



MASS GREEN BONDS

FINAL INVESTOR IMPACT REPORT

2016 Series F
February 2018

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INVESTING IN A GREENER, GREATER COMMONWEALTH

This report has been prepared by the Commonwealth of Massachusetts to provide summary information relative to the use of the proceeds of the Green Bonds, so-called, that were sold by the Commonwealth in June 2016. The report is not designed to provide any information about the credit of the Commonwealth. Investment decisions relating to the Commonwealth general obligation bonds and notes should be based only upon the most recently updated Commonwealth Information Statement and the Official Statement of the Commonwealth relating to such bonds or notes. This report does not constitute an offer to sell or the solicitation of an offer to buy any bonds or notes that may be described or mentioned in the report. Commonwealth bonds and notes are sold only by means of an Official Statement and through registered broker-dealers.

WE ARE DEDICATED TO PROVIDING INDIVIDUAL AND INSTITUTIONAL BOND INVESTORS WITH THE RESOURCES THEY NEED TO LEARN MORE ABOUT THE COMMONWEALTH AND ITS BORROWING PROGRAMS.

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A NOTE FROM THE TREASURER

In 2013, Massachusetts became the nation's first issuer of municipal green bonds with its 2013 Series D transaction. Since that time, the global green market has seen explosive growth, with Moody's estimating 2017 global green issuance at \$200 billion. Massachusetts is pleased to have helped lead the way in the US public space, now having to come to market with a total of \$800 million in green bonds between four unique series. We are also pleased to have extended our enhanced disclosure initiatives to include comprehensive green reporting. In this report, you will find data related to the use of proceeds for the Commonwealth's 2016 Series F transaction—its third series of green bonds. Spending is completed on this issuance, with proceeds allocated among five categories which range from energy efficiency projects to habitat restoration initiatives.

We are honored to help lead the way in this growing space and, through this report, to keep with our commitment to transparency and market-leading disclosure. As always, we appreciate feedback, and we encourage you to let us know if there is any way that we can make this report more useful to you. Thank you for your support of a greener, greater Commonwealth!

Sincerely,



Deborah B. Goldberg
Treasurer & Receiver-General
Commonwealth of Massachusetts



GREEN BONDS

Since the Commonwealth of Massachusetts' inaugural \$100.0 million Green Bond issuance in 2013, municipal Green Bond issuance grew to \$2.9 billion in 2014 and jumped 48 percent to \$4.3 billion in 2015. The \$3.7 trillion U.S. municipal bond market plays a role in building and maintaining our nation's infrastructure. Municipal bonds are issued by government entities to finance capital projects, including public transportation systems, energy systems, clean water treatment facilities, hospitals, and schools. ([Fidelity](#)).



PROJECT CATEGORIES

Open Space Protection & Environmental Remediation

Projects which support open spaces, urban green spaces, trails and other park lands as well as environmental clean-up efforts at various sites, including state matching funds for federal "Superfund Site" restorations and other brownfield remediation and clean-up projects. Projects under this category may also include land protection programs.

River Revitalization & Preservation and Habitat Restoration

Projects which restore waters and riverine habitats. The projects may include rehabilitation of environments or ecologies which have suffered from human development or invasive species. This category may include natural habitat restoration and management, wetland restoration, flood control and urban reforestation projects.

Energy Efficiency & Conservation Projects in State Buildings

Projects which are designed to reduce energy costs in existing public buildings or create new energy-saving "green" buildings. This category may include projects within the Accelerated Energy Program, an ongoing initiative to "green" state buildings. This program includes projects designed to reduce greenhouse gas emissions, energy use and water use across Commonwealth facilities, including state office buildings, higher education campuses, public safety facilities and other public buildings.

