps for REPS Compliance**
  - **Expedited Review of Interconnection of Swine and Poultry Waste**
  - **Solar Rebate Program**
  - **Wind -- Moratorium on Permits for Wind Energy Facilities and Study**

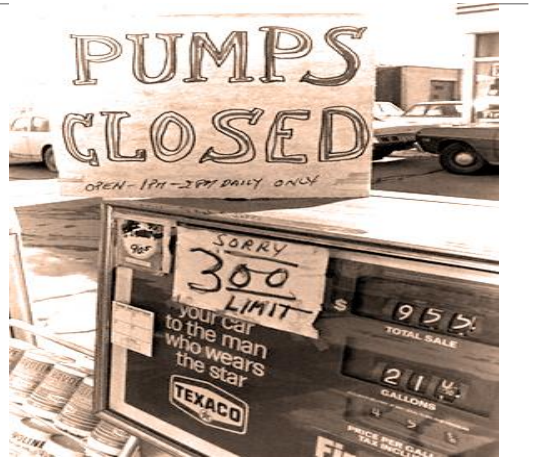
Overview of Parts I and II – Standard Contracts for Small Power Producers and Competitive Procurement of Renewable Energy

Transitions the State's utility-scale solar development model, driven historically by the Public Utility Regulatory Policies Act of 1978 (PURPA), by revising standard contract terms applicable to small power producers, and by establishing a competitive procurement program in the Duke Energy Carolinas LLC (DEC) and Duke Energy Progress LLC (DEP) service territories.



PURPA

PURPA and Qualifying Facilities: PURPA was enacted by Congress as part of a package of energy legislation to combat the 'energy crisis' of the late 1970s to reduce dependence on foreign oil and promote renewable energy. Pursuant to PURPA and federal regulations, utilities are required to buy energy generated by "qualifying facilities" (QF) at the utility's "avoided cost."



- **Qualifying Facility** – A class of generators recognized under PURPA that receive special rate and regulatory treatment. There are two types of QFs: (1) small power producers up to 80 MW whose primary energy source is renewable (hydro, wind, or solar), biomass, waste, or geothermal resources; or (2) cogeneration facilities (facilities that sequentially produces electricity and another form of useful thermal energy (such as heat or steam) in a way that is more efficient than the separate production of both forms of energy).
- **Avoided Cost** – The cost for *the utility* to generate one additional unit of power (not the cost to the small producer or the prevailing market rate). The Utilities Commission holds biannual hearings to set the avoided cost for each utility.

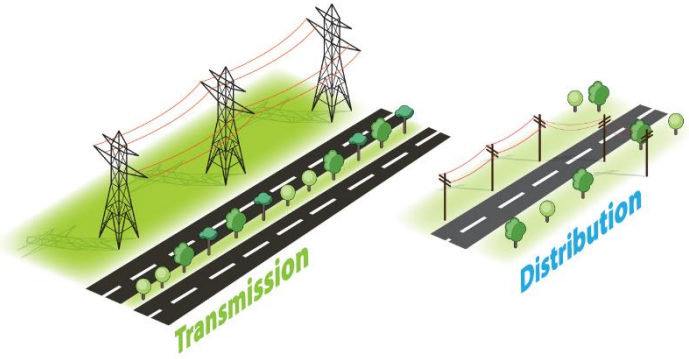
PURPA Implementation in NC

- The Federal Energy Regulatory Commission (FERC) delegated PURPA implementation authority to the States.
- The North Carolina Utilities Commission (Commission) has jurisdiction to set standards for QFs including the avoided cost calculation and the terms and conditions of contracts and capacity thresholds for those facilities.
  - The Commission has historically required publicly owned electric utilities to offer standard 5-, 10-, and 15-year long term power purchase agreements for small power production facilities 5 MW and under.
  - The Commission holds biannual hearings to set the avoided cost for each utility.
    - On October 11, 2017, the Commission issued an order establishing the avoided cost rate and terms and conditions of the standard contract for the current biennial proceeding.

