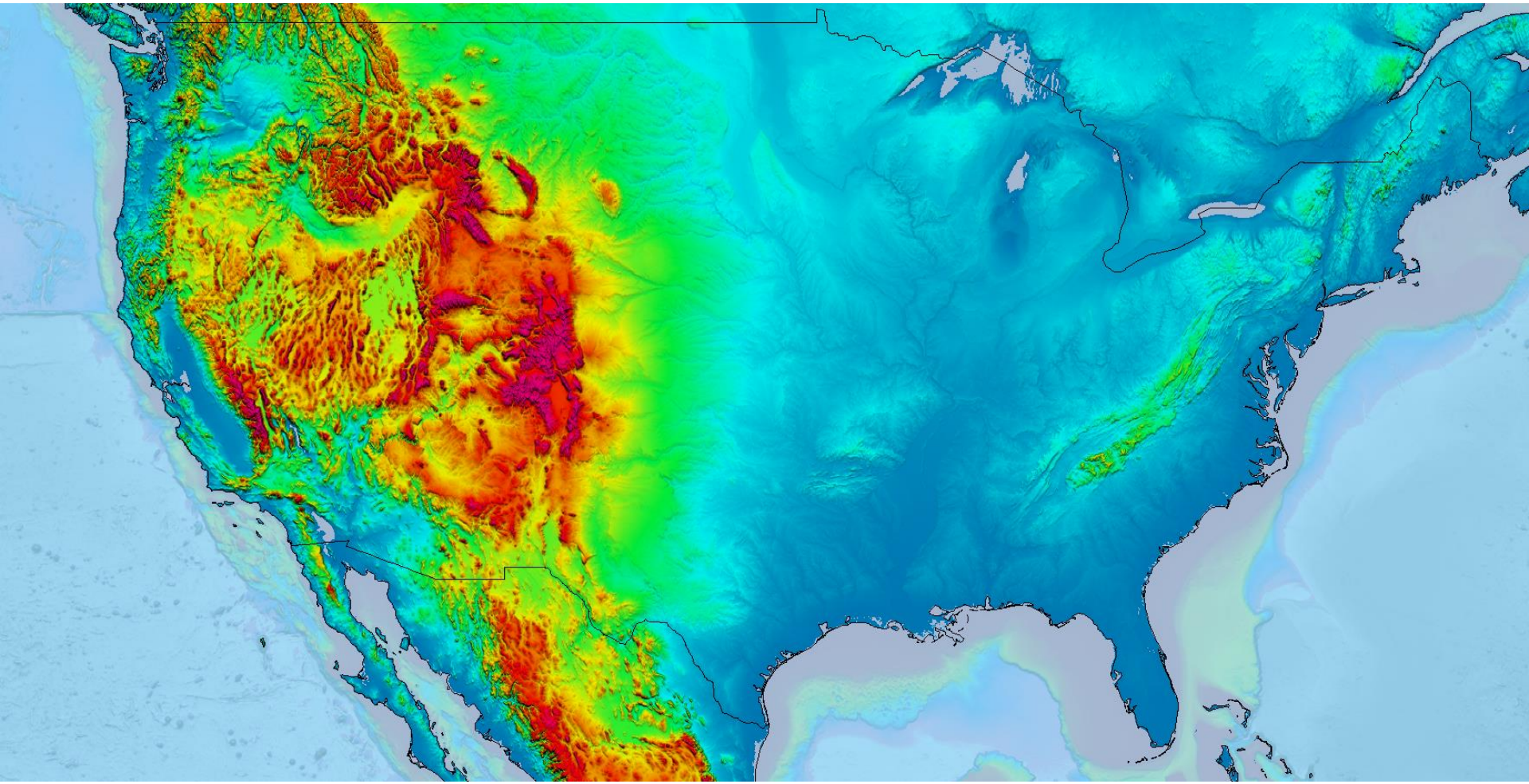
I HAD A DREAM, WINDY AND WET

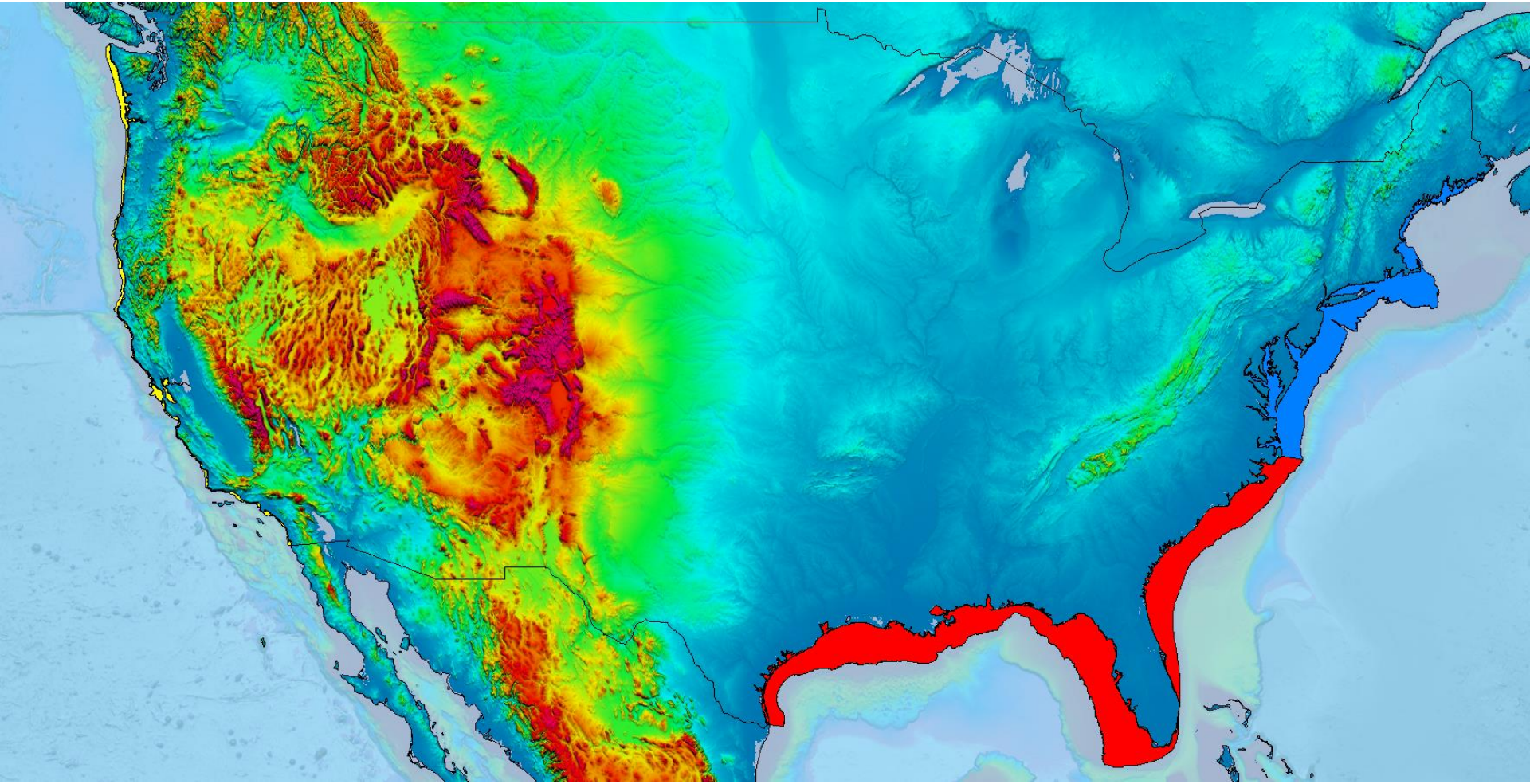
THE PRESIDENT HAS THE DREAM OF REPLACING ALL VEHICLES RUNNING ON FOSSIL FUELS BY ELECTRIC CONVEYANCES, AND TO DISCARD ALL FORMS OF FOSSIL FUEL ENERGY ALTOGETHER.



INSTALLED ELECTRIC GENERATION CAPACITY IN THE U.S. IS CURRENTLY ABOUT 1,150,000 MW, AND WILL NEED TO INCREASE TO AROUND 1,800,000 MW IF THE PRESIDENTIAL DREAM IS TO BE FULFILLED.

CONSIDERING THAT OFFSHORE WIND TURBINES ARE FAIRLY MORE EFFICIENT THAN THE ONSHORE VARIETY, IT IS PROPOSED HERE TO FOCUS ON THE FORMER AND TO DEMONSTRATE HOW EASILY THE TASK CAN BE ACCOMPLISHED.

