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## Fiscal Year 2017 Operating Budget Testimony

### Strategic Focus

The mission of the Maryland Energy Administration (MEA) is to promote affordable, secure, and safe energy while maintaining energy independence, sustainability, and reliability through innovative and effective policies, programs, technologies, and financing mechanisms. MEA's duties, as outlined in State Government Article §9-2003, run the full spectrum of State energy administration responsibilities:

- provide advisory, consultants, training, and educational services, technical assistance, grants and loans in order to establish/carry out sound energy policies or practices;
- evaluate and coordinate energy policies and activities among agencies and local governments;
- collect, analyze, and evaluate energy statistics and information and coordinate information related to energy resources throughout the state;
- service as liaison between federal, sister states and Maryland state agencies on all matters related to energy;
- develop and conduct education and communication programs on energy production, supply, and conservation;
- provide for, encourage and assist public participation in energy programs;
- collaborate with DGS to monitor state agency energy management and conservation efforts;
- coordinate and direct integrated energy planning for state agencies and the public that recognizes the benefits and costs of energy conservation and improved efficiency;
- promote transfer and commercialization of energy conservation methods and technology;
- cooperate and coordinate with other state agencies in research and development of energy conservation methods and alternative energy technologies; and
- develop strategic plans and implement policies relating to energy supply management including the promotion and supervision of research on alternative fuels and energy emergency management.

### MEA Year in Review

MEA continued the program portfolio initiated in FY 2014 following the Regional Greenhouse Gas Initiative (RGGI) program changes which reinvigorated the market forces that drive the quarterly auctions. The programs run by MEA benefit all sectors of the Maryland economy by helping Maryland businesses and families save energy, reduce their electric bills, create local jobs, and enhance Maryland's energy security.

The following are some highlights of our FY 2015 accomplishments:

- In the RESIDENTIAL SECTOR, the Clean Energy Grant Program provides incentives for solar photovoltaic, solar water heating, geothermal heating and cooling technology installations. This program awarded over 2,900 residential grants, generating more than 8,600 kW of solar PV and more than 2,800 tons of geothermal capacity. Every \$1 in MEA award funding leveraged approximately \$16 of additional investment. In FY 2015, residential renewable energy installations that benefitted from the Clean Energy Grant Program resulted in the equivalent of more than 82 full-time jobs.

- Maryland's **LOW-TO-MODERATE INCOME SECTOR** benefits from the Clean Energy Communities Low-to-Moderate Income Program which provides energy efficiency funding to non-profits and local government agencies that serve low and moderate income Marylanders. The direct energy efficiency improvements are provided by local governments, non-profit organizations, and religious entities to Maryland's vulnerable citizens; these local projects are facilitated by the awards from MEA. Past projects include residential whole building upgrades where an audit identifies and recommends cost effective energy measures, while also detecting and ameliorating health and safety concerns, and energy efficiency improvements to homeless shelters and senior living facilities. In FY 2015, MEA made 56 awards to projects that have made improvements in more than 2,000 houses, apartments, and buildings across the State. These awards are estimated to result in energy savings of 1.6 million kWh and 15,000 MMBTU each year. As with all of MEA's energy programs, the resulting energy savings will continue to be incurred by the program beneficiary for multiple years, persisting for the life of the respective energy measures. Projects implemented through this program in FY 2015 have resulted in the equivalent of 37 full-time jobs.
- The Kathleen A. P. Mathias Program focuses investments on cost effective retrofits in Maryland's **AGRICULTURE SECTOR**. The overall goal of the program is to promote energy efficiency and renewable energy improvements on Maryland farms and in Maryland agricultural businesses. FY 2015 participants include poultry farms, greenhouses and dairy farms. MEA creates case studies and shares information on the projects, allowing farms and agriculture businesses to make informed decisions about pursuing similar upgrades. In FY 2015, MEA made 13 awards to help install 204 kW of solar PV capacity and resulted in anticipated continuing annual energy efficiency savings of 728,278 kWh and 9,204 MMBTU. The projects resulted in the approximate equivalent of 2 full-time jobs.
- The **COMMERCIAL AND INDUSTRIAL (C&I) SECTOR** uses approximately 60% of the state's electricity but has historically realized a much smaller proportion of electricity savings. For this reason, over the past two years MEA has launched programs to encourage deeper electricity savings involving multiple energy measures for the C&I sector. In FY 2015, MEA awarded 14 Commercial and Industrial Deep Retrofit awards with an anticipated continuing annual savings of 13 million kWh, corresponding to more than \$1.4 million in avoided electricity costs each year moving forward. The work on the energy measures represents an estimated equivalence of 8 full time jobs. MEA also launched the Combined Heat and Power (CHP) program to expand the resiliency and energy efficiency benefits of this technology to Maryland hospitals and waste water treatment facilities. Once installed, the new installations will result in an additional 7 million kW of CHP capacity in Maryland.
- MEA reaches out to **COUNTY/MUNICIPAL GOVERNMENTS IN THE PUBLIC SECTOR** with the Maryland Smart Energy Communities Program (MSEC). MSEC encourages local jurisdictions to set energy policies related to renewable energy, energy efficiency and transportation. Participating MSEC communities receive a financial award that enables them to implement energy projects that help achieve the goals of their adopted energy policies. In this way, MSEC communities are able to reduce operating costs, improve environmental performance, and encourage better energy decisions

