

Environmental Consequences of Hydrocarbon Infrastructure Policy

We study policies that aim to “keep carbon in the ground” by blocking fossil fuel infrastructure investment. Our analysis relies on a model of hydrocarbon production and transportation, incorporating substitution between pipeline infrastructure and flexible alternatives, like crude-by-rail.

We apply the model to the Dakota Access Pipeline (DAPL), which moves oil from North Dakota to Texas and was controversially completed in 2017. Had DAPL’s construction been enjoined, we estimate that 81% of the blocked pipeline flows would move by rail instead. This substitution induces both private costs and local environmental damage, since rail transport imposes greater local externalities than pipelines.