OFFICE of INSPECTOR GENERAL
NATIONAL RAILROAD PASSENGER CORPORATION

GOVERNANCE:

Company Appears on Track to Achieve Emissions Reduction Goals; Opportunities Exist to Reduce Excess Idling and Provide Training

OIG-A-2023-001 | October 18, 2022

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Memorandum

To: Dennis Newman
Executive Vice President, Strategy and Planning

Gery Williams
Executive Vice President, Service Delivery and Operations

From: Jim Morrison
Assistant Inspector General, Audits

Date: October 18, 2022

Subject: *Governance: Company Appears on Track to Achieve Emissions Reduction Goals; Opportunities Exist to Reduce Excess Idling and Provide Training*
(OIG-A-2023-001)

The transportation sector is the largest contributor to greenhouse gas emissions (emissions) in the United States, accounting for 29 percent of the total, with freight and passenger railroads accounting for about two percent of the sector's emissions. In fiscal year (FY) 2020, Amtrak (the company) set a target to reduce its emissions to 40 percent below its 2010 baseline by 2030. To help reach this target, the company also set goals of purchasing 100 percent carbon-free electricity by 2030 and purchasing 100 percent renewable electricity by 2035.[1] In July 2022, the company established a goal to pursue net-zero emissions by 2045.[2]

Our objective for this audit was to assess how effective the company has been in achieving its emissions reduction goals. To complete our assessment, we reviewed company policies, plans, emissions data, training data, and information that it voluntarily reports externally. We also analyzed locomotive idling data to identify opportunities to further reduce emissions. To understand the company's ongoing and planned efforts, we interviewed officials in four departments—Strategy and Planning;

[1] Carbon-free electricity includes all renewable sources, such as solar and wind, and large hydroelectric and nuclear. Carbon-free and renewable energy targets include traction power (the power to operate trains) and non-traction power (such as lighting and air conditioning at facilities).
[2] Net-zero emissions refers to emissions entering the atmosphere that are balanced by those removed from the atmosphere. A Sustainability department official told us that achieving the net-zero goal will be contingent on technologies that are not yet widely available, such as (1) using hydrogen fuel cells to power locomotives, and (2) retrofitting the locomotive fleet to accommodate the new technologies.

Safety, Health, and Environmental; Service Delivery and Operations (Operations); and Finance—and other company officials responsible for efforts related to sustainability issues. We also interviewed officials from the Environmental Protection Agency and the Federal Railroad Administration. Reviewing the company's net-zero emissions goal in detail was outside the scope of this audit. For more details on our scope and methodology, see Appendix A.

SUMMARY OF RESULTS

The company appears to be on track to reach its 2030 goal to reduce emissions by 40 percent below its 2010 baseline. It is also on track to achieve its goals of purchasing 100 percent carbon-free electricity by 2030 and 100 percent renewable electricity by 2035. To meet these goals, the company has undertaken several initiatives, including buying more efficient electric locomotives for the Northeast Corridor and more fuel-efficient diesel locomotives for use nationwide. It has also switched to more energy-efficient LED lighting in its facilities and stations. Further, the company has developed a plan to increase its purchases of carbon-free electricity to achieve the 2030 goal.

Although the company appears to be on track to reach its overall emissions reduction goals, we identified two additional opportunities that could help it more easily achieve these goals:

- Reducing idling time for diesel locomotives. The company has identified excess idling[3]—defined as a diesel locomotive idling one hour or longer—as a key source of controllable emissions. From October 2016 through March 2022, it reduced excess idling by 21 percent. We identified additional opportunities for the company to collect and analyze its own data to further reduce idling, which would reduce emissions, fuel costs, and wear and tear on locomotives.

- Requiring training on sustainability initiatives. The company offers sustainability training to all employees, but it is mandatory only for new management hires. Fewer than 8 percent of management employees have taken it, and 98 percent of them are new. Thus, the company has an opportunity to better educate management employees about how to incorporate emissions reduction goals into their roles and decision-making.

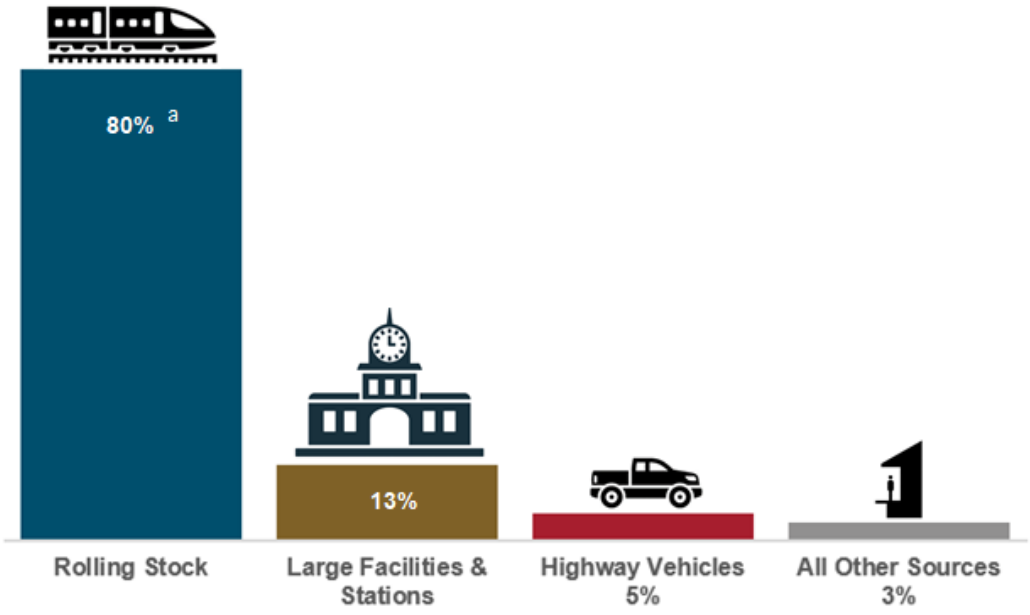
[3] Locomotives may need to idle to provide electricity to parked passenger cars for lighting, heating, and air conditioning.

