

Harbor Safety Committee

of the San Francisco Bay Region

*Mandated by the California Oil Spill
Prevention and Response Act of 1990*

Harbor Safety Committee of the San Francisco Bay Region

Thursday, November 9, 2017

Port of San Francisco, Pier 1 Conference Center

The Embarcadero, San Francisco, CA

Capt. Lynn Korwatch (M), Marine Exchange of the San Francisco Bay Region (Marine Exchange), Chair of the Harbor Safety Committee (HSC); called the meeting to order at 10:03.

Marcus Freeling, Marine Exchange, confirmed the presence of a quorum of the HSC.

Committee members (M) and alternates (A) in attendance with a vote: **Jim Anderson** (M), CA Dungeness Crab Task Force; **John Berge** (M), Pacific Merchant Shipping Association, **Capt. Robert Carr** (M), San Francisco Bar Pilots; **Capt. Scott Cooper** (A), Chevron Shipping Company; **Scott Grindy** (A), San Francisco Small Craft Harbor; **Ben Huber** (M), Westar Marine Services; **Capt. Thomas Kirsch** (M), Blue and Gold Fleet; **Jeff Ferguson** (M), NOAA; **Aaron Golbus** (M), Port of San Francisco; **Andrew Marshall** (M), Port of Benicia; **MJR Kevin McCormick** (A), US Army Corps of Engineers; **Jim McGrath** (M), Bay Conservation and Development Commission; **Capt. Patrick Nelson** (A), United States Coast Guard; **Jeff Robbins** (M), General Steamship Corporation;

The meetings are always open to the public.

Approval of the Minutes-

A motion to accept the minutes of the September 14, 2017 meeting was made and seconded. The minutes were approved without dissent.

The October 12, 2017 meeting lacked a quorum and no official business was conducted.

Comments by Chair- Capt. Lynn Korwatch

Welcomed the committee members and audience.

Harbor Safety Committee

of the San Francisco Bay Region

*Mandated by the California Oil Spill
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Coast Guard Report- Capt. Patrick Nelson

- Advised that the 10 year anniversary of the Cosco Busan oil spill was on November 7th. Many policy changes and safety improvements have been implemented since the incident including the development of CMAs, addition of AIS ATONs and an increase in regional towing capacity.
- Advised that old Bay Bridge demolition is concluding with a final implosion scheduled for this Saturday. A safety zone will continue to be in effect.
- Advised that the USCG has released a report on the investigation into the sinking of US flag cargo ship El Faro. The report details 31 safety recommendations. The NTSB will be releasing their report on the incident as well.
- Advised that privately owned derelict towing vessel Black Kite has been sold at auction for one dollar.
- Advised of an active case in Half Moon Bay regarding a privately owned tug involved with the fishing industry which became entangled in moorings. The potential for pollution is a concern. Jim Anderson advised that he had heard that the vessel is not licensed for commercial fishing.
- LT Emily Olsen read from the November- 2017 Prevention/Response Report (attached).
- Capt. Korwatch asked about the potential for waterway pollution from rain runoff in areas burned by recent wildfires. Jim McGrath advised that regional Water Boards working with OES and Cal Fire have developed response actions to monitor and manage runoff.

Army Corps of Engineers Report- MJR Kevin McCormick

- Advised that Lt.Col. Rayfield is aboard the dredge Essayons in the Pinole Shoal Channel and could not attend today's meeting.
- Read from the US Army Corps of Engineers, San Francisco District Report (attached). Pinole Shoal dredging will be deferred in FY 2018 pending approval. Debris removal was down last month but well above average for the year.

Clearing House Report- Marcus Freeling (report attached)

OSPR Report- Mike Coyne

- Advised that the West Coast HSC Summit was held on October 25th-26th aboard the Queen Mary in Long Beach. The event was well attended and featured topics including maritime best

Harbor Safety Committee

of the San Francisco Bay Region

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practices, emerging technology such as autonomous piloting, west coast oil movements, SB 414 and offshore wind farms. Capt. Korwatch thanked OSPR for sponsoring the summit.

- Announced two new appointments to the SF HSC. Sejal Choksi-Chugh, San Francisco Baykeeper has been appointed member representing non-profit environmental organizations. Chris Hendry, Chevron Shipping Company, has been appointed member representing tanker ship operators. Terms expire on November 8, 2020.

NOAA Report- Jeff Ferguson

- Advised that the 2017 voluntary vessel speed reduction advisory put in place to reduce whale strikes ends on November 15th.
- Advised that charts have been updated to include recent surveys of the San Francisco waterfront.
- Advised that the NOAA Coast Survey website will be upgraded on November 14th. The address is: nauticalcharts.noaa.gov
- Advised that the NWS has issued a La Nina advisory for the winter. A weak La Nina is predicted.

State Lands Commission Report- (report attached)

California Offshore Wind Energy Planning Effort – Jean Thurston, BOEM

- Jean Thurston, Bureau of Ocean Energy Management, gave a presentation to the HSC on offshore wind energy in California (presentation slides attached). Offshore wind energy has been developed on the east coast and there is interest in California. The first lease request for the California coastline was made in 2016 and planning has begun with the formation of an inter-governmental task force. Permitting and leasing issues are being addressed in addition to stakeholder outreach and engagement. Offshore wind projects may affect shipping and will require a USCG Navigational Safety Risk Assessment review. Visit: <https://caoffshorewind.databasin.org> for more information. Comments are welcome.
- Offshore wind energy can help meet greenhouse gas reduction mandates and compliments solar energy which is limited to daylight hours. California has a steep continental shelf which presents a challenge and requires floating platforms. Offshore development is restricted in marine sanctuaries making much of the central coast unavailable. The northern California coast has fewer grid connections and lower energy demand making offshore wind development less

Harbor Safety Committee

of the San Francisco Bay Region

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economically feasible. Wind speed in much of southern California is too slow for offshore development. The Morro Bay region has potential.

- Capt. Korwatch asked about bird strikes. Jean Thurston advised that mitigation measures are being considered. Capt. Korwatch asked about the timeline for offshore development. Jean Thurston advised that development wouldn't begin until 2020 at the earliest.

Work Group Reports-

Tug Work Group- Nothing to report.

Navigation Work Group- Capt. Bob Carr advised that a multi-agency meeting was held on November 7th regarding the permitting process for submerged cables and pipelines. Recommendations are being developed. The formation of a Cable Committee was proposed.

Ferry Operations Work Group- Nothing to report.

Dredge Issues Work Group- Nothing to report.

PORTS Work Group- Nothing to report.

Prevention through People Work Group- Scott Grindy advised that marina closures in the South Bay have led to increased numbers of vessels anchoring near Oyster Point which is a safety concern.

PORTS Report- Marcus Freeling

- Advised that the UP Railroad Bridge weather station is still offline due to bridge electrical issues.
- Advised of data transmission problems affecting the Oakland Berth 67 and San Francisco Pier 1 weather stations. These issues are being addressed and a satellite antenna will be installed at Pier 1.
- Advised that a team from NOAA is currently performing the annual service of SF PORTS tide stations.

Public Comment- None

Old Business- None

Harbor Safety Committee

of the San Francisco Bay Region

*Mandated by the California Oil Spill
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New Business-

- Jim Anderson advised that the crab season is scheduled to open on November 14th. Domoic acid is not a problem this year.
- John Berge advised that the USCG is considering awarding 5.1 million dollars for agreements in support of the National Recreational Boating Safety Program.
- John Berge reported on proposed new shore power regulations for California. Cold ironing CARB regulations are being expanded requiring electrification of all ports and vessel types. To meet reduced emission requirements, barge-based scrubbing systems are being considered. Barge-based systems require space alongside the ship which can be limited and pose safety concerns. The California Air Resources Board would like to give a presentation to the HSC regarding this issue. John Berge will facilitate.
- Capt. Korwatch recognized veterans for their service in honor of Veterans Day.
- Capt. Korwatch announced that Capt. Pete Bonebakker has recently passed away. A memorial service will be held on November 18th.
- Capt. Korwatch announced that the Bar Pilots annual party is on December 14th and includes a toy drive.
- Capt. Korwatch announced that the December HSC meeting has been canceled.

Next Meeting-

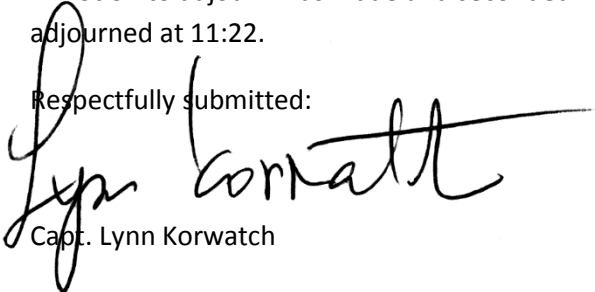
1000-1200, January 11, 2018

California Maritime Academy, Richmond Maritime Safety & Security Center
756 West Gertrude Street, Richmond, CA

Adjournment-

A motion to adjourn was made and seconded. The motion passed without dissent and the meeting adjourned at 11:22.

Respectfully submitted:



Capt. Lynn Korwatch

Harbor Safety Committee of the SF Bay Region

November 9, 2017

Page 5

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS			
October 2017			
PORT SAFETY CATEGORIES*	Oct-2017	Oct-2016	**3yr Avg
Total Number of Port State Control Detentions:	0	0	0.78
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)			
Total Number of COTP Orders:	4	0	3.28
Navigation Safety (4), Port Safety & Security (0), ANOA (0)			
Marine Casualties (reportable CG 2692) within SF Bay:	13	15	9.28
Allision (1), Collision (0), Fire (0), Capsize (0), Grounding (0), Sinking (0)			
Steering (0), Propulsion (4), Personnel (6), Other (2), Power (0)			
Total Number of (routine) Navigation Safety issues/Letters of Deviation:	1	2	3.44
Radar (0), Gyro (0), Steering (0), Echo Sounder (0), AIS (0)			
ARPA (0), Speed Log (1), R.C. (0), Other (0)			
Reported or Verified "Rule 9" or other Navigational Rule Violations:	1	0	0.36
Significant Waterway events/Navigation related Cases:	0	0	0.36
Total Port Safety (PS) Cases opened	19	17	17.50
MARINE POLLUTION RESPONSE			
Pollution Discharge Sources (Vessels)	Oct-2017	Oct-2016	**3yr Avg
U.S. Commercial Vessels	0	1	0.78
Foreign Freight Vessels	0	0	0.08
Public Vessels	0	1	0.56
Commercial Fishing Vessels	0	1	0.36
Recreational Vessels	6	1	3.14
Pollution Discharge Sources (Facilities)			
Regulated Waterfront Facilities	0	0	0.28
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.00
Other Land Sources	1	0	0.78
Mystery Spills - Unknown Sources	4	3	4.39
Number of Pollution Incidents within San Francisco Bay			
Spills < 10 gallons	4	3	4.25
Spills 10 - 100 gallons	2	1	1.14
Spills 100 - 1000 gallons	0	0	0.14
Spills > 1000 gallons	0	0	0.00
Spills - Unknown Size	4	3	4.92
Total Pollution Incidents	10	7	10.44
Oil Discharge/Hazardous Materials Release Volumes by Spill Size			
Estimated spill amount from U.S. Commercial Vessels	0.00	0.50	14.44
Estimated spill amount from Foreign Freight Vessels	0.00	0.00	8.42
Estimated spill amount from Public Vessels	0.00	1.00	1.77
Estimated spill amount from Commercial Fishing Vessels	0.00	10.00	1.18
Estimated spill amount from Recreational Vessels	6.00	50.00	39.11
Estimated spill amount from Regulated Waterfront Facilities	0.00	0.00	3.03
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.00
Estimated spill amount from Other Land Sources	1.00	0.00	1.95
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	unk	0.00
Total Oil Discharge and/or Hazardous Materials Release (Gallons)	7.00	61.50	69.89
Penalty Actions			
Civil Penalty Cases	0	0	0.00
Notice of Violations	0	0	0.61
Letters of Warning	0	3	2.92
Total Penalty Actions	0	3	3.53
* NOTE: Values represent all cases within the HSC jurisdiction during the period. Significant cases are detailed in the narrative.			
** NOTE: Values represent an average month over a 36 month period for the specified category of information.			

SIGNIFICANT PORT SAFETY AND SECURITY CASES (OCT 2017)	
MARINE CASUALTIES	
Loss of propulsion (06OCT17): A foreign flag container vessel experienced a loss of propulsion while getting underway from Oakland. A COTP order was issued directing the vessel to remain at the berth in Oakland until repairs were made and confirmed by Class and the Coast Guard. Requirements of COTP order were satisfied. LOP was not attributed to fuel switching. Case closed.	
Partial Loss of propulsion (17OCT17): A U.S. flag passenger vessel experienced a partial loss of propulsion while transiting near Vallejo and was redirected to berth for repairs. An CG-835 No-Sail was issued directing the vessel to not carry passengers until repairs were completed and confirmed by the Coast Guard. Requirements of the No-sail were satisfied. LOP	
Partial Loss of propulsion (26OCT17): A foreign flag chemical tanker experienced a loss of propulsion while getting underway from Rodeo. A COTP order was issued directing the vessel to remain at the berth until repairs were made and confirmed by Class and the Coast Guard. Requirements of COTP order were satisfied. LOP was not attributed to fuel switching. Case closed.	
Allision (30OCT17): A U.S. flag passenger vessel allided with the Alameda NAS Channel entrance lighted Buoy 2 while transiting outbound. No damage to the vessel was identified as confirmed by the Coast Guard; no requirements were issued. Coast Guard Aids to Navigation Team verified the aid was on station but damaged. Case pends.	
VESSEL SAFETY CONDITIONS	
Rule 9 Violation (01OCT17): A foreign bulk vessel took action to avoid collision with a recreational sailing vessel by coming to an all stop while transiting in the Oakland shipping channel. The pilot submitted appropriate forms to the Coast Guard. Case pends.	
GENERAL SAFETY CASES	
NAVIGATIONAL SAFETY	
Letter of Deviation (LOD), Inop Speed Log (23OCT17): Vsl issued an inbound and outbound LOD.	
SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES	
Coast Guard Incident Management Division responded to calls for 38 cases during October, includindg receiving multiple reports of sheens that were ash runoff from the wildfires.	
02OCT17(LOW): Coast Guard federalized a pollution response case in Richardsons Bay following the sinking of a 55 ft vessel, dischargeing an estimated 5 gallons of diesel with a potential of 170 gallons. Vessel was floated, fuel removed and brought to U.S. Army Corps facility. Case pends.	
06OCT17: U.S. Naval Vessel discharged 100 gal diesel into SF Bay during Fleet Week prior to the parade of ships. Case closed.	
10OCT17: Fueling terminal discharged 100 gal of diesel during refueling when one of the hoses burst. Case closed.	

