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GOVERNOR PATRICK ANNOUNCES CLEAN ENERGY ASSESSMENT AND STRATEGIC PLAN FOR THE COMMONWEALTH'S MILITARY INSTALLATIONS

\$5.9 million for energy efficiency, renewables and resiliency – saving military installations at least \$600,000 annually in energy costs

BOSTON – Wednesday, December 17, 2014 – Governor Deval Patrick today released a Clean Energy Assessment & Strategic Plan for Massachusetts Military Installations (Assessment and Strategic Plan), which identifies energy efficiency, renewable energy, energy security, and technology piloting opportunities that will reduce base operating costs, increase energy security, and reduce emissions.

"Our military bases offer incredible assets, fuel our economy and are an important piece of our national security," said Governor Patrick. "To support these bases we have developed a nation-leading partnership on clean energy because it is the right thing to do for our environment and taxpayers. These ideas and investments will reduce base operating costs, increase energy security and ultimately make our Commonwealth and Nation a greener place to live and work."

To support the plan, Governor Patrick allocated \$5.9 million in grants across all military installations in the Commonwealth. The funded projects meet the Department of Defense and the Commonwealth's renewable energy goals and commitments to reduce economy-wide

greenhouse gas emissions under the Green Communities Act, Green Jobs Act, Global Warming Solutions Act, and Coordinated Climate Preparedness Plan.

Led by the Military Asset and Security Strategy Task Force, the Massachusetts Department of Energy Resources (DOER), and MassDevelopment, the Assessment and Strategic Plan uncovered many opportunities to support installations in making infrastructure improvements; realizing environmental and utility savings; and fostering community partnerships. The final plan will help the installations take strategic approaches to clean energy opportunities including determining whether to utilize federal, state, or private funds, or other financing, to pursue these opportunities.

"The Patrick Administration has made Massachusetts a leader in clean energy, generating thousands of jobs, reducing energy costs and protecting our environment in the process," said EEA Secretary Maeve Vallely Bartlett. "Our military installations have done tremendous work bringing these benefits to fruition and this initiative will build on their successes."

The energy study identified strategic investments to advance clean energy and sustainable growth, lower utility costs, promote energy security, enhance the military value of each installation, benefit the surrounding community, and leverage funding to maximize the investment's impact. This plan is the first formal result of an ongoing process where DOER and MassDevelopment worked closely with military installation staff to come up with recommendations. The report will support a Memorandum of Understanding signed by the Commonwealth and Army, Air Force, and Coast Guard leadership related to energy partnership opportunities.

Project recommendations include a new power plant at Hanscom Air Force Base, a new solar field outside Westover Air Reserve Base, energy conservation and efficiency measures at Joint Base Cape Cod, and building management system control upgrades and electric charging stations at all installations.

The Commonwealth's military installations already have a record of success regarding clean energy projects including:

- Barnes Air National Guard Base has installed smart meters for electricity, natural gas and water, with full trending capabilities;
- Fort Devens has prioritized renewable energy projects at their barracks and office buildings and has converted flat-roofed barracks buildings to sloped, roofed, weatherized buildings that save energy and enhance comfort of visiting reservists and trainees;
- Hanscom Air Force Base has formed an Energy Management Steering Group, which
 tracks progress toward total facility energy consumption, greenhouse gas reductions, fleet
 fuel reductions, and water consumption reductions while aggressively pursuing solar PV
 installations to increase renewable energy sources and reduce costs;
- Joint Base Cape Cod's energy team is coordinating the four military tenants, resulting in the installation of more than 7.5 MW of wind power since 2009, and has finalized a deal for solar and implemented improved lighting, heating, and water utility projects;
- U.S. Coast Guard Base Cape Cod achieved a LEED Silver building score on its geothermal hangar;

- Otis Air National Guard Base's 102d Intelligence Wing was ranked second on the Air National Guard's Top Ten List for energy intensity reduction for FY2013;
- The Natick Soldier Systems Center has finalized an \$8 million, 23-year Energy Savings Performance Contract expected to result in an annual savings of \$500,000 and reduce energy consumption at the installation significantly by a full 42 percent; and
- Westover Air Reserve Base has formed an Energy Management Steering Group to promote energy conservation opportunities, and has successfully completed boiler, interior lighting, and HVAC upgrades.