To help advance its emissions goals and save fuel costs, we recommend that the company analyze its data to better target and reduce excess idling. Further, to ensure management employees are aware of the company's sustainability goals, we recommend that the company make its sustainability training mandatory for all management employees. In commenting on a draft of this report, the Executive Vice President, Strategy and Planning, and the Executive Vice President, Service Delivery and Operations, agreed with our recommendations and identified actions they plan to take by September 2023 to address them. For management's complete response, see Appendix B.

BACKGROUND

The company's primary sources of emissions are the electricity it uses to power its trains on the Northeast Corridor's electrified tracks and the diesel fuel it uses to power trains across the rest of the national network. The company also produces emissions through its use of electricity, natural gas, and heating oil to power and heat its facilities and stations; fuel for its highway vehicle fleet; and other sources, as Figure 1 shows.

Figure 1: Comparison of Emissions by Type of Company Asset, FY 2021



Source: OIG analysis of Amtrak emissions data

Note:
[a] Due to rounding, the total does not add to 100 percent.

The company reports its emissions to CDP, an international organization formerly known as the Carbon Disclosure Project. More than 13,000 companies, including six of the seven Class I freight railroads,[4] voluntarily disclosed their annual emissions in 2021. The company also produces an annual sustainability report that includes its progress toward its emissions targets.

In January 2022, the company moved its Sustainability team—created in 2013—from the Safety, Health, and Environmental department into the Strategy and Planning department to provide increased visibility and focus on sustainability issues. This team works to identify business solutions in support of the company's strategic goals to reduce emissions, assists with the implementation of new sustainability initiatives and targets, tracks performance, and reports publicly on sustainability metrics. The group also supports various departments and functions to incorporate sustainability concerns into their work.

Other key departments have responsibilities related to reducing the company's emissions, including the following:

- **Operations**, through its Transportation and Mechanical functions, is responsible for emissions related to diesel train operations and servicing.
- **Finance**, through its Utilities Management function, is responsible for purchasing electricity and funding energy efficiency projects.
- **Human Resources** is responsible for training related to these efforts.
- **Safety, Health, and Environmental**, through its Safety group, is responsible for technical training for the Operations staff who are responsible for operating and maintaining locomotives. It also provides environmental specialists to selected locations to increase focus on emissions reductions targets and other environmental goals.

[4] The six freight railroads that report to CDP have significantly larger fleets of diesel locomotives than the company and do not have electrified operations like the company has along the Northeast Corridor. Due to these differences, we did not perform any comparative analysis between the freight railroads' reported emissions and the company's.

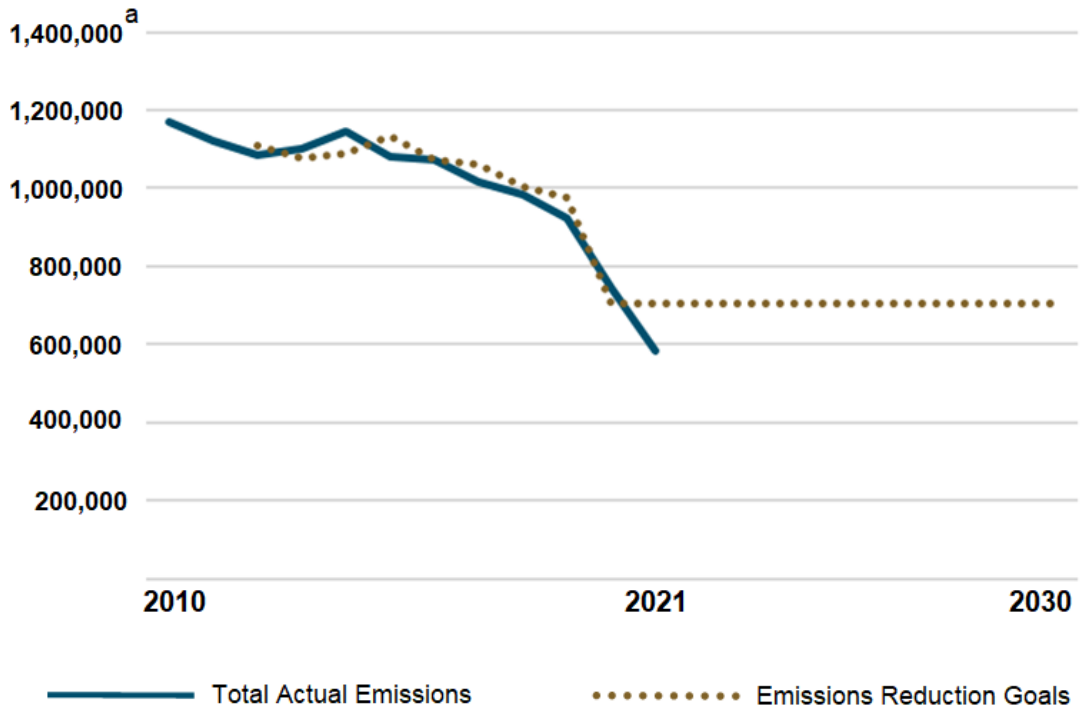
In addition, the company purchases carbon-free and renewable electricity through contracts with energy providers. It also purchases "credits"[5] for a certain amount of carbon-free or renewable generation, either as a percentage of total power or a certain number of megawatt hours in deregulated markets. The company and other organizations could use these credits—which power plants sell to their energy customers or sell openly on markets—to offset the power purchased in regulated markets.