**Harbor Safety Committee
Of the San Francisco Bay Region**

**Report of the
U.S. Army Corps of Engineers, San Francisco District
November 9, 2017**

1. CORPS O&M DREDGING PROGRAM

The following report covers the upcoming **FY 2018** dredging program for San Francisco Bay. This program is subject to change based on a number of variables including final **FY 2018** appropriations and Corps Work Plan. Please refer to the Local Notice to Mariner for details of dredge operations.

FY 2017 DREDGING

- a. **SF Main Ship Channel** – Estimated start mid-May 2018, estimated completion early June 2018, by government hopper.
- b. **Richmond Inner Harbor** – FY 17 awarded material going to upland placement at Cullinan Ranch. Larger than expected volumes are requiring additional dredging with quantity increase being worked with resource agencies. FY 18 dredging cycle estimated to commence mid-June 2018 with completion mid-September. Work will be contracted clamshell.
- c. **Richmond Outer Harbor (and Richmond Long Wharf)** –In alignment with last years proposal to alternate Hopper dredging, planned dredging for Oakland will proceed with Essayons Pending HQ concurrence
- d. **Oakland Harbor** – 2017 dredge cycle initiated in mid-August 2017. Significantly larger than expected volumes are requiring additional dredging. Initial estimates indicate approximately 1000kcy resulting in likely need to continue dredging through February 2018 to complete the 2017 dredge cycle. 2018 dredge cycle has a planned start of 1 August with planned completion by 30 November.
- e. **Redwood City Harbor** – 2017 dredge cycle has been completed with planned Clamshell start of 2018 cycle in late June with estimated completion in mid-September. Actual award and quantities/depths will be informed by 2018 workplan.
- f. **San Pablo Bay (Pinole Shoal)** – Due to heavier than normal shoaling a 2nd mobilization of the Essayons was planned for, has begun and is estimated to complete in mid-November. Environmental coordination with resource agencies for additional volumes has been completed. In alignment with last years proposal to alternative Hopper dredging Pinole will be deferred in 2018 pending HQ concurrence.
- g. **Suisun Bay Channel (and New York Slough)** – Clamshell contract awarded in August, started in September and estimated to complete in mid-November 2017. 2018 Clamshell award is expected to initiate dredging in early Aug and to complete in mid October.

2. DEBRIS REMOVAL – Debris removal for October 2017 was 25.5 tons. Dillard: 13.5 tons, including 2 abandoned vessels; Raccoon: 5 tons; other boats: 7 tons, including 5 abandoned vessels. Average for October from 2007 to 2016 is 37.8 tons (Range: 8.5-59 tons).

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2017	TONS	TONS	TONS	TONS
JAN	30	212	170	417
FEB	75	88	35	198
MAR	65	35	12	112
APR	14	104.5	23	142.5
MAY	16	84.5	12	112.5
JUN	0	25.5	12	37.5
JUL	0	15	7	22
AUG	0	24.5	17	41.5
SEP	0	61.5	9	70.5
OCT	5	13.5	7	25.5
NOV	0	0	0	0
DEC	0	0	0	0

YR TOTAL
1,179

3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

None to report.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

Stockton DWSC: A joint Task Order was awarded 25 May to the contractor, Ross Island Sand & Gravel, Inc. (RI). RI was issued Notice to Proceed on 2 Jun and dredging has commenced. A follow on task order aimed at meeting annual maintenance cycle requirements is being prepared for expected dredging in September.

Sacramento River DWSC: A joint Task Order was awarded 25 May to RI. Once the dredging operations on the Stockton channel are complete, the contractor will mobilize to the Sacramento channel and commence dredging. The regular maintenance dredging will most likely be deferred until FY18. The team anticipates the emergency dredging activities for the Sacramento DWSC to commence in July; directly after the completion of the Stockton DWSC emergency dredging episode.

5. OTHER WORK

San Francisco Bay to Stockton – The study is now being conducted by the Wilmington District to more efficiently match the study with available resources. Funding was allocated in the work plan and the Wilmington District is revising the Scope and Schedule to match work plan funds and available NFS funds. The Tentatively Selected Plan (TSP) milestone for Phase I (Western Reach) of the project was held on 29 June 2016 utilizing FY14 carryover funds. The recommended plan is to deepen the Phase I reach of the project from a depth of -35 feet to -38 feet MLLW. The final report is scheduled to be approved in February 2019.

HYDROGRAPHIC SURVEY UPDATE

Address of Corps' web site for completed hydrographic surveys:

<http://www.spn.usace.army.mil/Missions/Surveys,StudiesStrategy/HydroSurvey.aspx>

The following surveys are posted:

Alameda Point Navigation Channel: Condition survey of November 2, 2016.

Berkeley Marina (Entrance Channel): Condition survey of September 23, 2014.

Islais Creek Channel: Condition survey of May 12, 2016.

Larkspur Ferry Channel: Condition survey of November 18, 2014.

Main Ship Channel: Condition survey of March 9 & 20, 2017.

Mare Island Strait: Condition survey of September 24, 2014.

Marinship Channel (Richardson Bay): Condition survey of December 6, 2016.

Napa River: Condition survey of May 4-9, 2017.

Northship Channel: Condition survey of October 27, 2017.

Oakland Entrance Channel: Condition survey of May 16-22, 2017.

Oakland Inner Harbor (Reach 2): Condition survey of May 16-22, 2017.

Oakland Inner Harbor (Reach 3-6): Condition survey of May 16-22, 2017.

Oakland Outer Harbor (Reach 7-8): Condition survey of May 16-22, 2017.

Oakland Outer Harbor (Reach 9-10): Condition survey of May 16-22, 2017.

Petaluma River (Across-the-Flats): Condition survey of September 12-14, 2014.

Petaluma River (Main Channel): Condition survey of September 13-14, 2014.

Pinole Shoal Channel: Pre-dredge survey of October 8-10, 2017.

Redwood City Harbor: Post-dredge survey of September 25 & 27, 2017.

Richmond Inner Harbor: Pre-dredge survey of June 8-9, 2017.

Richmond Inner Harbor (Santa Fe Channel): Condition survey of December 20, 2016.

Richmond Outer Harbor (Longwharf): Condition survey of April 4, 2017.

Richmond Outer Harbor (Southampton Shoal): Condition survey of April 10, 2017.

Sacramento River Deep Water Ship Channel: Post-dredge surveys of August 5, 2017, August 14, 2017, August 23, 2017, September 5 & 27, 2017.

San Bruno Shoal: Condition survey of March 27, 2017.

San Leandro Marina (and Channel): Condition survey of March 30 and April 1, 2015.

San Rafael (Across-the-Flats): Condition survey of October 30-31, 2017.

San Rafael (Creek): Condition survey of October 30, 2017.

Stockton Ship Channel: Condition survey of July 24-29, 2017.

Suisun Bay Channel: Post-dredge survey of October 10 & 20, 2017.

Suisun Bay Channel (Bullshead Reach): Condition survey of April 19, 2017.

Suisun Bay Channel (New York Slough): Pre-dredge survey of July 13-14, 2017.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of May 11, 2017.

SF-09 (Carquinez): Condition survey of October 25, 2017.

SF-10 (San Pablo Bay): Condition survey of October 25, 2017.

SF-11 (Alcatraz Island): Condition survey of October 26, 2017.

SF-16 (Suisun Bay Disposal Site): Condition survey of September 1, 2016.

SF-17 (Ocean Beach Disposal Site): Condition survey of May 11, 2017.

Requested Surveys:

After (post) dredge surveys are scheduled to occur thru the end of November, or until dredging is completed, for all of San Francisco District's in-bay projects planned to be dredged in the first quarter of FY18.

NEW WEB ADDRESS – USACE WORK PLAN:

<http://www.usace.army.mil/Missions/Civil-Works/Budget/>

O&M DREDGING PLAN FOR FY18*

9-Nov-17

Project	District	OCT NOV DEC			JAN FEB MAR APR MAY JUN JUL AUG SEP									OCT NOV DEC			Volume	Placement Site	Notes
		FY 2017			FY 2018									FY 2019					
SF Main Ship Channel	SPN/MWP							Essayons									Debris Dredging	OBDS/ SF-8	Estimated performance period May 15 - May 30
Richmond Inner Harbor	SPN	Upland placement															350kcy	DODS/upland least cost	Clam Shell: Estimated performance period Jun 20 1- Sep 20
Richmond Outer Harbor	SPN/MWP							Essayons									250kcy	SF-11	In alignment with last years proposal to alternate Hopper Dredging, Richmond will utilize the Essayons pending HQ concurrence
Oakland Harbor	SPN					**											700kcy	DODS/upland least cost	Clamshell: Estimated performance period Aug 1- Nov 30
Redwood City Harbor	SPN																250kcy	SF-11	performance period Jul 1- Sep 15
Pinole Shoal	SPN/MWP	ESSAYONS																SF-10	In alignment with last years proposal to alternate Hopper Dredging, Pinole will be deferred pending HQ concurrence
Suisun Bay Channel	SPN																175kcy	SF-16	Clamshell: Estimated performance period Sep 21 - Nov 30
Sacramento River (30 Ft)	SPN																100kcy	Various Upland	Pipeline: Estimated performance period 22 July - Nov 30
San Joaquin, Port of Stockton	SPN					**											250kcy	Various Upland	
<div><div></div>Ongoing Contracts<div></div>New SPN Contract<div></div>West Coast Hopper Contract<div></div>Government Dredge<div></div>Environmental Window<div></div>Bid Opening<div></div>Contract Award</div>																			

* Program execution is based on the FY17 President's Budget, Workplan and Federal Standard plan for each project.

** Window Extension.

Date of Update:

11/6/2017

U.S. Army
Corps of Engineers



BUILDING STRONG®



Harbor Safety Committee of the
San Francisco Bay Region Clearing House
c/o Marine Exchange of the San Francisco Bay Region
505 Beach Street, Suite 300
San Francisco, California 94133-1131
415-441-6600 fax 415-441-3080 hsc@sfmex.org

San Francisco Clearinghouse Report

November 9, 2017

- ✎ In October the clearinghouse did not need to contact OSPR regarding any possible escort violations.
- ✎ In October the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- ✎ The Clearinghouse contacted OSPR 1 time in 2016 about a possible escort violations. The Clearinghouse contacted OSPR 3 time in 2015 about possible escort violations. The Clearinghouse contacted OSPR 5 times regarding possible escort violations in 2014. The Clearinghouse contacted OSPR 1 time in 2013. The Clearinghouse contacted OSPR 3 times in 2012 regarding any possible escort violations, 3 times in 2011, 6 times in 2010, 8 time 2009; 4 times 2008; 9 times in 2007; 9 times in 2006; 16 times in 2005; 24 times in 2004; twice in 2003; twice in 2002; 6 times in 2001; 5 times in 2000.
- ✎ In October there were 106 tank vessel arrivals; 15 ATB's, 6 Chemical Tankers, 19 Chemical/Oil Tankers, 32 Crude Oil Tankers, 1 LPG, 18 Product Tankers, and 15 Tugs with Barges.
- ✎ In October there were 308 total arrivals.

San Francisco Bay Clearinghouse Report For October 2017

San Francisco Bay Region Totals

	<u>2017</u>		<u>2016</u>	
Tanker arrivals to San Francisco Bay	76		61	
ATB arrivals	15		13	
Barge arrivals to San Francisco Bay	15		24	
Total Tanker and Barge Arrivals	106		98	
Tank ship movements & escorted barge movements	349		339	
Tank ship movements	200	57.31%	201	59.29%
Escorted tank ship movements	155	44.41%	133	39.23%
Unescorted tank ship movements	45	12.89%	68	20.06%
Tank barge movements	149	42.69%	138	40.71%
Escorted tank barge movements	25	7.16%	52	15.34%
Unescorted tank barge movements	124	35.53%	86	25.37%

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

Escorts reported to OSPR 0 0

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	212		340		0		154		706	
Unescorted movements	97	45.75%	167	49.12%	0	0.00%	68	44.16%	332	47.03%
Tank ships	77	36.32%	122	35.88%	0	0.00%	56	36.36%	255	36.12%
Tank barges	20	9.43%	45	13.24%	0	0.00%	12	7.79%	77	10.91%
Escorted movements	115	54.25%	173	50.88%	0	0.00%	86	55.84%	374	52.97%
Tank ships	105	49.53%	148	43.53%	0	0.00%	76	49.35%	329	46.60%
Tank barges	10	4.72%	25	7.35%	0	0.00%	10	6.49%	45	6.37%

Notes:

1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.