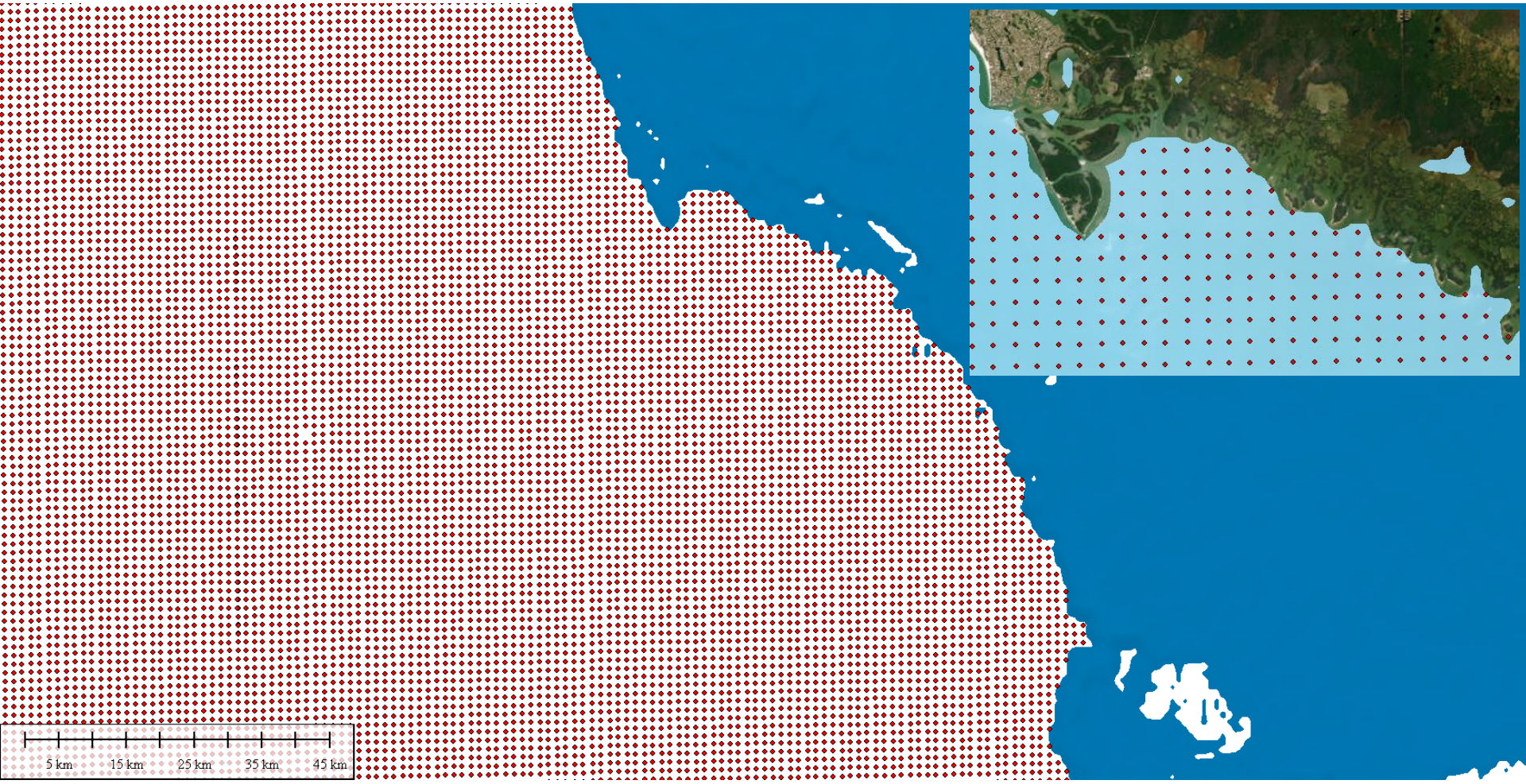
THE DEEPEST OFFSHORE WIND TURBINE TO DATE IS SITTING IN SOME 60 METERS OF WATER DEPTH. AREAS BELOW ARE DEFINED BY THE SHORELINE AND THE 60 METER DEPTH CONTOUR. THE RED SOUTHERN AREA IS IN THE ZONE OF MOST SEVERE CYCLONIC ACTIVITY. THE BLUE EASTERN AREA IS ALONG THE RELATIVELY MORE AMENABLE EASTERN SEABOARD. THE YELLOW AREA ON THE WEST COAST IS QUITE REDUCED, DUE TO DEEP AND STEEP SEA FLOORS.