THE COMPANY APPEARS ON TRACK TO REACH ITS GOAL TO REDUCE EMISSIONS BY 2030

The company has made significant progress toward achieving its goal of reducing emissions to 40 percent below the 2010 totals by 2030. From FY 2010 to 2019—the last full fiscal year prior to the COVID-19 pandemic—the company reduced its emissions by 21 percent. When the COVID-19 pandemic began in March 2020, the company sharply reduced train operations, which temporarily reduced emissions to 50 percent below the 2010 baseline. Even as operations resume, the company appears to be on track to meet its goal by 2030. Figure 2 shows the company's goals and its reductions in emissions.

[5] When a power plant produces carbon-free or renewable electricity, it also creates an energy attribute certificate, also called an energy credit, for the generation of that power. These credits are sold alongside the power (bundled) or openly on credit markets (unbundled). Consumers can purchase these credits to show they have purchased carbon-free or renewable electricity. In states where the company has operations, and the market is deregulated (meaning the company has a choice of energy supplier to buy electricity from), it generally purchases "bundled" credits. In regulated markets, the company could choose to purchase "unbundled" credits.

Figure 2: Company Emissions Compared to Goals, FY 2010 to FY 2021



Source: OIG analysis of Amtrak emissions data

Note:
[a.] Greenhouse gas emissions are expressed as carbon dioxide equivalents in metric tons.

The company's progress is the result of several initiatives it has taken to reduce emissions since 2000:

- To reduce electricity usage for rolling stock and large facilities and stations, the company has taken the following actions:
    - purchased more energy-efficient electric locomotives for use on the Northeast Corridor
    - replaced fluorescent lighting with LED lighting in facilities, stations, and passenger cars
- To reduce fuel use for rolling stock, the company has taken these actions:
    - started using ultra-low sulfur diesel fuel

  - reduced the need for diesel locomotives to idle by installing ground power units[6] at major stations, maintenance facilities, and train route termination locations
  - reduced the duration of diesel locomotive idling by installing automatic engine stop/start technology
  - replaced a physical daily testing procedure for diesel locomotives with electronic testing
  - required improved train handling techniques related to brake application

The company is taking several additional initiatives to continue reducing emissions by its goal dates:

- To further reduce electricity usage for rolling stock and large facilities and stations, the company is taking the following actions:
  - buying more energy-efficient electric Acela trainsets
  - buying more electricity from carbon-free and renewable energy sources
  - initiating solar energy pilot projects
  - requiring the top 20 largest energy-consuming facilities to develop and implement energy management plans and monitoring energy use at the 40 largest facilities to maintain a focus on reducing resource use
- To further reduce fuel usage for rolling stock, the company is taking the following actions:
  - buying more fuel-efficient diesel locomotives for long-distance and state-supported services that comply with the Environmental Protection Agency's most stringent standards
  - initiating pilot projects using renewable diesel fuel[7]

[6] As an alternative to idling, the company can use ground power units, which produce fewer emissions than diesel locomotives. Ground power units are enclosed, wayside electrical cabinets with attached cables that draw electricity from a local utility company.
[7] Renewable diesel fuel is made from materials such as vegetable oil and animal fats and is chemically identical to petroleum diesel.

THE COMPANY IS ON TRACK TO REACH ITS CARBON-FREE AND RENEWABLE ENERGY GOALS BY 2035

The company is also on track to achieve its goal of purchasing 100 percent carbon-free electricity by 2030 and 100 percent renewable electricity by 2035. It has steadily increased its use of carbon-free electricity from less than 1 percent of total companywide electricity usage in FY 2017 to 51 percent in FY 2021. Additionally, in FY 2021, the Utilities Management team created a "glide path" that outlines the company's plan to continue increasing its purchases by an additional 7 percent each year to achieve the 2030 goal.

Moreover, in FY 2022, the company increased its carbon-free and renewable energy "premium"—its yearly self-imposed limit on the total amount it can pay for more costly carbon-free and renewable electricity—from $100,000 to $3 million. A senior Finance official told us that this higher limit better reflects market conditions and that the company could reevaluate and increase the limit again if power demand and market prices increase further. Company officials told us that the carbon-free and renewable energy targets do not apply to electricity purchased in regulated markets[8] in which the company does not have a choice of suppliers. A company official estimated, however, that approximately 90 percent of electricity is purchased in deregulated markets, in which the company has a choice. Even in regulated markets where the company does not have a choice and cannot direct how much carbon-free and renewable electricity it purchases from its suppliers, it can purchase energy credits elsewhere to achieve its targets. This ability to purchase credits elsewhere increases the likelihood of the company reaching its targets.

The company is on track to meet its emissions reductions goals, and we have identified the following two additional opportunities to help the company more easily achieve its emissions goals.

