

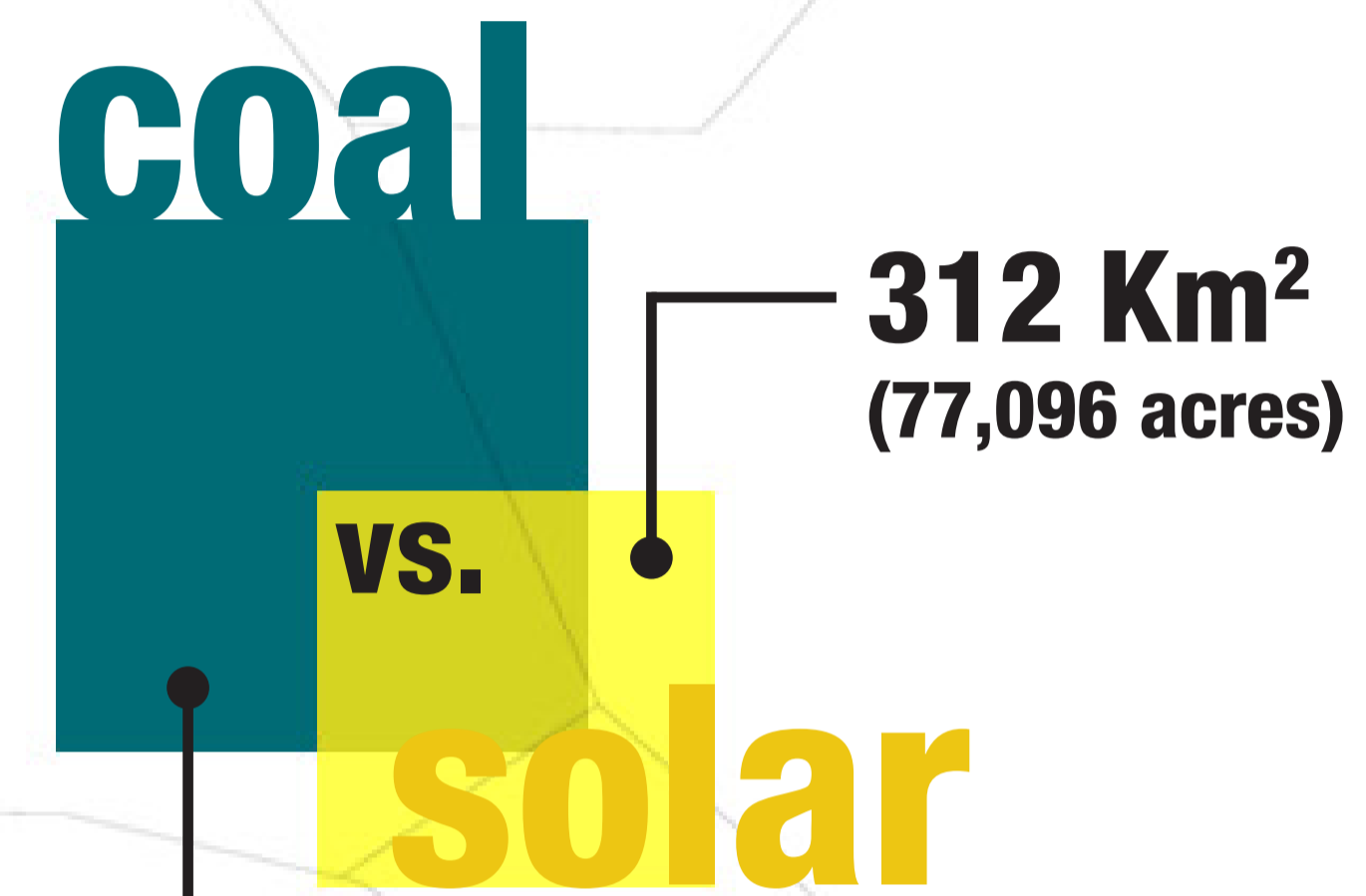
SURFACE AREA REQUIRED to equal the electricity generated from MOUNTAINTOP REMOVAL COAL MINES

