

GENERAL ASSEMBLY OF NORTH CAROLINA
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HOUSE PRINCIPAL CLERK

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HOUSE BILL DRH30319-NJ-28

Short Title: Power Infrastructure Resiliency & Eff.(PIRE). (Public)

Sponsors: Representative K. Hall.

Referred to:

A BILL TO BE ENTITLED
AN ACT PROMOTING THE USE OF ADVANCED CONDUCTORS AND GRID
ENHANCING TECHNOLOGIES.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 62-2 reads as rewritten:

"§ 62-2. Declaration of policy.

(a) Upon investigation, it has been determined that the rates, services and operations of public utilities as defined herein, are affected with the public interest and that the availability of an adequate and reliable supply of electric power and natural gas to the people, economy and government of North Carolina is a matter of public policy. It is hereby declared to be the policy of the State of North Carolina:

...

(11) To promote, to the maximum extent practicable, the deployment of advanced conductors and grid enhancing technologies to transport the regulated public utilities' electric energy supply in the most efficient means practicable. To that end, to require transmission planning to be coordinated with energy planning and the fixing of rates in a manner to result in the least cost mix of generation and transmission capital expenditure that is achievable.

...."

SECTION 2. G.S. 62-100 reads as rewritten:

"Article 5A.

"Siting of Transmission Lines.

"§ 62-100. Definitions.

As used in this Article:

(1) ~~The term "begin to construct" includes~~ Advanced conductors. – Any conductor that has a direct current electrical resistance at least ten percent (10%) lower than aluminum conductor steel reinforced lines of a similar diameter.

(1a) Begin to construct. – Includes any clearing of land, excavation, or other action that would adversely affect the natural environment of the route of a transmission line; but that term does not include land surveys, boring to ascertain geological conditions, or similar preliminary work undertaken to determine the suitability of proposed routes for a transmission line that results in temporary changes to the land.

(2) ~~The word "county" means any~~ County. – Any one of the counties listed in G.S. 153A-10.



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- (2a) Grid enhancing technology. – Any hardware or software technology that enhances the performance or improves the efficiency of a transmission system. Includes energy storage as a transmission asset, dynamic line ratings, advanced power flow control technology, topology optimization, and flexible alternating current transmission systems.
- (3) ~~The word "land" means any Land.~~ – Any real estate or any estate or interest in real estate, including water and riparian rights, regardless of the use to which it is devoted.
- (4) ~~The word "lines" means distribution~~ Lines. – Distribution lines and transmission lines collectively.
- (5) ~~The word "municipality" means any Municipality.~~ – Any incorporated community, whether designated as a city, town, or village and any area over which it exercises any of the powers granted by Chapter 160D of the General Statutes.
- (6) ~~The term "public utility" means any Public utility.~~ – Any of the following:
- A public utility, as defined in G.S. 62-3(23).
 - An electric membership corporation.
 - A joint municipal power agency.
 - A city or county that is engaged in producing, generating, transmitting, delivering, or furnishing electricity for private or public use.
- (7) ~~The term "transmission line" means an~~ Transmission line. – An electric line designed with a capacity of at least 161 kilovolts."

SECTION 3. G.S. 62-101 reads as rewritten:

"§ 62-101. Certificate to construct transmission line.

...

- (c) A certificate is not required for construction of any of the following lines:
- A line designed to carry less than 161 ~~kilovolts~~; kilovolts.
 - The replacement or expansion of an existing line with a similar line in substantially the same location, or the rebuilding, upgrading, modifying, modernizing, or reconstructing of an existing line for the purpose of increasing capacity by no greater than seventy-five percent (75%) of the existing lines or widening an existing ~~right-of-way~~; right-of-way.
- (2a) The upgrading, modifying, modernizing, or reconstructing of an existing line for the purpose of increasing capacity solely through the deployment of advanced conductors and/or grid enhancing technologies for any of the following purposes:
- Increasing transmission capacity.
 - Increasing transmission efficiency.
 - Reducing system congestion.
 - Reducing curtailment of energy generation resources.
 - Increasing reliability.
 - Increasing resiliency.
 - Increasing capacity to connect new generation resources.
- (3) A transmission line over which the Federal Energy Regulatory Commission has licensing jurisdiction, if the Commission determines that agency has conducted a proceeding substantially equivalent to the proceeding required by this ~~Article~~; Article.
- (4) Any transmission line for which, before March 6, 1989, a public utility or other person has surveyed a proposed route and, based on that route, has acquired rights-of-way for it by voluntary conveyances or has filed condemnation proceedings for acquiring those rights-of-way which, together,

- involve twenty-five percent (25%) or more of the total length of the proposed ~~route~~; route.
- (5) An electric membership corporation owned transmission line for which the construction or upgrading has had a proceeding conducted which the Commission determines is substantially equivalent to the proceeding required by this ~~Article~~; Article.
- (6) Any line owned by a municipality to be constructed wholly within the corporate limits of that municipality.
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SECTION 4. G.S. 62-102 reads as rewritten:

"§ 62-102. Application for certificate.

