

# MAINE STATE LEGISLATURE

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# 114th MAINE LEGISLATURE

FIRST REGULAR SESSION - 1989

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Legislative Document

No. 1347

H.P. 969

House of Representatives, April 25, 1989

Reference to the Committee on Utilities suggested and ordered printed.

A handwritten signature in cursive script that reads "Ed Pert".

EDWIN H. PERT, Clerk

Presented by Representative HEESCHEN of Wilton.

Cosponsored by Senator CLARK of Cumberland, Senator TITCOMB of Cumberland and Representative MARSH of West Gardiner.

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STATE OF MAINE

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IN THE YEAR OF OUR LORD  
NINETEEN HUNDRED AND EIGHTY-NINE

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**Resolve, Authorizing the Public Utilities Commission to Conduct a  
Study Concerning Electromagnetic Field Exposure.**

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1           **Preamble.** Whereas, one of the primary obligations of public  
2 utilities, including both privately and publicly owned electrical  
3 utilities, is to "furnish safe, reasonable and adequate  
4 facilities and service," as stated in the Maine Revised Statutes,  
5 Title 35-A, section 301; and

6           **Whereas,** a number of scientific studies are beginning to  
7 indicate that nonionizing radiation in the form of  
8 electromagnetic fields associated with electrical utility  
9 facilities and electrical devices may present a significant  
10 medical risk; and

11           **Whereas,** these studies show that exposure to electromagnetic  
12 fields may be related to an increased incidence of leukemia and  
13 other cancers in children, as well as an increased incidence of  
14 fetal loss; and

15           **Whereas,** it is also possible that exposure to  
16 electromagnetic fields may be related to an increased risk of  
17 cancer for workers occupationally exposed to electromagnetic  
18 fields; and

19           **Whereas,** according to Title 35-A, section 3132, subsection  
20 5, the Public Utilities Commission makes orders regarding the  
21 character, size, installation and maintenance of proposed  
22 transmission lines as are necessary; and

23           **Whereas,** it is the intent of the Legislature in enacting  
24 this resolve to determine the medical risk that exposure to  
25 electromagnetic fields presents and what regulation is needed to  
26 reduce that risk and protect the public health, safety and  
27 welfare; now, therefore, be it

28           **Study concerning electromagnetic fields authorized. Resolved:** That  
29 the Governor direct the Public Utilities Commission, in  
30 consultation with the Department of Human Services, Bureau of  
31 Health, to conduct a study of research concerning health risks  
32 associated with exposure to electromagnetic fields, with input  
33 from representatives of state and federal agencies, other states  
34 and countries, academia, the electric utility industry and public  
35 interest groups; and be it further

36           **Report. Resolved:** That on or before December 1, 1990, after  
37 holding public hearings in communities selected by the  
38 commission, the commission shall report to the Legislature its  
39 findings to include the following:

40           1. A comprehensive description of any medical risks  
41 including, but not limited to, those related to reproduction,  
42 cancer and behavior that are determined to be associated with  
43 exposure to electromagnetic fields. The commission shall  
44

1 accompany this description with a summary and bibliography of all  
2 completed and ongoing research projects and studies, including,  
3 but not limited to, those undertaken by the Federal Government,  
4 other states and countries, academic and research institutions  
5 and the electric utility industry, that are identified by the  
6 commission and the bureau as indicating cancer or other medical  
7 risks that may be associated with exposure to electromagnetic  
8 fields;

9  
10 2. A description of any higher incidence of leukemia or  
11 other cancers experienced by children who reside or attend school  
12 in close proximity to electrical utility facilities;

13  
14 3. A description of any higher incidence of fetal loss  
15 experienced in association with exposure to electromagnetic  
16 fields;

17  
18 4. A description of any increased incidence of disease for  
19 workers occupationally exposed to electromagnetic fields;

20  
21 5. A description of electromagnetic field exposure  
22 standards adopted by governmental and international bodies;

23  
24 6. A description of ways of achieving reduced magnetic  
25 field strengths, including, but not limited to, sizing, material,  
26 configuration and shielding of electrical conductors, and system  
27 operating practices;

28  
29 7. Recommendations for electromagnetic field exposure  
30 limits to protect the health and welfare of the general public in  
31 residences, schools and the environment and for workers  
32 occupationally exposed to electromagnetic fields; and

