Laws, Regulations, Permits, Policies, Positions and Wind Turbines

A Presentation to the 2002 Wind Summit

December 9, 2002

by

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http://www.ncwindpower.appstate.edu
Mountain Ridge Protection Act of 1983

• “No building, structure or unit shall protrude at its uppermost point above the crest of the ridge by more than 35’

• Protected mountain ridges are all mountain ridges whose elevation is 3,000 ft and whose elevation is 500 or more feet above an adjacent valley floor
Ridge Law

- “Ridge” means the elongated crest or series of crests at the apex or uppermost point of intersection... and includes all land 100 ft. below

Structure must be less than 40’ high from top of foundation to uppermost point and 3’ of foundation can be added.
Exemptions to Ridge Law

- Water, radio, telephone or television towers or any equipment for the transmission of electricity or communications or both
- Structures of a relatively slender nature and minor vertical projections of a parent building, including chimneys, flagpoles, flues, spires, steeples, belfries, cupolas, antennas, poles, wires, or windmills
• “A wind farm such as that proposed here … cannot be construed to fall within the exemption for “structures of a relatively slender nature and minor vertical projection of a parent building, including chimneys, flagpoles, flues, spires, steeples, belfries, cupolas, antennas, poles, wires, or windmills”
Roy Cooper’s Letter Continued

• The Legislature in 1983 had in mind, the traditional, solitary farm windmill which has long been in use in rural communities, not windfarm turbines of the size, type, or certainly number proposed here…”
Boone, NC 2MW Mod-1 Turbine: 1979 - 1983
Mr. Cooper has indicated that the exemption for equipment for the transmission of electricity would not apply to the wind farm proposed by TVA
Cherokee Tribal Lands

• According to attorneys with the Eastern Cherokees, the “Ridge Law” does not apply to the Qualla boundary
• No tribal laws on the topic of mountain top protection
• Tribe must formally approve any use of property within Qualla Boundary
Natahala & Pisgah National Forests

24% of land area with class 2 or higher
27% of land area with class 3 or higher
National Forest Lands

• High scrutiny for permanent development
• Very stringent screening process
• 1st criteria is why can’t private lands be used
• Increasing emphasis on visual standards
  – No cell towers approved in over 8 years
  – All new power lines are under ground
National Forest Lands

- No formal determination about wind turbines and/or whether Ridge Law would apply
- Answer is unclear (from Sen. Phil Berger)
- According to the Office of General Council for the Forest Service, the Forest Service tries to be sensitive to the policy embodied in state law
National Forest Requirements

- National Forest Management Act (NFMA) requires that each National Forest be governed by management plan
- Permit required from Forest Service
- Permit requires National Environmental Policy Act (NEPA) compliance
- NEPA requires careful consideration of all environmental effects
Goals of most recent Forest Management Plan (Amendment 5, 1994) that could support wind power development

1) Improve the quality of life for citizens of western north Carolina….

2) Improve economic prosperity of local communities

3) Keep public involved in open & honest dialogue
National Park Lands

Blue Ridge Parkway
Great Smokies National Park
11% of land class 2 & above
15% of land class 3 & above
National Park Lands

• Strong conservation mandate
• Large wind projects not likely to be possible
• Possibility for small demo project to power something in the park
Blue Ridge Parkway

- Designed as scenic drive
- 800-1000’ width actually part of park
- No legal control of viewshed
- Would like to protect viewshed for 1 mile out
Blue Ridge Parkway with 1 mile view shed exclusion zone on either side
Turbine at $\frac{1}{4}$ mile
Turbines from $\frac{1}{2}$ mile
Turbines 1.5 miles away
Wind Turbines 3 miles in the Distance
10 Turbines from 6 miles away
Photosimulation
Appalachian National Scenic Trail

- Most Important long-distance foot trail in the world
- Longest skinniest national park in the country
- Managed by Appalachian Trail Conference
- “Trail experience includes a sense of remoteness and detachment from civilization
- Use Forest Service’s Scenery Management system
- Use visual simulation & GIS viewshed mapping
- “no-net loss approach
- Locating projects near developed sites is better
Appalachian Trail

Very concerned about visual character with 1/2 mile and will comment on anything within 5 miles of the trail.
FAA Lighting Requirements

- Lights required on towers over 200’
- What color is best?
- Can they be dimmable?
- Would every turbine need one?

• 1.8 cents per KWH in 2001 dollars
• Adjusted annually for inflation
• Good for 10 years
• Must begin operation by December 31, 2002
Blue Ridge National Heritage Act of 2002

• **Purpose:** Manage, preserve, protect and interpret the cultural, historical, and natural resources of the Heritage area (25 western counties) while continuing to develop economic opportunities

• Introduced by Senator Edwards and passed by US Senate
Standardized Zoning/Interconnection Requirements

• Many jurisdictions require special-use permit for towers > 35 feet

• Calif. passed law to make wind turbines “permitted use,” bringing compliance costs from $2000-$8000 & 4 months to $400 and 20 minutes
Conservation Priorities

• National Audubon Society
• Southern Appalachian Highlands Conservancy
• Southern Appalachian Forest Coalition
• Western North Carolina Alliance
• Environmental Defense
• Appalachian Voices
• Appalachian Mountain Club
Spruce Fir Forests

Spruce Fir Forest
Audubon’s Important Bird Areas In Western NC
Wilderness and Roadless Areas in the Southern Appalachian Assessment

Wilderness and Roadless Areas on National Forest Land

- National Forest Land in SAA: 4,553,637 Acres
- Designated Wilderness on National Forest: 347,990 Acres (7.6%)
- Inventoried Roadless on National Forest: 752,654 Acres (16.5%)
- Wilderness plus Roadless on National Forest: 1,100,644 Acres (24.2%)

Wilderness and Roadless Areas (all ownerships) in Southern Appalachian Region

- Total SAA Area: 37,400,000 Acres
- Designated Wilderness in SAA: 428,545 Acres (1.1%)
- Inventoried Roadless in SAA: 1,231,961 Acres (3.3%)
- Wilderness plus Roadless in SAA: 1,660,506 Acres (4.4%)
Appalachian Mountain Club’s Policy

The AMC supports investigation of the potential of windpower as a renewable and economically viable energy resource. However, because of the potential impacts on the region’s mountain area, support of specific projects is contingent upon such development leading to a clear and demonstrable improvement in the overall ecological health and long term protection of the region’s mountains, rivers and forests.
AMC Policy Toward Wind Power

• Encourages official state policies and criteria for determining suitable sites
• Projects should lead to a permanent and verifiable improvement in the region’s air quality
• Projects should include provisions to assure decommissioning when & if no longer used
AMC Specific Siting Criteria

- Use private land or public lands already developed and with existing infrastructure
- Use land already used for commercial activity (timberland)
- Avoid major bird migration routes & species of concern habitats
- View of turbines from settled areas better
- Use sites with relatively even ridgelines and gradual approach slopes
- Use areas with existing permanent & secondary access
- Use areas with second growth hardwoods
- Use areas where evidence of human development already noticeable
AMC Unsuitable Areas

- Undeveloped public lands
- Ridgelines with steep slopes, uneven topography, or large bedrock outcrops
- Roadless areas
- Areas with little or no evidence of past human disturbance
- Areas with a lot of critical habitat
- Areas seen from fore & midground (0-5 miles) of public use areas
- Areas that currently receive a high level of backcountry use