Stormwater

Projects that are designed to encourage recharge and the prevention of stormwater discharges from causing or contributing to the pollution of the surface waters and groundwaters of the Commonwealth. These projects may promote increased stormwater recharge, the treatment of more runoff from polluting land uses, low impact development (LID) techniques, pollution prevention, the removal of illicit discharges to stormwater management systems, or improved operation and maintenance of stormwater best management practices.

New Bedford Marine Commerce Terminal

With the arrival of its first cargo ship of land-based wind components on June 6, 2015 the New Bedford Marine Commerce Terminal opened for business. The terminal is now the first purpose-built facility in the nation equipped to support the construction, assembly, and deployment of offshore wind projects. The completed terminal can also handle high-volume bulk and container shipping, industrial equipment and large specialty marine cargo. As part of construction, the project included the dredging and removal of approximately 250,000 cubic yards of contaminated sediment caused by industrial waste generated during the 1930s and 1940s as well as creation of environmental and habitat restoration areas.

TRANSPARENCY IS THE FOUNDATION OF OUR BORROWING PROGRAM.

Massachusetts is committed to being the disclosure leader in the municipal market. Transparency is the foundation of our borrowing program, and it allows us to borrow responsibly so that we can make critical infrastructure investments across the state to grow our economy and jobs. We are committed to ensuring that this transparency extends to green project spending.

SUMMARY INFO

A growing number of investors want to see their money going toward environmentally sustainable projects. Some are motivated by the fight against climate change; others are simply hedging climate risks in their portfolios. [Chicago](#).



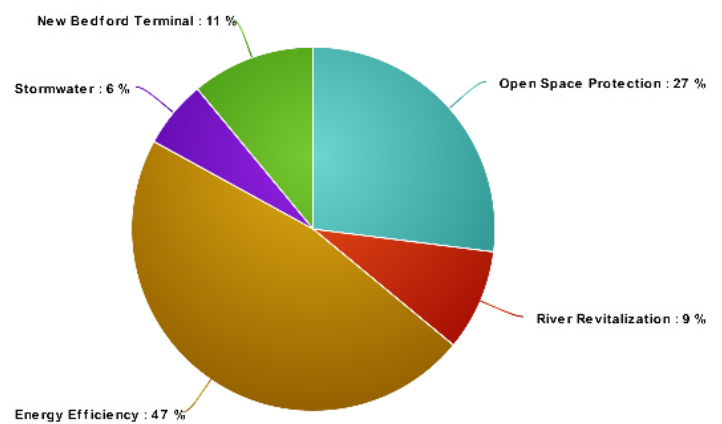
WHAT'S NEW?

The \$250 million 2016 Series F bonds represent the Commonwealth's third series of Green Bonds. This offering was unique from the Commonwealth's perspective in that it was issued on a taxable basis. The offering closed in June 2017 and saw significant demand due in part to its index eligibility, its taxable status, and its Green label.

We were able to gain 24 new institutional investors and 7 investors that purchased specifically due to the Green label. The Commonwealth continues to see great interest in the Green space through requests for case studies, webinars and panel participation, and calls from issuers around the globe interested in finding out more about the Green issuance process and results. We are pleased to be a part of this rapidly expanding market, and in early 2017 we came to market again with our fourth issuance of Green Bonds.

TOTALS

All proceeds of the 2016 Series F issue of Green Bonds have been spent, with spending being allocated among five categories as shown here. Greater detail on the spending within each category can be found in the following pages.



FREQUENTLY ASKED QUESTIONS

Q. Are Commonwealth Green Bonds priced differently than traditional bonds?

A. No, our Green Bonds are General Obligations of the Commonwealth and are not initially priced at a premium over Commonwealth General Obligation Bonds.

Q. Do you make a use of third-party opinions or other "Green certifications?"

A. No, not at this time. The Commonwealth is in constant dialogue with investors and thought leaders in the Green space. Based on continued and consistent feedback, due to our repeat-issuer status and robust reporting regimen we have determined that third-party opinions are not necessary for our issuances. We will continue to monitor the market and make any necessary changes to our approach as needed.