San Francisco Bay Clearinghouse Report For 2017

San Francisco Bay Region Totals

	<u>2017</u>		<u>2016</u>	
Tanker arrivals to San Francisco Bay	648		703	
ATB arrivals	121		114	
Barge arrivals to San Francisco Bay	118		242	
Total Tanker and Barge Arrivals	766		1,059	
Tank ship movements & escorted barge movements	3,252		3,616	
Tank ship movements	1,908	58.67%	2,081	57.55%
Escorted tank ship movements	1,489	45.79%	1,331	36.81%
Unescorted tank ship movements	419	12.88%	686	18.97%
Tank barge movements	1,344	41.33%	1,535	42.45%
Escorted tank barge movements	201	6.18%	554	15.32%
Unescorted tank barge movements	1,143	35.15%	1,129	31.22%

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

Escorts reported to OSPR 0 1

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	1,986		3,172		0		1,396		6,554	
Unescorted movements	855	43.05%	1,518	47.86%	0	0.00%	628	44.99%	3,001	45.79%
Tank ships	659	33.18%	1,110	34.99%	0	0.00%	543	38.90%	2,312	35.28%
Tank barges	196	9.87%	408	12.86%	0	0.00%	85	6.09%	689	10.51%
Escorted movements	1,131	56.95%	1,654	52.14%	0	0.00%	768	55.01%	3,553	54.21%
Tank ships	1,057	53.22%	1,458	45.96%	0	0.00%	689	49.36%	3,204	48.89%
Tank barges	74	3.73%	196	6.18%	0	0.00%	79	5.66%	349	5.32%

Notes:

1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.



CALIFORNIA STATE LANDS COMMISSION

HARBOR SAFETY COMMITTEE MONTHLY REPORT - OCTOBER COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessels Monitored	Total Transfers Percentage
OCTOBER 1 - 31, 2016	205	82	40.00
OCTOBER 1 - 31, 2017	241	83	34.44

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
OCTOBER 1 - 31, 2016	9,144,000	0	17,104,000	6,221,608	23,325,608
OCTOBER 1 - 31, 2017	17,661,500	0	22,155,300	8,673,967	30,829,267

OIL SPILL TOTAL

	<u>TERMINAL</u>	<u>VESSEL</u>	<u>Total</u>	<u>Gallons Spilled</u> <u>DIESEL - I GALLON</u>
OCTOBER 1 - 31, 2016	0	1	1	
OCTOBER 1 - 31, 2017	0	0	0	0

Disclaimer:

Please understand that the data is provided to the California State Lands Commission from a variety of sources; the Commission cannot guarantee the validity of the data provided to it.



California Offshore Wind Energy Planning Process

Harbor Safety Committee of the San Francisco Bay Region

San Francisco, California

November 9, 2017

BOEM – Agency and Mission

Bureau within the Department of the Interior (DOI)

- Oversees development of nation's energy and mineral resources on the Outer Continental Shelf (OCS)

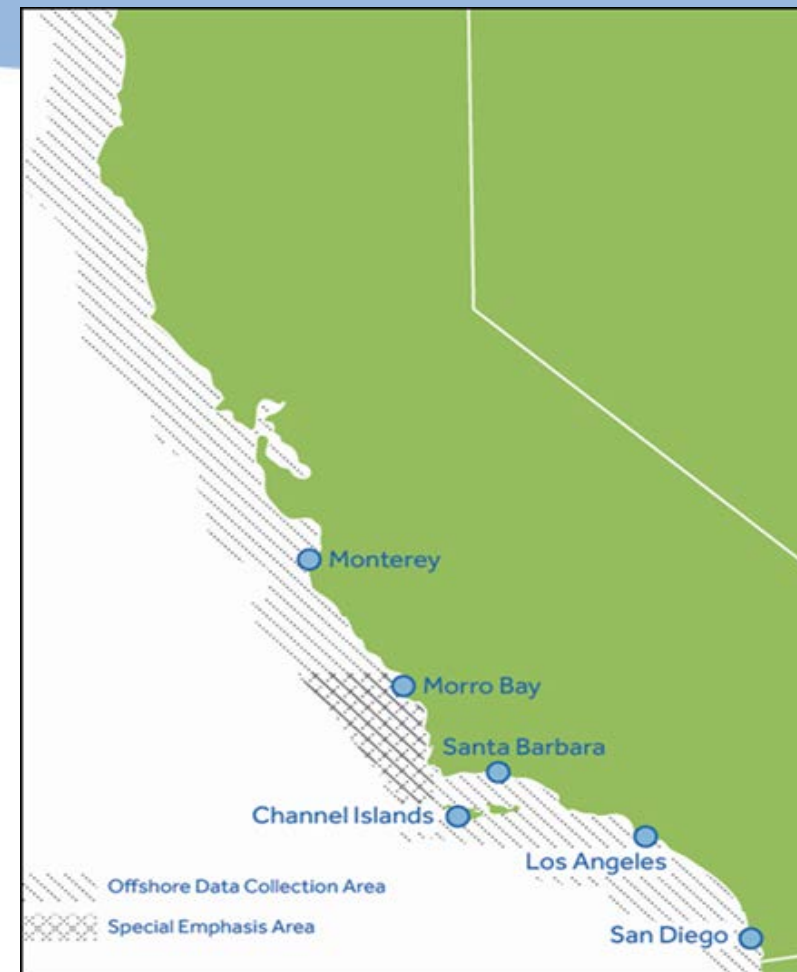
OCS Lands Act of 1953 as amended, including amendments per Energy Policy Act of 2005

- Renewable energy (leases, easements, ROWs)
- Marine minerals (e.g., sand and gravel)
- Conventional energy (e.g., oil and gas)



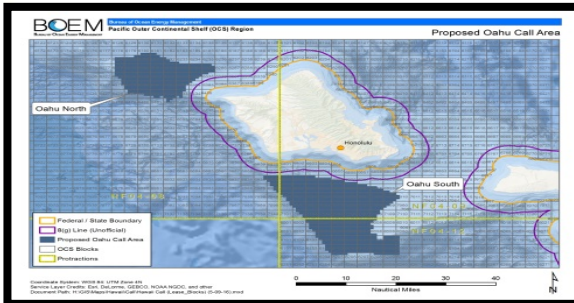
BOEM California Intergovernmental Renewable Energy Task Force

- Established in May, 2016 by Governor Brown
- First Task Force meeting held Oct. 13, 2016
- Membership consists of state and federal agencies, local, and tribal governments
- Serves as a forum to discuss stakeholder issues, exchange data and information
- Currently pursuing data collection efforts with special emphasis on California Central Coast



Renewable Energy Leasing Process

Planning and Analysis



- ➡ Intergovernmental Task Force
- ➡ Call for Information & Nominations (Call)
 - Area Identification
- ➡ Environmental reviews

Leasing



- ➡ Publish lease sale notices
 - Proposed
 - Final
 - Issue lease(s)

Site Assessment



- Site Characterization
- Site Assessment Plan (SAP) developed by Lessee

Construction and Operations



- ➡ Construction and Operations Plan (COP) reviewed under NEPA
- Facility Design Report & Fabrication and Installation Report
- Decommissioning

➡ **Public Input Opportunity**

Multi-Year Process

Stakeholder Engagement Activities

- **Stakeholder Outreach Plan** created in collaboration with State of California
- **Offshore Wind Energy Gateway** on Data Basin website – transparent, publicly accessible information
- **Focus Groups** reviewing gathered data and identifying gaps (Fishing, seabird, marine mammals)
- **Tribal Outreach** to Federal and Non-federally recognized tribes
- **Large outreach effort** (50+ meetings over 7 months) in partnership with State of California



Stakeholder Engagement

Purpose:

- Inform stakeholders about goals/activities of the Task Force and offshore wind planning effort
- Involve stakeholders in data gathering to inform planning effort
- Solicit stakeholder feedback more broadly about offshore wind energy development off California
- Use data/information gathered to inform future Task Force recommendations about “Call Areas” for offshore wind energy off California

Stakeholders:

- Statewide outreach to spatial data providers
- Coast-wide outreach to fishers
- Emphasis on outreach to coastal communities (including NGOs, elected officials) in the central coast

Marine Communities Engagement

Outreach/engagement activities:

- Meetings with ports and fishing communities in the Central Coast (e.g., Morro Bay Harbor Advisory Board, Southern California Trawlers Association, local fishing groups)
- Discussions with U.S. Coast Guard, District 11
- Presenting to state- and coast-wide fishing/fisheries organizations
- USCG, NMFS/NOAA, CDFW et al. providing relevant data (e.g., AIS data, fishing effort)

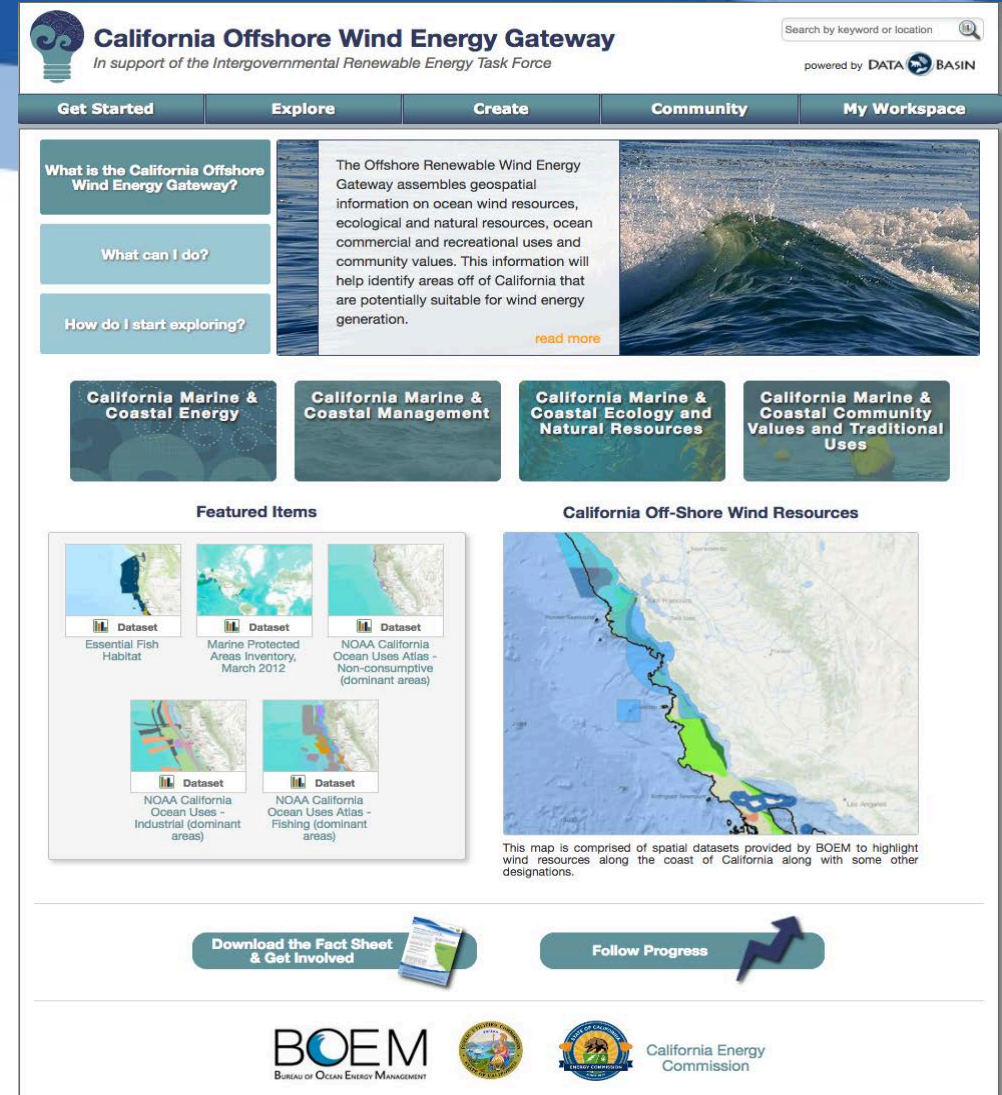
Relevance for the Harbor Safety Committees:

- Vessel traffic may be affected by offshore wind energy development
- Any offshore projects will have a USCG Navigational Safety Risk Assessment before any construction may begin

Offshore Wind Energy Gateway

- **Web-Based Data Gateway**
 - Create maps using geospatial data
 - Converse in working groups with data and maps
 - Add spatial datasets
- **Assemble geospatial information on :**
 - Physical setting
 - Energy resources
 - Marine policy and management
 - Ecological and natural resources
 - Community and traditional values, such as commercial and recreational uses
- **Use data and information to:**
 - Transparently present relevant data being used by the Intergovernmental Renewable Energy Task Force for planning effort

