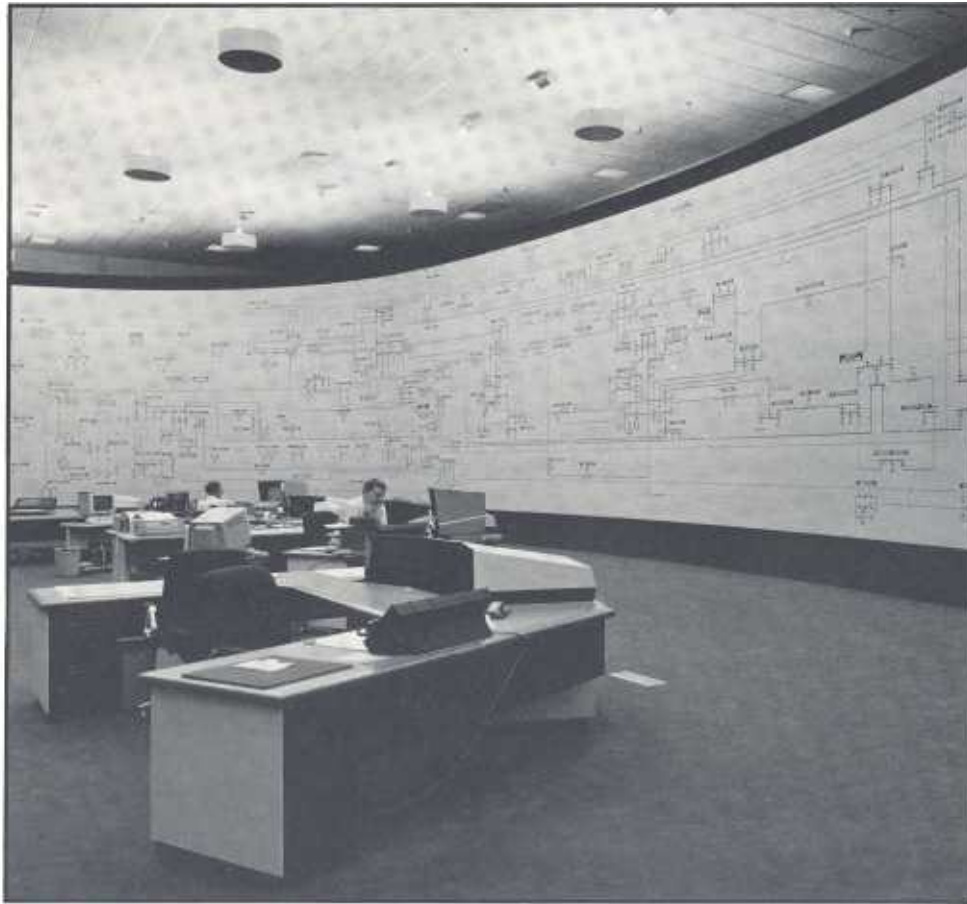


**Space-age
Guardian of
Your Electric
Service**

Met-Ed GPU

ENERGY CONTROL CENTER



The "electronic age" is a demanding age for electric utility companies. Your electric service must be made not only as safe and affordable as possible, but also highly reliable.

Electric energy must be there when and where you need it ...24 hours a day ... every day. Growing numbers of both customers and power line facilities make this task much more complex than it may sound.

Within seconds, automated electric transmission equipment must precisely shift varying amounts of power from one circuit to another to override possible interruptions and ensure continuous, reliable service. And, when storms and disasters cause a power emergency, customers need their service restored quickly.

That's why in the late 1980s Metropolitan Edison Company built

a state-of-the-art Energy Control Center. This 26,000 square-foot addition to Met-Ed's Reading, Pa. headquarters will revolutionize electric service capability well into the 21st century.

When you're serving a population of more than one million people, spread over 14 counties and 3,200 square-miles, efficiency counts. You need the best system technology can offer. Met-Ed's computer-monitored Energy Control Center is the heart of this system ... the space-age guardian of your electric service.

A View of the System

The Energy Control Center is the hub of a huge, interconnected electric power system for Met-Ed. From the Center in Reading and satellite dispatching centers in Lebanon, York and Easton, highly trained operators monitor and control Met-Ed's entire power system.