Q. Where can I find your Green Reports?

A. You may view this report and all prior reports by visiting the Mass Bond Holder website. The Commonwealth also posts all Green reports to the MSRB's EMMA website, attached to their associated CUSIPs.

Q. Are Green Bond proceeds separated from traditional bond proceeds?

A. Yes, all Green Bond proceeds are held in a segregated account and accounted for separately from traditional bond proceeds. Once Green Bond eligible spending has occurred from the General Fund, the Green Bond proceeds from the associated transactions are used to reimburse the General Fund for those specific expenditures.

Q. Do you supply environmental impact statistics in your report?

A. We do not at this time. Because many projects are completed over the course of several years and may only be partially funded with green proceeds, attempting to tie impact to actual dollars spent is difficult. Quite a bit of impact information may be found for specific projects at the www.mass.gov website. Should you have specific or additional questions about a project, you can also contact us using the information provided on the back cover of this report.

OUTLOOK

What is exciting about green bonds is what they could become, in particular as the stakes and temperatures rise with climate change. Uses of green bond funds include projects related to transport, energy, waste management, and water. ([Thomson Reuters](#)).

The size of the green bond market has increased significantly in recent years, with issuance nearly doubling in 2016 from 2015 levels, from \$41 billion to \$82 billion; 2017 issuance levels are expected to come in at approximately \$150 billion. ([VanEck](#)).

OPEN SPACE PROTECTION & ENVIRONMENTAL REMEDIATION

Projects which support open spaces, urban green spaces, trails and other park lands as well as environmental clean-up efforts at various sites, including state matching funds for federal "Superfund Site" restorations and other brownfield remediation and clean-up projects. Projects under this category may also include land protection programs.

HIGHLIGHTED SPENDING

AGRICULTURAL PRESERVATION RESTRICTION PROGRAM

The Agricultural Preservation Restriction (APR) Program is a voluntary program which is intended to offer a non-development alternative to farmers and other owners of "prime" and "state important" agricultural land who are faced with a decision regarding future use and disposition of their farms.

Towards this end, the program offers to pay farmland owners the difference between the "fair market value" and the "agricultural value" of their farmland in exchange for a permanent deed restriction which precludes any use of the property that will have a negative impact on its agricultural viability.

The Massachusetts APR program has permanently protected over 900 farms and a total land area of over 70,000 acres.

