



Railroad Retirement Board

2019 Agency Sustainability Report Implementation Plan

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Agency Point of Contact

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EXECUTIVE SUMMARY

The mission of the Railroad Retirement Board (RRB) is to accurately and efficiently administer retirement and unemployment-sickness benefits to railroad employees and their families throughout the United States of America. Approximately 890 employees work for the RRB, including approximately 235 in the agency's 55 field offices. RRB headquarters, located in the William O. Lipinski Federal Building on North Rush Street in Chicago, Illinois, is the only facility over which the RRB has operational control.

As the primary tenant, the RRB operates and maintains the thirteen-story, 365,000-square-foot historic building constructed in 1922 through a delegation of authority agreement with the General Services Administration (GSA). Under this agreement, established on April 1, 1986, many projects over \$50,000 in value and any capital improvements for the headquarters building are generally funded and approved by GSA; however, certain projects including major energy improvement efforts have recently been funded directly by RRB. RRB has a history of actively and successfully pursuing projects that reduce energy and water consumption in its headquarters building. RRB also pursues mission-related projects that enhance the agency's overall sustainability.

In line with Federally provided guidance, the RRB has elected to prepare this brief executive summary outlining the agency's strategy for overall efficiency improvements in accordance with Executive Order 13834. This summary is intended to provide an overview of selected areas referenced from the Executive Order which pertain to the operations of the RRB and will exclude areas which do not apply due to the scope of RRB operations or which otherwise do not apply.

FACILITY MANAGEMENT

As the RRB energy performance is based solely on the headquarters building, local year-over-year temperature fluctuations and maintenance related complications can significantly affect the RRB's annual performance toward the RRB energy reductions reported in a single year. Milder temperatures result in greater progress towards energy intensity goals, such as in FY 2012 as well as FY 2015, while temperature extremes result in reduced progress, even year-over-year increases in some categories, such as in fiscal years 2011, 2013 and 2014. These temperature induced impacts can make actual progress in efficiency gains from heating and cooling difficult to identify with 25% increases in heating utility use year over year not uncommon.

Based upon past retrofits of existing lighting and plumbing fixtures to high efficiency units throughout the building, modernization efforts of late have centered on the headquarters building's boiler and chiller systems. These systems have been historically seen as the largest source of energy consumption and greenhouse gas at the Facility.

Recent projects targeting overall facility efficiency improvements have included the following;

- Completed Phase 1 of the Data Center improvements including addition of LED lighting, occupancy sensors, replacement of air conditioning equipment for the computer room, realigned HVAC zones and utilization of building automation systems targeted at increasing efficiency.
- Replaced 102 existing Exit Signs with low energy consumption LED models.
- Completed design and scope determination for installation of a supplemental 4th floor cooling system to reduce energy consumption.
- Completed design work related to the installation of new chillers for the Facility.

Summary

- Completed upgrade to the 3rd and 6th floor building automation system including zone controllers and programming efforts eyed at reducing energy consumption and maintenance costs.
- Maintained and repaired existing units to optimize resource consumption, these repairs included bathroom fixtures, heating and cooling equipment, lighting equipment, and repairs of the general building envelope.

To date, RRB efforts associated with plumbing, lighting, heating and cooling system, heating and cooling system controls, and other efficiency minded retrofits have yielded an overall reduction in Scope 1 (facility natural gas combustion) and Scope 2 (non-renewable electricity purchase) greenhouse gas emissions of 44.3% from FY 2008 through FY 2018. Additionally, the Facility has observed a 30% reduction in site delivered energy intensity over the same time range with ongoing improvements as evidenced by an 11.2% in on site delivered energy intensity improvement since FY 2015

While some of these reductions are potentially attributable to weather variations it is expected that further decreases in emissions and increases in efficiency are possible. While weather related changes make estimations of future changes difficult, it is estimated that 2% reductions in Facility Scope 1 and Scope 2 emissions are possible through the continued improvement of certain Facility systems and continued focuses on procuring portions of Facility electricity from sustainable sources.

FACILITY FOCUS

Additional areas of focus for RRB outside of direct building and utility modifications which are geared towards reductions in energy consumption and environmental stewardship are implemented through all aspects of the Facility.

Solid waste tracking technology was implemented in FY 2018 to note the exact yardage of collected waste and recyclable materials to more clearly identify and target waste streams at RRB for reduction. While no previous benchmarks are available for reference, FY2018 data noted a waste recycling rate of 40.7% by mass. This metric will be compared to the FY2018 metric in future years.

Telecommuting and the use of teleconferencing are promoted by the Facility in an effort to reduce business related travel via air and ground to the extent practicable. While year over year reductions can change due to the relatively low number of trips, air travel and ground travel related greenhouse gas emissions have seen reductions of 26% and 52% respectively in the FY 2008 through FY 2017 span.

Ongoing training for multiple facets of green procurement was provided to multiple employees at the RRB to ensure that materials, equipment, and ancillary consumables at the headquarters facility meet Federal requirements for Green Purchasing.

Summary

AGENCY PRIORITIES

By nature of the Facility operations at RRB headquarters, nearly of all RRB's operationally related greenhouse gas emissions are associated with building operations in the form of steam heating, cooling, domestic hot water usage and lighting. As such, these areas and fixtures/equipment remain the key focus for improvement for the Facility and this focus is not expected to change in future years. With recent technological improvements in system control technologies and 'smart' sensors capable of increasing operational flexibility and efficiency it is expected that the past improvements in total greenhouse gas efficiency can continue at RRB in spite of the unique challenges offered by a single facility entity and ongoing climate variation.



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