**Off Shore Wind (OSW)**

***Contributed by Gerry Braun***

IRESN participated in the California Offshore Wind Power Forum on June 11th and 12th. The forum was organized by the California Wind Energy Collaborative and funded by the California Energy Commission through the California Renewable Energy Center, for which Cal-IRES had budgeting and contract development responsibilities. So, it was gratifying to see an important part of the CREC work scope thoughtfully planned and executed with presentations promptly posted on the CWEC website. Congratulations to Case Van Dam and Henry Shiu for bringing together key stakeholders and expertise in a format that allowed time for in depth presentations and discussions. It was good to see the Commission well represented including Commissioner and colleague David Hochschild chairing the session on regulatory issues. Other sessions covered OSW and the California Coastal Environment, OSW Technologies for the California Coast, and Economic Outlook and Infrastructure needs.

Highlights included a keynote by Joan Barminski, representing the US Department of the Interior’s [Bureau of Ocean Energy Management](http://www.boem.gov/Renewable-Energy-Program/Renewable-Energy-Guide/index.aspx). BOEM is responsible for leasing offshore wind sites to developers and operators and collaborates with states seeking to develop OSW resources as part of statewide renewable electricity portfolios. So far, surprisingly, California has not engaged with BOEM. Surprising because California’s OSW resource is arguably only second to the Monterey Shale formation in importance to California’s energy future. A number of forum speakers pointed to the importance of a patient and thorough demonstration stage to allow commercial deployment to move quickly later on. Unfortunately, competition for demonstration funds in California does not favor an industry that is not yet on its feet and politically active. It may be necessary for state political leaders to take a more strategic and far sighted view.

Another highlight was the second day keynote by Huub den Rooijen, representing Britain’s Crown Estate, which owns and leases UK properties including the UK sea bed. The UK has nearly 5 GW of OSW in construction or operation.

One of the most compelling arguments for attention to California’s off shore wind resource is an excerpt from the Energy Commission’s input to the USDOE Wind Program in 2010. It included the following renewable integration perspective provided by Cal-IRES.

“A dominant share of California’s electricity is delivered to population centers along California’s coast. The fact that California’s highest quality solar, geothermal and onshore wind resources are located in areas having low population density and thus limited transmission capacity has become a major concern for state policy makers and transmission system operators. Much of California’s current thermal power generation capacity is located along the coast, and many of these plants will be retired in coming decades and may not be replaced with thermal power plants for which existing coastal transmission infrastructure was built. This not only raises concerns about operation of the grid without the benefit of these stabilizing generation resources but also suggests an opportunity for a plan for wind deployment in California in which a mix of onshore and offshore wind power plants is used to minimize the need for expensive and problematic new transmission infrastructure….

There may be opportunities to increase transmission capacities and electricity transfer capabilities in relatively unpopulated areas of California with minimal electric grid infrastructure, including areas that may offer favorable wind resources, such as counties north of San Francisco along the coast. In some of these communities, there is good local support for renewable energy development, but also a desire to protect aesthetic resources.”