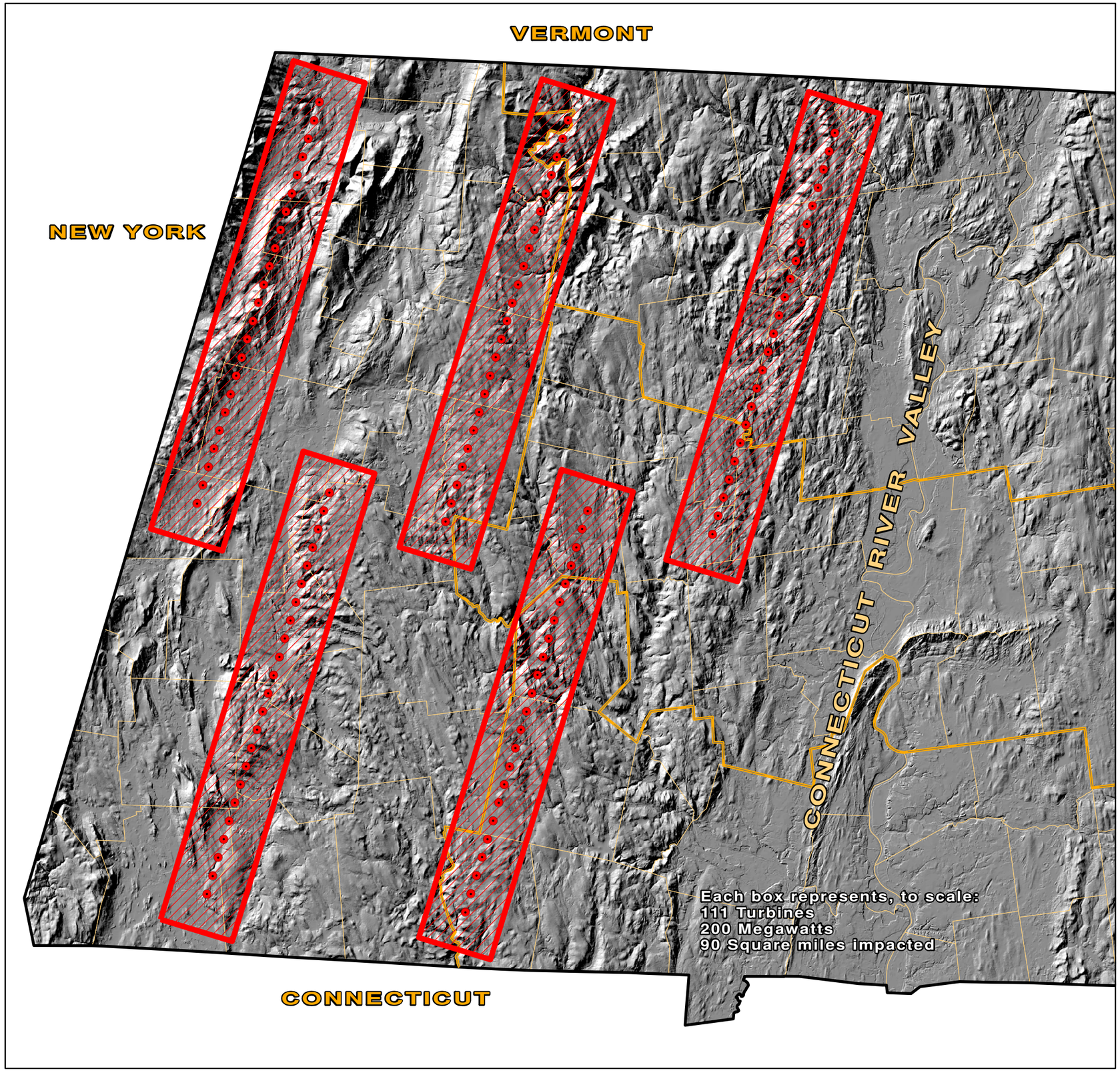

Governor Patrick's 2020 goal for ridge line wind power in scenic western Massachusetts is wildly ill-considered.