WIND TURBINE PLACEMENT IS CONTINGENT ON THE FACT THAT TO AVOID AERODYNAMIC INTERFERENCE, AND THEREFORE LOSS OF POWER, THE SPACING BETWEEN THE KIND OF LARGE TURBINES USUALLY INSTALLED OFFSHORE SHOULD BE AT LEAST ONE KILOMETER (1 KM).

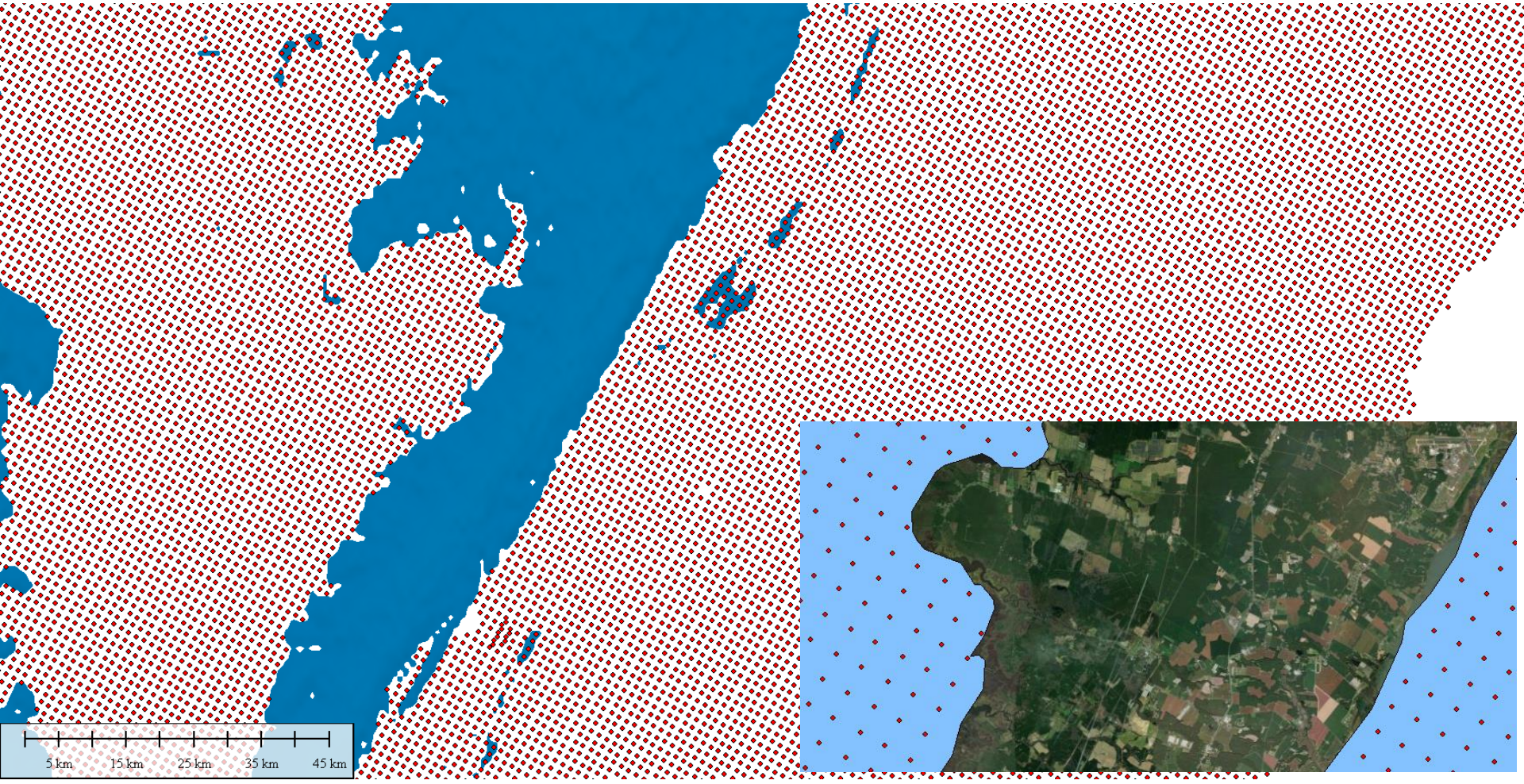
NOTE: SINCE WIND TURBINE POWER IS PROPORTIONAL TO THE SQUARE OF THE ROTOR DIAMETER AND THE LINEAR SPACING TO THE ROTOR DIAMETER, THE POWER DENSITY PER UNIT OF SURFACE AREA IS IRRESPECTIVE OF INDIVIDUAL TURBINE POWER.