Dozens of power generation sources, hundreds of electrical substations and thousands of miles of power lines are electronically linked and coordinated. The system brings everything together to help produce quality electric service for Met-Ed customers.

Wall Diagram

From a commanding 2-story high, 100-foot wide lighted map board, system operators can determine the status of the overall system in an instant. Transmission line loading, generator status, interconnections (with neighboring utilities) and voltages, are all indicated.

Every transmission line of 69,000 volts and above appears on the map. This display acts as an early warning system to alert system operators when abnormalities occur anywhere within the Met-Ed system.

Energy Management System



Consoles facing the wall map board are equipped with hill graphic color video screens, keyboards and telephone panels. This computer system is known as the Energy Management System (EMS). Should a flashing light on the map board

indicate a problem, the console operator can call up a diagram of the trouble area on his screen. With this detail he can look for ways to reroute the flow of electricity so as to not cause customers any unnecessary inconvenience.

Operators can also control power supply from company generating units and from neighboring utilities with EMS. This permits substation and power plant maintenance to be scheduled and performed without impact on service reliability. Electrical loads and voltages are also maintained at Public Utility Commission mandated standards with EMS help.

The console's telephone offers complete access to company and public phone lines as well as special hot lines to the company's various divisions, generating stations and neighboring utilities. In addition, the telephone provides access to the company's mobile radio system for contacting line and construction crews.

Lightning Detection

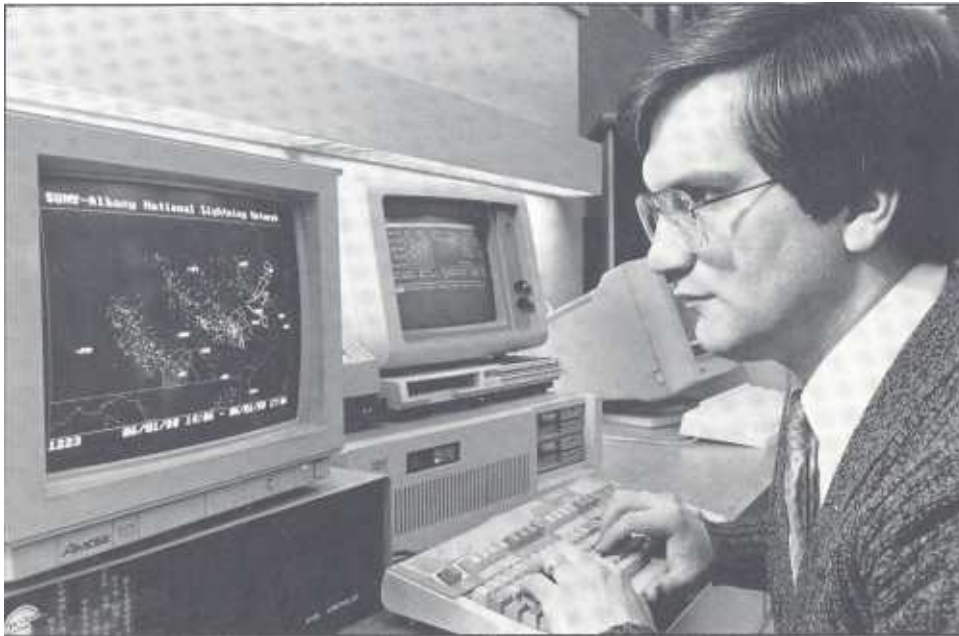
Lightning is a major source of power interruption. However, with the Energy Control Center's

Lightning Detection system, Met-Ed can help to shorten service interruptions to customers.

