

## MARK RUTH

Mark Ruth is the National Renewable Energy Laboratory's (NREL's) Analysis Coordination Laboratory Program Manager. In that role, Mark is leading development an analysis strategy for NREL that addresses key issues for the energy system to decarbonize. He is also leading efforts to coordinate NREL's analysis projects so that the efforts use consistent data, are performed in context with each other, and conclusions and their limitations are clearly communicated.

Previously, Mark managed the Industrial Systems and Fuels Analysis Group at NREL as they investigated opportunities to improve energy use and reduce emissions in the industrial and transportation sectors. He also led the multi-laboratory analysis of the technical and economic potential of the H2@Scale concept which quantified potential hydrogen market sizes and impacts. In addition, he led analyses of the impacts of electrons-to-molecules technologies on the electricity grid.

Over Mark's 30 years at NREL, he has an extensive history of developing methods to value opportunities in the energy sector as well as technical analyses focusing on hydrogen and bioenergy systems.

Mark Ruth holds a B.S. from the University of Colorado.