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Trident Wind Impacts to Commercial Fishing

By Alan Alward, Secretary, MBCFO

The directors of the Morro Bay Commercial Fishermen's Organization (MBCFO) have been working to determine the impacts of a wind farm on the local commercial fishing industry. What we originally thought would be something we could do in one or two meetings has instead been the major focus of many meetings, and we still don't know if we have foreseen all the possible effects. It is our feeling that trying to quantify the financial impact of the Trident Wind farm on the local commercial fishing industry is a hopeless task. Many impacts are difficult to analyze and some have cascading effects that introduce variables.

The historic data from fish tickets is of poor quality because location where fish were caught is often either erroneously (intentionally or not) recorded, or largely undefined by using the 1036 block number which covers a huge area offshore. Unfortunately the fishermen in our area have learned by experience that it isn't a good idea to let government 'help' them by providing government with accurate information on where they fish. When state government was crafting Marine Protected Areas (MPAs) they asked fishermen to identify the areas most important to them for commercial fishing with the understanding that these areas would be left open to fishing to the extent practicable. Later the tables were turned when the governor selected a 'blue ribbon panel' of scientists to make the final decision who decided that protecting the most productive areas was their primary goal. Fishermen who provided information found anywhere from 50 to 80 percent of the areas they had designated as 'most important to commercial fishing' turned into permanent no fishing zones. News in the local paper reported 17 percent of local coastal waters had been closed but that obviously does not correctly characterize the effect it had on these fishermen. Reporting integrity has suffered in consequence.

The impacts we have identified are summarized below:

Loss of area available to fish

Because the primary type of fishing occurring in the depths where these windmills will be located use bottom contact gear, the interconnecting draping cables and close proximity of windmills will largely preclude fishing inside the windmill area. Beyond this, fishermen will have to stay at least 2 miles away from the edge of the area to avoid having their gear either drift into the area on the way down to the bottom in the current, or drift into the area while pulling the gear up. This will effectively increase the non-fishable area by at least 2 miles times the perimeter length of the wind farm area which will almost certainly double the area lost to fishermen. Furthermore, the existing diffuse marine traffic up and down the coast will be diverted around the edges of the wind farm increasing the density of traffic adjacent to the wind farm edges. This will increase the danger to fishermen and fishing gear trying to fish near the wind farm.

A large part of successful fishing is being able to locate and follow the fish as they move about the ocean in response to seasonal and other changes. Sometimes, possibly for months or years, the fish may be predominantly in one area and other times optimal fishing may be in another. Having the freedom to follow the fish where ever they are is important. Losing the potential to fish in an area will have impacts that may not be reflected, even in accurate historical data, because the main body of fish may migrate to a previously ignored area. There is also concern among some fishermen that the windmills and their associated bottom tackle will cause a reef effect, attracting fish from other areas to this unfishable area.

Navigational hazards

Attentive vessels operating in and among the windmills will probably be alright during good visibility unless they have a propulsion breakdown. Vessels losing power in or near the array will be in danger of drifting into the structures and with the distance from port so great the response time of rescue craft will quite

possibly render those events catastrophic. At night, and especially in the fog, when mariners rely on radar to identify other vessels, operation inside or near the array is jeopardized by the Doppler effect of the spinning windmill blades on radar performance as demonstrated by existing installations. What this all adds up to is that the area will often wind up being effectively off limits to operation for vessels of all types, fishing, commercial traffic and pleasure, for safety reasons. Fishing vessels which make multi-day trips for albacore, swordfish and ground fish will have to keep well away from the area when drifting at night as they can drift 12 miles or more in a single night. Needless to say, vessels transiting the area without radar and/or GPS plotters will be put at risk by the project.

Displacement

Any time fishing area is taken away fishermen who favored that area will be displaced increasing the competition and negative interaction with fishermen in the remaining areas. This is a primary concern among fishermen. An outside observer would be wrong to think that because ground fish trips are regulated by quotas that fishermen can just catch their quota in another area. An examination of fish ticket data will show that many trips, possibly a majority of trips, result in landings significantly below the quota allowed. By reducing the area available to fish and displacing fishermen into a smaller remaining area the potential to do well on a particular trip is decreased for all fishermen. Dislocation of fishermen during the construction phase will affect a larger area and a larger group of fishermen.

Unknown effect of high voltage/amperage transmission cables

It is known that fish are very sensitive to electrical fields. Fishermen in the troll fisheries have direct experience with the effect of their boats' electrical field and the rate of catch. There is concern that there is no body of knowledge on the effect of the electrical fields surrounding high power transmission cables on fish migration patterns, among other things. How and when might this be quantified? This potential problem would include not only the entire array area but also along the entire length of the transmission cable all the way to shore. Additionally

there will be entanglement risks along those portions of the transmission cable which fail to get buried.

Unknown effect of windmill sound pollution

Any floating object with machinery operating transmits noise into the ocean environment. Gear and bearing noise from high output windmill generators will be a steady long term source of potential irritation to sea life over a wide area especially considering the long range of sound wave propagation through water. The effect on fish behavior and migration patterns is unknown.

Conclusion

Given the difficulty in predicting the financial effect of the proposed wind farm on the commercial fishing industry we have found that the only practical way to arrive at a mitigation plan is to find out what the fishermen are willing to accept as mitigation. All fishermen agree that the impact from this development will be greater than the impact of the fiber optic cable projects and the mitigation will have to be proportionally larger to constitute a meaningful remedy. Hopefully the net adverse financial impact to the city from losses incurred by the fishing industry will be largely offset by the mitigation plan we are working out with Trident. The direct compensation to fishermen for the construction related impacts currently under consideration will ripple through the local economy and the long term aid provided by the proposed mutual benefit corporation will almost certainly have a positive effect on the budget of the harbor department as fishermen have consistently worked with the harbor department through the existing Central Coast Join Cable/Fisheries Liaison Committee to improve harbor infrastructure. Continuing financial support for maintenance and replacement of the ice machine as well as new projects including a much needed boat haul out yard and possibly a cold storage facility are foreseen as long term outcomes from the mutual benefits corporation. While the ice machine is largely fishing industry serving, a boatyard would benefit the entire marine community and draw new

business to Morro Bay. A cold storage facility could conceivably benefit the local food service industry as well as the fishing industry.