

Coal River Mountain Wind Project, Fact Sheet

Calculated and Compiled by Rory McIlmoil, Coal River Mountain Watch

Phone: (304) 854-2182

Email: ror@coalriverwind.org

Websites: www.crmw.net, www.coalriverwind.org

Wind Farm: Development and Economics

Faceplate Generation:	440 Megawatts
No. of Turbines:	220, 2.0 MW wind turbines
Rotor Diameter @ hub height:	80 meters (264 feet)
Wind Resource:	Class 4 to Class 7
Estimated Capacity Factor:	30%
Acreage Needed for Development:	200 acres, max.
Linear Ridge Distance of Class 4-7 Winds:	31 miles
Spacing Between Turbines:	3 rotor diameters (@ 800 feet)
<u>No. of Turbines Situated on:</u>	
Class 4 sites:	96
Class 5 sites:	70
Class 6 sites:	53
Class 7 sites:	1
Cost of Development:	\$750 Million to \$1 Billion
Avg. Cost of Energy (w/ Production Tax Credit):	6.5-7.5 cents/kWh¹
Avg. Cost of Energy (w/o Production Tax Credit):	8.5-9.5 cents/kWh

Potential Energy Production, Wind:

Annual Net Electricity Generation:	1.16 Million Megawatt-hours (MWh)
% of Annual WV Electricity Generation:	1.2%
% Annual WV Electricity Consumption:	3.5%
No. of WV Households powered by CRM wind:	150,000
No. of Total WV Customers powered by wind:	90,000
Life-Span of Energy Production:	Forever

Job Creation, Wind:

Direct Construction Jobs, 2-year period:	200+
Indirect Construction Jobs, 2-year period:	130+
Total Construction-Related Jobs:	330+
Direct, Permanent Operation & Maintenance Jobs:	40-50
Indirect, Permanent O&M Jobs:	20-30
Income Potential:	\$30,000-\$35,000/year

Life-Span of Operation & Maintenance Jobs: Forever

Other Economic Benefitⁱⁱ

Direct Local Spending, Construction Period:	\$20 Million/year
Direct Local Spending, Operation Period:	\$2 Million/year (minimum)
County Tax Revenues, Annual:	\$750,000-\$3,000,000
State Tax Revenues, Annual:	\$400,000, minimum

Carbon "Sequestration"

Tons of Coal left in the ground:	21 million ⁱⁱⁱ
Tons of CO2 equivalent, Un-mined Coal:	60 million
Tons of Coal Prevented by Wind Power:	460,000/year
Tons of CO2 equivalent:	1.32 million/year
Total CO2 Emissions Prevented, first 20 years:	86 million tons
Economic Value @ \$50/ton of carbon:	\$4.3 Billion

The Sacrifice of Coal River Mountain (CRM) – Energy Perspective

Estimated Tons of CRM Coal Production:	52 million tons
Estimated Tons of CRM Coal to be Exported:	42 million tons
% of CRM coal exported (based on state avg.):	80% (68% domestic, 12% foreign)
Tons of CRM Coal for Electricity Generation in WV:	10 million tons
Potential WV Electricity Gen. from CRM Coal:	1.8 Million MWh annually
% of Annual WV Electricity Generation:	2%

**Potential WV Electricity Gen. from CRM WIND:	1.2 Million MWh annually
**% of Annual WV Electricity Generation:	1.3%

Estimated Export of CRM Coal-MWh from WV plants:	1.2 Million MWh annually 17 Million MWh, 14-year total
--	---

<i>Tons of coal equivalent, 14-year Total:</i>	6.8 Million tons
--	------------------

Total CRM Coal Exported, by land or wire:	48.8 Million tons
% of Total CRM Coal Production to be Exported:	94%

of Hours of U.S. Electricity Consumption Provided by Coal River Mountain:

<i>From Strip-Mined, Mountaintop Removal Coal:</i>	
Avg. Annual:	20 hours
% of Annual U.S. Electricity Consumption:	0.23%

<i>From Wind Power and Underground Coal:</i>	
Avg. Annual:	12.5 hours
% of Annual U.S. Electricity Consumption:	0.14%

Conclusion: Only 6%, or approximately 1 out of every 16 tons of coal to be produced from Coal River Mountain, or any mountain in West Virginia, will actually be used for energy consumption by West Virginia residents, commercial units or industry. Further, coal produced from the strip-mines proposed for Coal River Mountain will provide the U.S. with only 0.23% of its annual electricity 'needs,' and this contribution will last for only 14 years.