OPPORTUNITIES FOR THE COMPANY TO FURTHER REDUCE EMISSIONS FROM EXCESS IDLING

Since 2016, the company has tracked and reported monthly on the number of hours that diesel locomotives idle for one hour or longer, which it considers to be "excess idling," and has made significant progress in reducing the excess idling time. These reductions

[8] In the United States, 33 states have regulated markets and 17 states have deregulated markets.

in idling time have lowered the company's emissions and fuel costs, and also reduces wear and tear on locomotive engines. We identified additional opportunities for the company to further reduce idling time and fuel costs by analyzing data it already collects, and by collecting additional data from its locomotives' onboard data systems.[9]

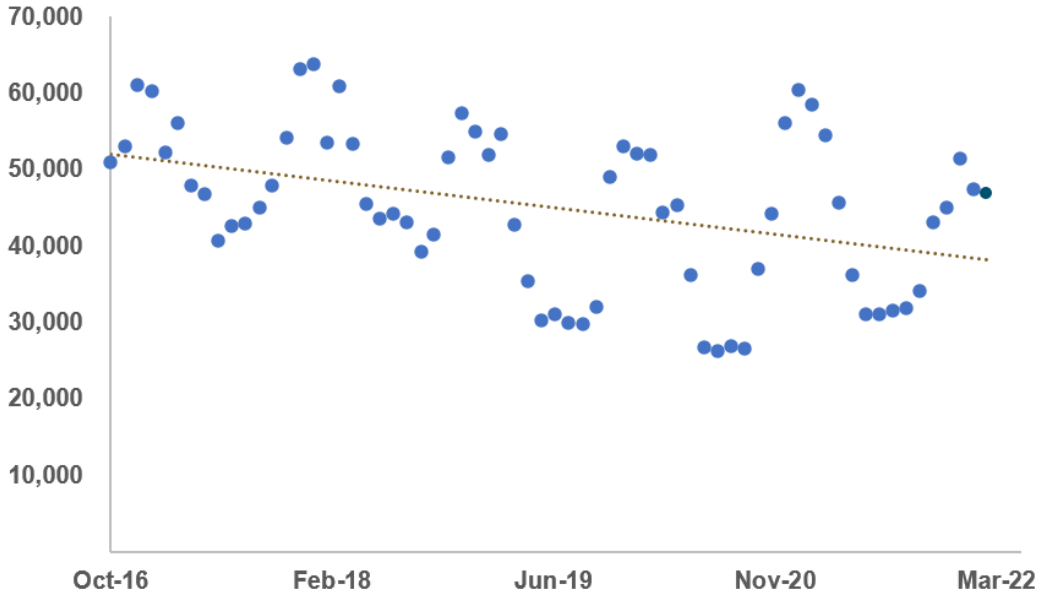
Company Has Made Progress Reducing Excess Idling

From October 1, 2016 (FY 2017) through March 31, 2022 (mid-FY 2022), the company decreased excess idling about 21 percent, from an average of approximately 50,000 hours per month to 40,000. This decrease reflects the success of Mechanical staff and the local environmental specialists implementing the company's policy[10] on excess idling, which states that Mechanical department employees should shut down a locomotive if it will be out of service for more than one hour when the ambient air temperature is above 40 degrees Fahrenheit. Figure 3 shows the company's reduction in monthly excess idling hours from FY 2017 through mid-FY 2022 and reflects more idling in the colder, winter months and less idling in the warmer, summer months.

[9] Our analyses are not intended to be prescriptive, but instead to illustrate the types of assessments the company could consider.

[10] Amtrak Equipment Standard Maintenance Procedure 20402; Revised November 27, 2017.

Figure 3: Excess Idling Hours Companywide, per Month, October 2016 to March 2022



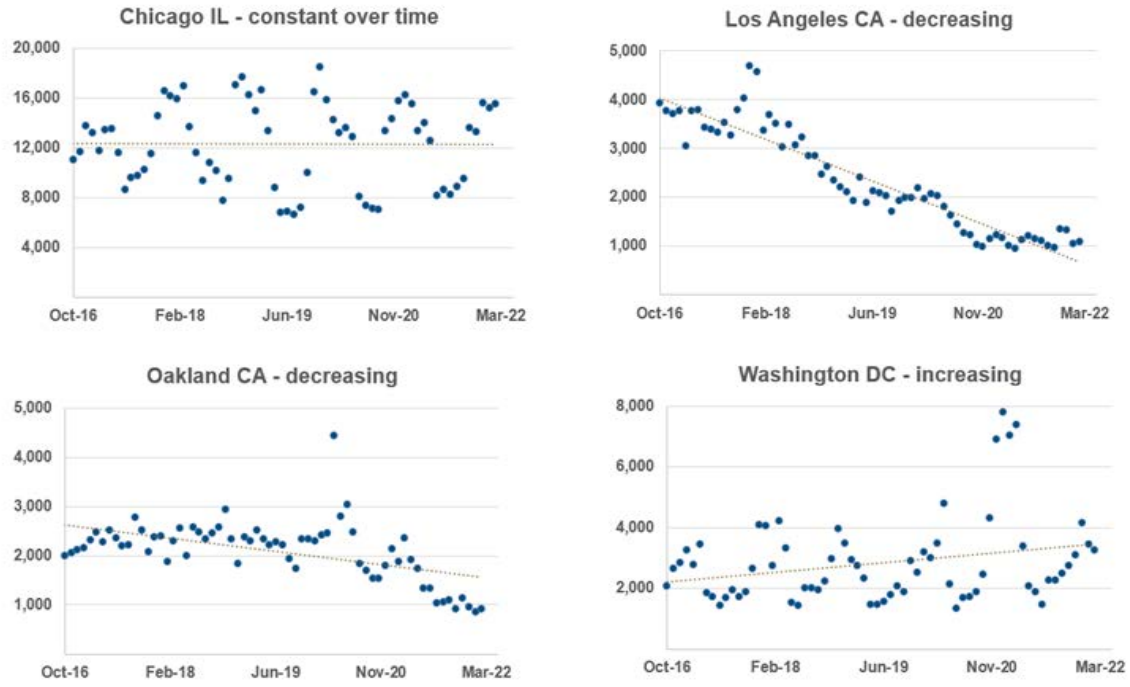
Source: OIG analysis of Amtrak excess idling data