Part I – Standard Contracts for Small Power Producers

In summary, this Part lowered the threshold for eligibility for standard offer contracts for QF's under PURPA to projects of 1 MW or less, from the previous 5 MW. The law also shortened the length of standard offer QF contracts to 10 years from 15 years.*

- The requirement that utilities offer a standard contract to facilities of 1 MW or less is capped, however, at 100 MW per public utility. Once a utility reaches that 100 MW cap, the eligibility threshold for a standard contract with that utility is reduced from projects of 1 MW or less to projects of 100 kW or less.
- For small power producers over 1 MW, or 100 kW once the 100 MW cap is reached, the rates will be negotiated between the small power producer and the utility for a fixed five-year term, but payments are still based on avoided costs. Swine and poultry waste, small hydropower, and biogas facilities may negotiate, however, for a term beyond five years.
- There is a grandfather provision from these standard contract changes, however, which exempts certain small power producers (some facilities eligible for avoided cost rates determined in 2014). But, under this provision, the utility was given the option not to interconnect a solar facility to its distribution system with a nameplate capacity of 10 MW or greater that had not executed an interconnection agreement prior to July 1, 2017 (in lieu, the facility may instead to interconnect to the utility's transmission system).



Part II – Competitive Procurement of Renewable Energy

Establishes a competitive procurement process for larger new renewable energy facilities that requires electric public utilities with more than 150,000 customers to issue a request for proposals (RFP) for a total of 2,660 MW of capacity from renewable energy facilities over a 45-month term.

- Possible adjustment of total amount of competitive procurement capacity based on whether procurement amount outside competitive process is more or less than 3500MW (the estimated existing and transitional solar capacity).
- Potential rollover of unprocured capacity at end of 45-month term to a new competitive procurement, if the Commission determines additional competitive procurement should be offered based on a showing of need as evidenced by the utility's most recent biennial integrated resource plan or updates to the plan.
- Pro forma contract issuance required prior to the solicitation of bids, with a term of 20 years (subject to adjustment by the Commission).
- Cost of energy procured capped at the forecasted avoided cost for the term of the agreement.
- Utilities' costs to procure energy in the competitive procurement process are recoverable through an annual rider, but the costs may not exceed 1% of total revenues of the utility in the State for the prior calendar year.
- Utility may participate as a developer of renewable energy facilities but is limited to a maximum of 30% of the procurement amount.
- Utility may determine the location and allocated amounts of renewable energy resource projects within its service area, as well as rights to dispatch, operate, and control third-party operated renewable energy facilities as it does its own generating facilities.
- Bidding process overseen by an independent administrator.
- Commission required to adopt rules for competitive procurement program.

Existing and Transitional Solar Capacity in North Carolina	
Connected	1,800 MW
Under Construction	700 MW
Transition	1,000 MW
Sub-Total	**3,500 MW**

Competitive Procurement*	
2018	665 MW
2019	665 MW
2020	665 MW
2021	665 MW
Sub-Total	**2,660 MW**

Part III – Renewable Energy Procurement for Major Military Installations, Public Universities, and Other Large Customers (Green Source Rider Program)

- Establishes a new renewable energy procurement program for large energy users, the military, and the University of North Carolina (UNC) system -- much like the now-expired "Green Source Rider" (GSR) program initiated in 2013 – that allows them the option of offsetting some or all of their energy consumption with renewable energy resources in the Duke Energy Carolinas service territory.
  - Large energy users are defined as those with a contract demand for 1 MW or more, or 5 MW or more at multiple service locations when combined in aggregate.
  - Program participants are limited to contract for 125% of their maximum annual peak demand (defined as "the maximum single hour of electric demand actually occurring or estimated to occur at a premises").
  - Utility is required to file for Commission approval of the new program, which must include a standard contract with terms and conditions that allow the customer to choose the renewable energy facility and for a term ranging from 2 to 20 years.
  - Utility pays the contract price to the renewable energy developer.
  - Avoided cost portion of the contract price is recovered through the fuel clause rider.
  - Program participant will receive a bill credit as determined by the Commission but not to exceed the utility's avoided cost. In determining the bill credit, the Commission will ensure that all other customers are held harmless from the impact of the renewable electricity procured on behalf of the program customer.
  - Program has a cap of 600 MW of total capacity, with 100 MW set aside for the military and 250 MW set aside for UNC.
  - If any capacity is not contracted for by the expiration of the program, it will rollover into the competitive procurement program.
  - Program expires in five years or on December 31, 2022, whichever is later.

Part IV – Cost Recovery for Certain Small Power Producer Purchases

- Allows each public utility to recover the cost of power purchased from PURPA qualifying facilities and the non-administrative costs of the Green Source Rider program through the utility's existing Fuel Cause Rider.

- Adds those costs to the annual cap on cost increases for other parts of the fuel clause rider and raises the cap on those costs from 2.0% to 2.5% of the utility's total revenues for the prior year.

