

Conserving Resources

Contributing to the circular economy is an important part of our environmental stewardship responsibilities. Our focus is on minimizing material consumption by doing more with less, maximizing the useful life of materials, and minimizing waste generation.

Reducing resource consumption enables us to minimize our environmental impacts, improve cost efficiencies, and engage our suppliers and employees on our environmental stewardship responsibilities.

Reducing Materials at Source

We work collaboratively with suppliers to encourage the design and use of sustainable materials and to reduce impacts across the entire lifecycle of the products we use from cradle to grave. For example, in 2016,

we continued to purchase innovative environmental products such as bio-renewable cleaners and degreasers, and collaborated on packaging optimization opportunities.

Maximizing the Life of Materials

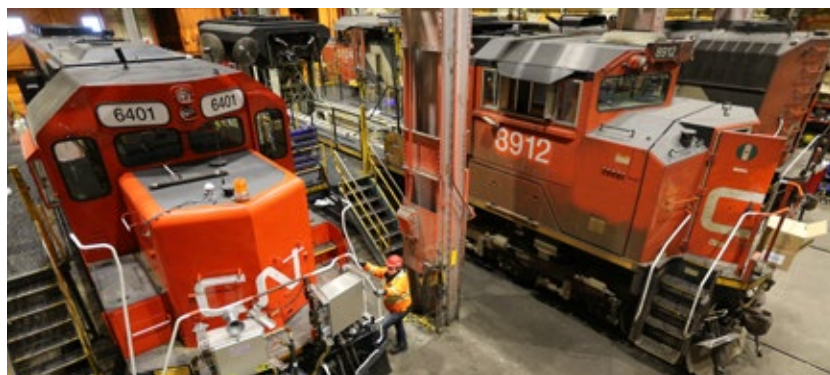
Particular to the rail industry, many of the capital assets we use to run the railroad are inherently sustainable. For example, most of our steel rail tracks, locomotives, railcars, ballasts, and rail ties have

lifespans that extend beyond 25 years and we further extend their useful life through reuse and recycling programs.

Recycling programs include used oil, concrete and wood ties, engine coolants, and waste water from treatment plants that was used to wash locomotives.

Minimizing Waste Generation

Over the past few years, we've strengthened our waste management culture by setting diversion targets. In collaboration with our waste contractor, Heritage Interactive, and our EcoChampions, we continuously identify innovative solutions to reduce our operational waste. For example, we've improved how rail tie debris is processed at our tie disposal hub in L'Anse, MI. We've also continued to engage our employees through EcoConnexions and recycle scrap metals, rail, and railcars, as well as electronic waste, batteries, plastics, and cardboard.



REBUILDING LOCOMOTIVES TO EXTEND THEIR LIFE

CN locomotives are overhauled by our mechanics at the Transcona Shops in Winnipeg, MB, and reused on secondary lines and then in yards, to extend their use up to 25 years.



SPEAKER'S CORNER

Working Collaboratively with Our Suppliers

"We are committed to integrating environmental, social and governance considerations into the selection of critical suppliers. Over the past three years, we've conducted sustainability risk assessments of our critical suppliers and, where high risks were identified, we worked with these suppliers on risk mitigation measures.

We also require our suppliers to conduct their business in accordance with our Code of Business Conduct, environment, health and safety policies, and other relevant corporate standards. In 2016, all our major suppliers had signed agreements with us, which included their commitment to comply with our Code of Business Conduct."

LEN PODGURNY
Senior Agent, Supply Management

SPOTLIGHT

Contributing to the Circular Economy

As a leading North American railroad, resilience is an inherent part of our business, enabling us to maximize the value of materials and minimize waste.



“Our focus on minimizing the use of new materials, maximizing the useful life of materials, and reducing waste generation at the end of their life, is an important part of our material stewardship responsibilities. It enables us to do our part to contribute to the circular economy, while saving costs and generating additional revenues.”

FELISMINA DEOLIVEIRA
Director, Supply Management

Many of the assets and materials we use to operate our rail network have a lifespan exceeding 25 years. At the end of their lifespan, we are piloting projects to further extend the life of these assets through reuse and recycling. For example:

- **Steel rail tracks** are re-used from the main lines to our secondary lines and then at our yards, and finally sold to be recycled into new steel products.
- **Concrete rail ties** have been successfully pilot-tested for reuse or crushed for sub-grading in yards and roadways.
- **Wooden rail ties** up to 97% are sent for co-generation of electricity.
- **Railcars** continue to be reused until they reach the end of their life and are finally sent for recycling.
- **Locomotives** are reused from our mainline to secondary lines, and then in our yards. At the end of their life, they are recycled for steel.

Our EcoConnexions employee program continues to increase awareness and engage employees on reduce, reuse and recycle opportunities, including cardboard, plastics, packaging materials, batteries, electronics, shop towels, and gloves.



Reid Bodley, Manager, Waste and Conservation, with gloves for reuse



1 Reusing Gloves through the Material Marketplace

Working with Toronto and Region Conservation Authority Partners in Project Green, we completed a pilot program at our MacMillan Yard to launder and reuse gloves.

2 Repairing and Reusing Concrete Ties

We undertook a pilot project to repair and reuse concrete ties, and crushed the end-of-life ties for sub-grading in our yards.

3 Extending the Life of Locomotive Batteries

A pilot project was successfully implemented with our primary supplier of locomotive lead acid batteries to re-qualify them and put them back into service.

~90%

WASTE DIVERTED FROM
LANDFILL IN 2016 AND SENT
INSTEAD FOR REUSE
OR RECYCLING