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En-ROADS: A Global Energy and Climate Simulator to Support Strategic Thinking and Public Outreach

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Integrated assessment models (IAMs) have advanced scientific understanding of mitigation pathways, yet most are not directly accessible to policymakers and other leaders. Here we describe En-ROADS, a publicly available, fully documented online policy simulation model designed to complement IAMs in public outreach. En-ROADS represents the energy-economy-climate system at a globally aggregated level. It has been carefully grounded in the best available science and is calibrated to fit historical data and projections from multiple IAMs across all SSP scenarios. Through an intuitive interface, users choose assumptions, policies, and actions to mitigate GHG emissions, receiving immediate feedback on likely energy, emissions, and climate pathways through 2100, enabling users to explore policies and uncertainties for themselves.