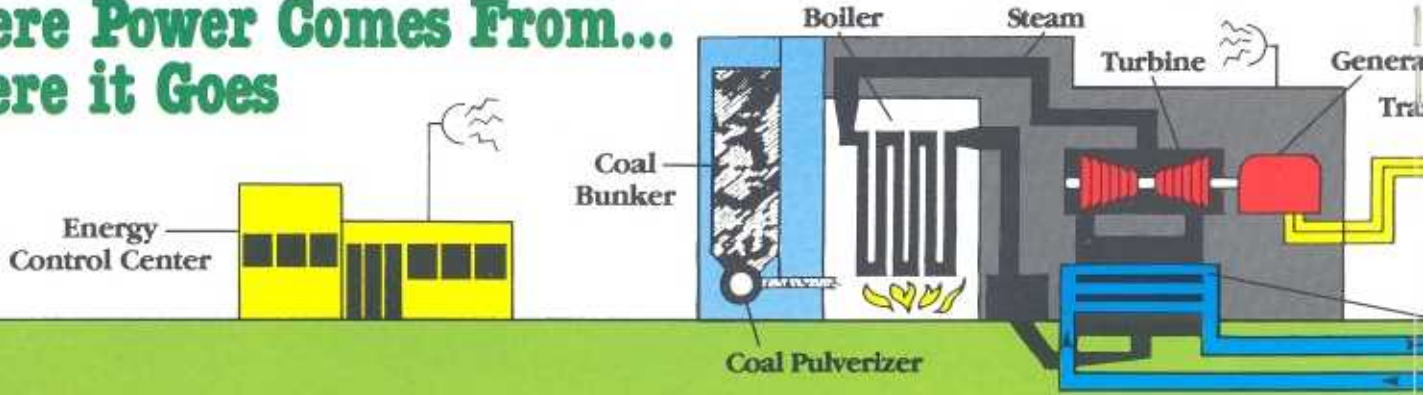
More than 120 tracking stations throughout the United States collect storm and lightning data and relay it via satellite to subscriber utilities. The computerized network tracks the location, intensity and characteristics of lightning storms.

With this data, Met-Ed operators can anticipate possible storm damage paths. They can determine when and where emergency line crews might be needed in advance of a strike.

Should lightning affect any part of the power system, the Energy Control Center immediately detects it. Repair crews are prepared to start restoring customer service on the spot.



Where Power Comes From... Where it Goes



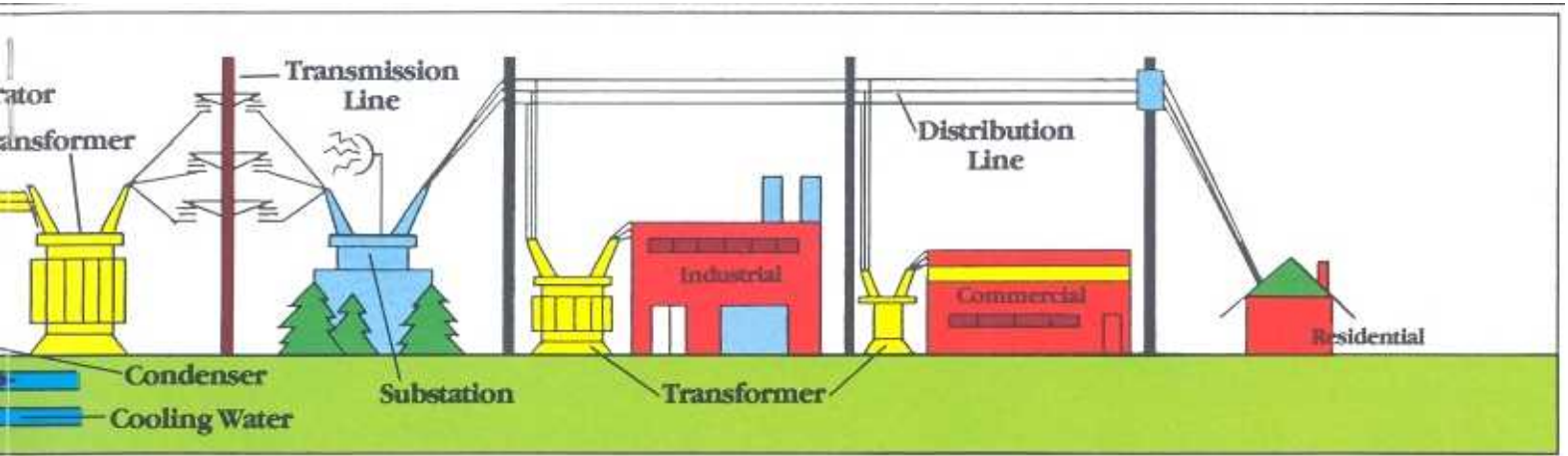
Met-Ed's Energy Control Center monitors the output of electric power from company generating stations. Since electrical energy cannot be stored, a constant balance must be maintained between power produced and power used.

