

THE COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES

Petition of Boston Edison Company: (a) under the provisions of G.L.c. 164, §72, as amended, for a determination that underground lines for the transmission of electricity are necessary, will serve the public convenience and are consistent with the public interest; and (b) for a determination that locations upon, under, along or across certain boulevards or reservations in the care and control of the Metropolitan District Commission will be and are required by public convenience and necessity for wires, cables or pipes for the transmission of electricity, pursuant to the requirements of G.L.c. 92, §§ 33, 37, 38 and 43, as amended.

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To the Department of Public Utilities:

The petitioner, Boston Edison Company, a Massachusetts corporation having its principal office in Boston, Suffolk County, Massachusetts, respectfully represents that:

1. The petitioner is a public service corporation authorized to generate, transmit, distribute and sell electricity, and is an "electric company" as defined in G.L.c. 164, §1, as amended.
2. The petitioner seeks authority under the provisions of G.L.c. 164, §72, as amended, to construct, maintain and operate underground lines, consisting of conduits and manholes with wires and cables therein, for the transmission of electricity at 115 kV for the purpose of supplying electricity to itself, its customers and other electric companies.

3. The underground transmission lines (the "underground lines") will be of so-called pipe-type cable construction and will extend in a southerly direction from the petitioner's Substation #509, off Alewife Brook Parkway in the City of Cambridge, under Terminal Road (a private way), under Alewife Brook Parkway, Concord Avenue, Fresh Pond Parkway, Lakeview Avenue, Brattle Street, Elmwood Avenue, again under Fresh Pond Parkway, under Charles W. Greenough Boulevard, under lands of the Metropolitan District Commission ("MDC"), under the Charles River, across the Cambridge/Boston municipal boundary, under other lands of the MDC, under Soldiers Field Road, Everett Street, Adamson Street, Franklin Street, Alcott Street, and private property now or formerly of Lou and Joe Realty Corporation, a Massachusetts corporation, all in the Brighton district of the City of Boston, into the petitioner's Substation #329, off Lincoln Street in said Brighton, a distance of approximately 2.8 miles.

4. Alewife Brook Parkway, Fresh Pond Parkway, Charles W. Greenough Boulevard and the Charles River all in Cambridge, and Soldiers Field Road and the Charles River in the Brighton district of the City of Boston are boulevards and reservations and a river in the care and control of the MDC as described in G.L.c. 92, §§ 33, 37, 38 and 43, as amended.

5. The general location of the proposed underground lines are indicated in red on a plan entitled "Boston Edison Company, Key Map, Cambridge-Brighton Showing Proposed 115 kV Pipe Type Cable Route", #S-4514, dated September 6, 1972, a copy of which is attached hereto and marked Exhibit A.

6. The general description of the proposed underground line is attached hereto and marked Exhibit B.


7. An estimate showing in reasonable detail the cost of the proposed underground lines is attached hereto and marked Exhibit C.

8. The underground transmission lines herein described are necessary for the purpose alleged, will serve the public convenience and are consistent with the public interest. The installation of underground transmission lines upon, under, along or across Alewife Brook Parkway, Fresh Pond Parkway, Charles W. Greenough Boulevard, the Charles River and Soldiers Field Road, as herein described, are required by public convenience and necessity.

WHEREFORE, the petitioner prays that the Department (1) acting under and in accordance with G.L.c. 164, §72, as amended, determine that said proposed underground lines, referred to