MAJOR SPENDING PROJECTS

<p>SIGNATURE PARKS Funded the creation of new signature parks and distinctive green spaces for communities around the Commonwealth. The program has restored or built 34 parks with 80% of those parks existing in Environmental Justice communities. Environmental Justice communities are municipalities that have been determined (based on certain socioeconomic data) more likely to bear a larger environmental burden and to lack certain environmental resources.</p>	\$16,287,761
<p>SELF HELP GRANTS Helped provide grants to assist municipalities in acquiring land for conservation and passive recreation purposes. Lands acquired may include forests, wetlands, wildlife habitats, etc. Lands must also allow access by the public. As a result of this spending, programs have protected over 3,200 acres.</p>	\$13,939,530
<p>LAND PROTECTION — DEPARTMENT OF CONSERVATION & RECREATION (DCR) Provided for acquisition of land to expand the state park system including land for habitat protection, recreation, water supply protection and other purposes.</p>	\$11,863,349
<p>WINTHROP SHORES RESTORATION — DESIGN CONSTRUCTION Provided for seawall repairs, upgrades to the Pearl Avenue entrance, and restoration of the northerly portion of the beach. Full-width reconstruction of Winthrop Shore Drive, including widened handicapped-accessible sidewalks; installation of visitor amenities such as benches, bicycle racks, and shower towers at primary beach entryways; repairs to seawall railings; and upgrades to the stormwater drainage system</p>	\$6,511,510
<p>FARM VIABILITY PROGRAM Offered farmers environmental, technical and business planning assistance to expand, upgrade and modernize their existing operations. Capital for the implementation of the improvements recommended in the viability plan is available in exchange for an agricultural covenant on the farm property for a fixed term of five or ten years.</p>	\$5,613,208
<p>LANDSCAPE PARTNERSHIP GRANTS Aided in preserving large, unfragmented, high-value conservation landscapes including working forests and farms, expand state-municipal-private partnerships, increase leveraging of state dollars, enhance stewardship of conservation land, and provide public recreation opportunities. The program offers competitive grants to municipalities, non-profit organizations, and Executive Office of Energy and Environmental Affairs (EEA) agencies acting cooperatively to permanently protect a minimum of 500 acres of land.</p>	\$2,438,933
<p>AGRICULTURAL PRESERVATION RESTRICTION PROGRAM Highlighted spending project.</p>	\$2,349,222
<p>ENVIRONMENTAL ANNUAL PROGRAM Provided on-going operations and management of environmental capital initiatives that sought to cost-effectively improve environmental performance.</p>	\$1,651,689
<p>ENFORCEMENT SUPPORT AND BROWNFIELDS The Commonwealth of Massachusetts is committed to the cleanup and redevelopment of brownfields properties as a way to stimulate the economy and promote environmental protection goals. MassDEP has assisted hundreds of brownfields projects since the passing of the 1998 Brownfields Act. Assistance from DEP and other state and federal partners has resulted in the successful redevelopment of dozens of brownfields sites, including Alden Corrugated Container Co. in New Bedford, the Basketball Hall of Fame in Springfield, Genzyme/Kendall Square in Cambridge, MassMOCA in North Adams, North Common in Lawrence, and United Shoe in Beverly. (MassDEP).</p>	\$1,553,718
<p>SOLID WASTE MANAGEMENT AND RECYCLING TECHNICAL ASSISTANCE Provided for DEP's monitoring and maintenance of landfills.</p>	\$1,491,841

ADDITIONAL SPENDING PROJECTS

Department of Fish and Game Land Protection Program	\$643,362
Greening the Gateway Cities	\$517,387
Baird and McGuire Groundwater Treatment	\$383,362
Department of Fish and Game Land and Habitat Programs	\$349,498
Ambient Air Monitoring	\$247,411
Columbia Greenway Bike Trail	\$150,794
10% State Match on Superfund Clean Up EPA Grants	\$74,660

TOTAL : \$66,067,232

GREEN BONDS — FISCAL AND ENVIRONMENTAL SUSTAINABILITY CONTINUE TO GAIN TRACTION

RAISING GLOBAL INVESTMENT

Green bonds are an emerging asset class which is ultimately fueled by the increasing determination of governments to lower global carbon emissions in order to limit climate change. The European Union has been a driving force in establishing the market, linked to its Renewable Energy Directive enacted in 2009. The green bond market has grown rapidly to become a global asset class for all sectors, boosted by the UN COP 21 climate agreement in December 2015. Global policy makers see green bonds as a key tool to implement national climate change targets.

— [FITCH RATINGS](#)

Green Bonds — Fitch Ratings and Market Overview

BEYOND GREEN BONDS

Investment of some \$90 trillion is needed in the next 15 years to achieve global sustainable development and climate objectives. Over \$800 billion needs to be invested every year to 2020 in renewable energy, energy efficiency, and low-emission vehicles alone. A key enabler for higher levels of investment in clean energy and other sustainable infrastructure is a standard by which investors can assess the relative merits of a project to be financed with respect to transparency, governance, and environmental impact.