Part V – Amend Cost Caps for REPS Compliance

- **Renewable Energy Portfolio Standard (REPS)** – A requirement, enacted in 2007, for electric power suppliers to provide a designated amount of power from renewable energy resources as a portion of their overall provision of energy.

- Electric power suppliers may recover costs of compliance with REPS through an annual rider proceeding.

Part V – Amend Cost Caps for REPS Compliance

- **Cost Caps** – Under prior law, the recovery of costs from REPS compliance could not exceed the following per-customer annual charges:

Customer Class	2008-2011	2012-2014	2015 and thereafter
Residential, per acct	$10	$12	$34
Commercial, per acct	$50	$150	
Industrial, per acct	$500	$1000	

Part V – Amend Cost Caps for REPS Compliance

- **Section 5.1** reduces the cost caps for residential customers from $34/yr to $27/yr.

Customer Class	2008-2011	2012-2014	2015 and thereafter
Residential, per acct	$10	$12	~~$34~~ $27
Commercial, per acct	$50	$150	
Industrial, per acct	$500	$1000	

- **Section 5.2** holds the public utility harmless for contracts entered into for REPS compliance prior to July 1, 2017.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- Electric public utilities in North Carolina have the exclusive rights to sell electricity to consumers in a designated franchise area.

- Prior to S.L. 2017-192, retail customers could still own renewable energy systems for their own primary use and were compensated via bill credits at a net metering rate established by the Utilities Commission.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- **Section 6.(a)** allows third parties to offer leasing of solar energy facilities in the service area of an "offering utility" or municipality that offers electric service, and requires offering utilities to implement community solar programs.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- Retail electric customers of an offering utility may contract with solar developers or the electric public utility for the lease of eligible solar facilities. The facility must meet several requirements:
  - Generates capacity from a solar PV system.
  - Is limited to capacity of:
    - Nonresidential customers - 1MW or 100% of contract demand
    - Residential customers - 20kW or 100% of estimated demand
  - Is located on the premises of the customer being served.
  - Is interconnected with the public utility.
  - Is intended to offset no more than 100% of the customer's own consumption.
  - Meets all applicable safety, performance, interconnection, and reliability standards.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- The utility must file a docket with the Commission for revised net metering rates, which will be established after an investigation of the costs and benefits of customer-sited generation.
- The rates must ensure that net metering customers pay their full fixed cost of service, and may include fixed monthly charges.
- Retail customers that own their own renewable energy system and are on an approved net metering rate prior to the approval of the revised rates are grandfathered in at the rate at which they interconnected until January 1, 2027.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- **Net Metering** – A billing arrangement between the customer and the utility wherein the customer receives credit for excess renewable energy delivered to the grid.

- A “net meter” measures both electricity consumed onsite and the electricity generated by the solar energy system.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- **Limitations on Lessors**
  - A lease agreement provided by a lessor must comply with numerous consumer protection requirements.
  - Lessors must obtain a certificate from the Commission before beginning operations.
  - Noncompliance is punishable by a $10,000 civil penalty.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- **Municipal Leasing**
  - A municipality that sells electric power to retail customers may offer leases to solar energy facilities in the municipality's service territory at the election of its governing council or commission.
  - The municipality may not pass costs to nonparticipating municipal retail customers through rates.
  - A third party lessor may lease a solar energy facility within the municipality's service territory, but the Commission's net metering rates will not apply, and the municipality will adopt any net metering tariffs offered in this arrangement.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- **Community Solar**
  - Section 6 requires offering utilities to develop a community solar program to construct up to 20MW of solar energy facilities per utility that will allow customers to buy subscriptions for a certain amount of electricity produced by the solar energy facility.
  - Subscribers must live in the same or a contiguous county to the facility unless the Commission grants an exception. Subscribers will receive a bill credit at the utility's avoided cost rate. Nonsubscribers must be held harmless.
  - Each utility must file for approval of the program by January 23, 2018.

Part VI – Distributed Resources Access Act (Third Party Financing and Net Metering)

- **Community Solar**

Part VII – Expedited Review of Interconnection of Swine & Poultry Waste

- **Section 7** directs the Commission to establish interconnection standards that include an expedited review process for conversion of swine and poultry waste to energy projects of 2MW or less.