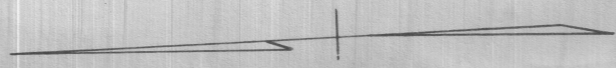
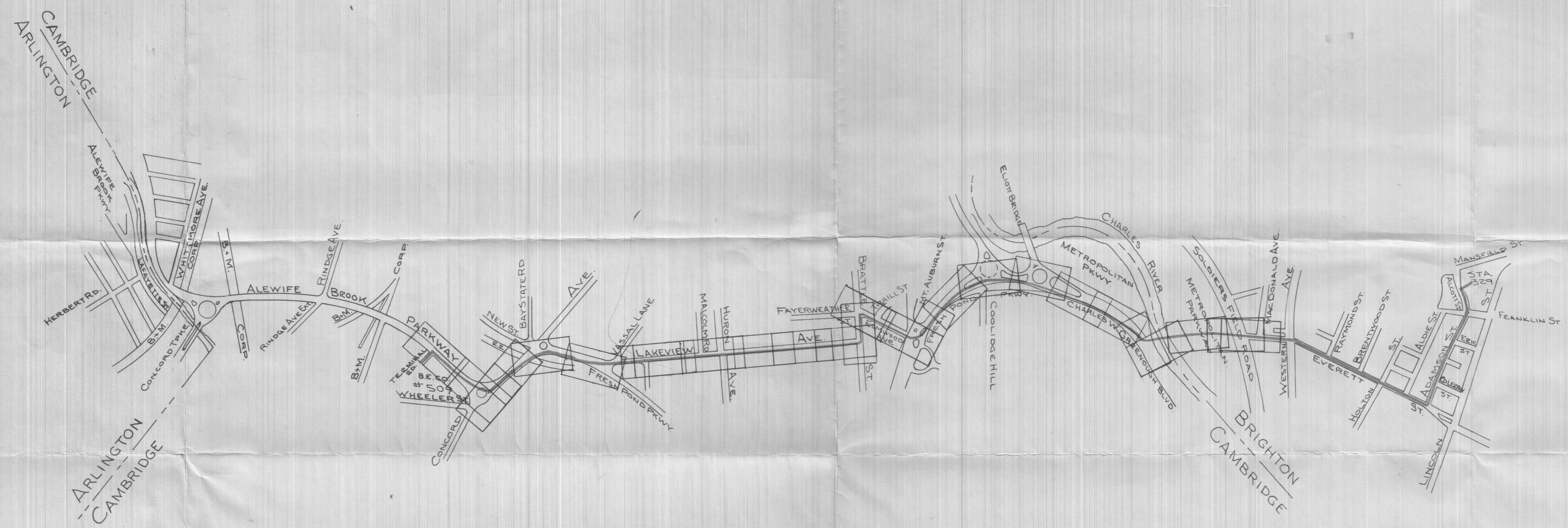
above, are necessary for the purposes alleged, will serve the public convenience and are consistent with the public interest; (2) acting under and in accordance with G.L.c. 92, §§ 33, 37, 38 and 43, as amended, determine that public convenience and necessity require the installation of said proposed underground lines under portions of Alewife Brook Parkway, Fresh Pond Parkway, Charles W. Greenough Boulevard, the Charles River and Soldiers Field Road, boulevards and a river in the care and control of the Metropolitan District Commission; and (3) authorize the petitioner to construct, maintain, operate and use said underground lines herein described.

BOSTON EDISON COMPANY

By   
Vice President

Boston, Massachusetts  
March 1, 1973

James M. Carroll, Esq.  
John J. Desmond, III, Esq.  
Boston Edison Company  
800 Boylston Street  
Boston, Massachusetts 02199



PROPOSED CONSTRUCTION  
SHOWN THUS:

THE LOCATION OF UNDERGROUND STRUCTURES  
ARE FROM PLANS AND RECORDS AND ARE  
APPROXIMATE ONLY.

Plan Order No. \_\_\_\_\_  
Order No. \_\_\_\_\_  
Surveyed by \_\_\_\_\_  
Plotted by \_\_\_\_\_  
Traced by \_\_\_\_\_  
Checked by *Tam Joyce*  
Division Head. *R. J. Dechet*  
APPROVED  
*A. E. Anderson*  
BY *Ch. Amell* Superintendent

NO.	REVISION	APP'D	DATE

**BOSTON EDISON COMPANY**  
ENGINEERING & CONSTRUCTION DEPT.  
**KEY MAP**  
Plan of **CAMBRIDGE - BRIGHTON**  
Showing proposed 115 KV PIPE TYPE CABLE  
ROUTE  
Scale 1 IN = 900 FT. ± Date *Sept. 6, 1972*

## EXHIBIT B

### BOSTON EDISON COMPANY

General description of the 115 kV underground pipe type cable lines to be built from Substation #509 (North Cambridge) to Station #329 (Brighton).