— [S&P GLOBAL](#)

Beyond Green Bonds: Sustainable Finance Comes of Age

GREEN BONDS OUTPERFORM

Green bond issuance will likely set another record this year. Applying the 2016 increase of 120%, the amount would reach \$206 billion in 2017. This year's anticipated growth rate will continue to reflect a level of momentum attributable to the Paris climate agreement and other drivers, including geographic expansion, expansion in green bond issuers, issue types, structures and investment vehicles, including a continuing significant contribution by China based on its climate commitments and its ambitious renewable energy development agenda, continuing debate and consideration of public sector measures to stimulate green bonds via tax incentives or similar approaches and further debate and advances around harmonized reporting and disclosure, including impact.

— [MOODY'S INVESTORS SERVICE](#)

Record Year for Green Bonds

RIVER REVITALIZATION & PRESERVATION AND HABITAT RESTORATION

Projects which restore waterways and riverine habitats. The projects may include rehabilitation of environments or ecologies which have suffered from human development or invasive species. This category may include natural habitat restoration and management, wetland restoration, flood control and urban reforestation projects.

HIGHLIGHTED SPENDING

COASTAL RESILIENCE GRANT

Coastal communities face significant risks from coastal storms, flooding, erosion, and sea level rise — challenges that are exacerbated by climate change. To help address these issues, the Massachusetts Office of Coastal Zone Management (CZM) administers the Coastal Resilience Grant Program to provide financial and technical support for local efforts to increase awareness and understanding of climate impacts, identify and map vulnerabilities, conduct adaptation planning, redesign vulnerable public facilities and infrastructure, and implement non-structural (or green infrastructure) approaches that enhance natural resources and provide storm damage protection.

MAJOR SPENDING PROJECTS

<p>COASTAL RESILIENCE GRANT PROGRAM Highlighted spending program.</p>	\$11,600,068
<p>RIVER REVITALIZATION & RIVERINE HABITAT RESTORATION Provided funding for Division of Ecological Restoration (DER) projects including dam removal, culvert replacement, stream naturalization and other physical restoration techniques. DER projects create or maintain 12 fulltime equivalent jobs for every \$1 million spent and leverages an average of \$4 in non-state funds for every \$1 invested by the Commonwealth.</p>	\$9,797,321
<p>MUDDY RIVER STUDY Restored the Muddy River in the areas of Brookline and Boston, including the Fens and Riverway sections. These funds match the federal funds committed by the Army Corps of Engineers to undertake the Emerald Necklace Muddy River Restoration Project and provide environmental preservation benefits to the Commonwealth.</p>	\$262,500

TOTAL : \$21,659,889



STORMWATER

Projects that are designed to encourage recharge and the prevention of stormwater discharges from causing or contributing to the pollution of the surface waters and groundwaters of the Commonwealth. These projects may promote increased stormwater recharge, the treatment of more runoff from polluting land uses, low impact development (LID) techniques, pollution prevention, the removal of illicit discharges to stormwater management systems, or improved operation and maintenance of stormwater best management practices.

HIGHLIGHTED SPENDING

STORMWATER MANAGEMENT

The Department of Conservation and Recreation (DCR) is committed to maintaining the important recreational, historical and water resources available to the people of Massachusetts at DCR parks, reservations, forests, beaches, rinks, pools and parkways.

DCR understands the importance of stormwater management to all of these facilities and the threat of pollution from storm water and erosion. Our spending has contributed towards the maintenance and repair of DCR's stormwater management operations.

MAJOR SPENDING PROJECTS

MASSACHUSETTS CLEAN WATER TRUST MATCH Drinking water revolving fund matching state funds for the Federal EPA grant.	\$10,969,803
STORMWATER MANAGEMENT SYSTEM Highlighted spending program.	\$4,283,455

TOTAL : \$15,253,258



ENERGY EFFICIENCY & CONSERVATION PROJECTS IN STATE BUILDINGS

The projects in this spending category are designed to reduce energy costs in existing public buildings or create new energy-saving “green” buildings. This category includes projects within the Accelerated Energy Program (AEP), an ongoing initiative to “green” state buildings. This program includes projects designed to reduce greenhouse gas emissions, energy use and water use across Commonwealth facilities, including state office buildings, higher education campuses, public safety facilities and other public buildings. While the overall goal for the AEP is an average reduction in energy usage of 25%, some projects result in higher reductions (40-50%) why some result in lower reductions (in the range of 15%).