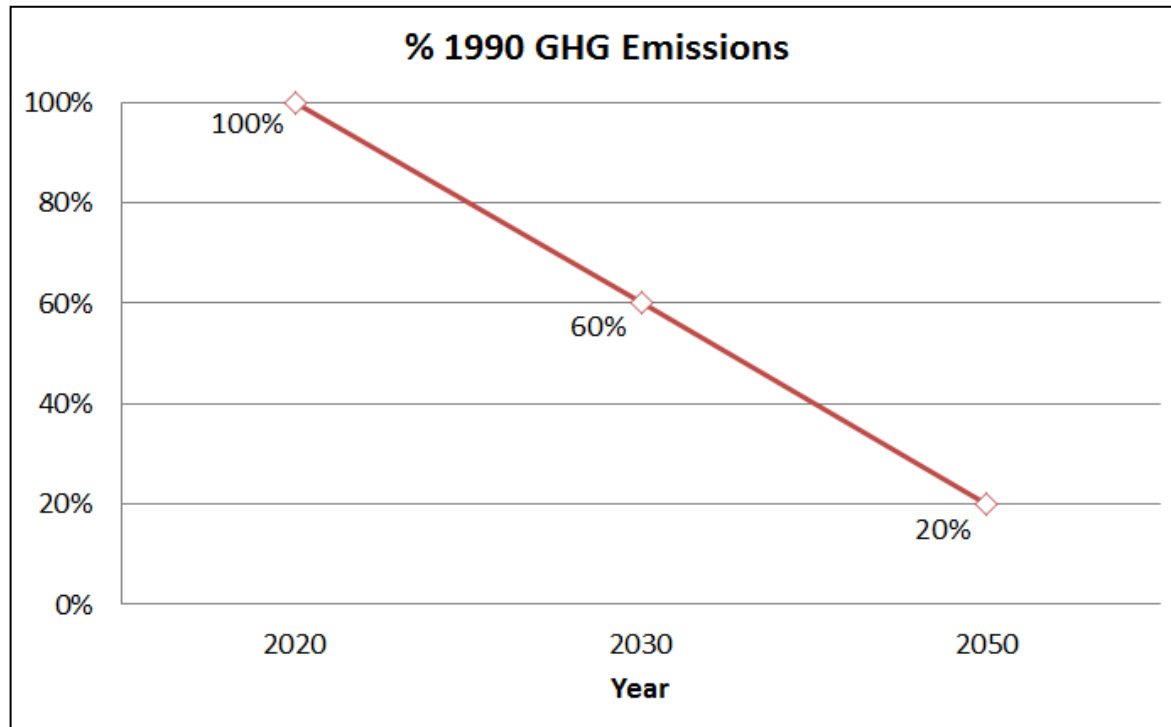
<https://caoffshorewind.databasin.org>



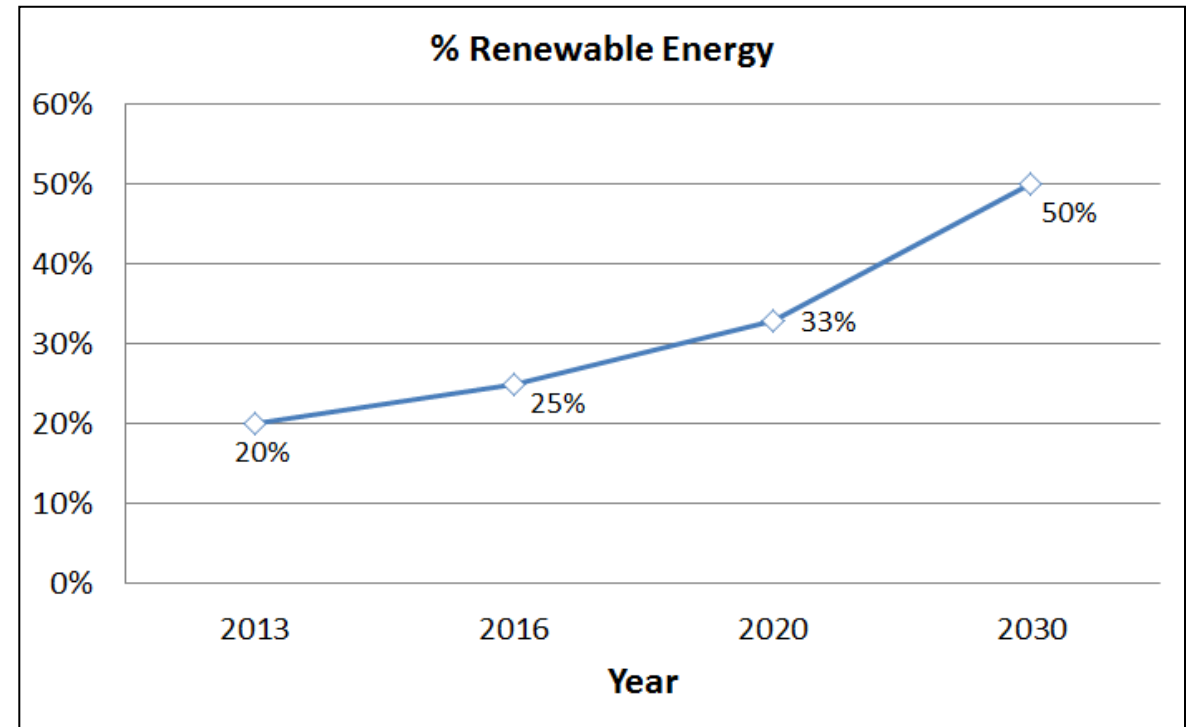
The screenshot shows the homepage of the California Offshore Wind Energy Gateway. At the top, it features the BOEM logo and the text "In support of the Intergovernmental Renewable Energy Task Force". A search bar is located in the top right corner. Below the header is a navigation bar with tabs: "Get Started", "Explore", "Create", "Community", and "My Workspace". The main content area includes a "What is the California Offshore Wind Energy Gateway?" section with a "What can I do?" button and a "How do I start exploring?" button. A "read more" link is also present. Below this is a row of four "California Marine & Coastal" themed tiles. The "Featured Items" section displays five datasets: "Essential Fish Habitat", "Marine Protected Areas Inventory, March 2012", "NOAA California Ocean Uses Atlas - Non-consumptive (dominant areas)", "NOAA California Ocean Uses Atlas - Industrial (dominant areas)", and "NOAA California Ocean Uses Atlas - Fishing (dominant areas)". The "California Off-Shore Wind Resources" section features a map of California's coast with wind resource designations. At the bottom, there are buttons for "Download the Fact Sheet & Get Involved" and "Follow Progress". The footer includes the BOEM logo, the California Energy Commission logo, and the text "California Energy Commission".

California Legislation

Green House Gas Legislation (2006)



Renewable Portfolio Standard (2002)

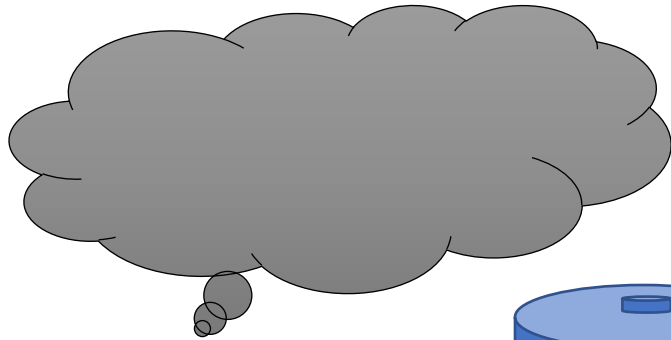


Solar and Offshore Wind

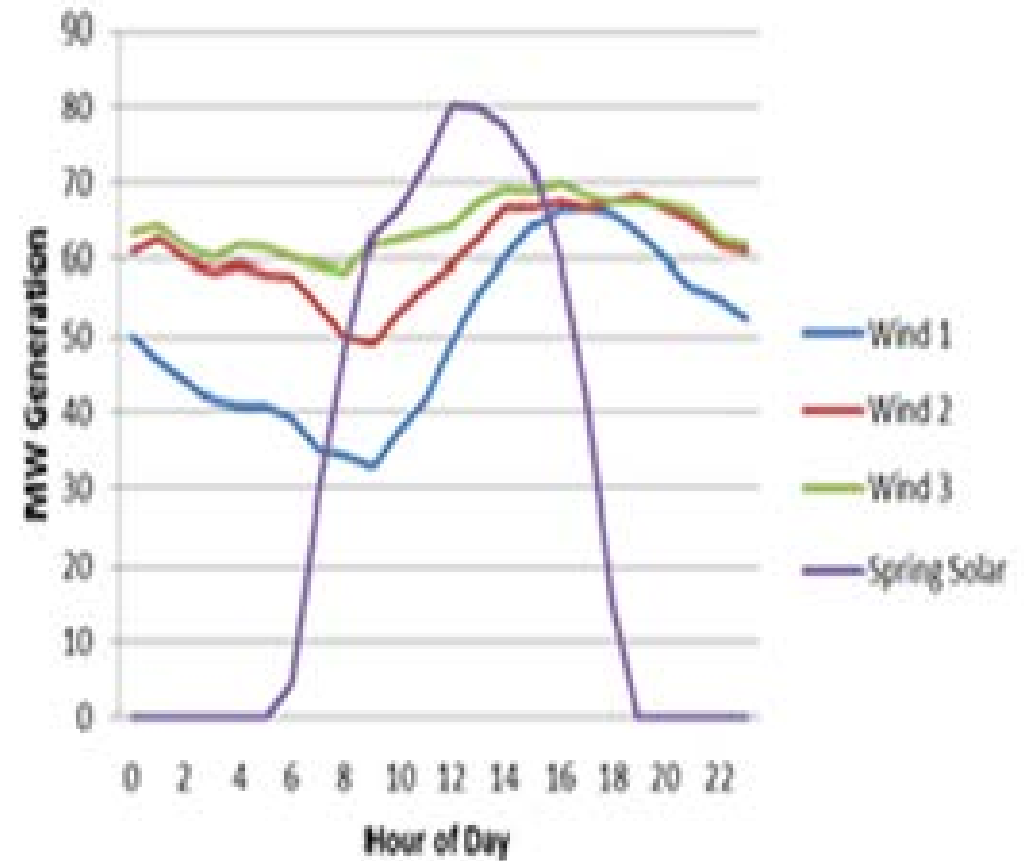
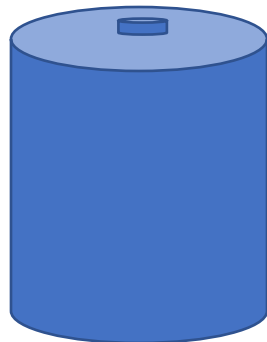
- Night