among residents and local businesses. In FY 2015, MEA made awards to 28 communities bringing the total number of Maryland Smart Energy Communities to fifty-six.

- Maryland's TRANSPORTATION SECTOR is responsible for 32% of the greenhouse gases emitted in Maryland. This sector is served by a mix of alternative transportation programs designed to increase Maryland's fuel security through the use of alternative fuels and the reduction of fuel consumption. As a result, these programs decrease Maryland's dependence on petroleum from foreign imports and reduce emissions from greenhouse gases. FY 2015 programs resulted in an estimated continuing annual savings of 4.5 million gallons of petroleum and the equivalent of approximately 24 full time jobs.
- The Maryland Offshore Wind (OSW) developer, U.S. Wind, is currently performing additional geophysical and geotechnical work and site assessment activities in the Maryland Wind Energy Area (WEA) for the installation of an offshore meteorological (met) tower. The met tower is the next phase of OSW development and is necessary for the gathering of required data, including measuring and recording wind and wave characterization, to secure project financing for the Offshore Wind Project. Additionally, the Department of Natural Resources (DNR) and the University of Maryland Baltimore County (UMBC) continued studies and analytical efforts, such as aerial surveys of large mammal and whales, marine mammal passive acoustic monitoring, and benthic habitat mapping, designed to fully document the marine habitat of the Maryland WEA. These efforts are critical to developing a foundation of data that the offshore wind energy developer will need to site the project properly and successfully navigate the Environmental Impact Statement process associated with Site Assessment Plans and Construction and Operations Plans.

### **FY 2017 Programs**

As discussed in the DLS analysis, the fiscal year 2016 program is built on the successes highlighted above and are continued into the budget year. In FY 2017, MEA is initiating several exciting programs:

- Animal Waste-to-Energy Program – MEA will make investments in projects that use animal waste to generate renewable energy. The program will function in collaboration with the Department of Agriculture's Animal Waste Technology Fund (AWTF) which focuses on the reduction of certain nutrients flowing into the Chesapeake Bay and supports the Governor's Agriculture Phosphorous Management Initiative.
- State Building Energy Efficiency Grant Program – This federally funded program, to be implemented in collaboration with the Department of General Services (DGS), will focus on increasing energy efficiency in Maryland State Buildings through the use of new small energy performance contracts (EPCs) and through the modification of large existing EPCs. Prospective projects include combined heat and power (CHP), interior and exterior lighting retrofits and mechanical upgrades.
- Non-Residential Wood Energy Program – This is a follow on to an FY 2016 pilot program that will assist with the installation of wood energy conversion systems (e.g. boilers, furnaces) in non-

residential facilities such as hospitals, schools and manufacturing facilities in areas of the state with limited access to natural gas resources.

- Data Processing (DP) Center Energy Efficiency Pilot - This program is being designed to explore methods to promote energy efficiency in DP centers which produce significant amounts of heat and have large cooling electrical loads. Data centers can consume 100 to 200 times as much electricity as standard office spaces. Server virtualization is one energy measure to be included which achieves energy savings by reducing the number of unused and under-used data servers through new software that enables multiple servers to be consolidated.

