

August 29, 2023 | STAC Subcommittee Kickoff

Attendees: Mark Nardi (Subcommittee Chair, STAC Member, USGS MD-DE-DC Water Science Center), David Krantz (Oceanographer and Coastal Geologist, University of Toledo), Meghan Noe Fellows (Director of Science and Restoration, CIB), Doug Janiec (STAC Vice Chair/Restoration Ecologist, Sovereign Consulting), Natalie Motley (EPA), Lesley Baggett (Environmental Consultant, AKRF), Taylor Krolik (EPA R3 Standards and Coordination, Delaware State Representative)

Not in attendance: Kelly Somers (EPA Region 3), Bart Wilson (Geomorphologist, FWS),

Center Staff also in attendance:

Bob Collins

Bryanna Lisiewski

Anna Fagan

Gabby Fritz

Nivette Perez-Perez

Mark Carter

Michelle Schmidt

Reminder- Focus area is the Inland Bays Watershed, not offshore

Introductions

Chris Bason with Orsted, started in October 2022; introduce Orsted, the plans for Delaware;

Orsted 30 years experience with offshore wind in Vindeby, has since been decommissioned

Over 1500 turbines spinning

Manage Block Island

Science-based net zero greenhouse gas emissions in 2040

In US, also produce onshore energy, solar, battery, wind, confusion of electricity into fuels for shipping (P2X - methanol)

Work multiple places in US - Long Island, New Jersey, DE (Skipjack)

Onshore, center of country

Orsted has biodiversity ambition, net positive biodiversity impact starting 2030 - above and beyond mitigation impacts

Ensure all windfarms constructed with union labor, family supporting wages; training - also cover onshore work in Delaware; includes minority/diversity requirements

Skipjack project - lease area offered by BOEM after community engagement in 2012; project will occur in portion of lease, with leftover

Generate 966 megawatts - equivalent of 300,000 homes

Coming ashore in Delaware

Submit COP to BOEM by end of year

Benefits to Delaware: Economic & Climate

Supports:

Green the grid

Delaware's Climate Action Plan

NRG Coal Plant has been extended for 6 years - Skipjack is not tied to NRG going offline, but will create more than enough power

Orsted will upgrade grid - 150 million investment into infrastructure

1.3 billion in climate and health benefits by reducing CO₂ and SO₂, NO_x and PM_{2.5} reduced releases over life of project

Global reduction; but local air pollution reduction - low cost green electricity displacing fossil fuel sources

Each turbine generates own electricity - collected by array cables into offshore substations (2); step up power to export to shore; substation on shore collects - then steps down to feed grid
Substation on shore is within Inland Bays watershed

Multiple possible routes of onshore cables as well as movement to onshore substation.

Landfall options: Towers Road; 3 R's

Under inlet through directional drilling; use road/right of ways along route 26 from both onshore locations

Transition joint bays at onshore location - 'a big splicing box' - once work is done, all underground with manhole covers

Horizontal directional drilling from offshore into transition joint bay.

While on shore- concrete encased duct bank, cables split, encased conduit. Open up roadway, traffic disturbance, returned to pre-existing or better conditions. Work on roads is likely to be extensive.

432 million in added value to DE economy from construction

204 direct full time employment an additional for work

Upcoming work scheduled for September:

- Offshore survey - high resolution instruments, sound bathymetry september 9-october 5
- Visible vessel
- Onshore - geotechnical survey of cable route environment september 5- december
- Grass portion of state road right of way; permissions along route (private and towns) - cone penetrometer and bore holes
- Will minimize disturbance in sensitive environments

Discussion

Doug: 3 Rs - also a site for USWIND - how will that be shared? No current open procurement; to extent to coordinate, Orsted willing to work - dependent on DNREC Division of Parks. Benefits to minimize disturbance by coordinating - however, what is LOD with having two developers in the same area? Early on in process

Doug: Rte 1 Coastal Highway is subject to flooding. Would this be a barrier to flooding for the highway? Or can there be a dual role? Orsted is aware of climate concerns with the highway. Water in subsurface environment is a concern, but is technically feasible.