HIGHLIGHTED SPENDING

STATE HOUSE COMPREHENSIVE ENERGY AND WATER UPGRADES

The overall scope of the project is to make the State House become more energy efficient and comfortable by upgrading the heating and cooling system, plumbing and lighting systems. The project has two phases. One will upgrade all the air handling units that provide ventilation to the large spaces in the State House.

The second is the upgrade of the fan coil units that provide heating and cooling in the individual office spaces. The work for phase one will mostly take place during the day time, while the second phase will be done during the off hours when the office spaces will be empty. What the tenant will see once the changeover is complete will be new fan coil units, wall thermostats and sensors that will turn the lights and the fan coil units on automatically as a person enters the offices/space.

This will provide energy savings and better comfort since the occupants do not have to operate anything manually.

MAJOR SPENDING PROJECTS

<p>ENERGY EFFICIENCY PROJECTS Funded various contracts with utilities to advance energy efficiency at State Facilities under the Clean Energy Investment Program (CEIP). These projects reduce energy and water usage with debt service paid for through the attendant savings. This subfund funded energy projects at Health & Human Services, Department of Conservation and Recreation (DCR), and Department of Transportation (DOT) facilities. This category also includes various energy projects within the Accelerated Energy Program (AEP), including non CEIP.</p>	\$32,993,130
<p>MIDDLESEX SHERIFF'S DEPARTMENT — BILLERICA Provided renovations and updates to the Middlesex jail and correction facilities. The Middlesex Jail and House of Correction will expand this existing facility to provide an additional 128 cells for the general population plus a 240-bed dormitory building. Project is designed for LEED® Silver certification and features include a new vacuum system to conserve water and a new solar hot water system.</p>	\$16,480,591
<p>HALEY ACADEMIC CENTER MODERNIZATION Helped renovate Mount Wachusett Community College (MWCC) by including a New Science Addition of 42,458 square feet to the existing Haley Academic Center. The program includes a new 2,312 gross square-foot greenhouse and approximately 16,651 gross square feet of renovations at the existing center. Project features include energy efficient hydronic space conditioning and dedicated outdoor air system, as well as energy efficient lighting and daylight harvesting. The project is being designed for LEED® Gold certification.</p>	\$13,224,317
<p>FRAMINGHAM STATE UNIVERSITY — HEMENWAY HALL: ADDITION/RENOVATION Helped build a four-story addition of Hemenway Hall. The basement and a screened mechanical room contains approximately 58,000 square feet that will house 16 teaching laboratories, including related prep and supply spaces, plus facility research spaces. It is joined to the existing facility by a four-story common space. Project features include infrastructure upgrades, involving a total replacement of existing mechanical, electrical, plumbing and fire protection systems, as well as window replacement, envelope repairs and seismic upgrades. The project is being designed for LEED® Silver certification.</p>	\$8,134,474
<p>QUINSIGAMOND COMMUNITY COLLEGE — SCIENCE AND TECHNOLOGY BUILDING Assisted with design of a new building which emphasized energy and water efficient technologies. This building provides a modern science teaching space to supplement the forty-year old existing labs and instructional space, offices, and support spaces for its technology programs. The Quinsigamond Engineering, Science, and Technology (QuEST) Center is significant in that it covers biotechnology, biomedical engineering, pharmaceuticals, advanced manufacturing, electromechanical technology/robotics and automation, as well as energy utility technology.</p>	\$6,986,293
<p>HOUSE OF CORRECTIONS COMPREHENSIVE ENERGY & WATER UPGRADES Upgraded lighting, water conservation, steam trap replacement, chiller upgrade, combined heat and power system, photovoltaic modules and a new power plant and distribution system. This was a comprehensive energy and water conservation project at multiple locations.</p>	\$5,500,147
<p>BRISTOL SHERIFF'S DEPARTMENT ENERGY AND WATER DESIGN BUILD Funded a comprehensive energy and water conservation project at Bristol Sheriff's Department. The energy conservation measures installed at the facility will decrease energy use and cost through lighting upgrades, direct digital controls, electronic water controls, motor replacement, insulation, cogeneration, and solar thermal systems.</p>	\$5,167,633
<p>ENERGY AND WATER PERFORMANCE CONTRACT — CEIP Aggregation of several energy projects that use the Clean Energy Investment Program (CEIP), which pays debt service from monetized energy savings.</p>	\$4,401,365
<p>DIVISION OF FISHERIES & WILDLIFE (DFW) CRONIN BUILDING Assisted with construction of a 45,000 gross square-foot field headquarters building, including office, labs, meeting, and classroom areas located on the site of the existing DFW headquarters. The facility is expected to achieve zero net energy through solar photovoltaics and innovative mechanical systems as well as building envelope quality and reduction of all energy loads through building management.</p>	\$3,820,166
<p>DEPARTMENT OF PUBLIC HEALTH STATE LABORATORY INSTITUTE State Laboratory Institute at Jamaica Plain. Boiler energy efficiency project.</p>	\$3,769,744