Governor Patrick's FY2015 Capital Plan authorized funding for the following projects that will create jobs, cut energy costs, reduce environmental impacts, and support further modernization. These projects are projected to save military installations in Massachusetts at least \$600,000 per year in energy costs; that number could grow substantially as projects such as the Westover solar field or the steam boiler replacement at U.S. Coast Guard Base Cape Cod have not yet been incorporated into the cost saving estimate.

• Barnes Air National Guard Base

\$960,000 to further the installation's progress toward increasing energy savings and reducing its greenhouse gas footprint with a comprehensive package of high efficiency natural gas boiler upgrades, lighting and lighting control retrofits, installation of infrared heat pipes, on-demand hot water heaters, and building envelope improvements.

Fort Devens

\$110,000 for back up generation at mission critical training facilities at Fort
Devens, used by both state and federal military and public safety services for
workforce training. In addition, energy savings retrofits of a domestic hot water
and boiler system at two different barracks buildings used by both military
personnel and civilians are funded.

Hanscom Air Force Base

 \$231,000 for several energy upgrades to base infrastructure that will decrease building energy intensity and move the installation toward its greenhouse gas reduction goals.

• Joint Base Cape Cod

- o \$100,000 for a Joint Base Cape Cod Renewable Energy Integration Plan, focused on opportunities to upgrade capacity and power quality on the electric distribution system. This study will pave the way for additional renewable opportunities.
- o \$65,000 for Camp Edwards to replace outdated natural gas boilers and domestic hot water heaters with high efficiency models.
- o \$1,100,000 to Otis Air National Guard Base's 102nd Intelligence Wing to install high efficiency natural gas boilers and upgrade the central energy management system. Using a single, unified building automation system and enhancing control capabilities will result in substantial energy savings.
- \$123,000 to Coast Guard Base Cape Cod to replace inefficient steam boilers and upgrade its utility data reporting system.
- o \$42,000 for Air Force Station Cape Cod for the installation of additional variable air volume units in the scanner building to control area temperatures locally.

• Natick Soldier Systems Center

- \$125,000 to the University of Massachusetts Lowell's Harnessing Emerging
 Research Opportunities to Empower Soldiers (HEROES) program to support its
 efforts with the U.S. Army Natick Soldier Research, Development and
 Engineering Center at the Natick Soldier Systems Center. These funds will be
 used to procure capital equipment supporting research, development, and
 commercialization efforts for power and energy challenges. Examples of power
 and energy challenges include new electrochemical textile materials for wearable
 power or highly efficient flexible and lightweight photovoltaics. All
 technological gains are required to be shared outside of the military.
- \$900,000 to upgrade infrastructure to expand private sector R&D partnerships at the Doriot Climatic Chambers resulting in a saving of \$70,000+/year in energy costs. The Doriot Climatic Chambers are a one-of-a-kind facility housed in Natick that can reproduce environmental conditions occurring anywhere around the world. They can simulate temperature, humidity, wind, rainfall, and solar radiation to benefit R&D activities by industry, academia, and the military. This investment will also benefit the National Guard, industry, and academia as they test clothing and gear in the Doriot. This grant came from a previous authorization separate from the energy plan.

• Westover Air Reserve Base

- \$930,000 to update central boiler hardware and controls for dormitories that house reservists and trainees; make upgrades and replacements to the central energy management system that will assist in managing building equipment and temperatures across the installation; increase energy efficiency; and cut costs.
- \$1,000,000 to the City of Chicopee and the Westover Metropolitan Development Corporation for the clearing and preparation of land for a solar field to be constructed outside of Westover Air Reserve Base. This state funding will leverage up to another \$1,000,000 from the City of Chicopee. The clearing of this site will permit the City of Chicopee and Base to pursue a cost-effective solar photovoltaic system to meet DoD, municipal and state renewable energy goals. Once construction is complete, Chicopee Electric Light can reduce electricity costs by Westover Air Reserve Base and its other customers.