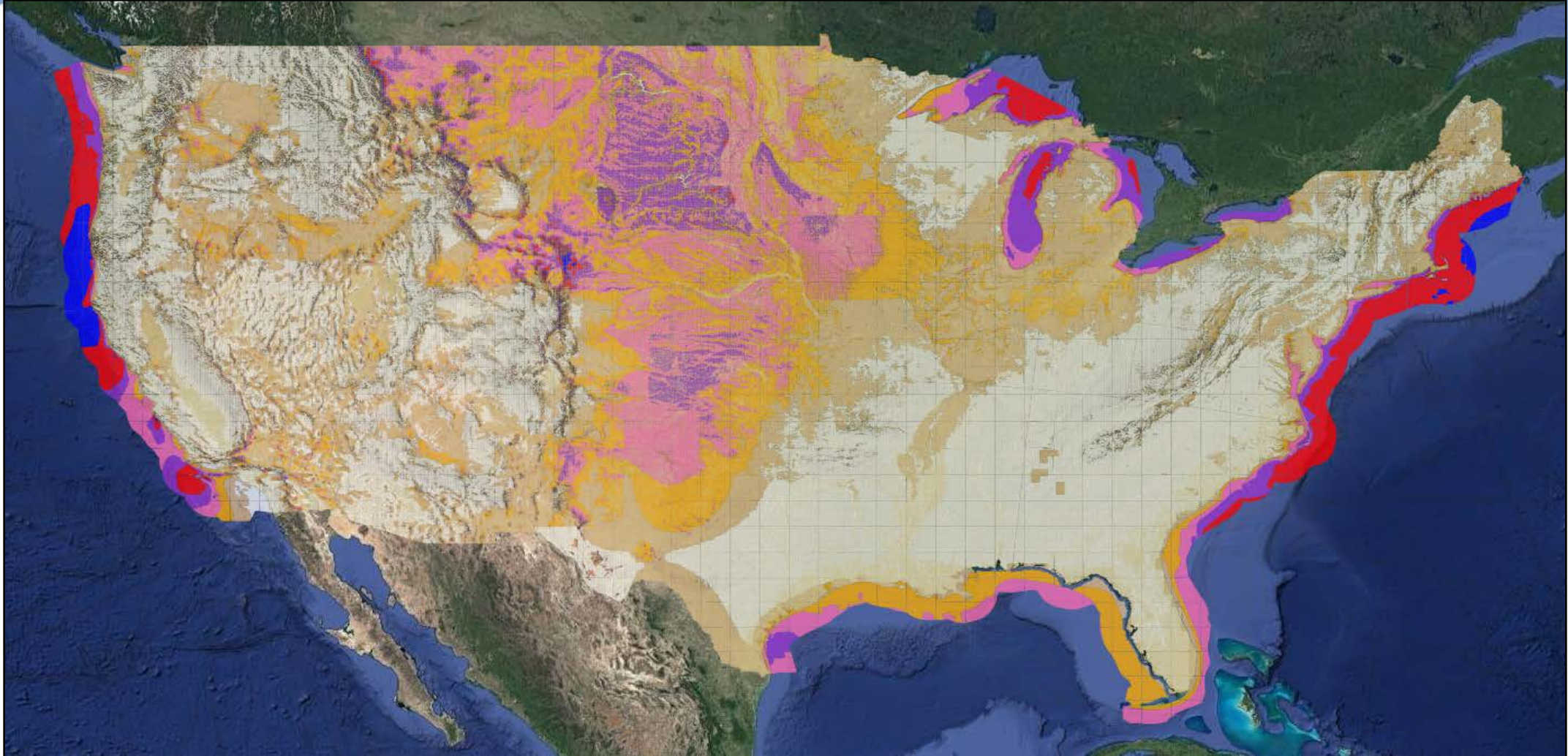
- Clouds



- Storage

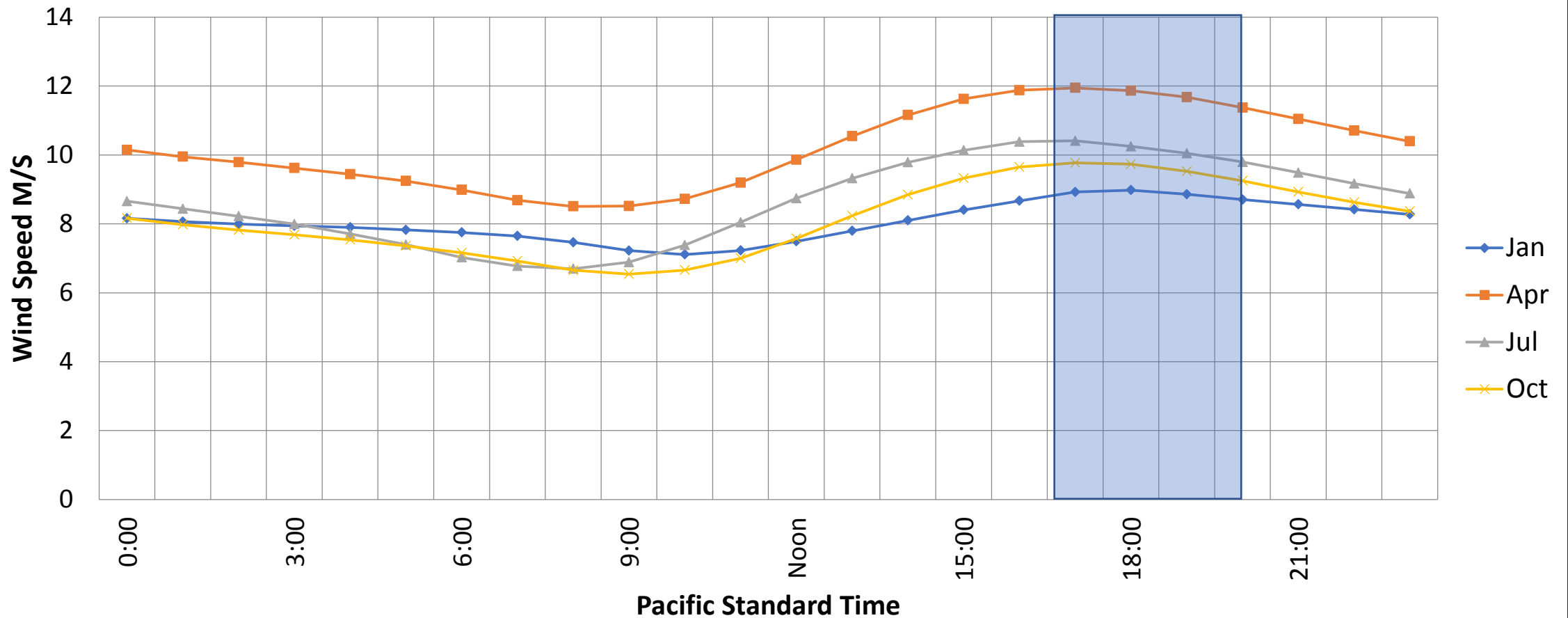


The Ocean is Windier

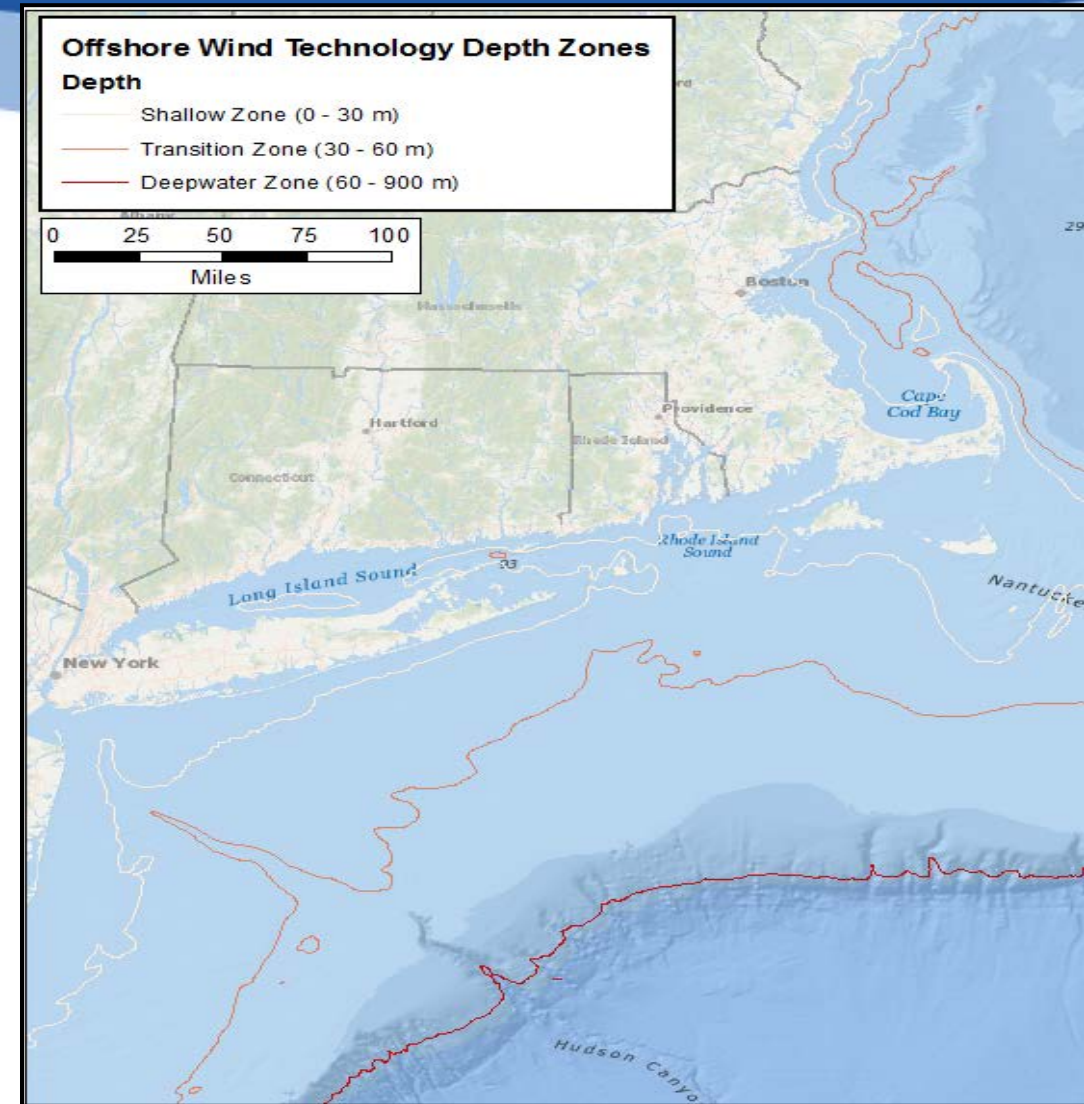
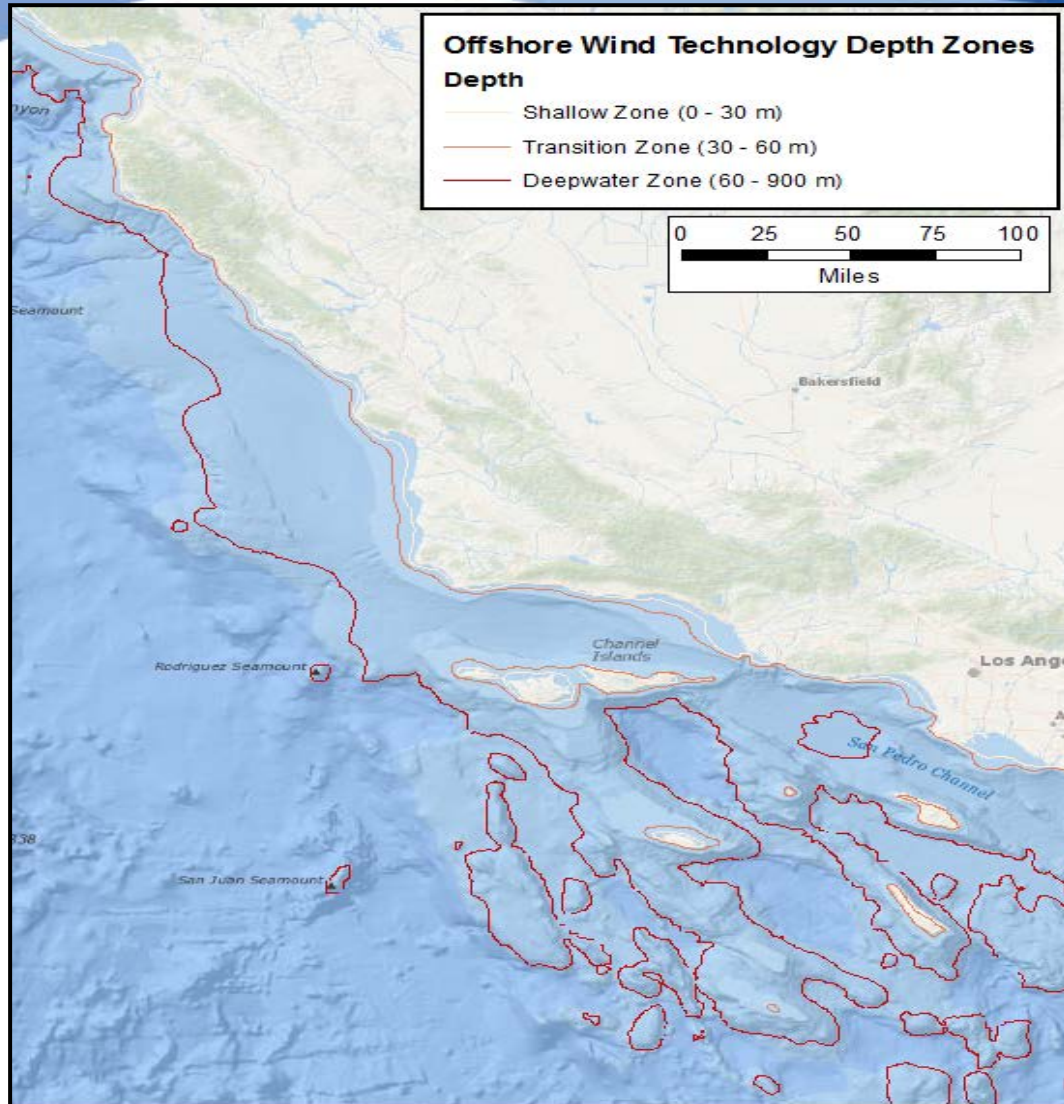


Windy at the Right Time

Hourly Wind Speed by Month (So Cal)



California's Steep Offshore Shelf



Floating Wind Foundations

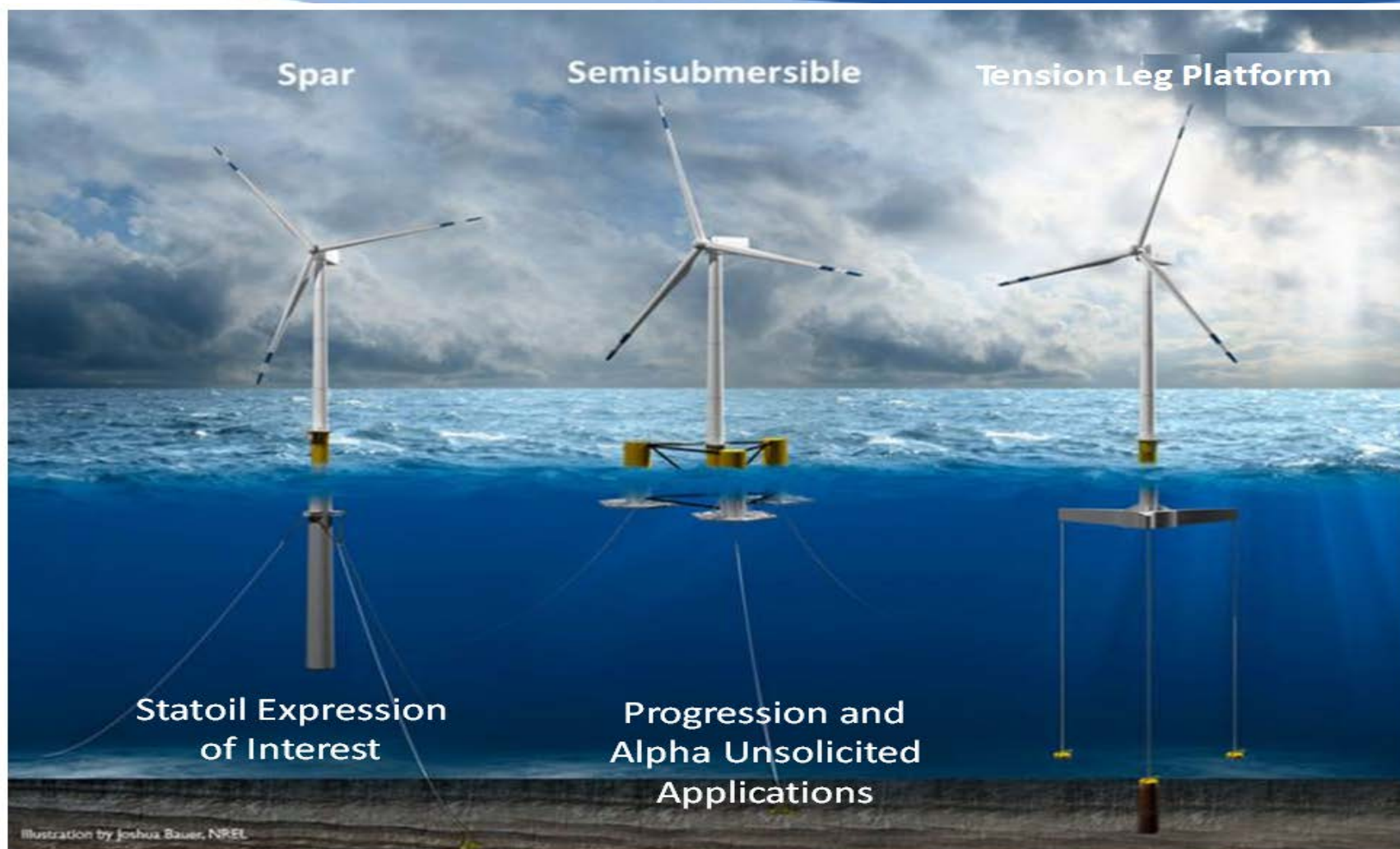


Illustration by Joshua Bauer, NREL

Floating Wind (Prototypes)

