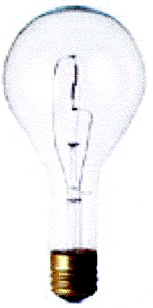
Manhattan because the early backbone of New York's electricity grid was built by Mr. Edison's company, which had a running head start in the first decade before Mr. Tesla and Mr. Westinghouse demonstrated the potential of alternating current with the Niagara Falls power project. (Among the customers of Thomas Edison's Pearl Street power plant on that first day was The New York Times, which observed that to turn on its lights in the building, "no matches were needed.")

But direct current clearly became uneconomical, as the short distances that it could be transmitted would have required a power station every mile or less, according to Joe Cunningham, an engineering historian. Thus alternating current in New York began in the outskirts — Queens, Bronx, Upper Manhattan and the suburbs.



The direct current conversion in Lower Manhattan started in 1928, and an engineer then predicted that it would take 45 years, according to Mr. Cunningham. "An optimistic prediction since we still have it now," he said.

The man who is cutting the link today at 10 East 40th Street is Fred Simms, a 52-year veteran of the company. Why him?

"He's our closest link to Thomas Edison," joked Bob McGee, a Con Ed spokesman.