American Council for an Energy-Efficient Economy

Energy Efficiency in Maryland's Electricity Future: Highlights and Recommendations

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Maryland today faces an unprecedented set of challenges in its electricity markets:

- **Electricity rates have roughly doubled** in the last three years for most customers
- Generation and transmission **capacity shortages loom in the next few years**
- **Global warming** and other environmental threats challenge our habitual dependence on fossil fuels for power generation

To make sure Maryland's electricity service is affordable, reliable, and clean in the coming years, state leadership must reassess past policies governing the electricity sector.

Governors, legislators, and regulators in Pennsylvania, Delaware, New Jersey, New York, and Virginia have set major new energy efficiency goals in the last year. They join states like New Jersey, North Carolina, Illinois, Minnesota, Texas, Nevada, and Washington in embracing efficiency as the "first fuel" in their clean energy strategy.

The report lays out energy efficiency's role in meeting these new challenges. For this discussion, energy efficiency is defined as using technology to produce the same or more work and economic value with less energy waste. Efficiency is distinct from load management (short-term reductions in electricity use during peak demand periods), from sacrifices in quality of life, and from cutting energy use by slowing economic growth. Efficiency investment improves both the economy and our quality of life.

Authored by ACEEE as an independent expert on these issues, this report received substantial input from an advisory committee representing a wide range of stakeholder interests. While the report reflects the preponderance of views among advisory committee members, it does not necessarily reflect their individual opinions or organizational positions on any given issue.

States are widely embracing energy efficiency as a resource that saves money for consumers while reducing air pollution and global warming emissions. Efficiency reduces energy bills for those who install efficiency measures, and softens wholesale prices for everyone on the system. Moderating demand through efficiency defers expensive power system investments and helps keep future electricity rates under control.

Studies in many states show that efficiency and other clean energy resources can meet most new electricity needs over the next 15–25 years. Investing in clean technologies like efficiency not only cuts utility bills, it also stimulates economic growth. Efficiency investment creates more jobs per dollar that investing in conventional energy supplies.

Efficiency is also the first fuel in the race against global warming. By moderating demand growth, it allows renewables and other low-carbon energy sources to reduce fossil fuel combustion.

Efficiency programs can begin delivering these benefits immediately. Over the longer term, by staying active in these markets for the full cycle of equipment replacement, Maryland could reduce its electricity usage substantially.

Maryland utilities in the 1990s spent millions of dollars on efficiency, saving customers many times those costs in lower bills, and keeping electricity demand growth at less than 1% per year. After efficiency programs ended, demand growth tripled to 2.4% per year after 1998. This demand surge has increase Marylanders' electricity bills and driven rates higher.

Key Issues and Recommendations

This report directs its recommendations to the following key issues. We do *not* address the question of whether to re-regulate Maryland's electricity markets. Re-regulation is a much broader issue that goes far beyond the scope of this report, even though re-regulation would affect how efficiency programs are funded and delivered. The advisory committee's consensus is that action on energy efficiency can and should be taken immediately, since energy efficiency will produce important benefits for Marylanders regardless of the larger regulatory structure of electricity markets.

Issue #1: Setting efficiency resource targets

Some 18 states have or are developing energy savings targets for utilities, known as Energy Efficiency Resource Standards (EERS). This wave of EERS action stems from the facts that (a) efficiency costs less than new generation, (b) efficiency reduces customer bills, (c) efficiency helps prevent blackouts, (d) efficiency reduces emissions of all air pollutants at one low price, and (e) efficiency investment boosts state economic growth. Targets typically run from 1% to 2% of total sales per year, with total savings reaching as high as 25% over periods of a decade or more.

We recommend that:

Maryland's leadership should strongly support the Governor's announced goal of a 15% reduction in per capita electricity use by 2015.

- Decision-makers should consider setting targets for electricity capacity as well as energy savings. The reliability of the region's electric generation and transmission facilities is driven more by peak demand than by annual electricity consumption, so it is important to seek to reduce peak demand as well as total electric energy use.

Issue #2: Selecting funding mechanisms for energy efficiency

In the past, fully-regulated utilities funded and operated efficiency programs. Since restructuring, states have funded efficiency in several ways, including traditional utility methods, and through public benefits funds, which collect the funds to be used for efficiency programs through uniform charges per kilowatt-hour on all customers.

