



NEW JERSEY ENERGY MASTER PLAN

Frequently Asked Questions

Q: Now that the EMP Draft has been released, what is the process that will lead to the Draft's approval?

A: Stakeholder meetings to provide an overview of the draft and respond to the public's questions on the goals and action items are scheduled to occur Monday, April 28th and Thursday, May 1st at the Trenton War Memorial. Later in June, the public may attend three yet-to-be-finalized roundtable meetings with invited experts that will focus on energy supply, energy demand and economic growth. Also, the public is invited to submit written and oral comments during one of the three formal public hearings that will occur in July, or to submit comments at any time to energymasterplan@bpu.state.nj.us. All comments will be considered prior to the formulation and adoption of a final Energy Master Plan.

Visit the Energy Master Plan website at <http://nj.gov/emp> for updates on meeting details as available and to subscribe to receive EMP news and meeting notices directly.

Q: Once the EMP is finalized, how will it be implemented?

A: Some of the strategies in the EMP will require legislation, while others can be implemented through the actions of government agencies or other parties which have jurisdiction in those areas.

Q: How will the EMP, once final, ensure follow through of its goals?

A: The final EMP will have a strict implementation schedule, and results will be reviewed annually to determine if interim goals are being met. The parties responsible for implementation will be held accountable for meeting those goals.

Q: What departments and government agencies provided input for development of the EMP Draft?

A: Over the past year and a half, Commissioners and Staff from the followings departments and agencies have participated in the EMP process: the Governor's Policy Office and the Office of Economic Growth, the Board of Public Utilities, the Department of Environmental Protection, the Department of the Public Advocate, the Department of Treasury and State Office of Energy Savings, the Department of Human Services, the Department of Community Affairs, the Department of Transportation, the Department of Agriculture, the Department of Health & Senior Service, and the Department of Children and Families. In addition, team members reached out to the Department of Labor and the Economic Development Authority to begin discussing possible action items.

Q: In addition to those government agencies, who else had input into the EMP draft?

A: The drafting of the EMP was an open and transparent process that sought to maximize public input. Hundreds of ideas, suggestions and comments were received at public meetings held around the state immediately after the announcement of the EMP in late 2006. Throughout 2007, a number of stakeholder groups met and offered recommendations on specific issues. These groups were comprised of representatives from energy companies, energy consulting firms, academics, consumer groups, business associations, non-profit organizations and members of the general public. Hundreds of other comments were received from a variety of sources through the EMP website. Every suggestion and comment was reviewed and given consideration, although it is obviously not possible to include all of them in the EMP.

Q: How does electricity demand vary over the day and year?

A: Electricity demand increases during the workday as more businesses, schools and industries open. Over the day the electricity demand increases until late afternoon at which time the load begins to decrease as businesses, industries and schools close for the day. This peak is more dramatic in the summer as temperatures increase with an increasing air conditioning load. In the winter there is a different peak in the evening as people come home and turn on the lights and other appliances.

Q: How is electricity delivered in New Jersey?

A: Wholesale electricity moves between 13 states coordinated by a regional transmission organization known as PJM, which serves approximately 51 million people and dispatches 164,900 of generating capacity over 56,250 miles of transmission lines.

Q: What is a Megawatt (MW)?

A: A megawatt (MW) is a unit of electric capacity or electric load. A MW is equal to 1,000 kilowatts (kW). Generators depending on size have rated capacities reported as MW, kW or watts. The load of electric equipment such as light bulbs, homes, businesses and industries are rated in kW or watts. The capacity of all the operating electric generators must match the required load at the time. PJM insures that this happens. An average home load is 2 to 4 kW.

Q: What are Megawatt-hour (MWh) and kilowatt-hours (kWh)?

A: A megawatt-hour (MWh) is a unit of measure of electric energy. A MWh is 1,000 kilowatt-hours (kWh). An MWh is the amount of electricity generated by a one megawatt (MW) electric generator operating or producing electricity for one hour. On an electric bill, electricity usage is commonly reported in kilowatt-hours. Ten 100 watt light bulbs left on for on hour use one kWh of electricity and at an electric rate of 11.5 cents per kWh this costs 11.5 cents.

Q: What is PJM?

A: PJM stands for the Pennsylvania, Jersey, Maryland Power Pool. It is the electricity control area (the electric grid) for New Jersey and all or parts of in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

All electricity essentially comes from PJM regardless of the state in which it was generated. PJM insures that there is enough power to meet expected customer electricity demand at all times plus an additional reserve margin above the peak demand is ready and deliverable in the control area and ensures the reliability of the electric grid and monitors the market to prevent market powers/manipulation.

Q: How does PJM dispatch electricity over the day?

A: Conventional nuclear or fossil fuel power plants are called on first because of their relative low cost to operate and ability to deliver power into the grid at all times and are called baseload plants. Others plants operate as “spinning” reserves waiting to be called on by PJM as the load increases during the day. They are backed off as the load decreases at the end of the day. Most natural gas plants operate in this manner because they have higher operating costs and can deliver energy quicker when called on by PJM. PJM insures the lowest cost electricity is dispatched first.

Q: What is the capacity factor of a power plant?

A: The capacity factor compares the plant's actual production over a given period of time with the amount of power the plant would have produced if it had run at full capacity for the same amount of time. A baseload conventional coal or nuclear plant has a capacity factor of 70 to 90. That means the plant produced electricity energy for the grid, 70 to 90 percent over the year. The power output, the electricity an energy system generates, depends on its capacity factor. Because their cost to operate is higher than other conventional power plants, in an economic energy dispatch system, renewable energy systems would not be called on to deliver energy except at very high demand times, except as modified by state policies.