### Conclusion

MEA's policies and programs are designed with sustainability in mind – reducing peak demand and overall energy consumption, increasing the production of in-state renewables and reducing greenhouse gases. These efforts leverage available funding and advance the state's efforts to promote affordable, reliable, clean energy and to help lower energy bills, fuel new jobs, address environmental and climate impacts, and promote energy independence.

### Responses to DLS Recommendations/ Issues

**DLS Analysis (Page 2):** As of January 1, 2016, MEA had 15.0 vacant positions, a vacancy rate of 46.9%. After accounting for the 2.0 vacant positions abolished in the fiscal 2017 allowance, the MEA vacancy rate would be 43.3%. Of the 15.0 vacancies, 10.0 have been vacant for fewer than three months. **MEA should explain the significant departure of employees from MEA in recent months and the impact of the high vacancy rate on the work of the agency, particularly given the increased funding available to the agency in fiscal 2017. In addition, the Department of Legislative Services recommends an increase in the turnover expectancy to better reflect recent experience.**

**MEA Response:** Maryland Energy Administration oversees some of the most exciting and innovative policy and programs within state government. It goes without saying that the private sector pays far better than the public sector in this particular field. For that reason our employees, after gaining public-sector experience at our agency, are very marketable. The transition to a new administration, combined with working environment changes at MEA, led many to accept career progression opportunities available to them. MEA is actively working with the appointments office to backfill these vacant positions. In the interim, existing MEA employees have been prioritizing efforts while backfilling vacated responsibilities. MEA's policy division was particularly hit hard by the recent transitional turnover and MEA is actively pursuing reconstitution of its policy expertise through new hires.

**DLS Analysis (Page 5):** Committee narrative in the 2015 Joint Chairmen's Report requested that MEA begin reporting performance related to agency programs and activities along with progress toward State energy goals in its annual MFR submission beginning with the fiscal 2017 submission. Despite this request, the fiscal 2017 MFR submission of MEA does not include new measures to respond to the request by the

budget committees. **MEA should comment on why it did not include program specific measures as requested by the committees. The Department of Legislative Services (DLS) again recommends that MEA begin to include program-specific performance measures in its MFR submission.**

**MEA Response:** The Managing for Results process was reconfigured for the FY 2017 budget cycle. The Department of Budget and Management (DBM) worked with agencies in order to streamline goals, measures and objectives that were to be submitted as part of the Governor’s budget.

MEA priorities and efforts are directly guided by Maryland’s three strategic energy goals:

- EmPOWER Maryland Goal: 15% reduction in per capita peak demand and consumption of electricity by 2015
- RPS Goal: 20% electricity from renewables by 2022
- Greenhouse Gas Goal: 25% reduction in GHG emissions by 2020

MEA’s focus, in collaboration with other state agencies, the utilities, and community and industry stakeholders, is to help Maryland businesses and families save energy, reduce their electric bills, create local jobs, and enhance Maryland’s energy security. As such, the MEA MFRs are necessarily focused on a state-wide, rather than agency-only, basis. Additionally, as discussed in the DLS Analysis, MEA produces an annual report on the SEIF, which provides performance metrics on each of MEA’s programs. However, MEA will collaborate with DBM on the development of program specific MFRs if the DLS recommendation stands.

**DLS Analysis (Page 8):** After a decrease of 23.4% between calendar 2011 and 2012, commercial scale renewable energy generated in-state was relatively stable between calendar 2012 and 2014 but was estimated to have increased by 11.2% in calendar 2015 (or 343,260 megawatt hours). Even with this recent jump, commercial scale renewable energy generated in-state in calendar 2015 was 13.0% (508,250 megawatt hours) lower than in calendar 2011. **MEA should explain the reason for the calendar 2012 decrease.**

**MEA Response:** Calendar year 2012 is not the outlier. The year 2011 was unusually wet and as a result, an above normal amount of electricity was produced from hydroelectric projects in the State. Precipitation levels returned to normal in 2012 as did electricity produced from hydroelectric projects.