All Bases

\$126,000 to deploy an electric vehicle charging station at or around each installation to support the Commonwealth's efforts to reduce vehicle-related fuel consumption and greenhouse gas emissions and install infrastructure in preparation for expanded electric vehicle fleets among the base fleets and employee's personal vehicles. The Patrick Administration has already invested more than \$20 million in electric and alternative fuel vehicles to encourage increased deployment of advanced technology vehicles, improve air quality, reduce reliance on foreign oil, and help Massachusetts attain the Patrick Administration's aggressive emission reduction goals set under the Global Warming Solutions Act.

"Energy security is a national priority and energy innovation is a Massachusetts hallmark," said Senator Edward Markey. "By bringing together the clean energy leadership of the Commonwealth with the Department of Defense, these projects will enhance the operations of our armed forces and create jobs in the Commonwealth. I commend the efforts of Governor Patrick and the Military Asset and Security Strategy Task Force to keep the clean energy revolution marching along in Massachusetts."

"I commend Governor Patrick and the Task Force for this important work," said Congressman Jim McGovern. "I am particularly pleased to see the investments in clean energy being made at Barnes and Westover, which are critical sources of economic development in Western Massachusetts."

"I appreciate Governor Patrick's longstanding efforts to provide support for Massachusetts' military installations, especially when it comes to increasing efficiencies that will further enhance their capabilities," said Congresswoman Niki Tsongas. "This plan is a win/win, since it will work towards reducing operating costs and increasing energy security. It is a unique approach to cost-savings, reflective of the extraordinary advancements taking place at facilities like Hanscom Air Force Base and Natick Soldier Systems Center. These installations combine with academic and business resources and a skilled workforce to form one of the most cutting edge innovation hubs in the country. This plan will certainly complement their mission, as they continue to lead the way in researching and developing critical resources that keep our service members safe and successful. It is also another example of Massachusetts' leadership and commitment to addressing critical environmental and energy issues, which if left untouched could have a detrimental impact on future generations."

"The work of the Military Asset and Security Strategy Task Force to increase energy efficiency and reduce costs across the Commonwealth has truly been exemplary and can serve as a model for the Nation," said Congressman Bill Keating. "I have personally watched the development of renewable energy at Joint Base Cape Cod and am proud to see how far this base has come on the path to being entirely energy efficient. I applaud the continual work and innovative spirit of MassDevelopment, the Military Asset and Security Strategy Task Force, the Massachusetts Department of Energy Resources and all those who live and work at these bases."

"I commend the Task Force for its work on this important plan, and I look forward to working with my colleagues to ensure these projects go forward," said Congresswoman Katherine Clark, whose district includes Natick Soldier Systems Center and portions of Hanscom Air Force Base. "Massachusetts leads the nation in innovation and energy efficiency, and the Department of Defense is one of the largest single consumers of energy in the world. This portfolio of projects will save taxpayers money, bolster our clean-energy economy, and make a strong statement about the Commonwealth's important role in national defense."

This effort builds upon the Patrick Administration's strong support of clean energy and efficiency initiatives. This year, Governor Deval Patrick announced that American Council for an Energy-Efficient Economy has ranked Massachusetts first in the nation for energy efficiency policies and programs for four consecutive years.

Military Asset and Security Strategy Task Force

In 2012, Governor Patrick approved the creation of the Military Asset and Security Strategy Task Force, spearheading one of the nation's most comprehensive efforts to support a state's military installations and their host communities, advancing initiatives in workforce training, transportation, veterans' services, energy, and housing in partnership with municipalities, industry, and academia. The six military installations in Massachusetts include Barnes Air National Guard Base in Westfield; Fort Devens; Hanscom Air Force Base; Joint Base Cape Cod; Natick Soldier Systems Center; and Westover Air Reserve Base in Chicopee. These installations account for a total economic impact of \$14.2 billion and more than 46,500 Massachusetts jobs.

Supportive Quotes:

"This award is a great example of the benefits realized from the efforts put forth by the Military Task Force," said Mayor Richard Kos of Chicopee. "Westover Air Reserve Base is an important component of the Chicopee and Western Massachusetts economy and these grants reflect that recognition. Chicopee looks forward to working in partnership with Westover Metropolitan Development Corporation and thanks the Military Task Force for their decision and assistance in getting this accomplished."