Here is how your electricity is made. The process converts one energy into another. The method is always the same but the energy

used to create electricity can vary. Coal, oil, nuclear, natural gas or even trash may be the fuel consumed to create steam. Or, the initial energy may be wind, geothermal or water power.

In power plants such as Met-Ed's Titus or Portland stations, coal is crushed into a fine powder and pressure blown into large boilers where it is burned.

2. Heat boils water in the boiler tubes creating steam.
3. Steam turns the blades of a turbine generator. As it spins it generates 60-cycle alternating current (AC) at about 15,000 volts.
4. Generated electricity then goes to transformers in a substation adjoining the power station. Here the electricity's voltage is



increased to as high as 500,000 volts, allowing it to travel long distances.

5. First, the electric current runs through transmission lines supported by steel towers and large poles. These lines once again connect to substations where voltage is reduced for local distribution.

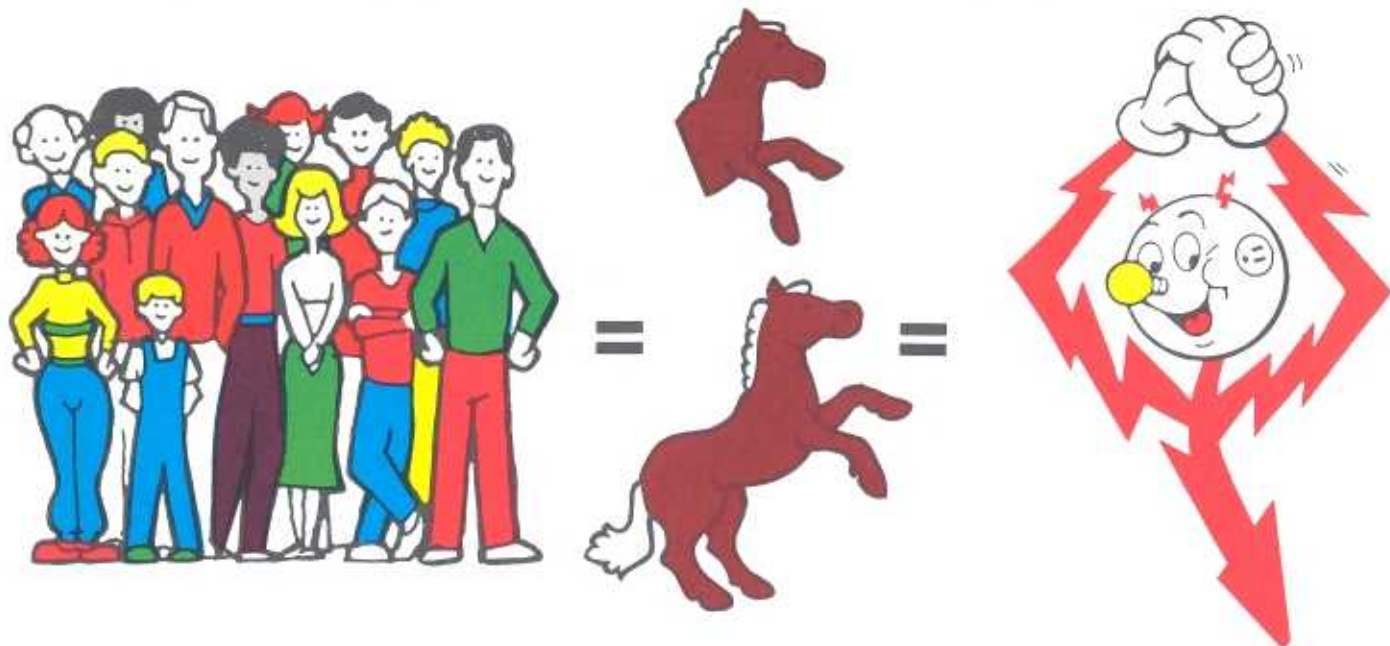
6. Electricity from these substations can go to other municipal power systems, large industrial and commercial customers. The Energy Control Center monitors and controls the operation of substations.

7. For residential use, transformers mounted on wooden distribution poles near your home further step down volt-

ages of electricity entering your home - for the safe operation of lights and appliances.

