

BLUROC, a YAK ACCESS Company, Develops Environmentally Friendly Road for Transmission Structure Replacement

BACKGROUND

[Central Maine Power \(CMP\)](#), the largest electric utility provider in the state, primarily serves southern and central Maine. The company is a subsidiary of AVANGRID, Inc., a group of eight natural gas and electricity companies with 3.1 million customers in New York and New England. CMP maintains electricity for approximately 646,000 customers in an 11,000-square-mile service area, including some of Maine's most environmentally sensitive coastline regions and islands. With 25,000 miles of power lines and 280 substations, CMP is continually maintaining the lines and updating systems to ensure consistent, reliable service.

Metrics

- ✔ The 1,300-foot floating road held up to 87,500 pounds.
- ✔ A transmission structure was replaced while maintaining power to 4,300 customers.
- ✔ The project was completed two months ahead of schedule.

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THE PROBLEM

CMP NEEDS REMOTE ACCESS TO A RADIAL SYSTEM.

A radial distribution system uses one power source to serve a group of customers. In the case of the radial transmission line located on a remote island near Newcastle, Maine, loss of power would result in disruption to about 4,300 customers in the area. With no road to the island and no access to the water for large equipment, CMP needed to find a solution to replace the aging structure without harming the fragile ecosystem in the surrounding Great Salt Bay.

Finding an environmentally friendly solution was critical for protecting the

ecosystem in the bay. Every tide brings fresh nutrients to the nearby oyster farms to support the local economy. An annual alewife fish run also happens in the bay, and access to the island could not disrupt this spawning cycle.

With a strong commitment to safety, finding a low-risk solution was also a top priority for the company. In addition to the logistical, safety, and environmental challenges of getting heavy equipment to the island, CMP also needed to get permission from the town to use town-owned land for a staging area.



THE SOLUTION

A FLOATING ROAD FILLS THE GAP.

CMP came to an agreement with the town to lease land for the staging ground and assist with a large road rebuilding project. With this element of the access plan in place, they tackled the next big hurdle: logistics.

BLUROC'S experience with the emtek® wetland access system quickly came to mind, and the team got to work designing a floating road that would rise with the tide to allow water and wildlife to flow beneath while vehicles traversed uninterrupted. At low tide, the road settled on the seafloor and distributed the weight of the vehicles that traversed it.

The floating road, which was 1,300 feet long and had a 14-foot wide driving surface, was able to support up to 87,500

pounds because of the 40-foot wide structure below. The road also included a turbidity curtain—a water fence with chains that hang below—to help contain any silt or sediment that was disrupted as a result of the construction activities.



THE RESULTS

CMP WINS WITH SAFETY, SUSTAINABILITY, AND SCHEDULE.

By all possible metrics, the floating road project was a resounding success. Firstly, there were zero [safety incidents](#), which is notable because of the complexity of the project, the requirement to traverse water, and all of the equipment and vehicles involved. Additionally, there were zero environmental incidents for the duration of the project, and the floating road had no impact on the health of the bay.

Because the floating road provided such smooth access to the site, the team was able to complete the project two months ahead of schedule.

Clear and consistent communication was one of the keys to the success of this project, especially when plans needed to be updated during the course of assembling the floating road. The original plan to make a straight road was adapted

when a better staging area was identified on the mainland. With quick planning and expert adjustments, the ultimate result was better placement.

“This was the first time our company has used a floating road and the first time a project like this was completed in Maine, so there were a lot of eyes on us,” Nicole Harbaugh, CMP project manager, said. “Being able to pull this off without a hitch and no incidents was a huge feat. A lot of the credit for our success goes to BLUROC and their planning and project management skills.”

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THE FUTURE

CMP PLANS TO USE FLOATING ROADS AGAIN.

Because this project was so successful, the company hopes to use the floating road solution for future projects with challenging water access. CMP will also continue to work with [BLUROC](#) to provide access to high-voltage transmission lines and substations. Whether it's providing environmentally friendly access through wetlands or temporary gravel roads through other areas, CMP knows they can count on BLUROC to provide safe, efficient, and cost-effective solutions.

"We had a very positive experience with BLUROC and we are eager to partner with them again," Harbaugh said.



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