33  
34 8. Recommendations for regulations or legislation necessary  
35 to limit exposure to electromagnetic fields, including, but not  
36 limited to, reducing the level of electromagnetic fields that new  
37 electrical utility facilities typically produce and replacing  
38 electrical utility facilities that may generate excessive  
39 electromagnetic field levels; and be it further

40  
41 **Maine Electromagnetic Fields Study Fund. Resolved:** That for  
42 purposes of preparing the report as required by this resolve, the  
43 commission shall calculate a fee to be paid by every privately  
44 and publicly owned electrical utility in this State with  
45 operating revenues over \$1,000,000 per year, in the proportion  
46 that each utility's total distribution of electricity to its  
47 customers bears to the total distribution of electricity  
48 statewide, in a sufficient amount that the total of all fees  
49 calculated in this way does not exceed \$100,000.

50  
51 All fees collected shall be deposited in the Maine  
Electromagnetic Fields Study Fund, which is hereby created in the

1 State Treasury. The money in the fund shall be continuously  
appropriated until December 1, 1990, to the commission for  
3 purposes of its expenses and the expenses of the bureau under  
this resolve; and be it further

5  
7 **Interim standards. Resolved:** That the following interim  
exposure standards and procedures shall be adopted:

9 1. Proximity of certain power lines and electrical utility  
facilities to residential buildings and schools shall be as  
11 follows:

13 A. No new residential building or school may be built  
within 25 feet of an aboveground, 3-phase power line;

15 B. No new aboveground, 3-phase power line may be built  
17 within 25 feet of a residential building or school;

19 C. No new residential building or school may be built  
within 50 feet of a 23 or greater kilovolt aboveground,  
21 3-phase power line;

23 D. No new 23 or greater kilovolt aboveground, 3-phase power  
line may be built within 50 feet of a residential building  
25 or school; and

27 E. No new 3-phase power line or other electrical utility  
facility may be built, nor new residential building or  
29 school constructed, in a manner that could result in the  
residence or school being exposed to a magnetic field in  
31 excess of 3 milligauss or an electric field in excess of one  
kilovolt per meter from the power line or facility; and

33 2. Each distributor of electrical power shall:

35 A. Notify its customers whether electromagnetic fields from  
37 power lines and other sources can produce or promote change  
that impairs or otherwise compromises health is a matter of  
39 scientific controversy and that there is a consensus of  
opinion within the scientific community that more research  
41 is needed. The notification shall also describe the interim  
exposure standards as set out in 1;

43 B. Provide each customer whose residence does not meet the  
45 proximity limits established in this resolve and that was  
built after the effective date of this resolve with:

47 (1) Notification of the customer's failure to comply  
49 with the proximity limits; and

51 (2) Notification as set out in A; and

1 C. Establish a procedure for conducting surveillance of  
2 electric and magnetic fields produced by electric utility  
3 lines and facilities; and be it further

5 **Duration of effect. Resolved:** That these interim standards  
6 shall remain in effect until such time as the Legislature through  
7 law or the Public Utilities Commission through rulemaking  
8 establishes permanent standards which will protect the public  
9 health and welfare.

11

13

### STATEMENT OF FACT

15 All electrical transmission and distribution lines, wiring  
16 and electrical appliances emit nonionizing radiation in the form  
17 of electric and magnetic fields, or EMF, which are usually  
18 imperceptible to humans. EMF result from voltages and currents  
19 in electrical wiring and devices, and the strength of the field  
20 decreases with the distance from the source. Recently there has  
21 been increasing concern about the possible effects of EMF  
22 exposure on human health. This resolve authorizes the Governor  
23 to direct the Public Utilities Commission to conduct a study, in  
24 consultation with the Department of Human Services, Bureau of  
25 Health, and with input from a wide range of sources, concerning  
26 EMF exposure. After public hearings, the commission will report  
27 to the Legislature its findings, including descriptions of  
28 medical risks found to be associated with exposure to EMF,  
29 particularly medical risks to children, reproductive risks and  
30 risks to workers occupationally exposed to EMF. The report will  
31 also include descriptions of ways to reduce magnetic field levels  
32 and of exposure standards or limits that have been adopted by  
33 governmental or international bodies. The resolve asks the  
34 commission to recommend in its report EMF exposure limits and  
35 regulations necessary to achieve those limits. To finance the  
36 preparation of the report, electric utilities are assessed fees,  
37 proportional to their size, to be paid into the Maine  
38 Electromagnetic Fields Study Fund, established by this resolve.  
39 Finally, this resolve establishes interim standards for exposure  
40 to EMF from new transmission line construction until permanent  
41 standards are established.