



The Challenge

As the second oldest savings bank in Maine, in 2010 Savings Bank of Maine became interested in finding ways to reduce their energy consumption, thereby reducing their operating expenses for the Main Office in Gardiner, Maine. They desired a solution that aligned facility capital spending with sustainable, long-term organization objectives.

Our Findings

- A 25% reduction in annual energy costs resulting in a savings of approximately \$18,863 annually
- Predicted return on investment of 2.5 years
- Efficiency Maine awarded Savings Bank of Maine \$9,800 to implement energy savings solutions
- Improved capital and lifecycle investment decisioning
- Extended service life of facility assets

The Solution

Cordjia Capital Projects Group (“Cordjia”) deployed a team to perform an Building Systems Operational Check and Retro-Commissioning Study for Savings Bank of Maine’s Main Office. Our team focused on the mechanical, electrical, and plumbing systems, building automation system, and building operations to include the following on-site tasks:

- **Systems Verification.** We verified that the systems and equipment were installed pursuant to the design drawings. We inspected the condition and confirmed the age of all major components.
- **Systems Performance Analysis.** We evaluated all documents and sequence of operations for proper systems installation and operations.
- **Systems Testing.** We tested and operated all sensors, actuators, valves, and system components to ensure proper operation.
- **Energy Performance Analysis.** We provided technical feasibility, cost savings, return on investment, and new energy saving design options.

Systems evaluated included:

- Boilers
- Hot Water Circulation Pumps
- Air Conditioning Units
- Variable Air Volume Boxes
- Fin Tube Radiation and Thermostats
- Split HVAC Units
- Exhaust Fans
- Cabinet Unit Heaters
- Boiler Combustion Air Fan
- Building Automation
- Lighting

FINANCIAL HIGHLIGHTS

- Total Implementation Cost: \$56,392
- Efficiency Maine Incentive: (\$9,800)
- Cost to Savings Bank of Maine: \$46,592
- Annual Energy Savings: **\$18,863**
- Return on Investment: **2.5 years**

Findings

Cordjia determined the mechanical and electrical systems are in working order. Energy savings opportunities were identified in connection with the heating and cooling systems and building control system. The entire building should be retro-fitted with a new building control system. The older boiler needs replacing. A complete air balancing should be performed as well as a review of the design of the water-cooled air conditioning units. A maintenance program should also be implemented.

The recommendations within the report represent a 25% reduction in annual energy costs or approximately \$18,863 annually. If all the recommendations are implemented, with the Efficiency Maine incentive, the aggregate return on investment is 2.5 years.

Cordjia has commenced implementing energy reduction measures identified in the Building Systems Operational Check and Retro-Commissioning Study for Savings Bank of Maine.