IN THE AREA OF THE GULF OF MEXICO JUST WEST OF THE EVERGLADES NATIONAL PARK IN SOUTHWESTERN FLORIDA, BETWEEN CAPE ROMANO AND CAPE SABLE, EACH RED DOT REPRESENTS A LARGE WIND TURBINE AT A ONE KM PITCH.



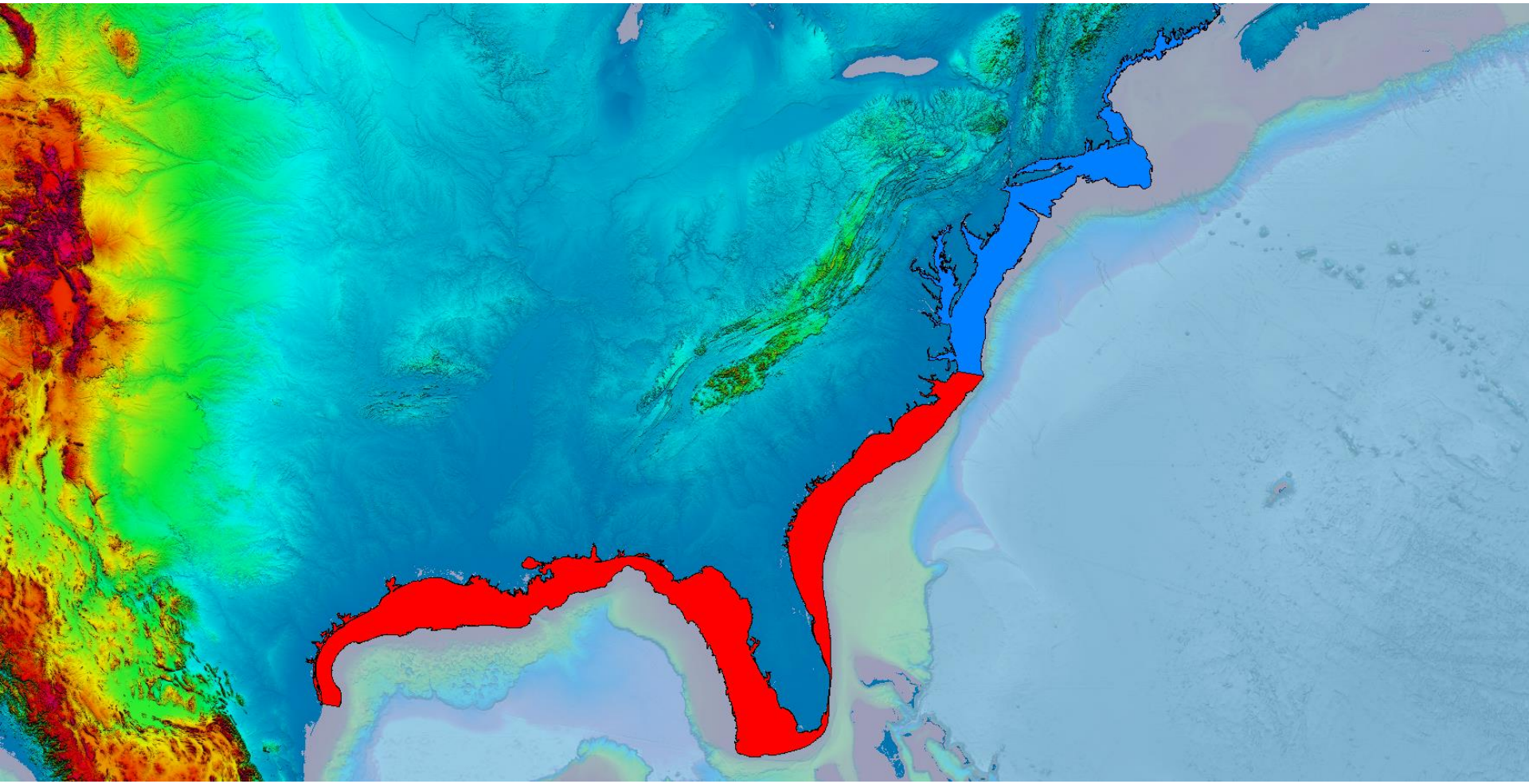
FOR DEMONSTRATIVE PURPOSES, THE WHOLE OCEAN FLOOR IS HERE UTILIZED FROM SHORE TO THE 60 METER DEPTH CONTOUR, REGARDLESS OF SAFETY CONCERNS, EASE OF NAVIGATION, AND VISUAL ENVIRONMENTAL CONSERVATION.

