Underground Coal Gasification (UCG) Documents

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Underground coal gasification (UCG) is the process of igniting coal in the ground then collecting and using the resulting gases. For more information, see our issue article on underground coal gasification (/Issues/AlaskaCoal/UndergroundCoalGasification.html). Several UCG projects are being considered in Alaska, primarily by Linc Energy Inc. and the UCG proposal at Stone Horn Ridge by Cook Inlet Region Inc (CIRI) (/Issues/AlaskaCoal/StoneHornRidgeUCG.html).

This page will serve as a repository for information related to UCG, and the related technology of carbon capture and sequestration (CCS) (/Issues/AlaskaCoal/Carbon-Capture-And-Sequestration-CCS.html)

UCG Documents

“Need and Economics of UCG in Alaska: Estimated economics of the CIRI Underground Coal Gasification Facility, Beluga Alaska” (2010) prepared by Synapse Energy. 6 pages. (/Documents/UCG/Synapse_UCG_Memo.pdf)

This report examines the economics of the CIRI UCG project with a detailed comparison to natural gas.

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"Underground Coal Gasification: History, Environmental Issues, and the Proposed Project at Belgua, Alaska" (2010) prepared by Kendra Zamzow, PhD at the Center for Science in Public Participation (CSP2). 40 pages. (/Documents/UCG/UCG-KZamzow-2010.pdf) (1.4 MB)

This detailed white paper discusses what is known about the CIRI UCG project (/Issues/AlaskaCoal/StoneHornRidgeUCG.html), as well as details of numerous test projects around the world. Both the history and environmental impacts of UCG are considered.

"Potential Environmental Impacts of the Proposed CIRI Underground Coal Gasification Project, Western Cook Inlet, Alaska" (2010) prepared by Stratus Consulting. 39 pages. (/Documents/UCG/Stratus_UCG%20Report.pdf) (1.6 MB)

This document examines the environmental risks associated with both UCG and carbon capture and sequestration (CCS) (/Issues/AlaskaCoal/Carbon-Capture-And-Sequestration-CCS.html)technologies. This detailed report goes from general risks and mitigation strategies to a specific discussion of what's known about the CIRI UCG project (/Issues/AlaskaCoal/StoneHornRidgeUCG.html).

"Technical and Cost Issues Associated with CIRI Underground Coal Gasification Project" (2010) prepared by Powers Engineering. 13 pages. (/Documents/UCG/Powers%20Egr_CIRI%20UCG_feasibility_cost_report.pdf)

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This report looks at the history, technical feasibility, and economics of the proposed CIRI UCG project, both with and without carbon capture and sequestration (CCS) (/Issues/AlaskaCoal/Carbon-Capture-And-Sequestration-CCS.html) technology.

Related Documents

"Carbon Capture and Sequestration: An Environmental Research and Position Paper" (2009) prepared by Kendra Zamzow, PhD at the Center for Science in Public Participation (CSP2). 40 pages. (/Documents/UCG/CCS-KZamzow2009.pdf)

This paper provides a detailed look at the state of carbon capture and sequestration (CCS) (/Issues/AlaskaCoal/Carbon-Capture-And-Sequestration-CCS.html) technology and development as of 2009. It examines both the economic feasibility as well as the environmental and safety consideration associated with the technology.

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