ADDITIONAL SPENDING PROJECTS

ENERGY PROJECTS AT STATEWIDE COURTS Funds various energy efficiency projects within the Commonwealth courts system, including HVAC up-grades, retro-commissioning, water conservation efforts, and lighting upgrades.	\$2,632,247
MASSACHUSETTS COLLEGE OF LIBERAL ARTS (MCLA) — NEW CENTER FOR DESIGN AND INNOVATION Helped fund study, design and construction of a new Center for Science and Innovation at MCLA. Project features include a greenhouse, research laboratories, photovoltaics and heat wheels to recover energy.	\$2,605,766
HOLYOKE COMMUNITY COLLEGE ENERGY CONSERVATION MEASURES Project helped to reduce consumption of electricity and natural gas. Retrofitting of lighting fixtures and renovation of heating and air conditioning systems throughout campus, including installation of new digital controls and motion-controlled light sensors in offices and common areas.	\$2,460,156
STATE HOUSE COMPREHENSIVE ENERGY AND WATER UPGRADES Highlighted spending project.	\$2,457,409
MIDDLESEX HOUSE OF CORRECTIONS ENERGY AND WATER RETROFIT (STUDY) Initiated upgrades to reduce electricity, natural gas, and water consumption. Included installation of low-pressure central boilers, condensing domestic hot water heaters, automatic water controls, a ground mounted solar photovoltaic system, sewer metering, lighting upgrades, and variable refrigerant flow HVAC systems at Middlesex Sheriff's Office Billerica facilities.	\$1,981,750
ESSEX SHERIFF'S DEPARTMENT RETRO COMMISSIONING Helped provide energy and water upgrades to reduce consumption of electricity, natural gas, and domestic water. These include significant improvements to lavatory and shower fixtures, installation of a comprehensive water control system, mechanical and energy management systems, LED lighting upgrades, replacement of windows and doors, and upgrades to mechanical equipment.	\$1,502,631
FITCHBURG STATE UNIVERSITY SCIENCE FACILITY MODERNIZATION Project provided full renovation of Condike building and a new 57,700 gross square-foot addition for the biology, chemistry, physical, and geo-physical science departments. New space includes classrooms, wet laboratories, offices, and support spaces. The project is being designed for LEED® Silver certification.	\$1,250,668
University of Massachusetts-Lowell Energy Design Build Project	\$576,699
Pittsfield House of Corrections Energy and Water Design Build	\$559,845
Energy Performance Contracts	\$438,037
Salem State University Library and Learning Commons Energy Efficient Construction	\$160,721
Greening the Gateway Cities	\$45,702
Franklin Sheriff's Department Energy and Water Design Build	\$12,879
Hogan Regional Center Energy Performance Contracting	\$12,187
Berkshire House of Correction's Energy Feasibility Study	\$9,262
Plymouth Sheriff's Department Energy and Water Conservation System	\$3,918
Department of Transportation Master Utility Contract	\$1,020
Westboro Central Youth Services Center	\$545

