

18.02 **Assessing the role of unconventional fossil fuels in shifting to a low carbon and more resilient economy under a climate policy.**

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As policy makers worldwide are debating options to implement an effective climate policy that would put a cap on emissions, investors are carefully evaluating the profitability of carbon intensive unconventional fossil fuels such as oil shale. The synergies and tradeoffs between national and energy security, and the potential environmental and economic impact of alternative energy sources need to be carefully assessed in setting policy. We have customized an integrated assessment model, the Climate and Energy Assessment for Resiliency model for Unconventional Fossil Fuels, to support climate and energy policy formulation and evaluation. Specifically we study the implications of the American Clean Energy and Security Act of 2009 (Waxman-Markey bill) on potential oil shale production in the Western Energy Corridor. This model integrates the oil shale industry-related sectors with key causally related macro sectors to perform an industry-wide analysis of the production requirements, economics of oil shale production, as well as regional economic and environmental impact.