



Assessing Future Energy Development Across the Appalachian Region

The Appalachians are a national and global hotspot for terrestrial and freshwater diversity. The region has some of the world's most diverse, intact, and connected temperate forests and freshwater streams. Appalachian forests and rivers are intricately linked to the well being of the people of the Mid-Atlantic, Midwest and Eastern United States, including cities like New York, Pittsburgh, Washington D.C., Nashville, and Atlanta. The environmental benefits that flow from these rivers and forests – from clean, reliable water supplies to outdoor recreation – reach tens of millions of people every day. At the same time, the Appalachians are a rapidly expanding hub of energy development with abundant coal, natural gas, and wind resources situated close to the most densely populated region in the United States.

With a grant provided by the Appalachian Landscape Conservation Cooperative (LCC), The Nature Conservancy has completed a study to assess potential future energy development in the region. Results of the assessment will provide stakeholders with the information they need to understand where energy development may occur and where it intersects with important biological and ecological values. This critical information can assist policy makers, land management agencies, industries, and others to help avoid, minimize, or offset potential impacts. By providing this context, stakeholders will have access to information to lead productive discussions and make informed decisions on how to meet energy needs while sustaining healthy natural systems.

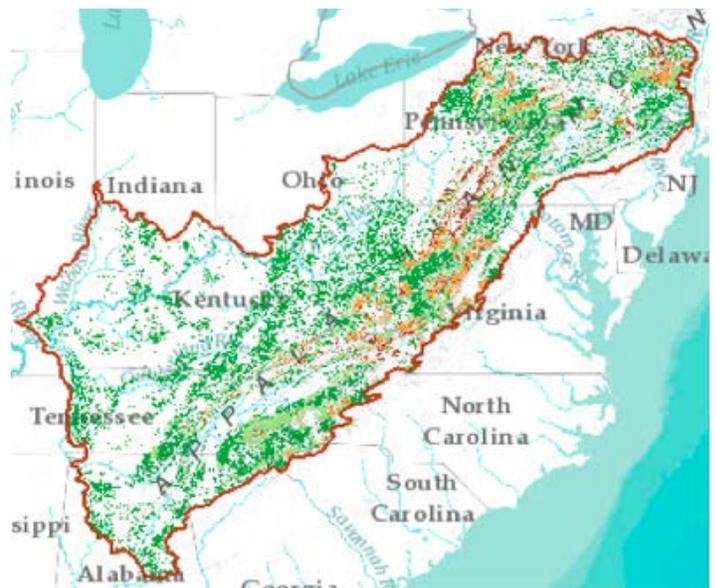


Major Products

- A peer-reviewed model, informed by industry input, that shows where potential energy development may most likely occur across the Appalachian region.
- A comprehensive report that explains how the modeling was developed; presents results and major findings of the potential coal, wind, and natural gas development; and shows the scale and scope of potential development to the Appalachian LCC region study area.
- A web-based mapping tool with projected future energy model results and important natural assets data layers. Users can use this tool to see where development may occur and where development may intersect with important resources. Energy projection data layers are available for download for users wishing to overlay the data with their priority resource maps.

Major Findings

- Nearly 7.6 million acres of new energy development could occur in the region by 2035.
- About 5.3 million acres of future development will likely occur in forested areas.
- More than 150 watersheds, which are reliant on forest cover to produce clean water to major cities and communities, are in areas of highest probability for energy development.
- Future energy development is largely concentrated in the Allegheny and Cumberland Plateaus.



Mapping tool can display data layers showing intersection between potential high probability energy development and important natural resources.

Relevance of Study, Models and Mapping Tool

- This research addresses critical information needed for landscape-level planning and should inform dialogue to effectively avoid, minimize, and offset impacts from energy development to important natural areas and the valuable services they provide.
- The individual energy models and report identify the scale, scope, and intensity of potential development across the Appalachians to demonstrate how energy development may affect land use change at both regional and local scales.
- The identification of these intersections can support conversations between the energy and natural resource communities and pave the way for better informed planning and decisions to address balancing both natural resource conservation and energy development goals.
- The study, models and mapping tool also underscore the Appalachian LCC's commitment to serve as a forum for collaboration and deliver science that informs conservation planning and actions at multiple scales for multiple resources.

Location of Information and Online Tool

To learn more about the project and access links to tools, reports, past foundational research, public outreach products and additional information, visit:

<http://applcc.org/assessing-future-energy-development>

To learn more about the Appalachian LCC, visit <http://applcc.org/>

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