

Underground or overhead, Sandy may provide final answer for Conn.

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When the assessment of damage in the tri-state region from Hurricane Sandy is finished, Connecticut could get some hard evidence to justify spending what could be billions on putting more of its electric lines underground.

Sandy hit the region on Oct. 29, destroying homes in a surge of floods and high winds along the coast. It also plunged more than 800,000 state residents into the dark, some for more than a week. It's the second year in a row residents here have seen Mother Nature turn out the lights with a major storm, raising questions about how best to protect the system.

In August 2011, Tropical Storm Irene struck Connecticut and then a Nor'easter hit the state in October, both with disastrous results for the electric grid.

"The issue of resiliency is the real issue," said [Joe McGee](#), vice president of policy at the [Business Council](#) of Fairfield County and chairman of the panel charged to explore this very issue after the 2011 storms.

"There's no question, undergrounding does prevent wind damage," McGee said. "But a storm, when there is a flood, exploits the problem with underground utilities... You realize, `Oh my God, salt water damages underground equipment.'"

In all three states hit by the storm, there was damage to both underground and overhead utilities as water from Long Island Sound tore up underground infrastructure along the coast and toppled trees took out lines in other areas.

McGee said there probably should be more utilities underground, but not all of it should be there. And the big issue is the cost.

"There are big numbers attached to this," he said. "Easily in the billions."

It's expensive to bury lines in existing areas, where streets and sidewalks would need digging up and other utilities would have to be moved. Finding and repairing damage can also be costly after it's installed.

McGee said because of those costs, communities will have to weigh whether the expense of putting lines underground is less than having to repair overhead lines periodically.

It's more than just wires; the state needs to look at moving other infrastructure, he said. Power and sewage treatment plants are on the water. Electric and heating systems are in basements that could be flooded, and major highways and the railroad run next to the water. These are all being impacted by climate change, the term used to describe a warming of the planet that results in changes to weather patterns and rising sea levels.

But McGee said there is reason to hope federal funds will be available for improving infrastructure as the Obama administration has signaled it wants to tackle the issue.

Historically, however, except for major projects like the Hoover Dam and the [Tennessee Valley Authority](#), which was undertaken during the Great Depression, electricity projects have been paid for by local and regional sources through higher rates.

McGee said that would probably be difficult on consumers, here and he hopes electricity will be part of any package.

The utilities themselves are still recovering from Sandy and have not yet been able to assess the total costs. United Illuminating did not respond to requests for comment.

[Mitch Gross](#), a [Connecticut Light & Power Co.](#) spokesman, said the company is still assessing the damage and it will have information on how overhead and underground lines performed.

CL&P, the state's largest electric utility, has more than 1.2 million customers in Connecticut. It will have data on how both overhead and underground lines performed in the state, Gross said.

CL&P has about 6,000 miles of underground distribution lines, the ones that lead into homes, and about 17,000 miles of overhead distribution, he said. Most of the underground wires have been laid in new subdivisions, he added.

"We're not against it," Gross said of putting more lines underground. "But it's a major undertaking at a very high cost."

He said distribution projects are paid for by the communities that benefit them instead of being shared by all ratepayers, like transmission projects.

Transmission line projects in New England are paid for by all ratepayers because the transmission lines move electricity from power plants to substations located throughout the region. They are similar to interstate highways, while distribution lines are like local roads.

The core issue is the expense, however.

[Patricia Sullivan](#), chair of the land use group at the Bridgeport law firm [Cohen & Wolf](#), has some experience with the complications of burying lines. Her firm represented the towns of Weston and Wilton when [CL&P and United Illuminating Co.](#) constructed a 345 kilovolt line from Middletown to Norwalk several years ago. The line is buried in Fairfield County and runs overhead through much of New Haven and Middlesex counties.

But she said the state, residents and the utilities need to consider the total costs of blackouts when deciding whether the expense of burying the lines is worth it. She said power loss affects residents and businesses as well as the utilities.

"It's a very interesting issue and should be explored," she said, adding that the idea of running lines underground isn't new.

But, like McGee, she doesn't think the task will be undertaken unless the state government moves it forward.

"I expect, because of the magnitude, it would take government impetus," she said.

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