The electricity produced, monitored by the Energy Control Center and sent to you, travels at the speed of light!

What This System Means to You



13 Personpower

=

1-1/3 Horsepower

=

1 Kilowatt!

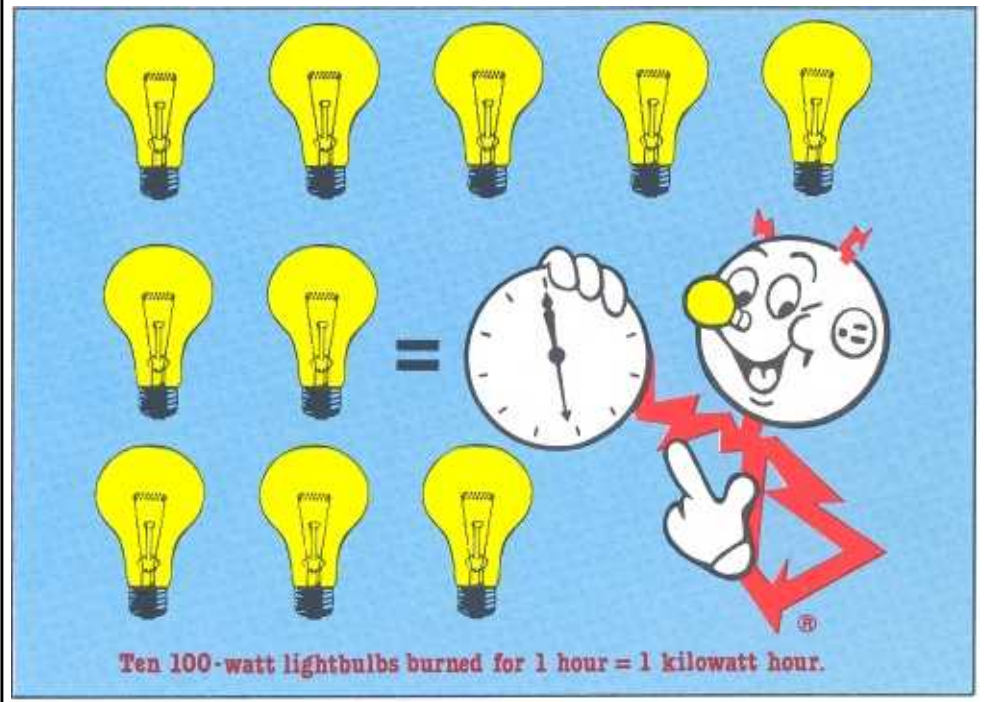
Our service to you is over 99.9% reliable thanks to the Energy Control Center and Met-Ed's dedicated and well trained employees. Maintaining our power facilities to such a high standard makes your life easier and more productive ... from operating machinery at your place of work to lighting the lights in your home.

The amount of electricity you use is measured by an electric meter measuring kilowatt-hours. Kilo means 1,000. So 1,000 watts used in one hour is a kilowatt-hour.

