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REQUIREMENTS TO UNDERGROUND UTILITY LINES IN OTHER STATES/ NORWICH PUBLIC UTILITIES

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You asked for (1) a description of requirements in other states regarding the undergrounding of utility lines and (2) background on Norwich Public Utilities.

SUMMARY

We found five states with requirements for undergrounding utility lines.

1. Since 1967, California has required that all new electric service connections be placed underground. It also has a program to finance the undergrounding of existing electric distribution lines (those that serve individual homes and businesses) and telecommunications lines.
2. Delaware has required utility lines in new subdivisions or multi-occupancy buildings on five or more lots to be placed underground since 1970.
3. Hawaii law specifies the criteria the state's Public Utility Commission must consider in determining whether certain new electric transmission lines must be placed underground.

4. Maryland has required undergrounding for new residential customers since 1968.
5. Since 1970, Montana law has required electric distribution lines that serve new residential and business customers to be placed underground when technically and economically feasible.

We found no state that requires the undergrounding of existing electric or telecommunications lines. However, Arizona, Maryland, Montana, Utah, and Washington allow municipalities, counties, or both to create special districts to finance the undergrounding of existing utility lines. Generally, the districts are authorized to issue bonds to fund the undergrounding, which are backed by property tax assessments on the benefitted properties. Once the lines are placed underground, the municipality or county can require existing properties and new developments to place their service connections underground.

Finally, Rhode Island passed legislation (R.I. Gen. Laws § 42-98-1.1) to permit the undergrounding of an electric transmission line in Providence and East Providence in conjunction with the relocation of Interstate 195. Funding for the project would come from the U.S. Department of Transportation and from ratepayers in the two cities. The most recent estimate (2007) of the cost of undergrounding the 1.2 mile segment of the transmission line was approximately \$20 million.

Norwich is one of six municipal electric utilities in the state (the others are the borough of Jewett City, Groton Utilities, the third taxing district of Norwalk, South Norwalk Electric and Water, and the town of Wallingford). The Norwich Public Utilities (NPU) is responsible for building, maintaining, and servicing the local electric distribution system, including substations, wires, and poles. It primarily buys the power it distributes on the wholesale market, but also owns and operates three small hydro-electric facilities. It also operates residential and commercial efficiency programs. NPU also serves as the city's gas, sewer, and water utility. A Board of Public Utilities Commissioners governs NPU and serves as the city's sewer authority. The city council appoints the board members, who serve five-year terms. NPU turns over 10% of its total billings to the city's general fund, typically amounting to \$4 to \$5 million each year. Further information about NPU is available at <http://norwichpublicutilities.com/index.asp>.

CALIFORNIA

In 1967, the California Public Utilities Commission (CPUC) required that all new service connections be placed underground ([order](#)). Also in that year, it began a program for undergrounding existing electric distribution lines. The program has three components with separate funding mechanisms. There are parallel financing provisions for projects to underground telecommunications lines.

Electric ratepayers totally fund projects that meet public benefit criteria under [CPUC's Rule 20](#). To qualify under this provision, the governing body of a city or county must determine, in consultation with the local electric utility and after holding public hearings, that undergrounding is in the public interest because:

1. undergrounding will avoid or eliminate an unusually heavy concentration of overhead electric facilities,
2. the street is extensively used by the public and carries a heavy volume of pedestrian or vehicular traffic,
3. the street adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public, or
4. the street is an arterial or a major collector.

Projects that do not meet one or more these criteria but involve undergrounding at least 600 feet on both sides of a street are primarily funded by the applicant (e.g., a city). The applicant pays for the entire cost of the new underground system other than transformers and meters, less the cost of an equivalent new overhead system. The applicant's share of project financing can come from municipal funds, assessments on benefitted properties, developers' contributions, and other sources. Ratepayers pay the remaining costs, typically 20% of the project's total cost. For smaller projects, such as for an individual homeowner, the applicant pays virtually the entire cost of undergrounding.

While the program has resulted in extensive undergrounding, it is expensive and slow. Statewide, CPUC estimates that undergrounding costs about \$1 million per mile and individual projects typically take three years to complete. Since 1967, the program has undergrounded 2,500 miles of line, out of a total of 160,000 miles. In San Diego, the city

spends approximately \$54 million annually to underground 30 to 35 miles of distribution lines (\$1.5 to \$1.8 million per mile – undergrounding is more expensive in urban areas). The program began operations in 1970 and the city anticipates that it will take 54 years to bury most lines in residential areas. Information about the program is available at www.sandiego.gov/undergrounding/overview/index.shtml.

DELAWARE

Since 1970, Delaware has required utility lines in new subdivisions or multi-occupancy buildings of five or more lots to be placed underground (Del. Code Sec. 901). It also gives utilities eminent domain power to obtain rights of ways in connection with these lines.

HAWAII

Hi. Rev. Stat. § 269-27.6 requires the Public Utility Commission to determine whether proposed transmission lines should be built above or below ground and specifies the factors it must consider, which vary by the line's capacity.

For lines carrying 46 kilovolts or more, the commission must consider:

1. whether a benefit of undergrounding outweighs the costs of placing the line underground;
2. whether there is a public policy requiring the line to be built underground;
3. whether the agency establishing the policy commits funds for the additional costs of undergrounding;
4. whether any agency or other parties are willing to pay for the additional costs of undergrounding;
5. the recommendation of the Division of Consumer Advocacy, which must be based on an evaluation of these factors; and
6. any other relevant factors.

For lines carrying 138 kilovolts or more, the commission must evaluate and make specific findings on:

1. the amortized cost of construction over the respective usable life of an above-ground versus underground line;
2. the amortized cost of repair over the respective usable life of an above-ground versus underground line;
3. the risk of damage or destruction over the respective usable life of an above-ground versus an underground line;
4. the relative safety and liability risks of an above-ground versus underground line;
5. the electromagnetic field emission exposure from an above-ground versus underground line;
6. the proximity and visibility of an above-ground line to (a) high density population areas, (b) conservation and other valuable natural resource and public recreation areas, and (c) areas of special importance to the tourism industry and other industries particularly dependent on Hawaii's natural beauty;
7. the line's length;
8. the breadth and depth of public sentiment with respect to an above-ground versus underground line; and
9. other factors that the commission considers relevant.

The utility applying for the new line must clearly and fully state and support its evaluation of each of these factors.

MARYLAND

Since 1968, the Maryland Public Utilities Commission has required extensions of electric distribution lines needed to serve new residential buildings and mobile homes be placed underground ([order](#)).

MONTANA

Mont. Code Ann. Sec. 69-4-102 requires that all distribution lines in new service areas be placed underground when technically and economically feasible. A new service area is any subdivision or group of newly constructed or newly installed dwellings or commercial buildings that will have at least five electric accounts.

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