**Problem Statement 1:**

**Coal to Blue Hydrogen**

India has initiated the National Green Hydrogen Mission, marking a pivotal shift towards sustainable energy. In alignment with this mission, the coal industry is actively exploring avenues to diversify into hydrogen production. Recognizing that the transition from fossil-based fuels to green hydrogen involves an intermediate step, blue hydrogen, there is a concerted effort to navigate this transformative journey.

**Required features of the proposed solution:**

The call for proposals revolves around the imperative to develop integrated technologies capable of converting coal into hydrogen with Carbon Capture, Utilization, and Storage (CCUS). The emphasis is on solutions that not only facilitate this conversion but also do so at a market competitive cost for hydrogen production. The envisioned outcome is a strategic and economically viable blueprint for harnessing coal's potential in advancing the nation's hydrogen ambitions.