

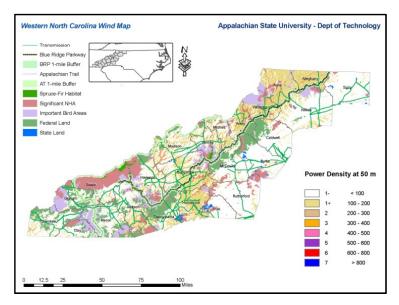
Total NC Capacity

•Geographical potential is at least 10,000 MW just in Mountains (25% of NC electricity from 6,666 turbines)

•DOE estimates NC developable potential is 1,610 MW from 1073 turbines (4% of state's electricity)

•LaCapra Study estimates 1,500 MW of developable potential (500 in east & 1000 in west) (3.7% of state's electricity from 1000 turbines)

•NCSEA has identified wind as potentially providing 16% of the NC 12.5% REPS of which would require around 450 utility scale turbines (810 MW for 2 % of states electricity)



Western NC Wind Capacity

•ASU Energy Center after all exclusion zones: 3,150 MW in west (8% of NC electricity from 2100 turbines)

•ASU Energy center identified 768 MW in western NC after applying all exclusion zones ; 50 acre minimum and within 5 miles to transmission

ASU Study Results: Impact of 768MW - \$1.26 billion in capital Investment1

- **\$8.2 million** annually in local property taxes1

- 350 new long term jobs1

Lands excluded In Study:

- Blue Ridge Parkway w/1 mile buffer
- Appalachian Trail w / 1-
- mile buffer
- Spruce Fir Habitat
- Significant NHA
- Important Bird Area
- Federal Lands
- State Lands

Land Value Impacts:

•Renewable Energy Policy Project (REPP), examined 10, large (10+ MW) wind projects across the US, developed since 1998 looking at pre and post development land values. <u>The REPP investigation could find no negative impact.</u>

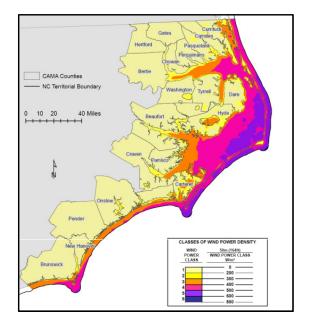
•Study conducted for Kittitas County, Washington determined that <u>no negative land value impact was found</u> within the view shed of the 13 projects examined.

•Energy Center of Wisconsin conducted a detailed parcel by parcel analysis of land transactions within the viewsheds of the REPP sites and concluded that the impact was not systematically negative or positive.

•ASU Energy Center looked at 15 projects east of the Mississippi River (eight in the Appalachian Region) that were at least 5MW in size. <u>There was no statistical difference between the wind project counties and control counties on preand post land values.</u>

NC Wind Power Facts







Coastal NC Wind Capacity

•1,430 MW wind capacity on-shore and in sound waters from 2 and 3MW turbines over 26.5 square miles. (off-shore not considered)

•Transmission bottlenecks heading west may be the largest restriction of capacity.

•Upcoming study by UNC to give more detail to coastal opportunity.

Economic Impacts:

Each 100 MW of wind energy development in region will produce approximately:

- \$27 million in direct, indirect, & induced economic benefit to state during construction and \$3 million each year during operation
- \$7.32 million paid in wages during construction and \$1.35 million in wages each year during operation
 - 250 jobs during construction
 - 45 long term jobs
- Property tax revenue: approximately \$1,000,000/year in NC
- Land Lease Payments: \$250,000 \$400,000/year (2-3% of gross revenue or \$2500-4000/MW/year)
- Approximately 350 million kwh every year, at a competitive price and without any air pollution or energy price increases. Enough to power 33,000 houses.
- Each MW of wind development costs approximately \$1million dollars
- Each MW of wind will produce between 3 3.5 million kwh/year on a good wind site.

1. Assump:ons based on NREL Economic Benefits of 1,000 MW of Wind Energy in NC publica:on. Available at: hVp://www.windpoweringamerica.gov/pdfs/economic_development/2009/nc_wind_benefits_factsheet.pdf