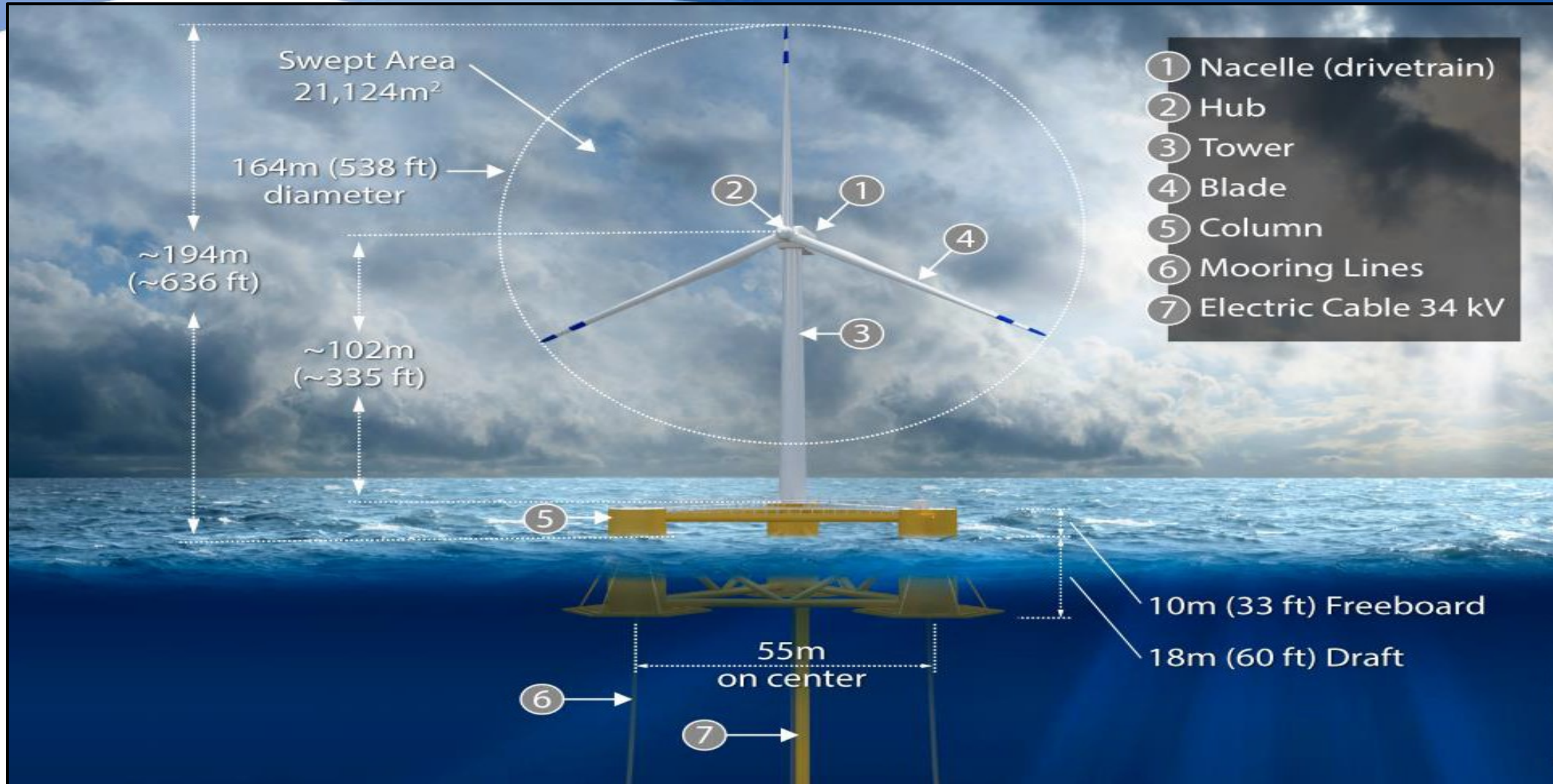


Principle Power – 2.0 MW Turbine Deployment in Portugal - 2011
WindFloat Semisubmersible Substructure



Statoil – 2.3 MW Turbine Deployment in Norway -
2009 Hywind-I Spar Substructure

What Does It Look Like?

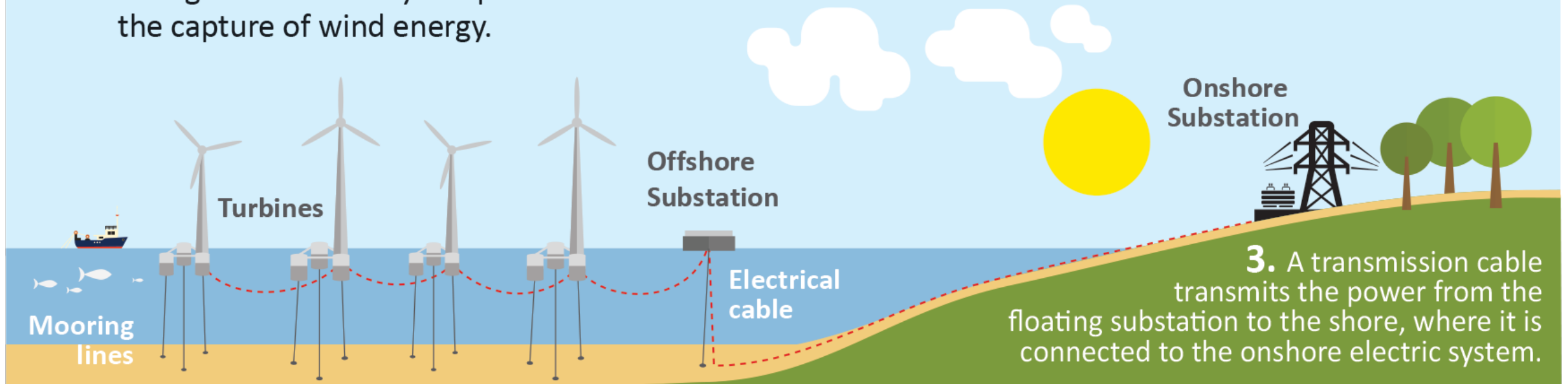


How Does It Work?

How Offshore Floating Wind Farms Work

1. Floating wind turbines are configured in an array to optimize the capture of wind energy.

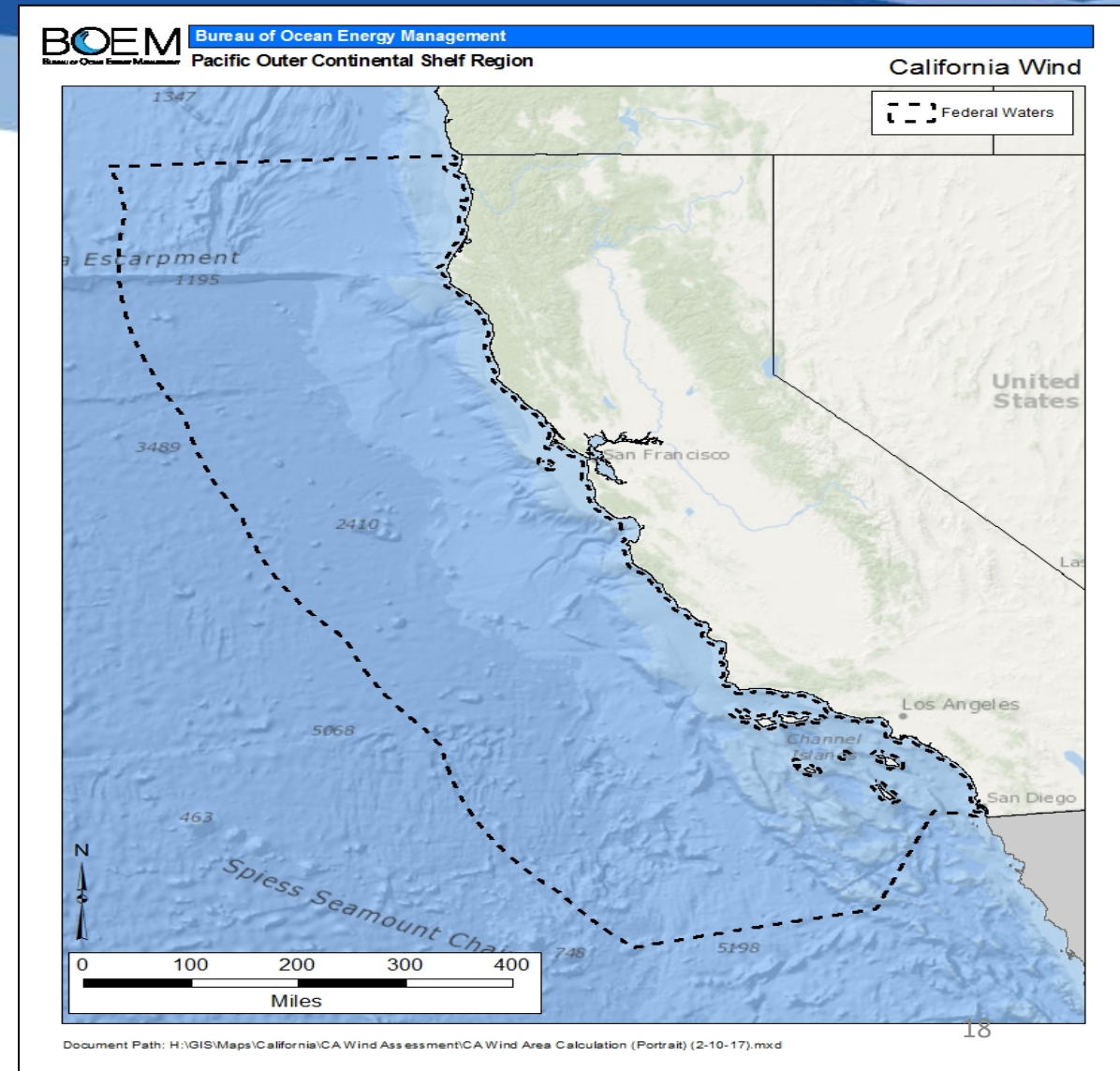
2. Energy captured by the turbines is conveyed through a transmission line to a floating substation.



3. A transmission cable transmits the power from the floating substation to the shore, where it is connected to the onshore electric system.

Offshore Wind Area Available

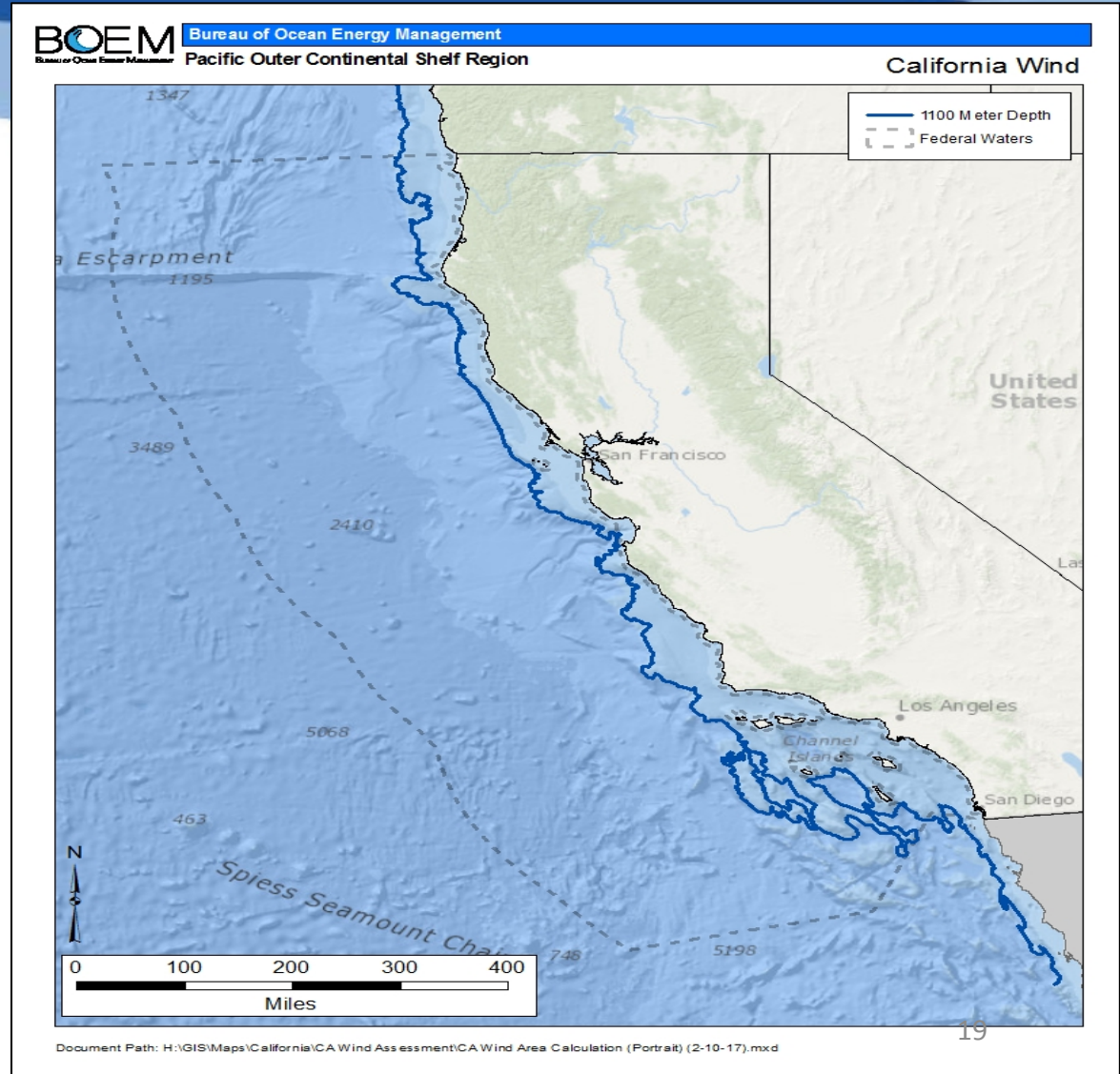
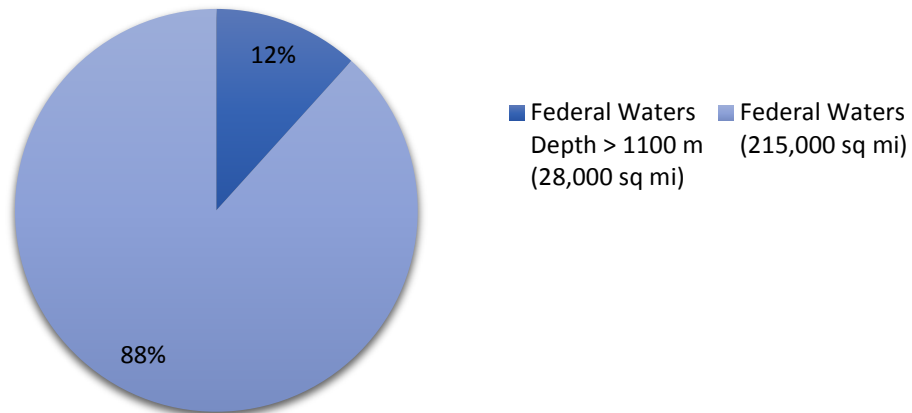
- BOEM Jurisdiction
- Federal Waters: 3 nm – 200 nm
- 215,000 sq mi