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We recommend that:

Maryland should add a public benefit fund to complement utility programs and should channel significant new funding toward both kinds of programs.

- The state should increase general fund support for state agencies to enable them to play the necessary planning, coordination, and administrative roles.
- Federal and state tax incentives should be used for targeted assistance to supplement core funding.

Issue #3. Defining administrative roles

The key issue is whether efficiency programs are administered by utilities, state agencies, third parties, or a hybrid mix. States have had success with various models, and Maryland has many options in this regard. Regardless of who administers specific programs, there needs to be long-term resource planning and ongoing, high-level coordination of energy efficiency programs statewide. One entity at the state level needs to take long-term "ownership" of the various efforts needed to meet the state's long term goals for efficiency.

We recommend that:

A hybrid administrative approach should be used, including traditional utility administration, state agency administration, and third-party administration.

- Utilities should proceed with currently filed programs and be encouraged to propose additional initiatives. The Public Service Commission should continue to review, approve, and evaluate utility programs and longer-term resource plans.
    - The Maryland Energy Administration (MEA) should take a lead role in planning and coordination of energy efficiency programs. An interagency agreement involving MEA, the Public Service Commission (PSC), Department of Natural Resources (DNR), and Maryland Department of the Environment (MDE) should be drafted to detail the roles and responsibilities in this process.
- Third parties, such as energy service companies, should be encouraged to participate as contract administrators for utility and state-administered programs and/or as bidders in resource acquisition processes.

Issue #4: Use of RGGI allowance auction revenues

Maryland's participation in the Regional Greenhouse Gas Initiative (RGGI) creates an additional option for energy efficiency funding. Modeling analysis in RGGI's development showed that increasing investment in energy efficiency would reduce customer bills while lowering carbon allowance prices and improving the regional economy. This would require allocating the proceeds from the auction of carbon emission allowances to fund efficiency programs, developing complementary efficiency policies for electric utilities, or a mixture of both.

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We recommend that:

The state should go beyond the RGGI-minimum 25% auction of carbon emission allowances, and should consider a 100% auction policy.

- Other RGGI states, including New York, Vermont, Maine, and Connecticut, have decided to auction 100% of allowances, because in today's power markets allowance prices would be reflected in rates in any case. RGGI staff analysis also shows that the more allowance proceeds are spent on energy efficiency, the lower that energy prices, average bills, and carbon prices become.
- RGGI stakeholders are considering setting a reserve price for allowance auctions, and requiring retirement of allowances not purchased at that price. We suggest Maryland consider this approach, to ensure that the state receive reliable funding from the process.
- The majority of funds from allowance auctions should be used for energy efficiency. The RGGI development process showed that investing allowance proceeds in efficiency produced much larger energy bill reductions than would, for example, simply rebating auction revenues back to customers through rate credits.
- The state should administer auction proceeds through a public benefit fund. Non-utilities, including state agencies and third parties, should be considered for administration of RGGI-funded efficiency programs.

Next Steps

We suggest that decision-makers consider using the current focus on "fast-track" programs to get some efficiency programs started, while sorting out the details of a strong, long-term savings target, funding mechanisms, and administrative roles. Pressing capacity issues, high electricity prices, and global warming concerns add urgency to the need to get programs going soon.

We recommend that decision-makers consider the following next steps:

- Review and approve efficiency programs filed by electric utilities and judged to be cost-effective, in order to get new efficiency investments up and running in Maryland this year.
- Conduct an in-depth efficiency potential study for Maryland, and use the results to set longer-term energy and capacity targets for electricity savings over at least 15 years, with the aim of capturing all cost-effective energy efficiency.
- Design and implement public benefit funding mechanisms for energy efficiency, sufficient to support programs over a 15-year period.
- Consult with key agencies, utilities, and other parties to create a 15-year efficiency plan, define administrative roles for efficiency programs, and design funding mechanisms.
- Develop the state's RGGI allowance auction effort in coordination with efficiency policy and program development, and apply RGGI allowance funds to efficiency programs.

These steps need not be sequential, but should rather proceed in parallel. While some decisions will be contingent on others during this process, it is important to get the overall process going quickly.

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