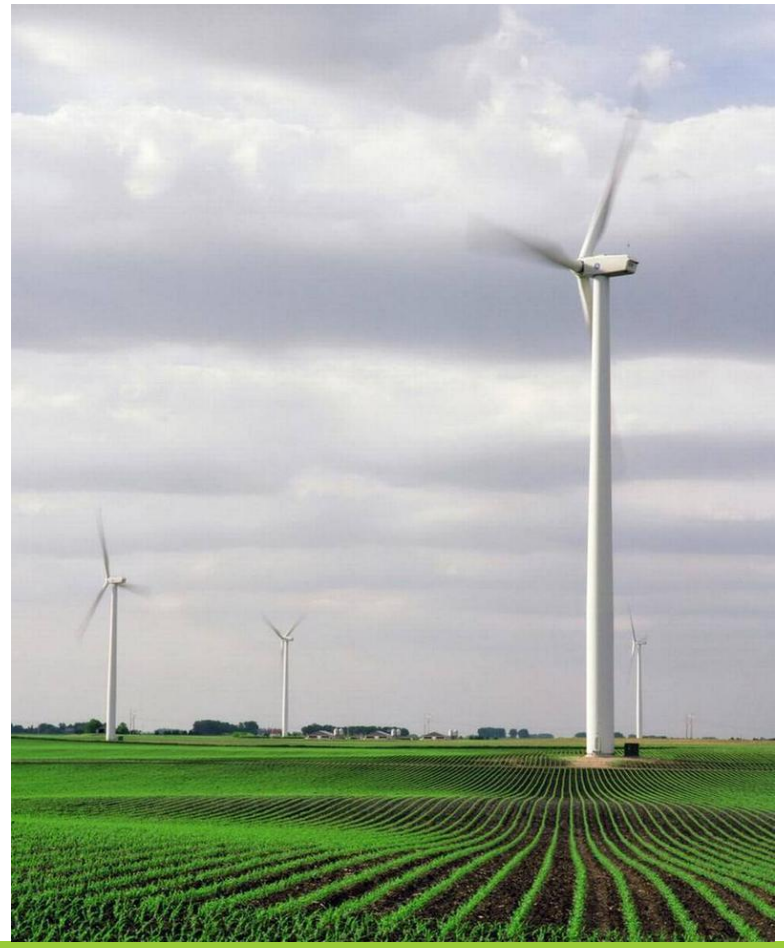
Part VIII – Solar Rebate Program

- **Section 8.(a)** creates a rebate program applicable to small residential and commercial solar installations, to provide incentives to customers that install or lease solar energy facilities and are subject to the utility's net metering tariff.
  - The incentives are limited to:
    - Residential – 10kW alternating current
    - Non-residential – 100kW alternating current

Part VIII – Solar Rebate Program

- Limited to 10MW of total installed capacity per year per utility from 2018 through 2022.
- Non-residential installations are limited to 5 MW in aggregate for each year for each year of the program.
- Of those 5 MW, 2.5MW must be set aside for non-residential installations by nonprofits, with 50kW set aside for the NC Greenpower Solar Schools Pilot or a similar program.
- **Section 8.(b)** amends the REPS rider to allow the utility to recover the cost of the rebate program.

Part XIII – Moratorium on Permits for Wind Energy Facilities



Part XIII – Moratorium on Permits for Wind Energy Facilities

- S.L. 2013-51 established a permitting program for the siting and operation of wind energy facilities in the State, housed in the Department of Environmental Quality.
- **Section 13** establishes a moratorium on the consideration of applications and the issuance of permits for wind energy facilities and wind energy expansions in the State from January 1, 2017 to December 31, 2018.

Part XIII – Moratorium on Permits for Wind Energy Facilities

- **Exceptions**
  - The moratorium does not apply to:
    - Facilities that received a “Determination of No Hazard to Air Navigation” issued by the Federal Aviation Administration on or before May 17, 2013; or
    - Applicants who can show a completed application was submitted on or before January 1, 2017.

Part XIII – Moratorium on Permits for Wind Energy Facilities

- **Study**
  - The act directs the General Assembly to study the extent and scope of military operations in the State to create maps and data to identify areas where energy infrastructure and development poses a threat to or encroaches upon military operations, training capabilities, or readiness.
  - The Legislative Services Officer issued an RFP for collection of data and creation of maps. The contract was executed with AECOM on October 16.
  - The study, including maps, data, findings, and recommendations, must be submitted to the Legislative Services Officer by May 31, 2018.

Questions?