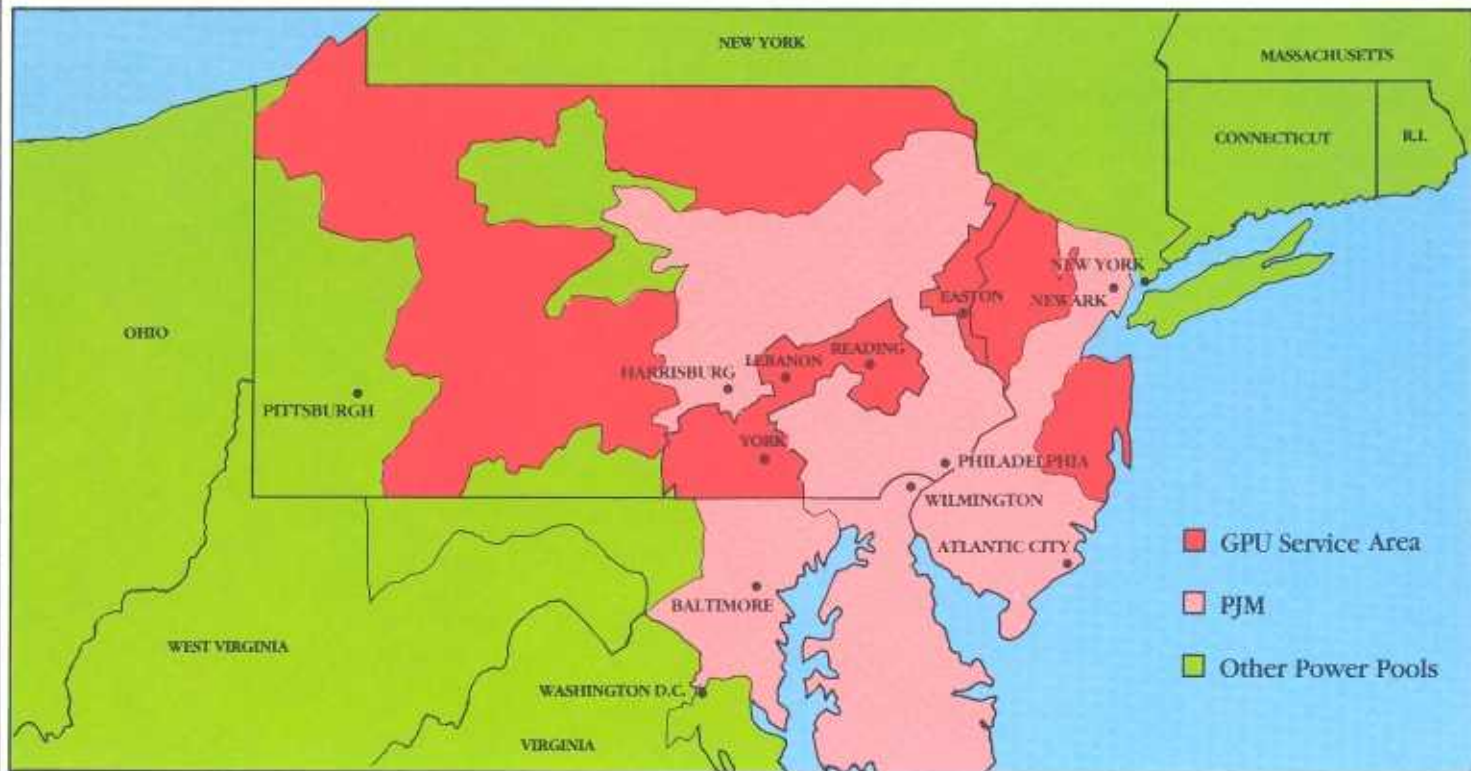
Light ten 100-watt bulbs in your home for an hour and you've used one kilowatt-hour. This is a good illustration, although for the average Met-Ed household using 1,100 kilowatt hours of electricity per month, lighting only represents about 6% of the total bill.

Electrical usage generally includes the use of more than 40 household appliances. An 18-cubic-foot energy efficient refrigerator, for example, can use about 80 kilowatt-hours of

electricity each month. And many homes contain such major electricity users as electric water heaters, air conditioners and electric heating systems.



The PJM Power Pool



Ties to Other Systems Boost Efficiency

Met-Ed's power system and Energy Control Center are tied into a larger network of utilities for even greater reliability. Met-Ed is part of General Public Utilities (GPU) Corporation. GPU closely monitors and controls electric generation of its three operating subsidiaries (Metropolitan Edison Co., Pennsylvania Electric Company and Jersey Central Power & Light Co.).

In turn, GPU is one of eight major utility systems represented in a regional power pool called the Pennsylvania-New Jersey-Maryland (PJM) Interconnection. PJM is also connected with other pools and networks which form a nationwide power grid.

