

The Offshore Arctic, National Assessment Results for the Beaufort and Chukchi Seas, Bureau of Ocean Energy Management, Regulation and Enforcement

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Every five years the BOEMRE (Bureau of Ocean Energy Management, Regulation and Enforcement) completes a National Assessment of the nation's undiscovered technically recoverable and economic resources on the Outer Continental Shelf (OCS). The technically recoverable resources are the undiscovered oil and gas that can be conventionally produced using existing or reasonably foreseeable technology, without any consideration of economic feasibility. BOEMRE also estimates the undiscovered economically recoverable resources that form a subset of the technically recoverable endowment. These results are a critical consideration in prioritizing areas for proposed lease sales for each 5-Year Program.

The estimate of technically recoverable resources for the Arctic OCS has remained unchanged from our 2006 assessment. There have been no wells drilled in the OCS since the last assessment. None of the 694 blocks leased since 2005 have been tested. Only one well was drilled in the Beaufort Sea OCS since 1997 (since 1991 in the Chukchi Sea.) There is no new significant geologic data to warrant a change from our last assessment. This is in contrast to the recent NPRA (National Petroleum Reserve Alaska) assessment where the drilling results of 30 new wells resulted in marked changes in the U.S. Geological Survey estimates for technically recoverable resources.

The main area of change in the new assessment concerns assumptions about commodity prices and development costs. The BOEMRE engineering assumptions reflect our judgment about practical technological feasibilities in the foreseeable future. For Arctic Alaska, past and present assessments assume that overland pipelines would be the key components in transporting oil and gas to market. The necessity for large overland pipelines forms a major cost hurdle that in turn requires large volumes of new production. Cost increases in this area are very significant to assessment results. One significant methodological difference from previous assessments was that the mean geologic resource volume was assumed to be discovered and yet-to-spend project costs were those associated with development of this entire volume.

Costs and commodity prices have clearly increased in the past several years. Hence, we observe a 33% reduction in economic BOE (barrels oil equivalent) when comparing the new assessment results at \$60 oil/\$6.41 thousand cubic feet gas (Mcfg) to the 2006 assessment at \$60 oil and \$9.07 Mcfg. However, there is a 139% increase in economic BOE at more current (\$110 oil/\$11.74 Mcfg) prices versus the ~\$60 oil that prevailed in 2006. Despite these changes in details, the long-standing conclusion that the Arctic OCS contains very significant potential future reserves remains unchanged.