TOTAL : \$117,189,302

NEW BEDFORD MARINE COMMERCE TERMINAL

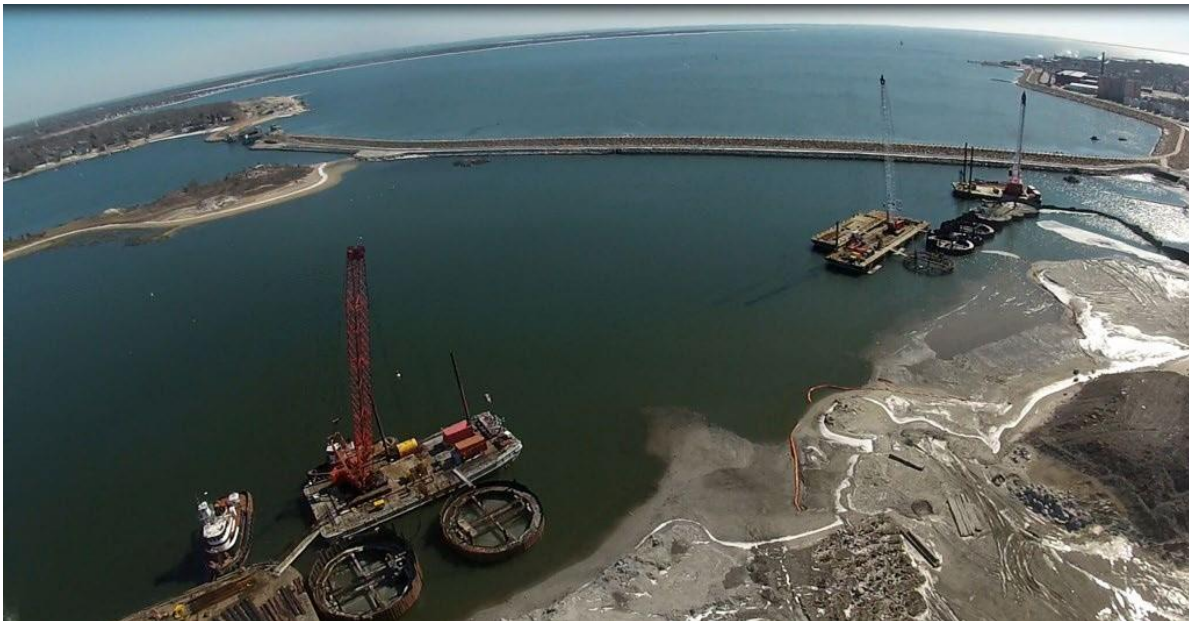
With the arrival of its first cargo ship of land-based wind components on June 6, 2015 the New Bedford Marine Commerce Terminal opened for business. The terminal is now the first purpose-built facility in the nation equipped to support the construction, assembly, and deployment of offshore wind projects. The completed terminal can also handle high-volume bulk and container shipping, industrial equipment and large specialty marine cargo. As part of construction, the project included the dredging and removal of approximately 250,000 cubic yards of contaminated sediment caused by industrial waste generated during the 1930s and 1940s as well as creation of environmental and habitat restoration areas.

MAJOR SPENDING PROJECTS

NEW BEDFORD MARINE COMMERCE TERMINAL

\$29,047,018

TOTAL : \$29,047,018



MASS GREEN BONDS

FINAL INVESTOR IMPACT REPORT

SUMMARY

2016 Series F
February 2018

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