IN THE AREA JUST EAST OF CAPE CHARLES AND OF THE CHESAPEAKE BAY, EACH RED DOT REPRESENTS A LARGE WIND TURBINE AT A ONE KM PITCH.



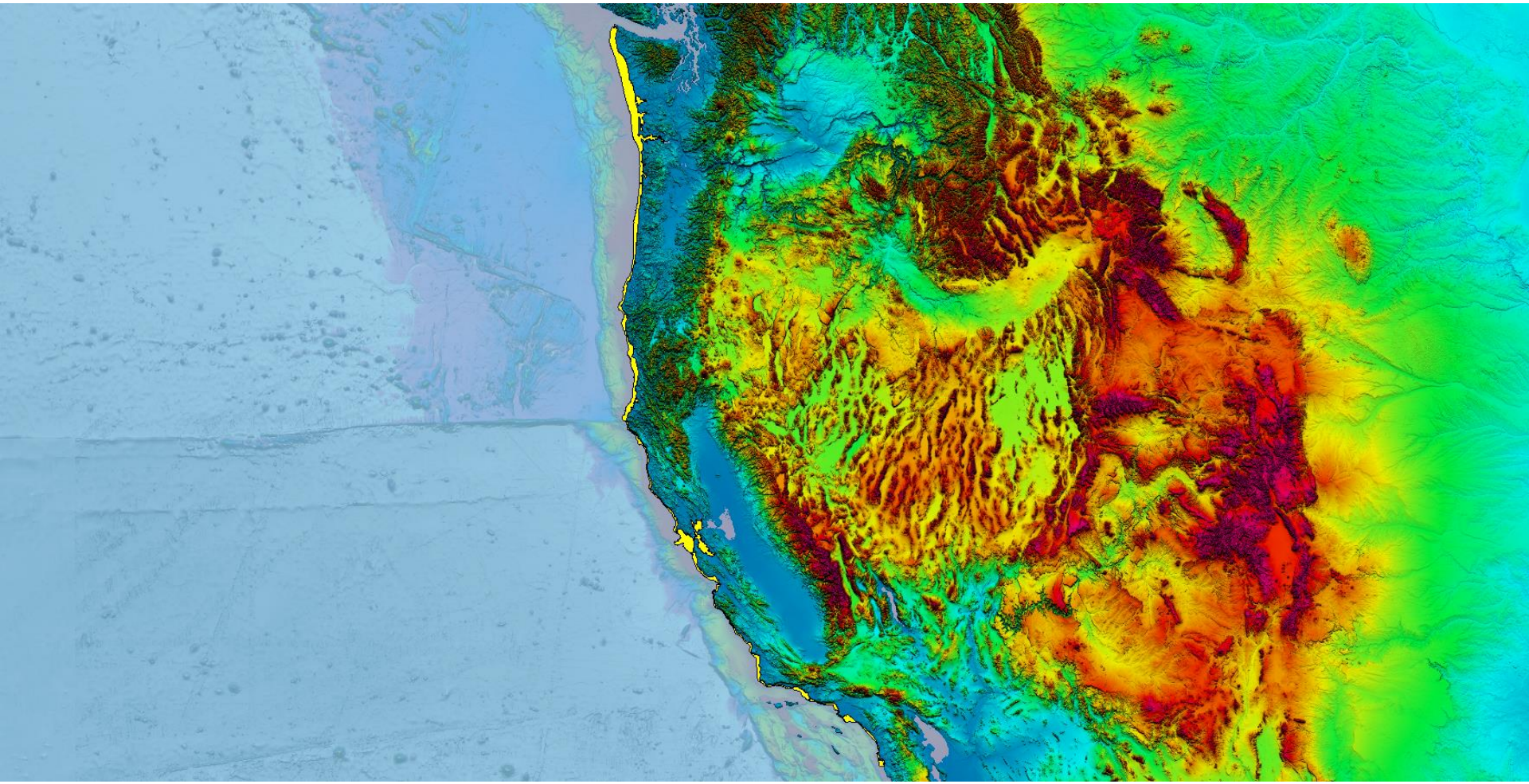
FOR DEMONSTRATIVE PURPOSES, THE WHOLE OCEAN FLOOR IS HERE UTILIZED FROM SHORE TO THE 60 METER DEPTH CONTOUR, REGARDLESS OF SAFETY CONCERNS, EASE OF NAVIGATION, AND VISUAL ENVIRONMENTAL CONSERVATION.

