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USE OF SATELLITE REMOTE SENSING DATA TO VALIDATE FORTUNE 500 CLIMATE PLEDGES

Abstract

In the wake of 'Code red' warnings in 2021 about the negative impacts of climate change from the United Nations Intergovernmental Panel on Climate Change (IPCC), scores of the world's largest companies made pledges to reduce their climate impacts. Such pledges set targets such as reaching net zero emissions within the next 10-30 years, becoming carbon neutral, switching to 100

Remote sensing satellites have established their utility in observing climate and environmental conditions on Earth, including measuring greenhouse gas (GHG) emissions broadly and at the individual facility-level. Major multinational companies in markets such as agriculture, energy and gas, infrastructure, consumer packaged goods, insurance, and finance are mature consumers of satellite remote sensing data for business purposes. Many of these companies are also among the world's largest GHG emitters. Multinational corporations can increase transparency and fidelity in reporting on their climate impact pledges with satellite remote sensing data, which can be used to track and validate companies' current climate impacts, progress toward stated goals in reducing those impacts, and easily convey the findings of such data to broader audiences.

This paper identifies and details the climate pledges of Fortune 500 companies and outlines how readily available satellite remote sensing data can be used to measure, validate, and report on those companies' climate impact reduction pledges.