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OCS Scientific Committee Meeting
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Proposed FY 2014 Studies – Pacific Region

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23	PO	Expansion of West Coast Oceanographic Modeling Capability	1
25	**IN (HE/SE)**	**Potential Impacts of Submarine Power Cables on Crab Harvest**	**2**
27	MM	Data Synthesis and High-resolution Predictive Modeling of Marine Bird Spatial Distributions on the Pacific OCS	3
29	IN (HE/SE)	Archaeological and Biological Assessment of Submerged Landforms off the Pacific Coast	4
31	IM	West Coast Information Transfer Meeting	5
33	FE	Predicting and Detecting the Effects of Climate Change and Ocean Acidification Using Long-term Ecological Data	6
35	FE	Understanding and Mitigating the Effects of Marine Renewable Energy Technologies on the Coastal and Marine Environment in the Pacific OCS Region	7
37	HE	Collecting and Archiving Invertebrates from MARINe Sites for Deposition in the Smithsonian Institution with Local Replicate	8
39	HE	Year-round and Diel Patterns in Habitat-use of Seabirds off Oregon	9
41	HE	Strategic Resampling of Biodiversity Surveys at MARINe Sites: Completion of the Decadal Assessment	10

FE = Fates & Effects
HE = Habitat & Ecology
IM = Information Management
IN = Interdisciplinary
MM = Marine Mammals & Protected Species
PO = Physical Oceanography
SE = Social & Economic Sciences

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Proposed FY 2014 Study Supporting Renewable Energy

Discipline	Title	Rank
IN (HE/SE)	Potential Impacts of Submarine Power Cables on Crab Harvest	2
Needed now to assess potential influence of power cable EMF		

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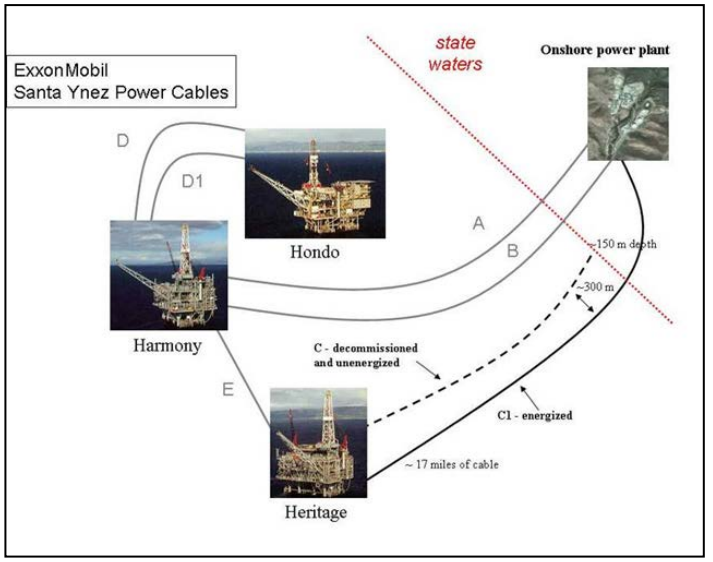
Potential Impacts of Submarine Power Cables on Crab Harvest

BOEM Information Need:

Crab fishers are concerned that electromagnetic fields (EMF) from power cables will present an electrified fence on the seafloor that their resource will not cross. If true, their ability to catch crab species near power cables could be negatively impacted. This study will test the fear of fishers that their target species will not traverse power cables, even in response to baited traps.



Relationship to Previous BOEM-Supported Research:

Builds on literature synthesis and power cable observation study. In the Pacific Region, there are two identical power cables, several miles long, located in the same corridor on the seafloor within the Santa Ynez Unit offshore Southern California. Both of these cables use the industry standards of the power cables that will be used for connecting devices (35 KV) within renewable energy installations. One cable is unenergized and disconnected from the grid, and one cable is energized.

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Potential Impacts of Submarine Power Cables on Crab Harvest

BOEM Objectives:

1) Determine if rock crab and dungeness crab will transverse power cables and be caught in commercial traps.

2) Determine likely impact on harvest for assessment documents and planning.

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Potential Impacts of Submarine Power Cables on Crab Harvest

Study Methods:

Location and Species Specific

1) Hire a commercial crab fisher
2) Coordinate with appropriate permitting agencies
3) Catch, mark, and hold crabs
4) Place baited traps up current of power cables and in a control area away from cable
5) Release crabs down current from power cables and at similar distance from controls
6) Maintain traps, monitor, and record catch per fisher's practice