THE SURFACE AREA OF THE BLUE EASTERN AREA IS 116,500 SQ. KM.
ASSUMING LARGE WIND TURBINES AT A ONE KM PITCH AND IGNORING THE HINDRANCE TO MARINE TRAFFIC AND SAFETY CONCERNS, ELECTRICAL CAPACITY WOULD BE 370,000 MW, OR 20% OF THE TOTAL REQUIREMENT.



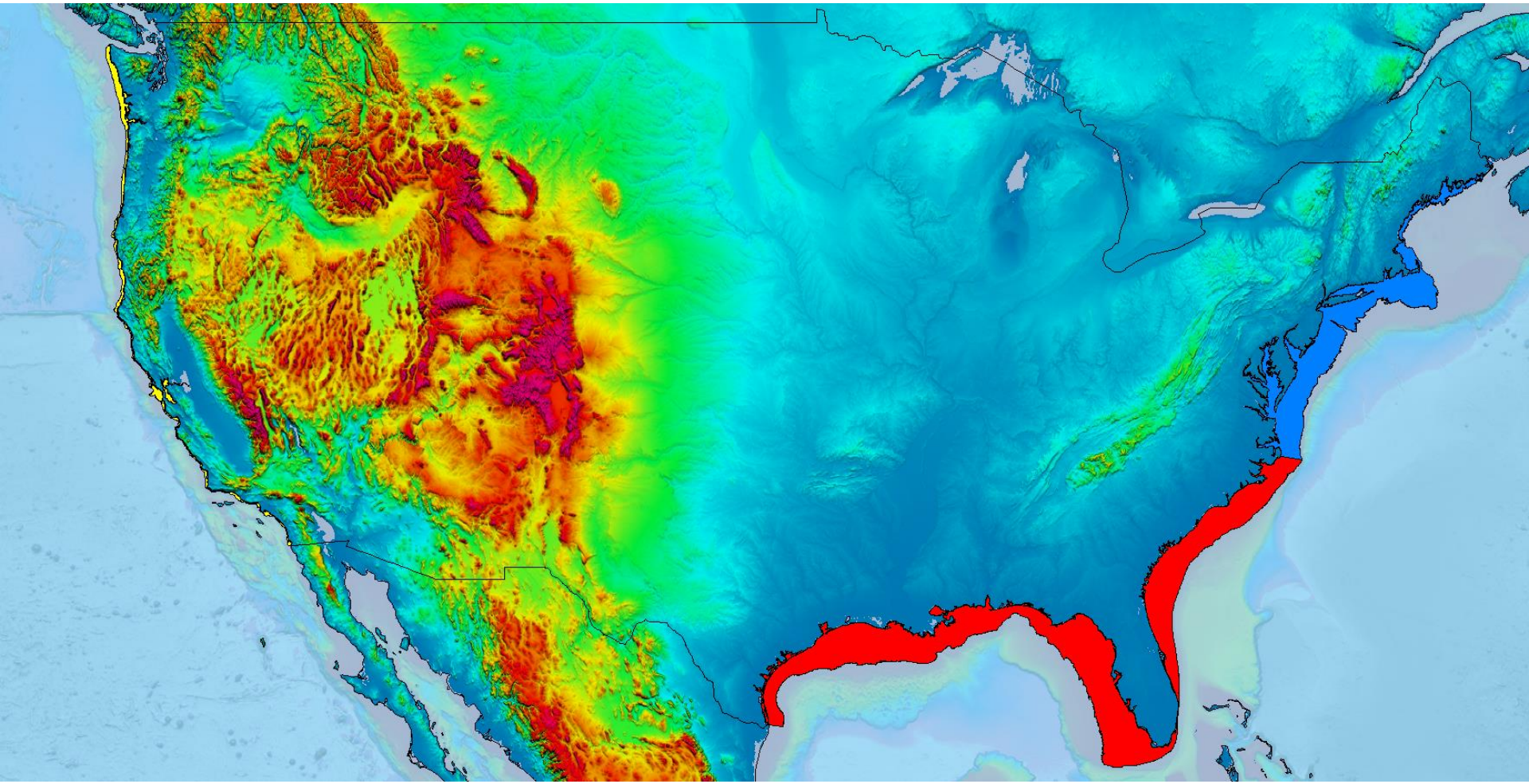
THE SURFACE AREA OF THE RED SOUTHERN AREA IS 367,500 SQ. KM. ASSUMING LARGE WIND TURBINES AT A ONE KM PITCH AND IGNORING THE HINDRANCE TO MARINE TRAFFIC, AS WELL AS SAFETY CONCERNS, THE SEVERE DISRUPTIONS DURING THE HURRICANE SEASON, AND THE LOSS AND REPLACEMENT OF DESTROYED WIND TURBINES, ELECTRICAL CAPACITY WOULD BE 1,200,000 MW, OR 65% OF THE REQUIREMENT.