Clarification - can big block of concrete raise road/create a berm to prevent flooding? Would need to be a solution to work on with DelDot. It is theoretically possible. Timelines could line up. Orsted could support that work

Chris: Route shared is focus right now - but there are other options - e.g. landfall in Lewes; looked at Indian River Bay route (similar to US WInd route); all routes have several challenges

David: potential landfall at Lewes: where is closest established substation - cool springs/harbeson area. Orsted would need a piece of property to build a new substation
Mark: smaller ones along savannah road, but likely won't handle capacity

David: alternatives of onshore locations - David recommends 3Rs. Going under inlet is really difficult engineering; inlet has already excavated under bridge pilings; other onshore at 3Rs - seems like a reasonable place to cooperate

Chris agreed 3Rs has some pros (shorter route), minimizes impacts.

David: design timeframe?

Chris: 35 years

David: expecting substantial sea level rise in the next 35 year - inlet to Dewey Beach is really undatable; south of inlet somewhat bordered by headland

Chris: In september very much focused on understanding the geology of the area

Doug: will survey boat go through inlet?

Chris: no; near shore by landfalls and along ocean export cable routes; possible for more survey in inland bays; but already have some data from survey last year

Mark: FYI Chris- USGS Science Base - 2019-2022 flew structure for motion along Delaware coast

David: how long will it take to construct along route 26 - it is already a mess now - would the work occur outside season?

Chris: 1.5 to 2 years to complete, traffic impacts one of biggest concerns.
Route 1 less impact

Possible need to do detours; (26 and Ironbridge)

Business community outreach

Avoid environmental impacts by locating in built environment (but utility conflicts are likely)

No approvals as of yet - will likely require a change of legislation to have longitudinal route by private company

Mark: how long to get legislation changed

Chris: hope it would be one session

Other companies would be interested, some potential economic development

Mark; long term lease situation?

Chris; use and occupancy agreements with payments associated with them

Doug: any dummy lines for future expansion/rental to other companies? Or just enough for your project

Chris: do not know the answer to that; looking out for co-benefits such as reduce traffic deaths; trolley system or public transportation? To take traffic pressure off roadways

David: second it is dangerous for biking

Mark: if orsted pioneers land route - if tearing up road - why not do it for both and simplify the impact. Cables aren't that huge - where does the planning happen to push the co-located cable idea

David: adds . . . timing is critical to making this work; what are engineers at orstead thinking - why is onland approach better than going up through indian river

Chris: multi factor alternatives analysis; route 26 avoids impacts to sensitive environmental resources; locating where already developed; stakeholder environment/impacts; permitting - investigating now - could change the preferred route in the future

David: (rephrased) can you put extra capacity when whomever pushes the first route so that the second company can use the same route

Chris: is there potential to cooperate with US wind -

Mark: is that a governmental function to encourage that cooperation?

Chris: yes, all possibilities are on table at this point; depends on US Wind's draft EIS; state government, del dot, those conversations are accelerating, legislative tone; legislation products due by end of December - next legislative session will show how Delaware sees offshore wind

Mark: plenty of examples of quasi-governmental organizations that could manage the transmission planning in Delaware

Chris: don't want long-term planning to stand in way of current projects; but long-term planning should have lower costs and impacts; exciting for Delaware to be thinking of this

Doug: after the lease is up . . . what is next

Chris: don't know terms; COP requires decommissioning; BOEM should be open to extend a project if not at end of lifespan

Doug: clarify - turn it off? Remove it? Miles of cable stay in place?

Chris: . . .

David: Chris already said 95% of materials recycled from decommissioning in Europe

Chris: More clear on offshore side of things - required to remove above ground parts to sea surface if that is what BOEM thinks in best interest. Unsure about onshore components - will have to get back to us

Doug: think about legacy of the projects

David: can't imagine just walking away from 1 gigawatt of energy production

David: Can we have a copy of the presentation?

Chris: Will request - how much is proprietary . . . will get back to us.

David/Natalie: especially interested in decommissioning information

Meghan: have media outlets been notified about upcoming work

Chris: Orsted has reached out to media outlets about upcoming work; also mariners briefings.
Embargo lifts today.

Detailed procedures to avoid impacts during surveys.

Next Meeting September 12, 2023 2:00pm