Additional Opportunities to Analyze Existing Data to Reduce Idling

The company is not using all its available data, however, to identify opportunities to further reduce idling, as management standards suggest. The company tracks locomotives idling one hour or longer on a daily and monthly basis—by location and by individual locomotive—but it does not use these data to analyze trends companywide or by location. It also does not track consecutive incidents of idling when an idling locomotive repeatedly shuts down and restarts. The following examples of analyses we conducted illustrate some of the ways the company could use the data it already collects to identify additional opportunities to reduce idling and associated fuel costs.

Excess idling trends by location. Analyzing idling time by location would allow the company to assess its overall performance over time and identify locations that may have opportunities to improve. The company could then target its efforts to those locations. Some of the company's largest maintenance facilities have had varying success at reducing their monthly excess idling time, as shown in Figure 4.

Figure 4: Excess Idling Hours per Month at Four Large Maintenance Facilities, October 2016 to March 2022



Source: OIG analysis of Amtrak excess idling data

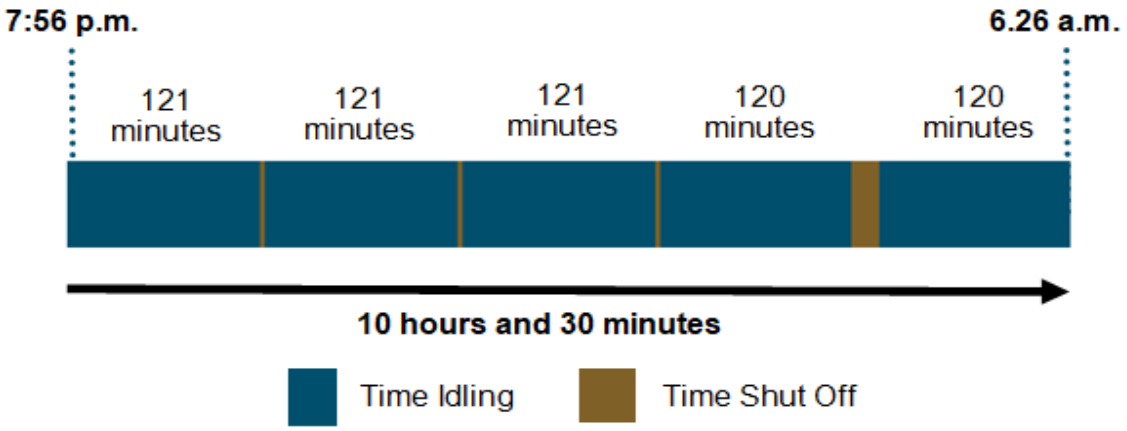
Consecutive incidents of excess idling. Analyzing incidents of consecutive idling could help the company identify locomotives that may be idling unnecessarily due to mechanical problems or maintenance errors. After two hours of idling, a locomotive automatically shuts down unless other conditions—such as the ambient temperature or the need to maintain air pressure in the brake lines—require the engine to continue to idle. Locomotives will also automatically restart if those conditions change. Consecutive instances of excess idling when air temperatures are not a factor can, therefore, indicate a mechanical problem or maintenance error. For example, if an air hose is leaking or if maintenance staff does not properly close an air brake valve, a locomotive that shuts down after two hours of idling would quickly restart when its onboard system detected low air pressure.

Currently, the company's excess idling reporting considers a series of back-to-back idling incidents to be separate, individual occurrences, rather than one long occurrence that is briefly interrupted by short shut-downs, as is actually the case. Because a real-time alert for this type of incident—such as a text message to the Mechanical foreman

on duty—does not currently exist, maintenance staff are not able to easily identify locomotives that have restarted in response to malfunctions or maintenance errors and work to prevent further unnecessary idling. By analyzing data on consecutive idling incidents by individual locomotives, regardless of location, the company could also identify locomotives that may need mechanical repairs.

When we analyzed excess idling data at Chicago, the company's largest locomotive maintenance facility, we observed more than 500 incidents in June 2021 when a locomotive shut down after two or more hours of idling and restarted less than 30 minutes later, sometimes repeatedly as shown in Figure 5.

Figure 5: Example of Consecutive Automatic Engine Stops and Restarts for One Locomotive, Chicago Maintenance Facility



Source: OIG analysis of Amtrak excess idling data

The company's excess idling reporting considers each of the idling incidents shown above to be individual occurrences, or five separate incidents of approximately two hours of idling, rather than a single ten-hour incident where the locomotive has automatically restarted four times.