WITH SOLAR POWER:

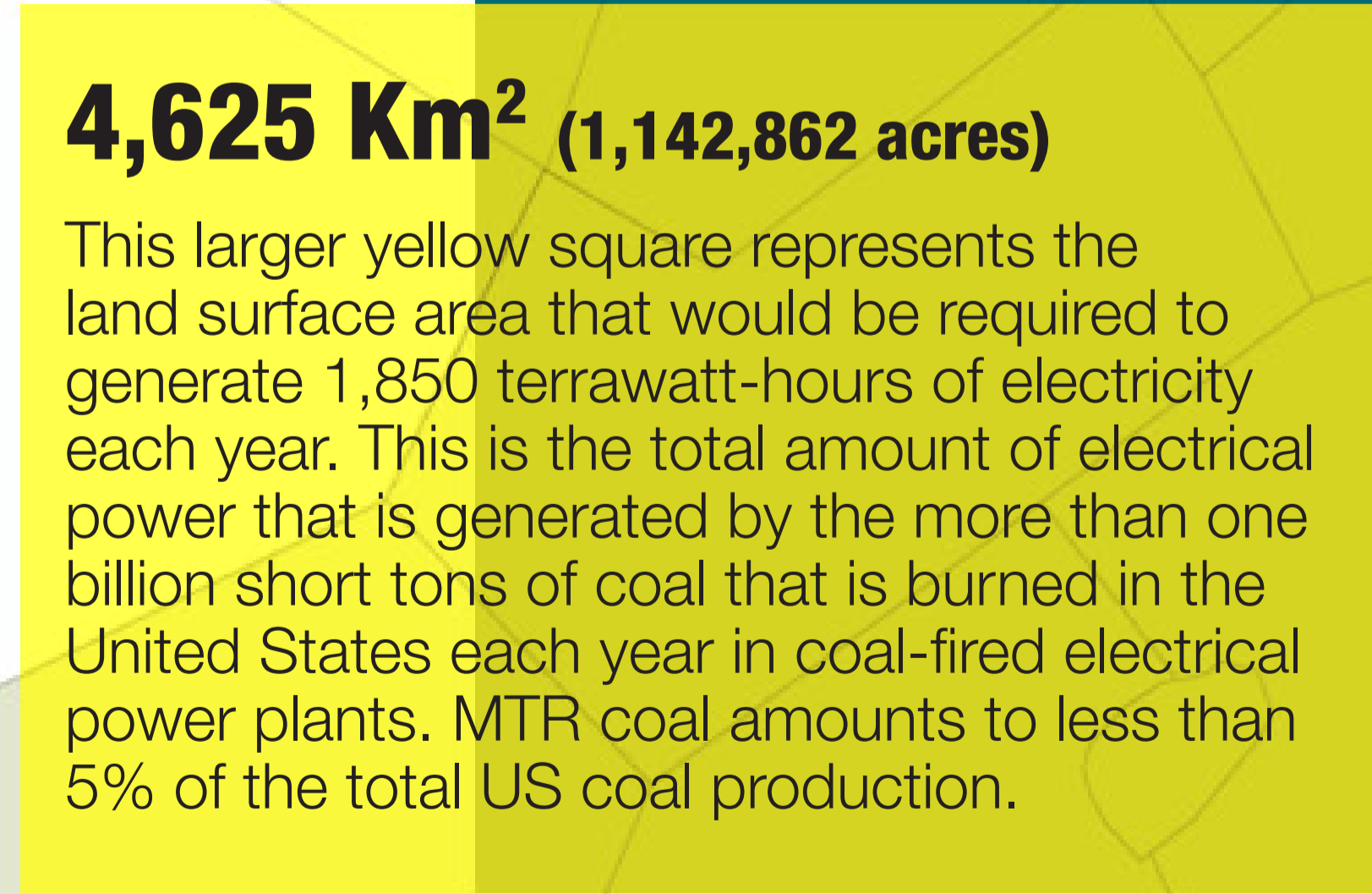
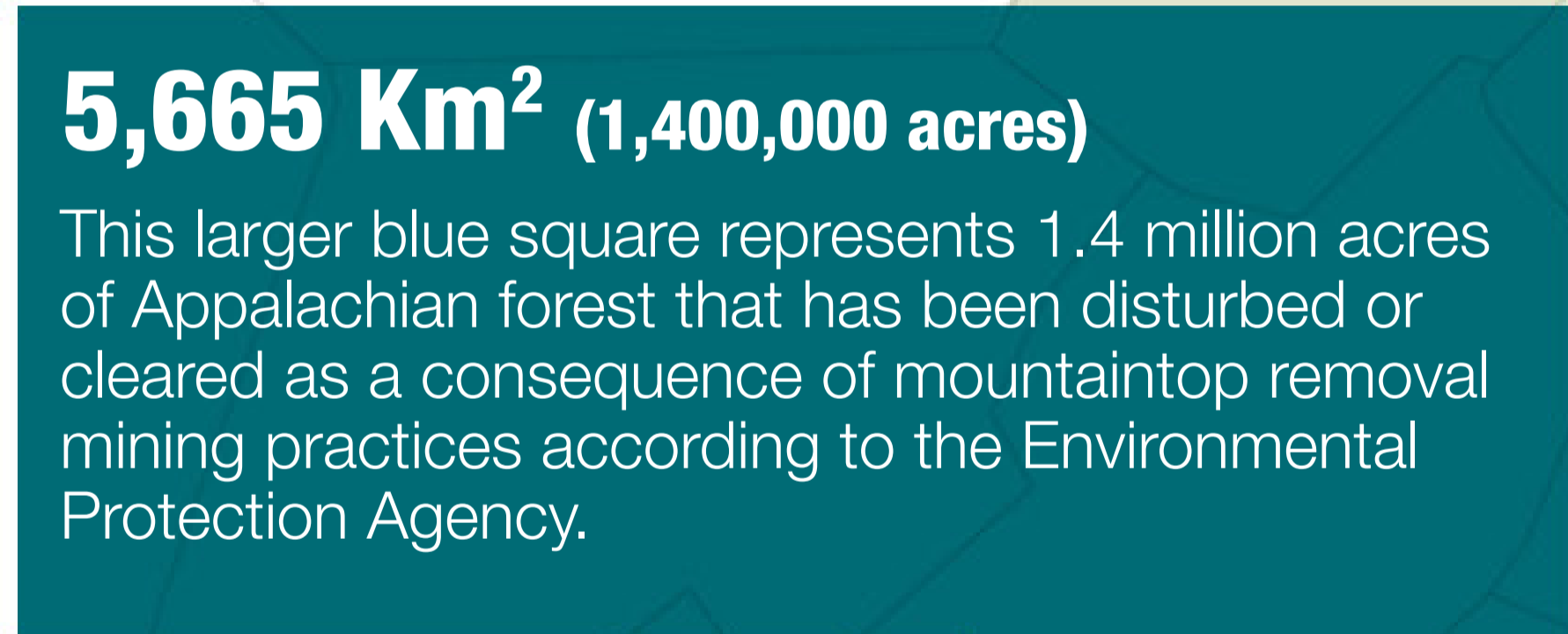
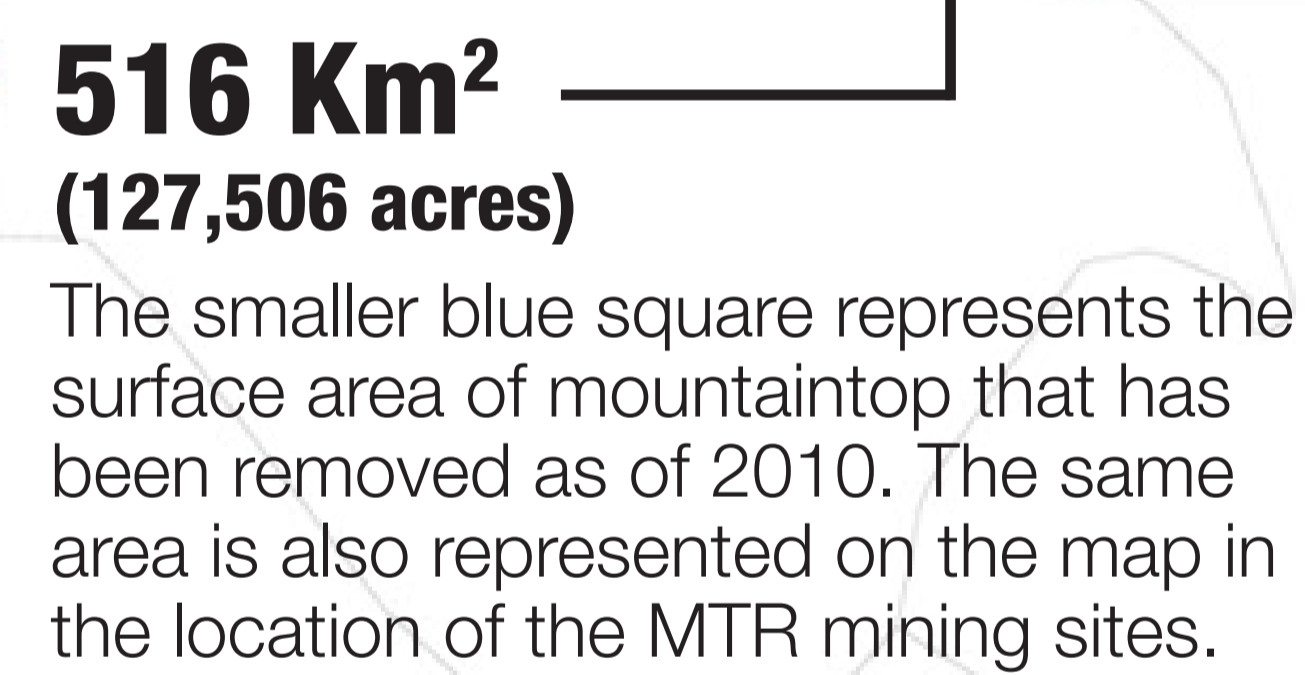
Mountaintop removal mining (MTR) is a form of surface mining that involves the removal of a summit or ridge. Acres of wilderness habitat is deforested and the wood burned. Explosives are then used to blast away the overburden (soil and rock) to expose the coal seams that lie beneath. An average of 3 million pounds of explosives are detonated in West Virginia every day.