The PJM Power Pool

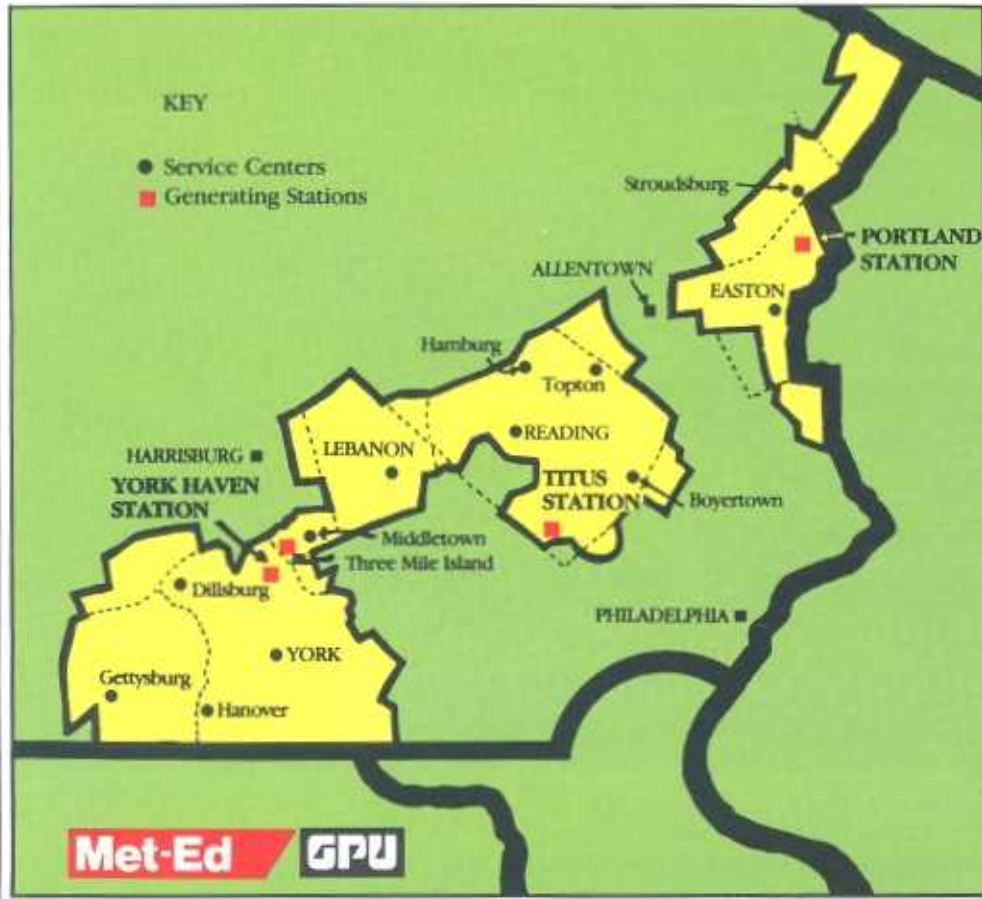
The Pennsylvania-New Jersey-Maryland Interconnection, commonly referred to as PJM, is the nation's pioneer power pool. Met-Ed and ten other investor-owned utilities comprise PJM and operate as a single system to meet the needs of the Middle Atlantic Area. This includes most of Pennsylvania, New Jersey, Delaware, the District of Columbia, more than half of Maryland and a portion of Virginia - in all, serving some 21 million people in an area of nearly 50,000 square miles.

Operating as a single system, the members of PJM can rely on each other as well as neighboring systems and pools to provide reserve power to meet customers' demands. Energy is produced by the most economical units available at the time, and is transferred to areas where power is needed. In the case of a generating unit breakdown or an unusually high demand for power, reserve power can

be transmitted to any location in the system by a series of transmission lines.

Staffed around-the-clock, the control room at PJM headquarters is designed to ensure reliable and economic operation of the power pool. The facility itself was built to withstand natural disasters and contains sophisticated monitoring and display devices.

Participation in the PJM Power Pool helps to ensure that all Met-Ed customers have a steady supply of electrical power produced in the most reliable and economical way.



Energy Control Center

Location: Met-Ed's Energy Control Center is located at the company's headquarters, 2800 Pottsville Pike, Reading, Pa.

Ownership: Met-Ed owns and operates the Energy Control Center in Reading and the satellite dispatch centers in Easton, Lebanon and York. Met-Ed is a subsidiary of General Public Utilities (GPU) Corp. of Parsippany, NJ.

Cost: \$13 million

Personnel: 27 employees

Size: 26,000 sq. ft. - 2 stories

Building facilities: Dispatching Control Center, Computer Control Center, Telecommunications Equipment Center, Storm Emergency Center and Training Center, HVAC and building support systems area, office area and conference rooms.

Emergency power: Two 500 KVA generators plus two uninterruptible power supplies (225 KVA each) for computers. The Center is also protected by elaborate security measures.