Akhil Chauhan

Akhil Chauhan is a Senior Project Scientist at the Indian Institute of Technology (IIT) Delhi, working on the Net Zero India (NZI) Project, which aims to explore development-compatible net zero pathways for India. The project is being carried out in collaboration with the Andlinger Centre for Energy and the Environment at Princeton University and the Prayas Energy Group, Pune. He is an energy systems modeller contributing to the PIER model and plans to contribute to the MACRO model being developed at the ZERO Lab, Princeton University. His research focuses on green hydrogen, industrial decarbonisation, and transport sector transitions in India's pathway to a low-carbon economy.

Before joining IIT Delhi, Akhil worked as a Machine Learning Engineer with Samsung Research and IBM Consulting. He later pursued a Master's in Public Policy specializing in energy and climate policy at IIT Delhi to apply his analytical and modelling expertise to advancing our understanding of energy transitions and low-carbon development.

He graduated from IIT Delhi in 2025 with the Umapati Mitra Award for the highest GPA in his program and received the Best Master's Thesis Award for his research on the role of green hydrogen in India's refinery and fertilizer sectors. His thesis developed a novel methodological framework integrating bottom-up demand modelling, learning rate-based cost curves, and a logit model for technology choice. During his time at IIT Delhi, he has also engaged with leading energy and policy think tanks such as the Council on Energy, Environment and Water (CEEW), the International Solar Alliance (ISA), and the Centre for Policy Research (CPR) as a research assistant.

At NZI, he focuses on detailed bottom-up modelling of the transport demand sector as well as modelling equity-related indicators to explore the impact of the transition through an equity lens. His broader research examines how policy instruments such as subsidies, carbon pricing, and technology incentives affect the adoption of emerging clean technologies, market competitiveness, and national energy security. He is also interested in exploring the trade-offs between India's development and mitigation strategies, as well as the implications of the energy transition for equity, jobs, and labour markets.

Akhil's interests lie at the intersection of energy economics, technology policy, and sustainable development. He is driven by the goal of bridging the gap between academic research and policymaking to enable equitable and evidence-based pathways toward India's net zero future.

Best regards,
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