- Length - Approximately 2.8 miles (including a 400 ft. river crossing).
- Pipes - Two 8-5/8" O.D. Somatic coated steel pipes spaced 2' on center in a trench 4' wide by 5' deep. A concrete envelope of 6" under and 12" over the pipes will be provided.
- Manholes - 17' x 8' x 9' deep concrete splicing manholes will be installed spaced about every 2500 ft. Each manhole will be provided with two standard manhole covers.
- Conductors - Each 8-5/8" O.D. pipe will contain three 2250 kcmil paper insulated copper conductors with two brass or zinc skid wires each. The approximate O.D. of each insulated conductor is 2.70".
- Terminations - Each conductor will terminate in a pothead mounted on station structures at each end of the line.
- Oil System - All piping will be filled with low viscosity polybutene insulating oil. This is to be maintained at 200 psi nominal pressure by a pumping plant in the North Cambridge Station yard. Also connected to the oil system will be heat exchangers at each end to circulate and cool the oil.
- Grounding - The entire pipe system will be cathodically protected and suitably grounded. Provision will be made for transient high voltage discharge to ground via polarization cells.
- Carrying Capacity - 250 MVA per circuit.

EXHIBIT C

BOSTON EDISON COMPANY

Estimated cost for the construction of two 115kV pipe-type cable lines from Substation #509 (North Cambridge) to Substation #329 (Brighton).

Land and Right-of-Way		\$60,000
Survey		6,000
Materials		
Cable	\$925,000	
Terminals	36,000	
Pipe	123,000	
Oil	36,000	
Miscellaneous	<u>155,000</u>	
	\$1,275,000	1,275,000
Labor		1,572,000
Engineering (including indirect costs)		406,000
Contingencies		58,000
Permanent Paving		185,000
Interest during construction		<u>273,000</u>
		Total
		<u>\$3,835,000</u>

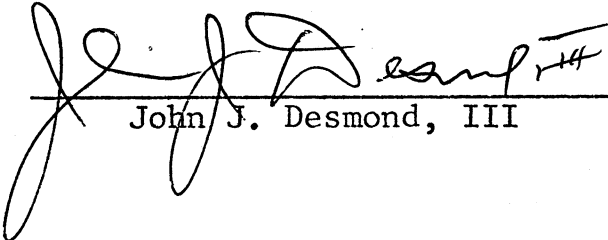
Boston Edison Company  
Engineering and Construction Department

CERTIFICATE OF SERVICE

Suffolk, ss

March 2, 1973

I, John J. Desmond, III, a member of the Bar of the Commonwealth of Massachusetts, hereby certify that a copy of the foregoing petition has been forwarded to the Cities of Boston and Cambridge by mailing the same, postage prepaid, to the City Clerks of each of the aforesaid municipalities.

  
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John J. Desmond, III



JOHN J. DESMOND, III  
COUNSEL

BOSTON EDISON COMPANY  
RECEIVED BY  
OFFICE OF EXECUTIVE OFFICERS  
800 BOYLSTON STREET  
BOSTON, MASSACHUSETTS 02199  
MAR 5 10 30 AM '73  
CAMBRIDGE, MASS.

March 2, 1973

Mr. Francis J. Hickey, Jr.  
Secretary  
Department of Public Utilities  
100 Cambridge Street  
Boston, Massachusetts

Re: Cambridge to Brighton 115 kV  
Underground Lines - Convenience  
and Necessity Petition

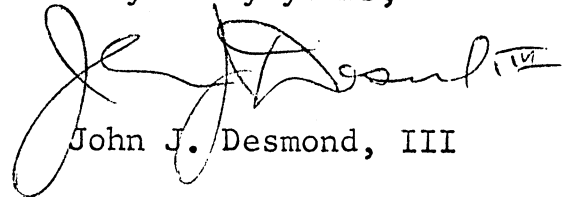
Dear Mr. Hickey:

Enclosed for filing is a petition of Boston Edison Company requesting a certificate of convenience and necessity (G.L.c. 164, §72) for 115 kV underground transmission lines to be constructed from Cambridge to Brighton, a distance of approximately 2.8 miles.

Copies of the petition, together with the filing letter, will be served on the Cities of Boston and Cambridge.

The filing fee of ten dollars (\$10.00) is included with the enclosed material.

Very truly yours,

  
John J. Desmond, III

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3/5/23

CO wants a report  
from Ch in detail