"We commend the Governor's Clean Energy Assessment and Strategic Plan for Massachusetts Military Installations and their commitment to the Massachusetts National Guard and our military partners," said Major General L. Scott Rice, The Adjutant General, Massachusetts National Guard. "Our force is constantly changing to adapt to emerging technologies. As we grow in the future clean energy will ensure we have a competitive advantage that will have a profound impact on our military installations. The Massachusetts National Guard extends its appreciation to Governor Patrick and the Military Task Force members for this key strategic plan."

"The 104th Fighter Wing is excited about the potential opportunities to benefit from work that improves our energy efficiency and commitment to the environment," said Colonel James Keefe, 104th Fighter Wing Commander at Barnes Air National Guard Base. "The recommendations from this report emphasize our approach to decrease our carbon footprint and utilize renewable energy solutions. Thank you to the Department of Energy Resources Clean Energy Project Team and the Governor's Office for their continual support of Barnes Air National Guard Base."

"As I stated previously in 2013 when we started this partnership with the Commonwealth of Massachusetts Military Task Force we at Fort Devens welcome the opportunity of having an external agency provide an assessment of our energy program," said Lt. Colonel Steven F. Egan, Commander of Fort Devens. "The assessment identified some real opportunities for Fort Devens to achieve the Department of Defense goals of renewable energy, environmental sustainability and energy security. With this phase complete, Fort Devens looks forward to a continued partnership with the Military Task Force of Massachusetts."

"The Massachusetts Clean Energy Assessment has truly been the perfect tool for us to refine our existing initiatives and discover new, innovative ways to support the Air Force Energy Strategic Plan," said Colonel Michael Vogel, Commander of Hanscom Air Force Base. "The assessment's

rigorous and collaborative approach, coupled with the strong partnership with the Commonwealth of Massachusetts, has produced a powerful roadmap to make Hanscom a model installation for energy efficiency, energy security and overall sustainability."

"The energy study highlights the collaborative pursuit of efficiency made across the military communities in the Commonwealth," said Colonel Frank Magurn, Executive Director of Joint Base Cape Cod. "Similarly, it underscores the great potential the military installations and activities have as contributors to the Massachusetts economy. The energy grants will help to capitalize on that tremendous potential and assure that the unique elements of the defense community in Massachusetts continue their missions for years to come."

"The Massachusetts Clean Energy Assessment project will allow for continued growth and support for Camp Edwards and our sister tenants," said Colonel William O'Brien Jr., Commander, Army National Guard Site, Camp Edwards. "This will strengthen Massachusetts as a national leader facilitating clean and renewable energy that will enhance the overall operations at Joint Base Cape Cod."

"The Commonwealth of Massachusetts has displayed national leadership yet again with the Clean Energy Assessment project for our military installations," said Colonel James LeFavor, Commander, 102nd Intelligence Wing at Otis Air National Guard Base. "The innovative clean energy solutions of tomorrow are now available today that will benefit Otis Air National Guard Base and our partners."

"Coast Guard Base Cape Cod anticipates this collaborative effort will allow decision makers to view overall energy efficiency and environmental sustainability needs in broader context," said Captain Andy Clyburn, Commanding Officer of U.S. Coast Guard Base Cape Cod. "Smartly impacting future base infrastructure needs will directly support Coast Guard mission effectiveness and enhance the long-term viability of Joint Base Cape Cod and its service to the Commonwealth and American public."

"The Natick Soldier Systems Center remains committed to meeting or exceeding energy usage reduction goals established by the Army," said Brigadier General William Cole, the Senior Commander of the Natick Soldier Systems Center. "In this regard, the installation has already made significant progress. We appreciate our partnership with the Commonwealth on a wide range of topics, including this energy audit. The measures identified in the clean energy assessment provide a number of areas that can be developed to further decrease our energy usage. The installation looks forward to a long-term partnership with the Commonwealth to meet our mandated energy and sustainability goals."

"Westover works hard to balance three priorities: fulfill our national security mission, be a good steward of federal resources, and be a good neighbor," said Colonel Michael Miller, 439th Airlift Acting Wing Commander at Westover Air Reserve Base. "Being as efficient as we can with shrinking funds makes fiscal sense for everyone. We look forward to working with the Commonwealth to explore ways to save money through energy conservation."