Offshore Wind Area Available, continued

- Depth Limit
 - 1100 m
 - 28,000 sq miles

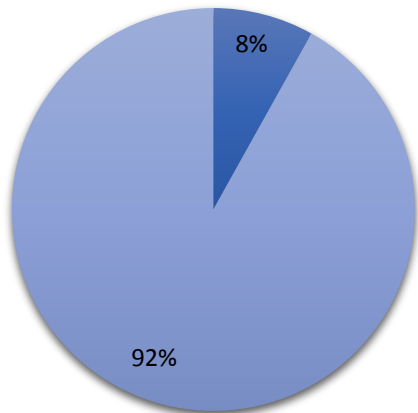
Percent of Federal Waters



Offshore Wind Area Available, continued

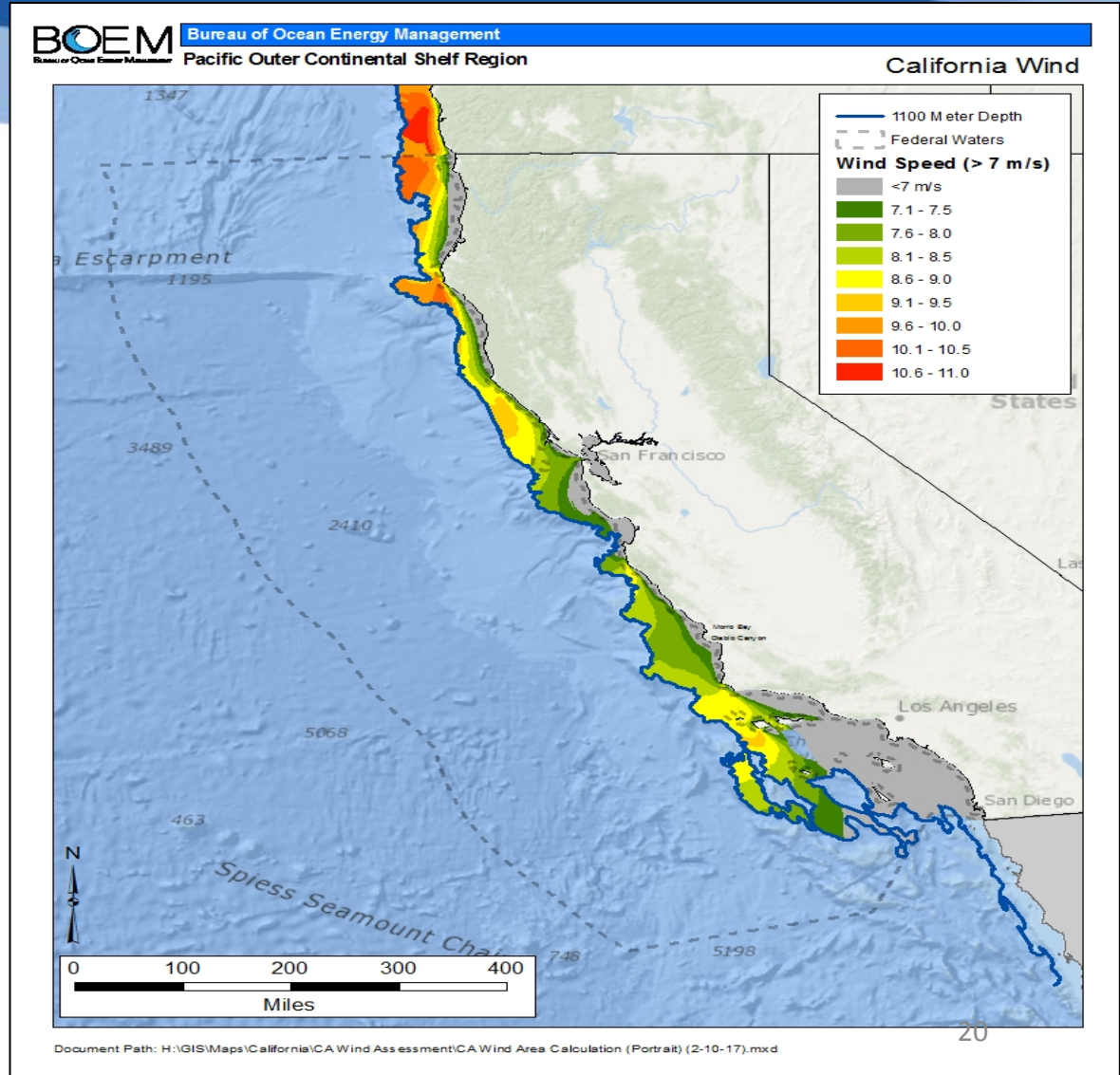
- Wind Speed
 - 7 m/s
 - 19,000 sq miles

Percent of Federal Waters



■ Federal Waters
Depth > 1100 m
Winds > 7 m/s
(19,000 sq mi)

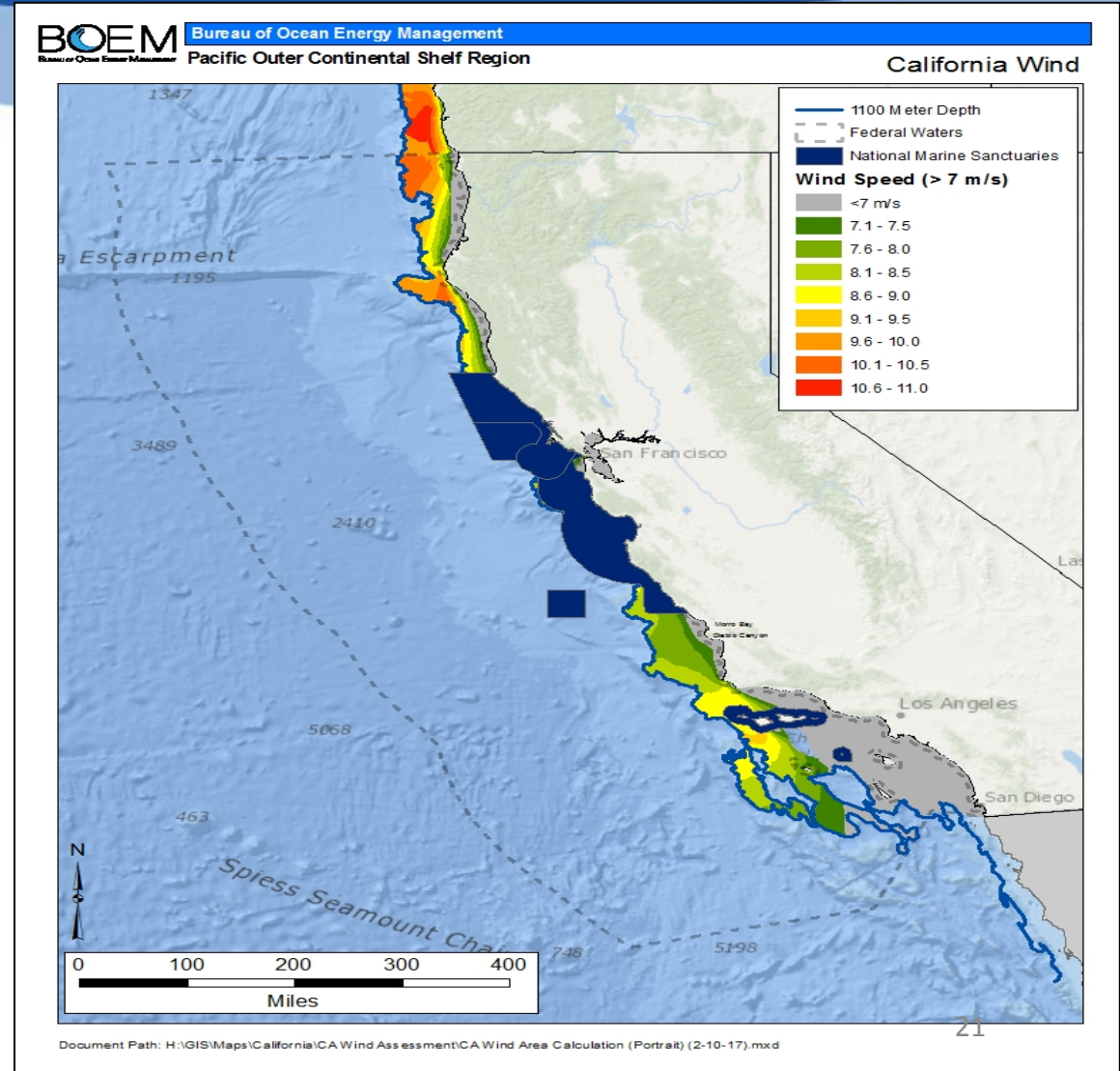
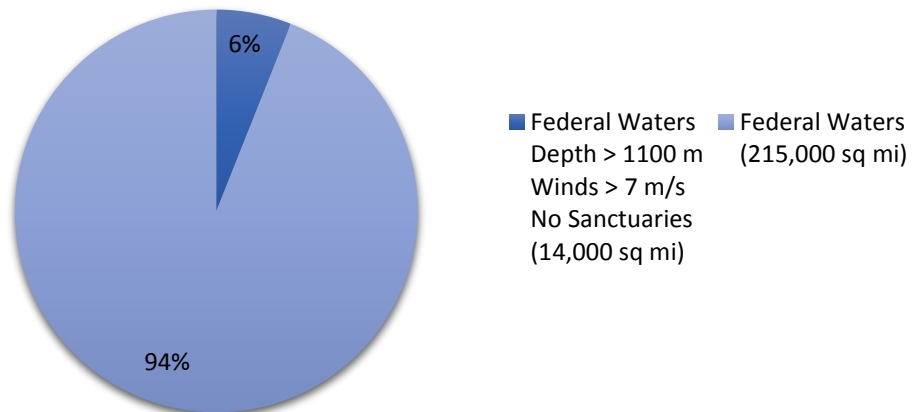
■ Federal Waters
(215,000 sq mi)



