

# FCR 4

Office of the President  
September 16, 2022

Members, Board of Trustees:

## PURCHASE/CONSTRUCT CARBON DIOXIDE CAPTURE PROCESS PLANT CAPITAL PROJECT

Recommendation: that the Board of Trustees approve the initiation of the Purchase/Construct Carbon Dioxide (CO<sub>2</sub>) Capture Process Plant capital project.

Background: Pursuant to Administrative Regulation 8:2, any capital project with an estimated scope of \$1,000,000 or more must be approved by the Board prior to initiation.

The university's Center for Applied Energy Research (CAER) has received an award from the U.S. Department of Energy National Energy Technology Laboratory (US DOE NETL) to further research the transformative technologies previously developed and proven at the bench scale using the existing Department of Energy-funded pilot CO<sub>2</sub> capture system. This project will relocate the pilot CO<sub>2</sub> capture system to the Nucor Steel Gallatin Plant (NSG) and expand it by treating evolved gas from a steel galvanizing line. The existing system which is located at Kentucky Utilities E.W. Brown Generating Station will be reconfigured, simplified and relocated to NSG. Once this pilot, 1/1000 of its full scale, is complete, Nucor and UK will have a better understanding of the costs and effectiveness of CO<sub>2</sub> capture technology for flue gas with low CO<sub>2</sub> content and the feasibility of scaling up treatment of the entire flue gas stream.

This \$6,000,000 project, authorized by the 2022 Kentucky General Assembly, is well within the total legislative authorization of \$50,000,000 and will be funded with federal funds from the US DOE NETL.

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Action taken:     Approved     Disapproved     Other \_\_\_\_\_