- (a) An applicant for the certificate described in G.S. 62-101 shall file an application with the Commission containing all of the following information:
- (1) The reasons the transmission line is ~~needed~~; needed.
 - (2) A description of the proposed location of the transmission ~~line~~; line.
 - (3) A description of the proposed transmission ~~line~~; line.
 - (3a) Descriptions of any advanced reconductoring and/or grid enhancing technologies to be utilized and a summary of the costs and benefits, including, but not limited to, all of the following:
 - a. Increasing transmission capacity.
 - b. Increasing transmission efficiency.
 - c. Reducing system congestion.
 - d. Reducing curtailment of energy generation resources.
 - e. Increasing reliability.
 - f. Increasing resiliency.
 - g. Increasing capacity to connect new generation resources.
 - (3b) A description of any alternatives, including alternative configurations of advanced reconductoring and/or grid enhancing technologies, evaluated but not selected for the proposed transmission line and a summary of the costs and benefits of these alternatives.
 - (4) An environmental report setting ~~forth~~; forth all of the following:
 - a. The environmental impact of the proposed ~~action~~; action.
 - b. Any proposed mitigating measures that may minimize the environmental ~~impact~~; and impact.
 - c. Alternatives to the proposed action.
 - (5) A list of all necessary approvals that the applicant must obtain before it may begin to construct the transmission ~~line~~; and line.
 - (6) Any other information the Commission requires.
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SECTION 5. G.S. 62-110.9 reads as rewritten:

"§ 62-110.9. Requirements concerning reductions in emissions of carbon dioxide from electric public utilities.

The Utilities Commission shall take all reasonable steps to achieve a seventy percent (70%) reduction in emissions of carbon dioxide (CO₂) emitted in the State from electric generating facilities owned or operated by electric public utilities from 2005 levels by the year 2030 and carbon neutrality by the year 2050. For purposes of this section, (i) "electric public utility" means any electric public utility as defined in G.S. 62-3(23) serving at least 150,000 North Carolina retail jurisdictional customers as of January 1, 2021, and (ii) "carbon neutrality" means for every ton of CO₂ emitted in the State from electric generating facilities owned or operated by or on behalf of electric public utilities, an equivalent amount of CO₂ is reduced, removed, prevented, or offset, provided that the offsets are verifiable and do not exceed five percent (5%) of the

1 authorized reduction goal. In achieving the authorized carbon reduction goals, the Utilities
2 Commission shall:

3 ...

4 (3) Ensure any generation and resource changes maintain or improve upon the
5 adequacy and reliability of the existing grid. The Carbon Plan shall require the
6 electric public utility to produce a report demonstrating it evaluated a range of
7 cost-effective transmission and distribution solutions, including advanced
8 reconductoring and/or grid enhancing technologies as defined in G.S. 62-100,
9 joint projects with neighboring and other regional utilities, other upgrades to
10 existing facilities, and other best practices. The report should include
11 descriptions of any advanced reconductoring and/or grid enhancing
12 technologies to be utilized and a summary of costs and benefits, and a
13 description of any alternatives, including alternative configurations of
14 advanced conductoring and/or grid enhancing technologies, evaluated but not
15 selected in the Carbon Plan and a summary of the costs and benefits of these
16 alternatives. The electric public utility shall also include all of the following
17 in the report:

- 18 a. Updates to the utility's transmission plan under the utility's open access
19 transmission tariff pursuant to the federal jurisdictional planning
20 process. In this report, the utility shall, when applicable, describe
21 planned transmission improvements specific to siting of new resources
22 expected to impact interconnection constraints or other operations of
23 the systems. The utility shall also describe how it evaluated alternate
24 transmission technologies when developing solutions for identified
25 transmission needs for interconnecting new generation resources.
26 b. A description of how transmission factored into the utility's evaluation
27 of the range of future scenarios included in the 15-year time period of
28 the utility's resource plan, including the retirement of the utility's coal
29 generation.
30 c. A discussion of transmission considerations for facilities included in
31 the utility's preferred resource plan for which there are particular sites
32 specified.

33"

34 **SECTION 6.** This act is effective when it becomes law.