The plan constitutes huge destruction for little energy and an economic drain for the entire state of epic proportions.

Of the 2000 MW of electricity in the Governor's Sustainable Wind Plan, 460 MW are currently planned for the off-shore Cape Wind project. This leaves 1,540 MW of wind power to be generated on land.

If 1000 MW of land-based generation is assigned to western MA and 1.8 MW machines are installed (currently the largest turbine in MA), the plan would require approximately 555 turbines. With five turbines installed per mile, it would consume 111 miles of western Massachusetts ridge lines.

This is equivalent to 55 times the size of the Brodie Mountain installation.

It is now a proven fact by McCann, Rand, Ambrose, Pierpont and others, that there will be negative health and property value impacts for a minimum of two miles around each turbine, resulting in a 4-mile-wide band of impact along each ridge. Combined, these bands of impact equal 444 square miles, or 25% of the 1800 square miles in western Massachusetts, east of the Connecticut River Valley. This graphic illustrates the area of impact as five ridge lines, each 22+ miles long.

See reverse for more detailed information.

N
W E
S

0 2 4 6 8 10 Miles

Graphic prepared by Walter Cudnohufsky Associates, Inc. Ashfield, MA

GIS data source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts Information Technology Division

Governor Patrick's 2000 MW of wind energy by 2020 is a wildly ill considered plan…
Especially for western Massachusetts!

Walter Cudnohufsky Ashfield, MA 3.02.12

Of the 2000 MW of electricity in the Governor's Sustainable Wind Plan, 460 MW are currently planned for the off-shore Cape Wind project. This leaves 1,540 MW of wind power to be generated on land.

If 1000 MW of land-based generation is assigned to western MA and 1.8 MW machines are installed (currently the largest turbine in MA; the machines on Brodie Mountain are 1.5 MW), the plan would require approximately 555 turbines and would consume 111 miles of western MA ridge lines. This calculation uses a recognized spacing of 5 turbines per mile and accounts for only a portion of the required approach roads, building and ownership inefficiencies, etc.

If 1.5 MW turbines are used the ridge line required would be approximately 140 miles.

There are approximately 1800 square miles in Western MA: approximately 50 miles from VT to CT and 35 miles from the NY state line to the Connecticut River Valley.

If we used 111 miles of ridge lines (55 times the Brodie Mountain installation at 2 miles long) we would need 5 ridge line sections of 22+ miles each. The 111 miles only accounts for name plate capacity of the machines at 1.8 MW. If the prevailing 20% turbine efficiency is acknowledged and factored into the goal, a whopping 555 miles of ridge lines would be required. This may not be physically possible in western MA even with larger, taller, noisier 2.5 or 3.0 MW turbines.

It is now a proven fact by McCann, Rand, Ambrose, Pierpont and others, that there will be negative health and property value impacts for a minimum of two miles around each turbine, resulting in a 4-mile-wide band of impact along each ridge. Combined, these bands of impact equal 444 square miles, or 25% of the 1800 square miles in western Massachusetts, east of the Connecticut River Valley. This graphic illustrates the area of impact as five ridge lines, each 22+ miles long. Of course much larger areas will be impacted and essentially every town, thus every property owner in western MA will be affected at least financially through increased property taxes. One will not be able to drive or look to unoccupied ridge lines anywhere in western MA even with this lower number.

The accompanying illustration shows the minimum impact of 111 ridge line miles using 1.8MW turbines. Other options are substantially more impactful, where the goal of 1000 MW of wind-generated power would essentially locate a turbine within two miles of every property in western MA.

All of this would yield only a small fraction of MA energy needs through an undependable, fickle source that requires back-up generation capacity from polluting sources.

As a land planner and landscape architect with a graphic plan reference, I cannot imagine that this has been at all considered. It would have been an illogical and totally irrational consideration as I see it.

We must ban industrial turbines on ridge lines in western MA!