

# Simulation of Views of Wind Turbines

Prepared by Henry Stephenson, October 17, 2009

## Methodology

The panoramas are composites of individual photos taken October 2009. The photos of Cuttyhunk and the views to the west are taken from the Gay Head Overlook. The panorama of Nomans is taken from the picnic area just east of the restaurant. They are both about 100' above the water.

The images of the turbines themselves are taken from the flyer that advertised the State hearing on their Ocean Plan.

Care was taken to create an accurate impression of the scale and “readability” of the turbines in the water. A wide angle lens will make images seem smaller and farther away than they really are while a telephoto will make them seem larger and closer. Moreover, a wide angle lens often includes a large amount of foreground and sky which also diminishes the actual impression that a viewer gets when looking out toward the horizon. Consequently, a panorama made up of a composite of standard sized photos seems to offer the most accurate impression of the actual view.

The height of Noman’s Island and Cuttyhunk is known from USGS data. Nomans is 110' high and Cuttyhunk is 154'. Therefore a turbine adjacent to the islands can be proportioned accordingly – i.e. if a turbine is +/- 450' high it will be about 4.1 times higher than the elevation of Nomans. The heights of turbines that are in front of or to the rear of those can then be adjusted accordingly.

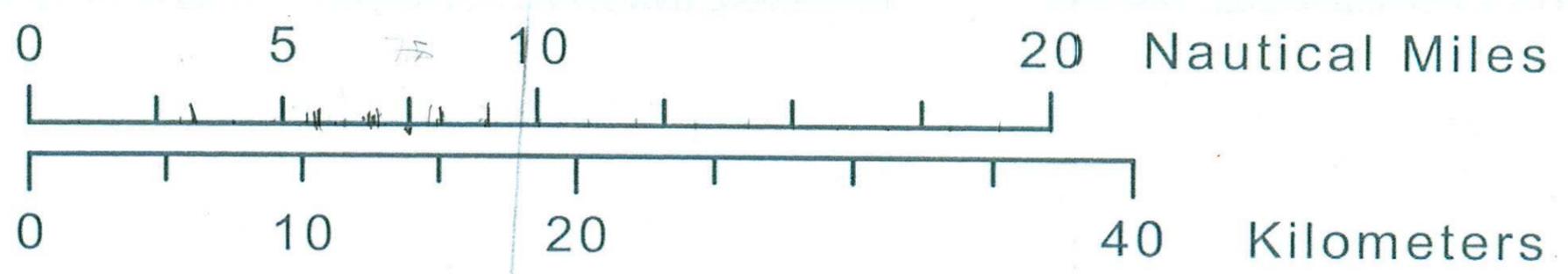
The width of the islands as seen from Gay Head is also known – they are each about 1.5 miles wide. Since the boundary of the State waters is three miles from the islands, the horizontal distribution of the turbines along that plane will be about double the width of the island.

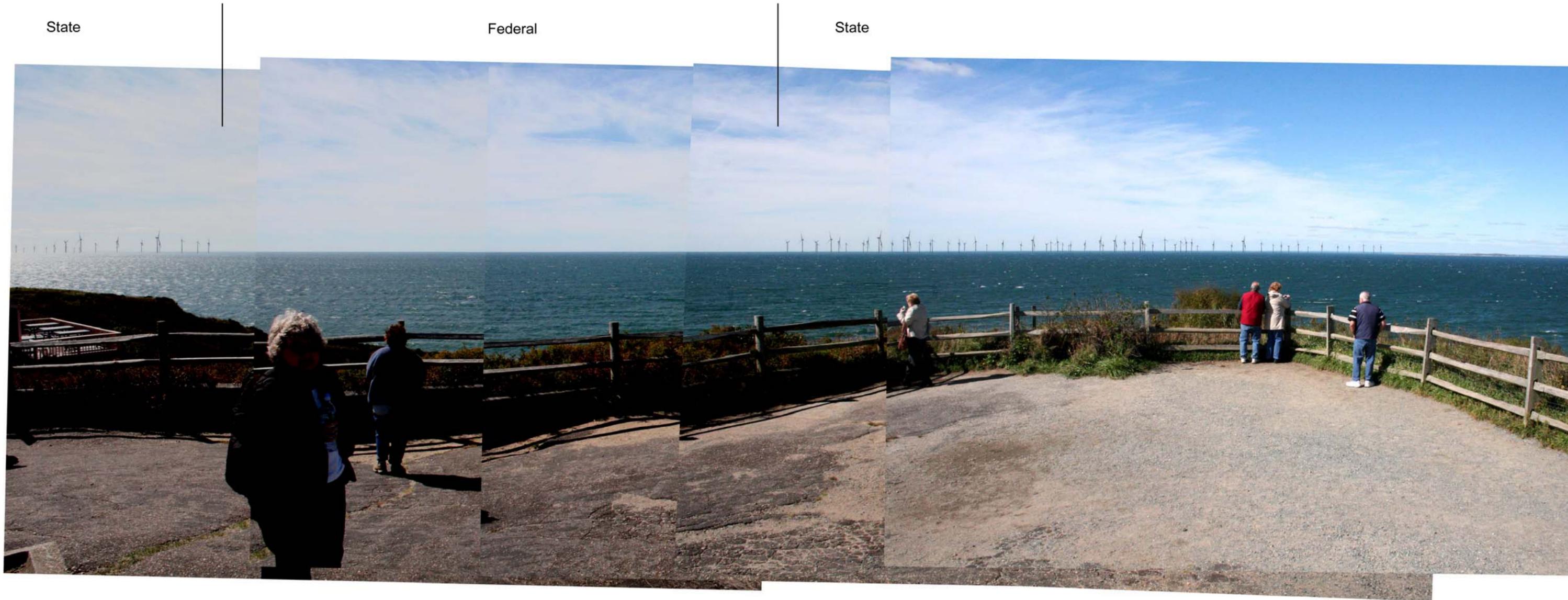
Nomans is 5.4 miles from Gay Head and Cuttyhunk is 6.8 miles and the State development area is confined largely to a 3 mile semi-circle around them.