THE SURFACE AREA OF THE YELLOW WESTERN AREA IS 18,800 SQ. KM. ONLY.
ASSUMING LARGE WIND TURBINES AT A ONE KM PITCH AND IGNORING THE HINDRANCE TO MARINE TRAFFIC AND SAFETY CONCERNS, ELECTRICAL CAPACITY WOULD BE 60,000 MW, OR 3% OF THE REQUIREMENT.



SEISMIC AND TECTONIC CONSIDERATIONS ARE HERE IGNORED.

THE TOTAL FOR THE THREE AREAS AMOUNTS TO 1,600,000 MW, OR ABOUT 15% SHORT OF THE REQUIREMENT. MOREOVER, CONSIDERING UNAVOIDABLE DOWNTIME DUE TO EXCEEDINGLY EXTENSIVE AND DIFFICULT MAINTENANCE , WEATHER DISRUPTIONS, AND SERIOUS WEATHER RELATED DAMAGES, IT IS UNLIKELY THAT THE FIGURE COULD EVER EXCEED HALF AS MUCH, OR 800,000 MW, OUT OF THE 1,800,000 MW REQUIRED.



AGAIN, FOR DEMONSTRATIVE PURPOSES THE ASSUMPTION IS THAT ALL AREAS BE PACKED AT THE ABSOLUTE MAXIMUM DENSITY, ONE WIND TURBINE EVERY ONE KM, REGARDLESS OF OTHER CONSIDERATIONS, FOR A TOTAL OF HALF A MILLION LARGE TURBINES.

CONSIDERATION WAS NOT GIVEN TO NAVIGATION, SAFETY, AND ENVIRONMENTAL CONCERNS.

THE COST FOR SUCH AN ENDEAVOR WOULD PROBABLY EXCEED 4 TRILLION DOLLARS, OR MORE THAN $30,000 PER HOUSEHOLD, ALTHOUGH ONLY HALF THE ENERGY NEED WOULD BE SATISFIED, AND PERHAPS ONLY ABOUT A QUARTER IF NAVIGATION RESERVATIONS WERE TO BE CARVED OUT.

THE DISBURSEMENT IS QUITE LIKELY TO BE BENEFICIAL TO THE BANK ACCOUNTS OF SOME SUPPLIERS OF WIND POWER AND THEIR FACILITATORS, AND TO RESULT IN A SHARP INCREASE OF THE PRICE OF REAL ESTATE IN THOSE SEASHORE PARADISES STILL OUT OF REACH OF THE UBIQUITOUS INVASIVE FORESTS OF THE HANDSOME GIANT WINDMILLS.

AFTER ALL, BILLIONAIRES TOO HAVE AN INALIENABLE RIGHT TO A PRISTINE ENVIRONMENT ON WHICH TO LAVISH THE HARD EARNED MONIES THEIR EXERTIONS WILL HAVE RETURNED THEM FOR BEAUTIFYING THE SEASCAPES OF OTHERS.