The Sacrifice of Coal River Mountain – Social and Ecological Perspective

Major Creeks and Watersheds Impacted and/or Contaminated:

Marsh Fork, Horse Creek, Rock Creek, Dry Creek, Workman's Creek
 Clear Fork, Sycamore Creek (incl. Right Fork, Stover Fork), Boyd's Branch

Area of Biodiverse Hardwood Forest and Habitat Destroyed:	6,000+ acres (10 square miles)
Est'd Volume of Rich, Productive Soil Dumped Into Valleys:	15 Million cub. m.
Number of Years to Re-generate 2.5cm (1 inch) of Topsoil:	100, minimum
Number of Valley Fills:	18
Est'd Miles of Streams Buried by Valley Fills:	6
Est'd Miles of Streams Buried and/or Contaminated:	18-24

Communities Impacted by Blasting, Dust, Major Floods, Destruction of their Homeplace

Clear Fork: Dorothy, Colcord, Ameagle, other Clear Fork Residents
 Marsh Fork: Horse Creek, Dry Creek, Rock Creek, other Marsh Fork Residents

All of this and more for only 14 years of mining...what happens when the coal is gone???

Meaning and Importance of the Wind Farm

This wind project will save one mountain and the surrounding communities from the decimation and contamination of the land, resources and residents that results from the blowing up of mountains and the filling of valleys with mining waste. It would exist as a symbol of hope and change and the breaking of the oppressive coal stranglehold on southern West Virginia's economy and its communities who have suffered for so long.

The Coal River Mountain wind project, if successful, would preserve the mountain and its many resources for the continuation of traditional uses, and for the development of other sustainable economic initiatives for the surrounding area. The social and economic utilization of Coal River Mountain in this manner could serve as a model of change and economic diversification for other counties and communities, one that calls for the development of renewable energy, the creation of green jobs, and the preservation of the environment for improving the quality of life for both current and future generations

Coal River Mountain Land Ownership and Proposed Turbine Location

Bee Tree Surface Mine: (104 turbines)	Western Pocahontas Properties, LLC (Minerals) Black King Mine Development Co. (Surface) Rowland Land Company (Surface and Minerals)
---	---

***Of the 104 turbines in this area, Black King Mine owns/leases the land on which only 93 of these turbines would be sited. The other 11 would be sited on lands under ownership by Rowland Land Co.*

Eagle II Surface Mine: (79 turbines)	Rowland Land Company (Surface and Minerals)
Eagle III Surface Mine: (37 turbines)	Rowland Land Company (Surface and Minerals) (Possibly other owners, no map available)

The Threat: Mountaintop Removal

Operating Companies:

Subsidiaries of AT Massey:
 Clear Fork Coal Company
 Marfork Coal Company

No. of Permits:

Four, Two So-Far Approved

Total Acreage:

Bee Tree:	6,000+ acres
Eagle II:	1352 acres
Eagle III:	2040 acres
Collins Fork/Eagle IV:	2490 acres
	831 acres

No. of Proposed Valley Fills:

18

Estimated Job Production/Time Span:

One mine in operation only:	65 jobs/year for 4 years
Two mines in operation:	130 jobs/year for 5 years
Three mines in operation:	195 jobs/year for 5 years

Total Estimated Operating Life of Strip-Mining:

14 years

...of Jobs: 14 years

...of Energy: 14 Years

Total Coal and Jobs Available after 14 years:

0

Potential Energy Production and Jobs from Wind after Strip-Mining: 0 jobs, 0 energy

Active Underground Mining – 2007

Coal Production:	2.1 million tons
Net Energy Equivalent:	5.25 million Megawatt-hours
Employment:	211 miners

Annual Job and Energy Provision: Underground Coal and Wind Combined Total

Energy Production:	6.4 million Megawatt-hours
No. of WV Homes Powered:	840,000
No. of WV Customers Powered:	415,000
Number of Direct Jobs:	250
Number of Indirect Jobs:	450

End-Notes:

ⁱ This COE compares favorably to a rate increase to 7.39 cents/kWh that Appalachian Power has recently requested in West Virginia: <http://www.appalachianpower.com/news/releases/viewrelease.asp?releaseID=479>

ⁱⁱ It is also common practice by socially-responsible wind power developers to donate additional money to community-based organizations, and to even invest money into local pilot development projects. This would be an additional boost for economic development around Coal River Mountain.

ⁱⁱⁱ Underground mining will continue, producing an estimated 50-60% of proposed surface mine production.