US Interior Secretary Ken Salazar has approved controversial plans for the country's first offshore wind farm to operate off Cape Cod, Massachusetts.

"This project fits with the tradition of sustainable development in the area," he told reporters in Boston.

State Governor Deval Patrick has argued the farm is key to local efforts to increase the use of renewable energy.

But the late Senator Edward Kennedy strongly opposed the idea, which some fear would spoil the seascape.

The plan would see 130 wind-powered turbines erected in the shallow waters of the sound, visible from the Kennedy family compound in Hyannisport and other Cape Cod estates.

Native Americans in Massachusetts have argued the turbine blades would desecrate the view of the sunrise that is essential to their prayer ceremonies.

Cape Wind says it can generate power by 2012 and aims to eventually supply three-quarters of the power on Cape Cod, which has about 225,000 residents.