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Managing CO2 output

By Dr. Tip Meckel

Management of industrial carbon dioxide emissions is a topic of broad and vigorous conversation currently and seems likely to play a significant role in policy discussions 2020. It has never been a more important time to understand the implications CO2 management has for the strong industrial capacity and significant ongoing energy infrastructure investment in Southeast Texas. The Golden Triangle has all the right elements to be a leader in this emerging market. Among the various real business opportunities currently are the 45Q Tax Credits related to CO2 capture, utilization and subsurface storage, including enhanced oil recovery. Although the tax credit has been around since 2008, the most recent federal budget included very significant bipartisan support for extensions and other modifications that make current considerations about CO2 management very economic. For example, the cap on the number of tons of CO2 that can be claimed was eliminated, meaning there is currently unlimited potential to create value. The value of the credit was also raised for both utilization in products and enhanced oil recovery (\$35 per ton) and disposal in deep subsurface saline geo-logic formations (\$50 per ton). Perhaps most significantly, the credit is transferrable to others with tax liability, making investing in CO2 projects very interesting to the tax equity markets (similar to the case for renewable energy). These aspects can quickly add up to hundreds of millions (and in some cases billions) of dollars of tax credit over the 12 years they can be claimed. The timeline for developing projects that qualify for these credits requires serious consideration now – projects must be initiated by 2024, although the definition of “started” remains to be clarified for these projects. Related to that, there is a current request for information

that stakeholders can submit responses on various unresolved topics related to 45Q to assist in those considerations and final decisions.

About Dr. Tip Meckel

During his 13 years with the Gulf Coast Carbon Center at the Bureau of Economic Geology in Austin, Dr. Meckel has led research focusing on geologic characterization, structural geology and monitoring design for CO₂ injections. He has been directly involved with many large-scale field demonstration projects funded through the DOE-NETL Regional Carbon Sequestration Partnerships, and currently leads the research initiative to identify offshore sequestration potential in the Gulf of Mexico with focus on capacity assessment and high-resolution 3D marine seismic monitoring technologies. Dr. Meckel works closely with offshore CCS developments in the North Sea and Japan, where he has acquired unique seismic monitoring data at the Tomakomai CCS demonstration project. Since 2008 he has been PI or Co-PI on 16 CCS funding grants totaling over \$70 million dollars.