

Peak Demand Reduction
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The EMP goal that's my personal favorite is reducing peak demand by 5,700 megawatts by 2020. (You know you're officially an energy geek when you have a favorite Master Plan goal.)

The reason it's my favorite goal is that peak demand represents the inherent inefficiency of a system that requires you to build capacity that may only be used for a handful of hours each year. I saw one statistic recently that said 10 percent of our generating capacity is used less than one percent of the time.

When you look at the cost – and I'm speaking of both the financial cost and environmental cost – of constructing and maintaining thousands of megawatts of generating plants that may run fewer than 100 hours a year, the peak load reduction goal will become your favorite goal too.

The Master Plan proposes a three-pronged attack to bring down peak demand: Energy efficiency, combined heat and power, and demand response.

Energy efficiency would account for 3,300 megawatts – or 58% -- of the goal through a comprehensive approach of building codes, retrofits, appliance standards and other measures. I'm not going to talk about the energy efficiency part of this equation, since Lance Miller will address that in his presentation. I'm going to talk about CHP and demand response.

CHP accounts for 1,500 megawatts – or 26% -- of the 5,700 MW goal. As many of you know, CHP development came to a screeching halt in the late 1990s after the contracts signed under PURPA expired and the sales and use tax was imposed on the natural gas used in CHP facilities. Restrictions put on the sale of electricity across rights of way by EDECA in 1999 didn't help either.

We are now attempting to reverse this situation. On March 31, Governor Corzine signed legislation that allocated \$60 million from the Retail Margin fund to provide incentives for CHP development. That performance-based program, coupled with another program funded through RGGI that provides grants and no-interest loans for up-front capital costs, work in concert with each other to potentially fund up to half the cost of a CHP project.

The first round of funding concluded about two weeks ago, and I'm happy to report that we received 28 applications for projects totaling more than 130 megawatts. We are currently in the process of financial and technical reviews of those applications and hope to announce the first grant awards by the end of this month. Given that there is still at least another \$70 million in the Retail Margin fund, we would hope to have a second round of funding in the not-too-distant future.

Legislation is also pending (A3339) that would exempt natural gas used in CHP facilities from the sales and use tax, and redefine some of the terms used in EDECA to allow the sale of electricity produced by CHP facilities to a broader geographic reach.

Demand response is expected to account for 900 megawatts – or 16% -- of the peak reduction goal. We took a big step in that direction this year with an incentive program approved by the BPU that added 255 new or incremental megawatts of demand response to the state’s portfolio. That represented a 75% increase in the amount previously registered under PJM’s Interruptible Load for Reliability (ILR) program. Essentially, the Board authorized the payment of a premium to curtailment service providers who signed up new or incremental load.

In addition, the Board also approved filings submitted by PSE&G, JCP&L and ACE for residential and small commercial demand response programs – primarily based on air conditioning cycling – which have the potential to produce another 215 megawatts of demand response over the next five years. Several other utility-based program proposals are pending before the Board that would add additional capacity through load shifting and energy storage technologies.

In conclusion, we are moving forward on all fronts to achieve the Energy Master Plan’s ambitious – but obtainable – goal for peak demand reduction.