Offshore Wind Area Available, continued

- National Marine Sanctuaries
- 14,000 sq miles

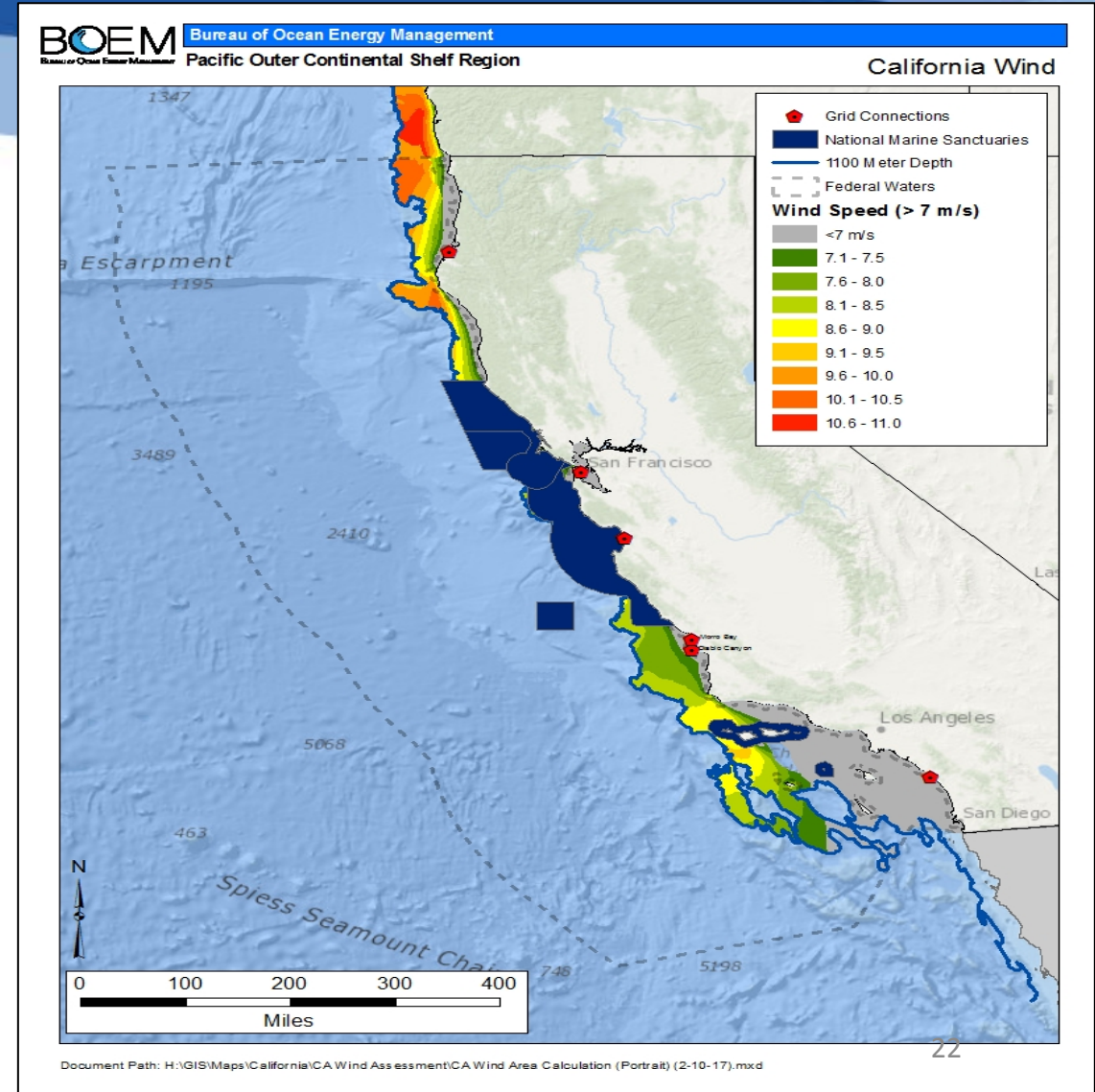
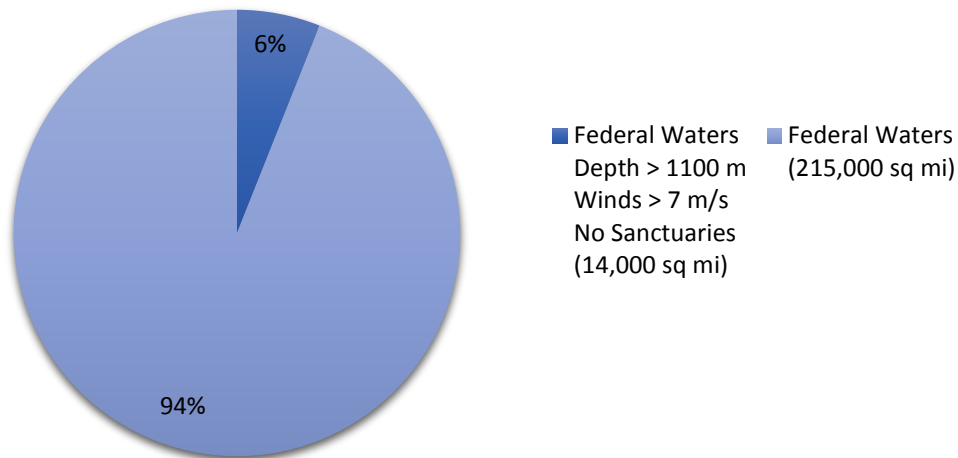
Percent of Federal Waters



Existing Major Coastal Grid Connections

- Grid Connections
 - Morro Bay (Closed)
 - Diablo Canyon

Percent of Federal Waters



Summary

- **BOEM and State of California Offshore Wind Planning Effort**
 - Establishment of BOEM – California Intergovernmental Renewable Energy Task Force
 - Extensive joint stakeholder outreach effort
 - Creation of Offshore Wind Energy Gateway (Data Basin)
- **The California Offshore Wind Energy Gateway - Data Basin**
 - 600+ data sets available for public viewing
 - Includes AIS for vessel traffic information
- **There are limited areas offshore California where floating wind energy is technically feasible**
 - Wind Resource
 - Depth
 - Marine Sanctuaries



Contact Information



www.boem.gov/california

www.caoffshorewind.databasin.org

Jean Thurston

Bureau of Ocean Energy Management

Jean.Thurston@boem.gov

Chris Potter

California Ocean Protection Council

Chris.Potter@resources.ca.gov

California Offshore Wind Energy Data Basin Gateway

Data Basin is a web-based geospatial platform that hosts Gateways allowing stakeholders to view, input, and discuss geospatial datasets. A Gateway for California Offshore Wind Energy has been developed to inform discussions at the BOEM California Intergovernmental Renewable Energy Task Force and can be accessed by anyone with this URL: <https://caoffshorewind.databasin.org/>.

The screenshot shows the homepage of the California Offshore Wind Energy Gateway. At the top, there is a header with the BOEM logo and the text "California Offshore Wind Energy Gateway" and "In support of the Intergovernmental Renewable Energy Task Force". A search bar is located on the right. Below the header is a navigation bar with five tabs: "Get Started", "Explore", "Create", "Community", and "My Workspace". The main content area features a large section titled "What is the California Offshore Wind Energy Gateway?" with a description of the gateway's purpose and a "read more" link. To the right of this text is a large image of a wave. Below this section are four smaller tiles, each representing a different dataset: "California Marine & Coastal Energy", "California Marine & Coastal Management", "California Marine & Coastal Ecology and Natural Resources", and "California Marine & Coastal Community Values and Traditional Uses". Further down, there are two sections: "Featured Items" which displays five small map thumbnails with labels like "Essential Fish Habitat", "Marine Protected Areas Inventory, March 2012", "NOAA California Ocean Uses Atlas - Non-consumptive (dominant areas)", "NOAA California Ocean Uses Atlas - Industrial (dominant areas)", and "NOAA California Ocean Uses Atlas - Fishing (dominant areas)"; and "California Off-Shore Wind Resources" which shows a large map of the California coast with wind resource data. A caption below this map states: "This map is comprised of spatial datasets provided by BOEM to highlight wind resources along the coast of California along with some other designations."

This Gateway was launched in March 2017 and will be a standing tool that can be used by stakeholders to discuss offshore wind energy planning off the coast of California. Example of datasets in the Gateway include fishing data, biological studies, marine sanctuaries, and wind resources.

The BOEM California team is asking stakeholders to provide existing data sets for inclusion in the Data Basin Gateway through May-June 2017. The content in the Gateway will be used in July 2017 to inform recommendations for proposed Wind Energy Areas (WEAs).

California Offshore Renewable Energy

BOEM California Intergovernmental Renewable Energy Task Force

About the BOEM California Intergovernmental Renewable Energy Task Force

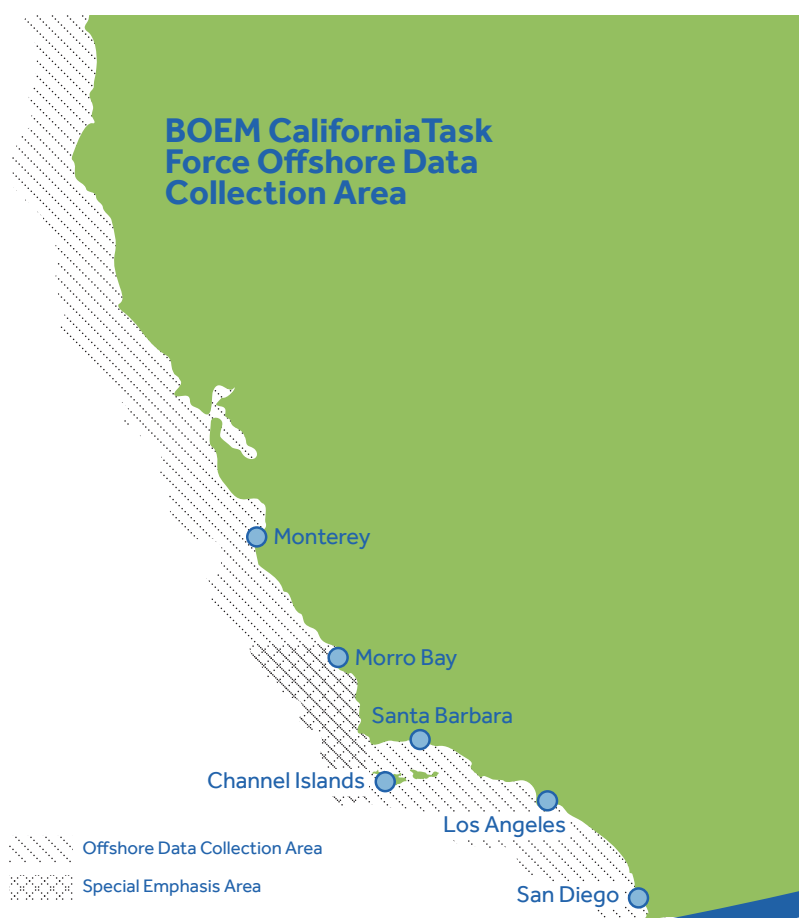
The BOEM California Intergovernmental Renewable Energy Task Force ("Task Force") is a partnership of members of state, local and tribal governments and federal agencies created in 2016 that provide critical information to the decision-making process for planning future offshore renewable energy development opportunities in federal waters offshore California. The Task Force is seeking to identify potential areas in federal waters offshore California that may be suitable for offshore renewable energy development. It serves as a forum to:

- Discuss stakeholder issues and concerns;
- Exchange data and information about biological and physical resources, ocean uses and priorities; and
- Facilitate early and continual dialogue and collaboration opportunities.

Where is the Wind?

BOEM is responsible for regulating offshore energy uses in federal waters, extending from 3 nautical miles (nm) offshore to the edge of the Exclusive Economic Zone ending at 200 nm offshore, except within boundaries of any National Park, National Marine Sanctuary, National Wildlife Refuge (or associated systems) and National Monument. BOEM and the Task Force are focused on exploring areas for offshore renewable energy off California's coast. The Task Force is pursuing a data and information gathering effort along the entire California coast, with special emphasis in

central California because there is commercial interest by offshore wind developers, readily available existing transmission infrastructure and viable wind energy resources.



Did you know?

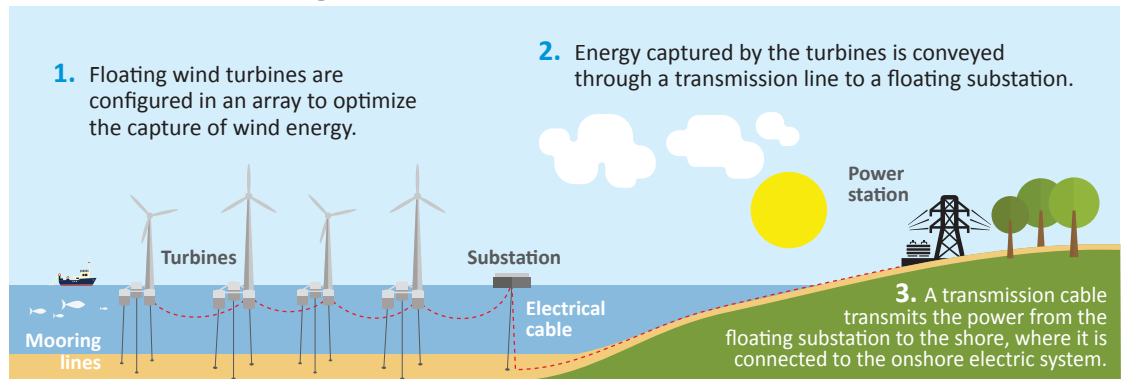
- The Department of Interior is responsible for offshore energy resources and has jurisdiction over 1.7 billion acres on the Outer Continental Shelf (OCS).
- California Governor Jerry Brown signed SB350 into law, which set a 50% renewable portfolio standard (RPS) for the state to achieve by 2030.
- One gigawatt (GW) of offshore wind energy could power 350,000 homes with clean, renewable energy. According to a 2016 study from the National Renewable Energy Laboratory, there is more than 158,000 GW of capacity offshore California.

About Floating Wind Technology

Numerous offshore wind farms already provide electricity to millions of people in Europe. In the U.S., the 30MW, five-turbine Block Island Wind Farm began producing energy offshore Rhode Island in 2016. Floating wind energy technology is gaining interest offshore of California where water depth drops off rapidly, making most federal and state waters too deep for fixed, bottom-mounted turbines. A typical floating offshore wind facility is pictured below.

A project in federal waters must pass through state waters with its electrical cable to get to a land-based power substation, requiring federal and state permits in addition to a BOEM OCS lease.

How Offshore Floating Wind Farms Work



Collaborative Data and Information Gathering Effort

The California Energy Commission, in partnership with BOEM, is developing an online data portal to facilitate decision-making about offshore wind energy development in the context of existing ocean resources and uses. The State and BOEM will work with stakeholders and members of the Task Force to identify appropriate existing data sets to include in the data portal.

How Can I Become Involved?

- Share information and data to include in the data portal. California and BOEM (the Team) will hold webinars to support data sharing in early 2017.
- Participate in tribal outreach meetings. The Team plans five meetings between November 2016 and spring 2017.
- Participate and provide comments in publicly noticed meetings open to everyone; these are provisionally scheduled for spring 2017.
- Participate in smaller, targeted outreach meetings with community groups, including fishermen, environmental NGOs, elected officials and others.
- Attend Task Force meetings; the next meeting will be held near the central Coast and is expected in summer 2017.
- Track progress on the BOEM website, www.boem.gov/California.
- Provide your contact information to BOEM so that we can contact you regarding future activities; you can decide at what level you want to be involved. Email Jean.Thurston@boem.gov.
- Public media inquiries: John.Romero@boem.gov



BOEM
BUREAU OF OCEAN ENERGY MANAGEMENT