Additional Data the Company Could Collect to Help Reduce Idling

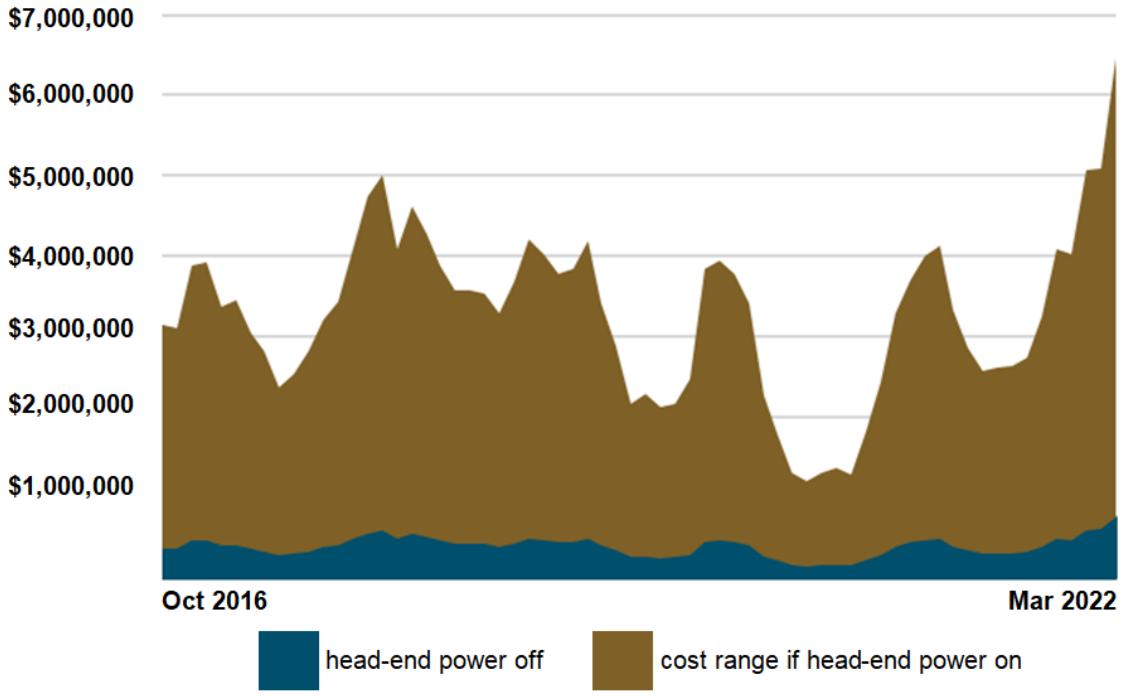
Locomotives' onboard data systems also track more information than the company currently gathers and analyzes for its monthly report. The following examples illustrate the kinds of data the company could collect and analyze from these systems to identify additional opportunities to reduce emissions and fuel costs.

Whether an idling locomotive is providing head-end power. There is a significant difference in fuel usage and the associated emissions when a locomotive idles with head-end power on—meaning the diesel locomotive is providing electricity to passenger cars for heating, air conditioning, lighting, and kitchen appliances—versus with head-end power off—meaning ground power is supplying this electricity to passenger cars instead of the locomotive. When a diesel locomotive operates in passenger service, the diesel engine provides head-end power. When a train is stored at a rail yard or maintenance facility, however, head-end power can be provided either by its idling diesel engine or by ground power electricity supplied by the facility's local utility. While idling, diesel fuel usage for the locomotive is approximately 30 gallons per hour with head-end power on, and approximately 4 gallons per hour with it off. Accordingly, company policy[11] states that trains should rely on ground power when stored between trips because it is less costly and produces fewer emissions than idling a diesel locomotive engine.

Although the onboard systems can distinguish between locomotives idling with head-end power on and those idling with it off, the company does not gather these data for its monthly report. Given the difference in fuel use, these data would allow the company to more accurately assess the cost of idling and better target its reduction efforts. Doing so would help reduce emissions, the company's fuel costs, and wear and tear on locomotive engines. Although the company does not track whether head-end power is on, it does track an average cost of diesel fuel in its monthly idling report. We used these data and the amount of excess idling per month to estimate the range of potential costs of using diesel locomotives to provide head-end power, as Figure 6 shows.

[11] Amtrak Equipment Standard Maintenance Procedure 20402; Revised November 27, 2017.

Figure 6: Estimated Diesel Fuel Costs If Idling Locomotives Were Providing Head-end Power, October 2016 to March 2022



Source: OIG analysis of Amtrak excess idling and fuel cost data

Whether a locomotive is idling in warm temperatures. In accordance with company policy,[12] locomotives are permitted to idle when the ambient air temperature is expected to be lower than 40 degrees Fahrenheit to prevent the water that cools the engines from freezing, which could cause serious engine damage. The locomotives' onboard systems can track ambient air temperatures, but the company is not gathering these data in its monthly report. Analyzing the temperature when an engine is idling would allow the company to identify additional instances when a locomotive should have been shut down as company policy requires and further reduce excess idling.

THE COMPANY HAS DEVELOPED SUSTAINABILITY AWARENESS TRAINING, BUT PARTICIPATION IS LIMITED

During our work, we learned that the company offers training to employees on its sustainability goals and targets, but participation has been low because the training is largely voluntary. Although the training is available to all employees, the company

[12] Amtrak Equipment Standard Maintenance Procedure 20402; Revised November 27, 2017.

began requiring only new management employees to take it as of March 2021. Management standards state that organizations should ensure employees are aware of company strategies and goals.[13] Our analysis of company data showed that only 273 of 3,456 management employees (less than 8 percent) have taken the training, as of June 13, 2022. Of these, 268 (98 percent) of the participants were new hires who were required to take it.

In addition, in November 2021, the company established four leadership capabilities for management employees, one of which is to "drive sustainability and innovation." As part of this capability, management staff are expected to incorporate these attributes into their performance. The company provided an introduction to these leadership capabilities in June 2022 and plans to provide training in fall 2022, but a Human Resource official told us this introduction and training will also be voluntary. As a result, management employees may not be aware of the company's goals for reducing emissions and how they can incorporate the goals into their roles and decision-making processes.

