Innovation and Regulation Can Coexist: New York's Approach to Regulating Shale Gas Development

John P. Martin¹ and Kathleen F. Sanford²

Though New York's first gas well was drilled into shale, these reservoirs have contributed little to gas production in the state. Today, innovative drilling and completion methods make shale attractive. As with other industries, innovation has a tendency to race beyond the existing regulatory framework. The state's approach is a combination of a statutory framework defining the structure of regulation and flexible permit conditions derived from the Generic Environmental Impact Statement (GEIS) for oil and gas development. The GEIS, completed in 1992, defines drilling conditions, operations and closure. The GEIS provides permit guidance and identifies areas where special conditions may be needed. For 15 years, this approach served the state well, allowing regulatory flexibility through general and site-specific permit conditions. However, the innovative drilling practices used in shale gas development caused state officials to consider whether the GEIS was adequate for such operations. In 2008, the state began work on a supplemental GEIS (sGEIS), a review of the impacts of large-scale shale operations. Many issues were identified in the sGEIS scope, including the design of horizontal drilling operations, air quality impacts, water sources and use, chemical additives, multiwell pads and cumulative impacts. Through work supported by NYSDEC and NYSERDA, potential impacts of these drilling operations and mitigation measures that could be included in permit conditions were examined. The sGEIS is one of the most comprehensive reviews undertaken to examine modern drilling methods, balancing the need to steward the use of the state's resources with the need to protect the environment.

¹ Energy Resources R&D, NYSERDA, Albany, NY, 12203-6399, jpm@nyserda.org

² Division of Mineral Resources, NYSDEC, Albany, NY, kfsanfor@gw.dec.state.ny.us