**DLS Analysis (Page 8):** Although a much smaller portion of renewable energy generated in-state, residential and small commercial renewable energy generated in-state has grown by more than 50.0% in each year since calendar 2011. Between calendar 2011 and 2015, the megawatt hours of residential and small commercial renewable energy generated in-state increased from 12,521 to an estimated 162,563. **MEA should comment on the reason for the faster rate of residential and small commercial scale renewable energy generated in-state.**

**MEA Response:** There are many reasons for the increased rate of adoption of residential and small commercial scale renewable energy generation. Prominent among them is the dramatic decrease in cost of solar PV. According to Lawrence Berkely National Laboratory in its 2015 report, “starting in 2009, installed prices resumed their descent and have fallen steeply and steadily since, with average annual declines of 13% to 18% per year”. Further, median prices for installed solar has fallen from about \$8/kw in 2009 to about \$4/kw in 2014. Another reason is the development of more sophisticated financing mechanisms, such as solar leasing, which further opened the residential solar market. These, combined with an increased familiarity with the solar technology, has led to its increased adoption by Marylanders.

MEA efforts have enabled exponential growth in Maryland's solar industry. There is currently 375 megawatts (MW) of solar energy generating capacity installed on Maryland's grid. This is up from 0.1 MW in 2006 and over 65% more than the amount on the grid from just last year. Maryland's 300-company solar industry puts over 4,200 Marylanders to work in jobs that help to secure our energy future.

**DLS Analysis (Page 11):** In addition, legislation proposed by Governor Lawrence J. Hogan, Jr. (SB 389 and HB 459) would, among other changes, eliminate the statutory provision for MEA to receive up to \$250,000 from this fund. (This legislation will be discussed further in Issue 1.) As of this writing, MEA has not identified specific projects for which these funds will be used. In addition, MEA canceled these funds in fiscal 2015. **DLS recommends deleting the ETF that is budgeted in MEA in fiscal 2017.**

**MEA Response:** Concur

**DLS Analysis (Page 14):** A new MEA program to offset the surcharges imposed by Baltimore Gas and Electric (BGE), Delmarva Power and Light (DPL), and the Potomac Electric Power Company (Pepco) for electric reliability and grid resiliency initiatives (\$3.0 million) in the budget of MEA. **MEA should discuss how the grid reliability surcharge offset will be administered.**

**MEA Response:** Details are not yet worked out; MEA is in discussions with the Public Service Commission on options to implement the offset.

**DLS Analysis (Page 25):** After limited progress toward meeting the per capita electricity consumption reduction goal in calendar 2013, the State made larger progress toward the goal in calendar 2014. Through calendar 2014, the State had reduced the per capita electricity consumption by a cumulative 11.8%, a reduction of 1.74 percentage points compared to calendar 2013. At this pace, the State would be expected to fall short of meeting the goal of a 15.0% reduction. **MEA should comment on whether it anticipates the State met the 2015 goal.**

**MEA Response:** MEA's most recent analysis from the summer of 2015 projected that a 13% reduction in per capita electricity savings would likely be achieved at the end of 2015, in comparison to the 2007 baseline. Maryland's per capita electricity consumption goal is among the most aggressive in the nation and any achievement near the 15% goal is reason for Maryland celebration. Actual data from calendar year 2015 is expected to be published in a report by the Public Service Commission shortly.

**DLS Analysis (Page 25):** PSC stated in the order, "Until such time that energy efficiency is no longer a least-cost resource, or until such time that the costs of investing in energy efficiency outweigh the projected benefits, we see value in establishing energy savings goals for the Utilities on a prospective basis" (Order No. 87082, p. 19). PSC set the goal for each electric utility at energy savings of 2.0% of the utility's weather normalized gross retail sales baseline. The goal is to be met by ramping up the energy savings by 0.2% per year starting with 2016 approved plans, until the utility achieves the target. The 0.2% ramp up does not assume that a utility has already achieved a certain level of savings (*i.e.*, it meets the utility where it is and starts the progress toward the goal from that place). The ramp up also recognizes the achievement of certain utilities, by requiring only the incremental progress needed to meet the 2.0% target. This methodology

avoids some of the concerns that arose under the previous goal (related to the impacts of the weather, economy, and population calculations). **MEA should comment on whether it plans to track and report on performance for the revised energy efficiency goals.**

**MEA Response:** Yes, as one the agency's statutory responsibilities, MEA will continue to track and report on performance of the revised energy efficiency goals. Under the direction of the General Assembly, MEA collects, analyzes, and evaluates statistics and information related to energy use, conservation, consumption, and energy production and coordinate information related to energy resources, including electricity, natural gas, and the production of oil and natural gas, with the Public Service Commission, the Power Plant Research Program, and the Maryland Geological Survey (Md. Code SG §9–2003).