CONCLUSIONS

The company appears to be on track to reach its 2030 and 2035 emissions reduction goals in the coming years. Collecting and analyzing data to further reduce excess idling would help it more easily reach its goals, while also reducing fuel costs and wear and tear on its locomotives. Further, making sustainability training mandatory could help the company better educate management employees about how to incorporate sustainability awareness and emissions reduction goals into their roles and decision-making.

RECOMMENDATIONS

To continue reducing emissions and save fuel costs, we recommend that the Executive Vice President, Strategy and Planning, work with the Executive Vice President, Service Delivery and Operations, to take the following actions:

1. Further analyze the data it already collects and collect additional data to identify opportunities to reduce excess idling. This could include analyzing trend data on excess idling over time, by location, and by locomotive.

[13] Committee of Sponsoring Organizations of the Treadway Commission, *Internal Control-Integrated Framework*, May 2013.

2. Using these analyses, establish and implement a process to regularly target and reduce excess idling companywide. This could include developing a real-time alert for the appropriate mechanical staff that would allow them to make needed repairs to prevent excess idling.

To ensure that management employees are aware of the company's sustainability goals and targets, we recommend that the Executive Vice President, Strategy and Planning, take the following action:

3. Make its sustainability awareness and core capability training mandatory for management employees.

MANAGEMENT COMMENTS AND OIG ANALYSIS

In commenting on a draft of this report, the Executive Vice President, Strategy and Planning, and the Executive Vice President, Service Delivery and Operations, agreed with our recommendations and identified specific actions the company plans to address them, which we summarize below.

Recommendation 1: Management agreed with our recommendation to further analyze the data it already gathers and collect additional data to identify opportunities to reduce excess idling. It plans to work with an internal continuous improvement team to identify opportunities to reduce excess idling. The company also plans to engage its vendors to identify any enhancements that can be made to its locomotives' onboard data collection systems. The target completion date is September 30, 2023.

Recommendation 2: Management agreed with our recommendation to use the analyses described above to establish and implement a process to regularly target and reduce excess idling companywide. It plans to establish a cross-functional team that will include staff from the Operations, Digital Technology, and Finance departments to determine how to improve its current analyses and identify notifications that can be automated and integrated into daily operations. The target completion date is September 30, 2023.

Recommendation 3: Management agreed with our recommendation to make sustainability training mandatory for its management employees. The Sustainability group plans to work with the Training and Development group to update this training to include the company's new net-zero emissions strategy and other relevant topics. The target completion date is March 31, 2023.

APPENDIX A

Objective, Scope, and Methodology

This report provides the results of our audit of the company's efforts to address emissions. Our objective for this audit was to assess how effective the company has been in achieving its emissions reduction goals. Our scope included assessing the company's efforts to address emissions from FY 2010 to March 2022 against its future reduction targets. We focused primarily on the company's largest contributors to emissions—diesel fuel and electricity consumption. Our work did not include the company's latest goal to pursue net-zero emissions by 2045, nor did we compare the company to freight railroads' emissions reported to CDP.

To complete our assessment, we reviewed company policies, plans, emissions data, training data, and information that it voluntarily reports externally. We also analyzed locomotive idling data to identify opportunities to further reduce emissions. To understand the company's ongoing and planned efforts, we interviewed officials in four departments—Strategy and Planning; Safety, Health, and Environmental; Service Delivery and Operations; and Finance—as well as other company officials responsible for efforts related to environmental and sustainability issues. We also interviewed officials from the Environmental Protection Agency and the Federal Railroad Administration to understand their roles in the regulatory framework and emissions reductions efforts in the transportation industry. We also visited Mechanical facilities in Chicago, Illinois, and Wilmington, Delaware, to observe and discuss their efforts to reduce emissions. We performed our audit work from January 2022 through August 2022.

We conducted this performance audit in accordance with generally accepted governmental auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Internal Controls

We reviewed the internal controls the company had in place to help address reducing emissions. Specifically, we assessed the internal control components and underlying

principles and determined that the following two internal control areas were significant to our audit objective:

- **Information and communication.** Management should provide quality information to achieve the entity's objectives.
- **Control activities.** Management should develop and implement activities such as training requirements to ensure that the company achieves its objectives.

We developed audit work to ensure that we reviewed each of these control areas, including assessing the following:

- excess idling data to identify trends and additional ways the company could better use data to help the company achieve its emissions goals
- training requirements and participation rates for management employees to help the company achieve its emissions goals

Because our review was limited to these internal control components and underlying principles, it may not have disclosed all of the internal control deficiencies that may have existed at the time of this audit.

Data Reliability

We obtained excess idling reports from the Finance department that were based on data generated by a third-party vendor's onboard system. We assessed and discussed this data with cognizant officials and determined it was the best available and was sufficient and reliable for purposes of our review to identify opportunities for further reduce idling. For training data, we relied on company-reported participation information provided by the Human Resources department. For the number of management employees, we relied on information generated from the company's Systems Application and Products (SAP) system—the resource planning platform that integrates the company's major business processes. SAP controls are regularly tested as part of the company's annual financial statement review by an independent accounting firm and were determined to be reliable for FY 2021. In addition, we performed our own data testing, including comparing our count of management employees to the company's dashboard, reviewing the data for duplicates or known participants, and other inconsistencies. We determined that the data were sufficiently reliable to enable us to accurately report on training participation rates.

