



Stony Brook University

Department of Civil Engineering
College of Engineering and Applied Sciences

SPRING 2021 ONLINE SEMINAR SERIES

Dr. Eric Hines, Ph.D., P.E.

Kentaro Tsutsumi Professor of Practice, Department of Civil & Environmental Engineering, Tufts University

Monday, May 3rd, 2:40 – 3:35 PM

Offshore Wind Power and our Pathway to 2050

Abstract

As the Biden-Harris administration prepares an infrastructure investment package that rivals anything since the New Deal era, our successful transition from fossil fuels to a net-zero economy feels within reach by 2050. At this historic moment, our challenge has turned from one of political will to one of sheer magnitude in infrastructure engineering. Never in our lifetimes has there been so much opportunity for civil engineers, nor has there been so much riding on our work. This seminar will focus on parts of the energy transition that will hit closest to home on the U.S. Atlantic Coast—namely offshore wind energy and the expansion of our electric grid. Within five years the size of offshore wind turbines increased by a factor of three and their cost decreased by factor of three. State commitments to purchase offshore wind power now exceed 30 gigawatts, and we can expect to see commercial scale offshore wind turbines that rival the Midtown Manhattan skyline in U.S. waters within the next two years. This seminar will provide an introduction to the U.S. offshore wind industry from an infrastructure point of view and discuss areas where our civil infrastructure will directly affect the outcome of our energy transition.



ZOOM LINK: Meeting ID: 950 6760 3617; Passcode: 426506
<https://stonybrook.zoom.us/j/95067603617?pwd=dXQybEprSkNITFY3WHIwYjViUG95UT09>

Speaker Bio

Eric Hines, Ph.D., P.E. directs the offshore wind energy graduate program at Tufts University, where he is the Kentaro Tsutsumi Professor of the Practice in structural engineering. Dr. Hines has over 20 years of experience engineering innovative infrastructure. Major offshore wind related projects include the Wind Technology Testing Center in Charlestown, MA, the New Bedford Marine Commerce Terminal, the Partnership for Offshore Wind Energy Research (POWER-US), and the physics-based digital twins for the Block Island Wind Farm. He works at the technology/policy interface to develop systems-level design concepts and has received numerous awards for his work in industry-driven research. He studied engineering and public policy as an undergraduate at Princeton University and as a Fulbright Fellow in Germany. He holds an M.S. in applied mechanics and a Ph.D. in structural engineering from the University of California, San Diego.