More than 500 mountaintops have been destroyed so far. The air pollution from surface mining activities has led to elevated levels of adult hospitalizations for chronic pulmonary disorders and hypertension; higher rates of mortality; lung cancer; and chronic heart, lung, and kidney disease for individuals living in mining areas.

In addition, 2,000 miles of Appalachian streams have been buried by mining refuse. Valley fill (VF) destroys natural habitats and pollutes watersheds with high levels of selenium and other toxic compounds.



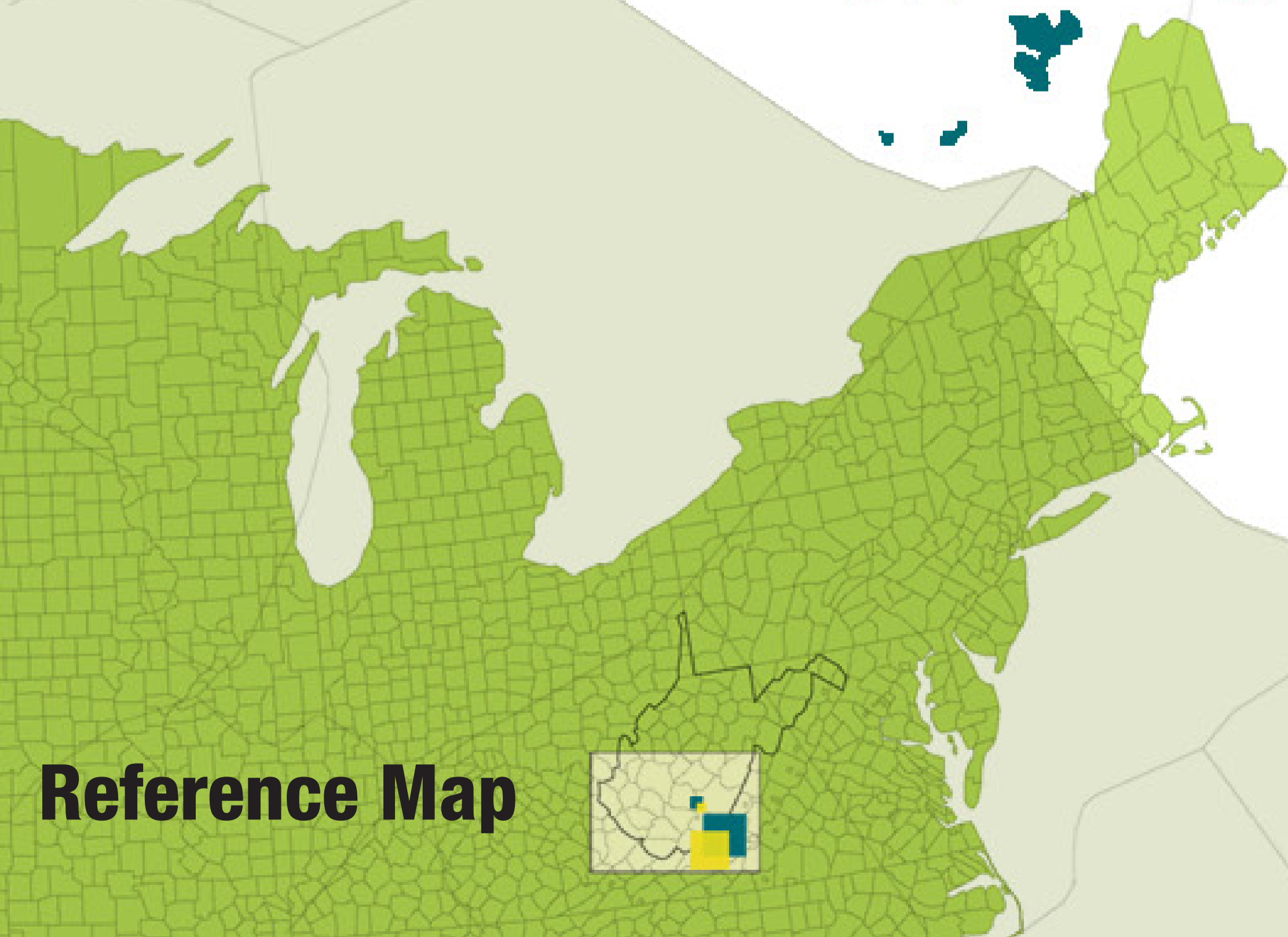
The smaller yellow square represents the land surface area that would be required to generate 124.8 terrawatt-hours of electricity each year. This is the same amount of electrical power that is generated by the 63.4 million short tons of coal that is mined from the exploded tops of West Virginia mountains each year.



The by-product of this coal combustion for electrical power is 2.8 billion tons of carbon dioxide, 7.6 million tons of nitrogen oxide, and 7.5 million tons of sulfur dioxide, along with other harmful gases and chemicals.

The solar panel installations that would be required to replace all West Virginia MTR coal would cost approximately \$180 billion to construct.

If West Virginia decided to produce the panels in-state, it would provide more than 10,000 new jobs—about the same number that have been lost since 1990 in the US mining sector (MTR techniques extract 2.5 times the amount of coal per worker as compared with mining techniques that are more sensitive to the environment).



- Sources:
- www.eia.doe.gov/
 - <http://www.epa.gov/>
 - <http://earthobservatory.nasa.gov/>