Prior Reports

In conducting our analysis, we reviewed the following reports:

- *More Effective Management of Vehicle Fleet Would Improve Safety and Reduce Costs* (OIG-A-2020-007), March 17, 2020
- *Improved Inventory Practices Could Help the Company Better Manage its Maintenance-of-Way and Rolling Stock Equipment* (OIG-A-2019-010), July 25, 2019
- *Improving Management Processes Could Reduce Costs and Generate Additional Revenues* (OIG-A-2019-006), March 29, 2019
- *Opportunities Exist to Strengthen Controls to Ensure that Utility Accounts Are Deactivated After Real Estate Transactions* (OIG-A-2017-010), June 15, 2017
- *Observations on Vehicle Fleet Management* (OIG-MAR-2016-001), October 16, 2015

APPENDIX B

Management Comments

NATIONAL RAILROAD PASSENGER CORPORATION

Memo

Date	October 6, 2022	From	Gerhard Williams, SVP Service & Delivery Ops Dennis Newman, EVP Strategy & Planning
To	Jim Morrison, Assistant Inspector General, Audits	Department	Service & Delivery Ops & Strategy & Planning
		cc	Stephen Gardner, CEO Roger Harris, President Eleanor Acheson, EVP General Counsel Christopher Barnes, AVP Deputy CMO Svc & Maintenance Ops Laura Fotiou, Sustainability & Climate Resilience Mgr. Shawn Gordon, VP Transportation George Hull, VP Chief Mechanical Officer Laura Mason, EVP Capital Delivery Kara Oldhouser, Dir Sustainability Steven Predmore, EVP CSO Mark Richards, Sr. Director Amtrak Risk & Controls Qiana Spain, EVP CHRO Tracie Winbigler, EVP CFO Christian Zacariassen, EVP CIO

Subject: Management Response to *Governance:* Company Appears on Track to Achieve Emissions Reduction Goals, Opportunities Exist to Reduce Excess Idling and Provide Training (*Draft Interim Audit Report for Project No. 005-2022)*

This memorandum provides Amtrak's response to the draft interim audit report titled, "*Company Appears on Track to Achieve Emissions Reduction Goals, Opportunities Exist to Reduce Excess Idling and Provide Training*". Management appreciates the opportunity to respond to the OIG's recommendations.

NATIONAL RAILROAD PASSENGER CORPORATION

Recommendations

To continue reducing emissions and save fuel costs, the OIG recommends that the Executive Vice President Strategy and Planning work with the Executive Vice President Service Delivery & Operations to take the following actions:

Recommendation #1:

Further analyze the data it already collects and collect additional data to identify opportunities to reduce excess idling. This could include analyzing trend data on excess idling over time, by location, and by locomotive.

Management Response/Action Plan:

Management agrees with the recommendation and will collect and work with the Continuous Improvement Team to identify opportunities to reduce excess idling, Management will work with procurement to engage necessary vendors to identify if any enhancements can be made to the onboard data collection systems.

Responsible Amtrak Official(s):
Shawn Gordon, VP Transportation
George Hull, VP Chief Mechanical Officer

Target Completion Date: September 30, 2023

Recommendation #2:

Using these analyses, establish and implement a process to regularly target and reduce excess idling companywide. This could include developing a real-time alert for the appropriate mechanical staff that would allow them to make needed repairs to prevent excess idling.

Management Response/Action Plan:

Management agrees with the recommendation and will stand up a cross functional team to include Digital Technology & Innovation, Service Delivery & Operations, and Finance to determine what enhancements to current analysis can be achieved and what notification process can be automated and efficiently integrated into daily operations systems and processes

Responsible Amtrak Official(s):
Shawn Gordon, VP Transportation
George Hull, VP Chief Mechanical Officer

Target Completion Date: September 30, 2023

NATIONAL RAILROAD PASSENGER CORPORATION

To ensure that management employees are aware of the company's sustainability goals and targets, we recommend that the Executive Vice President Strategy and Planning take the following action:

Recommendation #3:

Make its sustainability awareness and core capability training mandatory for management employees.

Management Response/Action Plan:

Management agrees with the recommendation to make Sustainability training mandatory for management employees, and Amtrak's Sustainability Group will work with Amtrak's Training & Development group to refresh content within the Sustainability eLearning (5997) module. The module will be updated to include the Net-Zero Carbon Emissions Strategy, results from the most recent climate resilience research and strategic plan, and any other relevant topics.

Responsible Amtrak Official(s):
Kara Oldhouser, Dir Sustainability
Laura Fotiou, Sustainability & Climate Resilience Manager

Target Completion Date: March 31, 2023

APPENDIX C

Acronyms and Abbreviations

CDP	(formerly) Carbon Disclosure Project
FY	fiscal year
greenhouse gas emissions	emissions
OIG	Amtrak Office of Inspector General
Service Delivery and Operations	Operations
the company	Amtrak

APPENDIX D

OIG Team Members

J.J. Marzullo, Deputy Assistant Inspector General, Audits

Melissa Hermes, Director

Jodi Prosser, Senior Audit Manager

Cindi Anderson, Senior Auditor, Lead

Clare Shepherd, Senior Auditor

Alison O'Neill, Communications Analyst

Nadine Bennett, Associate Legal Counsel

OIG MISSION AND CONTACT INFORMATION

Mission

The Amtrak OIG's mission is to provide independent, objective oversight of Amtrak's programs and operations through audits and investigations focused on recommending improvements to Amtrak's economy, efficiency, and effectiveness; preventing and detecting fraud, waste, and abuse; and providing Congress, Amtrak management, and Amtrak's Board of Directors with timely information about problems and deficiencies relating to Amtrak's programs and operations.

Obtaining Copies of Reports and Testimony

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Report suspicious or illegal activities to the OIG Hotline

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or

800-468-5469

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