



HOME GROWN TOOLS

for ECONOMIC DEVELOPMENT

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Homegrown Tools tells the story of small towns that have successfully stimulated private investment and job creation. The tool is meant to connect public officials, practitioners, and researchers to successful small town economic development strategies and inspire small towns to leverage their unique assets. Homegrown Tools is managed by NCGrowth, an EDA University Center at UNC Chapel Hill, in partnership with the UNC School of Government, the Federal Reserve Bank of Richmond, the NC Rural Center, and the UNC Department of City and Regional Planning.



Pasquotank and Perquimans Counties, North Carolina

BY THE NUMBERS

Pasquotank County	
Population (2016):	39,909
County budget:	\$48 million
Per capita income (2016):	\$22,549
Median household income (2016):	\$45,750
Poverty rate (2016):	17.4%
Minority population (2016):	42%
Proximity to urban center:	44 miles to Norfolk, VA
Proximity to interstate highway:	8 miles

Perquimans County	
Population (2016):	13,470
County budget:	\$15,682,196
Per capita income (2016):	\$25,407
Median household income (2016):	\$45,208
Poverty rate (2016):	16.5%
Minority population (2016):	28%
Proximity to urban center:	62 miles to Norfolk, VA
Proximity to interstate highway:	8 miles

INTRODUCTION

Renewable energy generation has been on the rise since the early 2000s. In North Carolina, renewable energy generation has been dominated by solar, but more recent investments have been made in wind by private sectors. Specifically, in early 2017, the Amazon Wind Farm, built by Avangrid Renewables (part of Iberdrola Group), came online in Pasquotank and Perquimans counties. The development came to fruition thanks in part to local practitioners' work to understand and embrace a new type of land use in their community as well as advocacy by environmental groups.

Economic development practitioners in Pasquotank and Perquimans County negotiated significant tax incentives for their communities. Additionally, Amazon Wind provides economic support to area farmers whose land is under a long-term lease; they receive annual payments of \$6,000 per turbine hosted on their property while still being able to farm 95% of the land¹.

"There's been a long history in our view in North Carolina of giving low income communities [...] economic development projects that nobody else wants for which they're supposed to be grateful. So this is an opportunity for two low-wealth counties to derive significant income from clean energy, which we viewed as a win-win," said Molly Diggins, State Director of the Sierra Club. Although it might be difficult to replicate due to differences in legislative environments, this is an example of a community innovatively taking advantage of a unique resource.

THE COMMUNITY AND ITS HISTORY

Located in the northeastern corner of North Carolina, Pasquotank County was formed in 1681 as the Pasquotank Precinct of Albermarle County. Early on, the area was inhabited by the Pasquotank Indians and later, English settlers. Historically, the economy was centered around lumbering and agriculture². Today, the county has been designated as economically distressed by the North Carolina Department of Commerce. The largest industries are healthcare & social assistance, retail trade, and educational services.

Two low-income counties in eastern North Carolina attracted the state's first utility-scale wind farm, the Amazon Wind Farm.

¹<http://inthesetimes.com/rural-america/entry/20428/amazon-wind-farm-debate-rural-poverty-north-carolina-economic-development>

²<https://www.ncpedia.org/geography/pasquotank>

THE STRATEGY

Because of its flat topography and coastal location, Pasquotank County boasts relatively high average wind velocity, making it a viable location for wind development. After doing some independent research and scouting, Avangrid Renewables approached the county about the prospects of developing a utility scale wind farm on a 22,000-acre tract of farmland known locally as “the Desert.” At that point, the company had already acquired a number of lease options with the landowners in the area. Avangrid Renewables would represent the largest individual taxpayer in the county, enticement enough for community leaders to pursue the possibility.

Having never undertaken a project of this sort, Wayne Harris, Director of Elizabeth City / Pasquotank County Economic Development Commission, began researching economic incentive agreements for wind development projects. The county planning department, led by Director Shelley Cox, also gathered information on appropriate setback and site restrictions from other communities who had developed wind farms and worked to draft a text amendment to the land use ordinances. The amendment - which addressed shadow flicker limit, setbacks, noise requirements, and decommissioning clauses among other things - was approved by the Pasquotank County Commissioners in 2011.

For the Amazon Wind Farm to be financially viable, the energy needed a purchaser. The options were to sell the energy back to the grid owner or create a power purchase agreement (PPA). During predevelopment, Avangrid struck a PPA deal with Amazon Web Services to purchase the power for a server farm in Virginia. Amazon, like many corporate energy buyers, wished to support wind power as it is a renewable energy with a low carbon footprint and stable costs.