The boundary of the Federal development area on the other hand is actually closer. Between the two State development areas, there is an approximately 4.5 mile span of open water directly facing the Gay Head overlook. This area could be completely filled in by turbines built within the Federal development area which starts just three miles offshore. Images are shown with and without turbines in the Federal development area.

Approximately 100 turbines are shown within the Nomans area and about 70 are shown within the Cuttyhunk area. Another 100 or so are indicated in the Federal area. The Federal area is much more extensive but the illustration shows the visual impact.

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View from Gay Head Overlook showing turbines in State development areas

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View from Gay Head Overlook showing turbines in State and Federal development areas

State

Federal

State

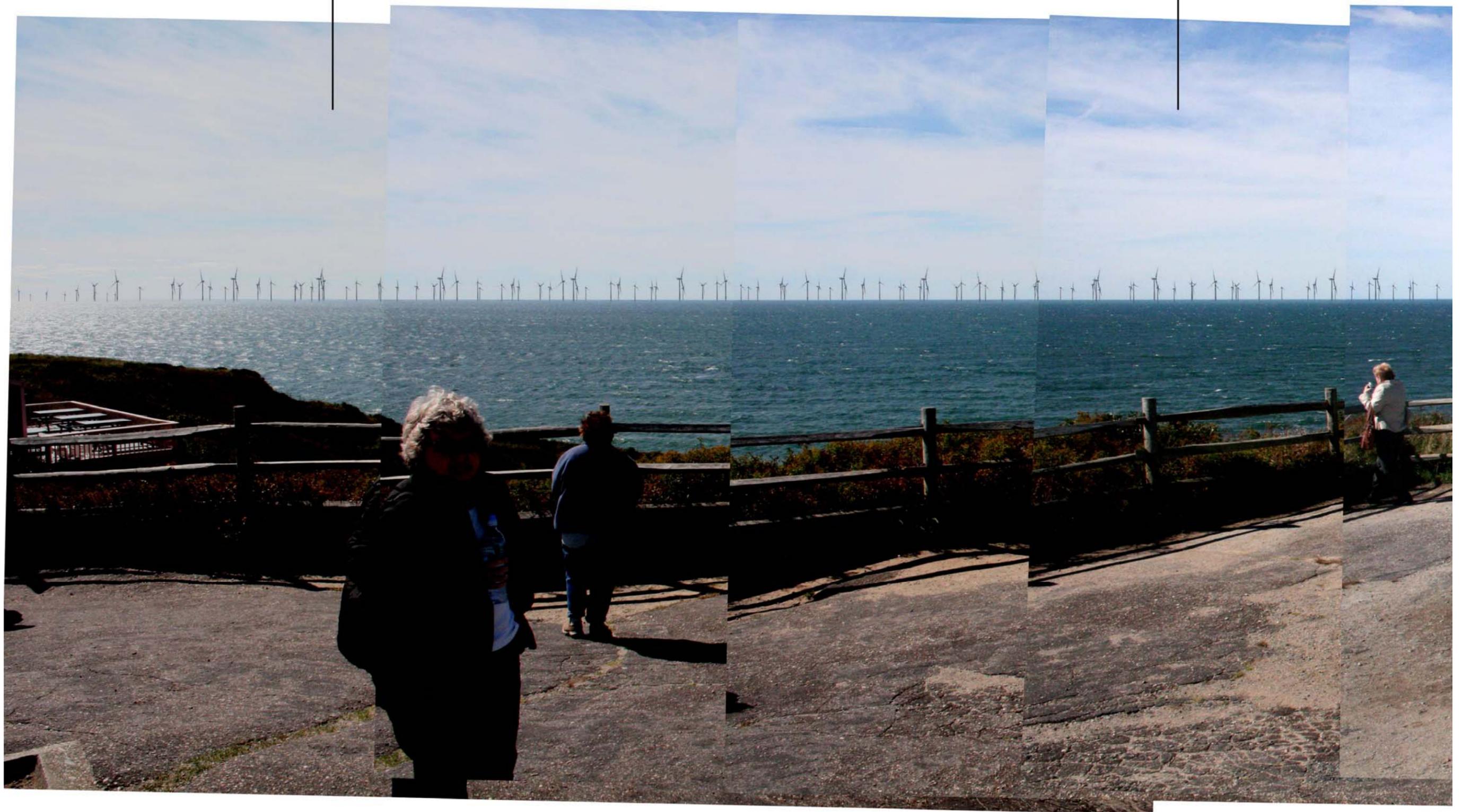


View from Gay Head Overlook showing turbines in State develelopment areas

State

Federal

State



View from Gay Head Overlook showing turbines in State and Federal development areas



View of Nomans from Gay Head Overlook picnic area 10-19-09