



Type what you want to search

Search

07/28/2020



Vale and Progress Rail Develop the First 100% Electric Locomotive of the Brazilian Mining Industry

Battery-powered equipment will be used in the switchyard, and a pilot test will start in this second half of the year, at Tubarão Unit (Espírito Santo)

Vale, in partnership with Progress Rail - a company of the American group Caterpillar -, is developing a new 100% electric, battery-powered switchyard locomotive. In addition to significantly reducing greenhouse gas emissions by replacing diesel fuel with sustainable electric energy, the equipment also reduces noise emission, which mitigates its impacts on the communities surrounding Vale operations.

The pilot-phase for EMD® Joule locomotive is expected to be launched in this second half of the year, at Tubarão Unit (in Vitória, in the state of Espírito Santo). The equipment is under the construction phase at the Progress Rail's industrial plant in Sete Lagoas (Minas Gerais state). EMD® Joule's batteries will provide a 1.9 MWh storage capacity, expandable to 2.4 MWh, which means being able to operate up to 24 hours with no need to recharge.

This 100% electric switchyard locomotive is part of the PowerShift Program to replace Vale's energy sources with clean ones. This initiative contributes to Vale's strategy to reduce its direct and indirect emissions (Scope 1 and 2)¹ by 33% until 2030, as of 2017. This goal complies with the Paris Agreement.

Today, railroad emissions account for almost 10% of Vale's total Scope 1 and 2 emissions. Thus, if this technology is proven to be feasible, the electric equipment may contribute to the reduction of railroad emissions.

According to Gustavo Bastos, Executive Manager at Vale's Center of Excellence and Innovation, tests with the pilot-locomotive for maneuvering operations, in Tubarão, are paramount to develop a conceptual solution for regular locomotives operating in the railroads. "This equipment is a landmark on the strategy of decarbonization of Vale's assets, and it is in compliance with the New Pact with Society," says Bastos.

¹Scope 1 emissions come from Vale's own sources or operational control, while Scope 2 emissions are indirect, related to the generation of electricity purchased by the company

More information 



Media Relations Office

imprensa@vale.com

[Click here](#) to see our contacts