It is important to note that the location of Amazon Wind on the Dominion Energy Grid was key to the creation of this PPA because of the regulatory differences between Dominion Energy and Duke Energy. Dominion is part of the PJM Interconnection regional transmission organization (RTO), which makes it easier to proceed with a PPA because there are options for selling power independently. That said, the PPA represents a financial transaction rather than a direct energy transfer. Katharine Kollins, President of the Southeastern Wind Coalition, elaborated, “Amazon is still selling their electricity onto the grid but it’s the PPA that allows the project the financial stability to be developed and built.”

In the summer of 2015, after local text amendments were approved, incentive packages agreed upon and a range of federal and state approvals were procured, the Avangrid wind development began construction at the desert site. After a year and a half of construction and a \$400 million local investment, Amazon Wind came online at the beginning of 2017, producing over 200 megawatts of electricity. In February 2018, Avangrid held a ceremony presenting the first annual tax payments, totaling \$640,000 to Perquimans and Pasquotank counties.

THE OUTCOMES

- Development of the State’s first utility-scale wind farm, producing 200 megawatts of energy
- \$400 million investment
- Seventeen permanent jobs created with an average salary of \$80,000³
- Reliable revenue stream for both the counties and the landowners: Each of the 104 turbines represent a long-lease of approximately \$6000 annually to over 60 landowners—amounting to “more than \$640,000 in the first year between the two counties.”⁴
- Avangrid Renewables is now the largest taxpayer in both counties
- Permanent road improvements on the farmland which improves accessibility at no cost to the land owners
- Proves the potential market for utility scale wind development in North Carolina

HOW AND WHY THE STRATEGY IS WORKING

Community research makes a difference. Local practitioners diligently worked to research communities with existing wind farm development to better understand this type of land use in their area and to negotiate benefits for the community. They visited comparable wind development in another state, talked to stakeholders, and worked to gather information on appropriate setback and wind farm site restrictions from other communities. This level of involvement and research helped officials to create a local regulatory process and incentives agreement for the counties.

Political will matters. The Amazon Wind farm served as a bit of a bellwether for future wind development in North Carolina and generated some push back from the North Carolina General Assembly; for example, legislators expressed concern about wind energy’s potential interference with economically essential military bases. In addition, when Amazon Wind got its approvals, there was no state level permit required for wind development, but new regulations have made wind development somewhat more difficult. For example, an 18-month moratorium to wind development was implemented in 2017. The future of wind development in North Carolina is somewhat uncertain and dependent on legislative change. For other areas, capitalizing on renewable wind energy will be dependent on state and federal regulations.

³<https://www.coastalreview.org/2019/04/our-military-wind-farms-can-coexist/>

⁴<https://energynews.us/2018/01/24/southeast/in-north-carolina-a-big-cardboard-reminder-of-wind-powers-economic-impact/>

LESSONS LEARNED FROM THE STORY

Stay abreast of trends in the industry. Remember that “development of wind projects continues to be dependent on state-by-state approaches as opposed to a one-size-fits-all approach.”⁵ For states with more relaxed rules than North Carolina, the Amazon Wind Farm can serve as a model. The WINDEXchange website offers current information on how different states are trending in wind farm regulations.

Embrace new opportunities. County commissioners, economic developers and planners in Pasquotank and Perquimans counties seized the opportunity presented by Avangrid Renewables even though they had no experience with a project of this nature. They were willing to accommodate new land use in the community, develop an incentive package and ultimately create a precedent for other North Carolina counties to follow.

Do your due diligence. County commissioners, economic developers, and planners conducted research on how other communities had handled wind development projects. Together, they visited a comparable wind development in Somerset, PA and talked to local stakeholders. Craig Poff, director of business Development for the Mid-Atlantic and Southeastern US for Avangrid Renewables, noted that government officials were “demanding and careful and deliberate, but cooperative...they really did their own homework.”

Capitalize on physical assets. Location was key to the development of the Amazon Wind Farm. Unbeknownst to county officials, “the Desert” exhibited favorable conditions for wind energy development. Furthermore, the area was located on the Dominion Energy Grid, which allowed for negotiation of a PPA. This project found an additional use for farm land that produces benefits for the community without inhibiting farm production.

⁵ <https://www.scottmadden.com/insight/key-lesson-underlying-north-carolinas-18-month-wind-moratorium/>

CONTACT INFORMATION

Shelley Cox

Planning Director
Pasquotank County Planning Department
Elizabeth City, NC
252.335.1891
CoxS@co.pasquotank.nc.us

Elizabeth City / Pasquotank

Economic Development Commission
Elizabeth City, NC
252.338.0169
info@ElizabethCityPasquotankEDC.com



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