EXHIBIT T

UNIVERSITY OF ILLINOIS URBANA

Illinois' vision

Developing science-based analytics to implement credible and scalable low carbon fuel markets and enabling policies

A Proposal submitted to the
Audi CO2 Cy Pres Settlement Fund
by the Institute for Sustainability, Energy, and Environment (iSEE)

"The increase in emissions this year is set to be the second biggest in history, second only to the rebound from the financial crisis."

– The Guardian, April 20, 2021

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Executive Summary

Agriculture has significant potential to decarbonize transportation both through sequestering carbon in soil and providing low carbon biofuels that can displace oil for transportation. At the University of Illinois, a group of interdisciplinary researchers are uniquely poised to develop the science-based tools to implement carbon mitigation strategies and quantify supply chain emissions and enabling policies due to the breadth of expertise across disciplines such as engineering, computing, agriculture and biology.

An investment of $1 Million to be spent over 2 to 3 years would establish an Initiative to develop the analytics, technologies and carbon pricing models needed to implement Low Carbon Fuel Markets.

The gift would support up to five faculty and research scientists from across the University to conduct research on the carbon mitigation benefits of low carbon fuels and effectively translate the science into practice and policy.

What is the problem?

Energy consumption is by far the biggest source of human-caused greenhouse gas emissions, responsible for a whopping 73% worldwide – over half of which stems from transportation. If humans are to effectively reverse the effect of carbon emissions' damage to the climate, decarbonizing the transportation sector is a top priority. Agriculture has significant potential to decarbonize transportation both through sequestering carbon in soil and providing low carbon biofuels that can displace oil for transportation. Innovative approaches to the development of advanced biofuels, as well as market-based incentives that transmit across the supply chain are needed to transition the economy to low carbon fuels. Implementation of this market-based system requires quantification of the emissions generated across the life cycle of the fuel production process, including carbon sequestration during feedstock production, feedstock harvesting and transport, conversion to fuels, and distribution to consumers.

What is the challenge?

To add urgency and immediacy to an already challenging problem, Bill Gates has brought attention and insistence to discover solutions within a very tight deadline. Gates' Breakthrough Energy – a network of entities, initiatives and policy efforts – are linked by a common commitment to scale the technologies we need to achieve a path to net zero emissions by 2050. This includes promoting low carbon fuels that go beyond the first generation (corn-based) biofuels. Accounting for carbon emissions in the supply chain of these fuels to develop market-based reward systems to incentivize low carbon fuels is a key challenge to the implementation of policies such as a low carbon fuel standard. In particular, being able to accurately and cost-effectively assess the land use related emissions/sequestration associated with the production of biofuel crops is critical to developing credible policies. Additionally, how will we incentivize farmers to produce dedicated bioenergy crops (instead of corn) that have the potential to store carbon in the soil permanently? How will the supply chain work together to effectively mitigate carbon, and produce market viable biofuels? How should the newly emerging carbon markets that seek to pay farmers to sequester soil carbon function so that they lead to credible, additional and permanent sequestration? Current research is nearing the answer to these questions; however, an interdisciplinary approach that brings together environmental scientists, environmental engineers and economists must be prioritized to achieve a holistic and efficient solution.

The time is now.

The current Renewable Fuel Standard is set to expire in 2022, therefore the U.S. government must think about replacements and supplements to it now. Carbon mitigation, through low carbon biofuels from perennial energy crops that can sequester carbon in soil and displace fossil fuels, hold promise because of their ability to scale.

At the University of Illinois, a group of interdisciplinary researchers are uniquely poised to develop the science based tools to implement carbon mitigation strategies and quantify supply chain emissions and enabling policies due to the breadth of expertise across disciplines such as engineering, computing, agriculture and biology. Their interdisciplinary approach to this research would enable policy makers to deploy such mitigation tactics in future biofuel policies, adaptable and supported by economically viable markets.

"My basic optimism about climate change comes from my belief in innovation. The conditions have never been clearer for backing energy breakthroughs. It's our power to invent that makes me hopeful."

– Bill Gates, BreakthroughEnergy.org

Illinois' vision:

Our opportunity to develop a solution.

Using remote sensing to measure the amount of carbon capable of being sequestered in soil, Illinois researchers are documenting and verifying data in an effort to scale the practice. They are also developing tools for rapid, robust and customizable life cycle assessment of supply chain emissions and examining the design of mechanisms to pay for carbon mitigation services across the supply chain to farmers, biofuel producers, blenders and consumers.

Investment in their efforts would:

- **Develop the analytics for implementing a market system for low carbon fuels as a climate mitigation strategy.**
- **Enable development and dissemination of an open source platform for accounting for costs and carbon emissions from feedstocks to market for low carbon fuels.**

An investment of $1 Million to be spent over 2 to 3 years would establish an Initiative to develop the analytics, technologies and carbon pricing models needed to implement Low Carbon Fuel Markets. The Initiative would be housed within Illinois' Institute for Sustainability, Energy and Environment (iSee). The gift would support up to five faculty and research scientists from across the University to conduct research on the carbon mitigation benefits of low carbon fuels and effectively translate the science into practice and policy. Their work would identify and prioritize the gaps in existing and ongoing research, implementing carbon mitigating practices that adapt to market demands.

Research conducted has already had a profound and longstanding impact on the country's approach and response to core issues and challenges, and the ultimate amelioration of difficult and complicated problems we seek to address. We look forward to tackling the issue of carbon mitigation with renewed and strengthened resources, ensuring that our learnings are available to drive the conversations and behavior needed for genuine change.

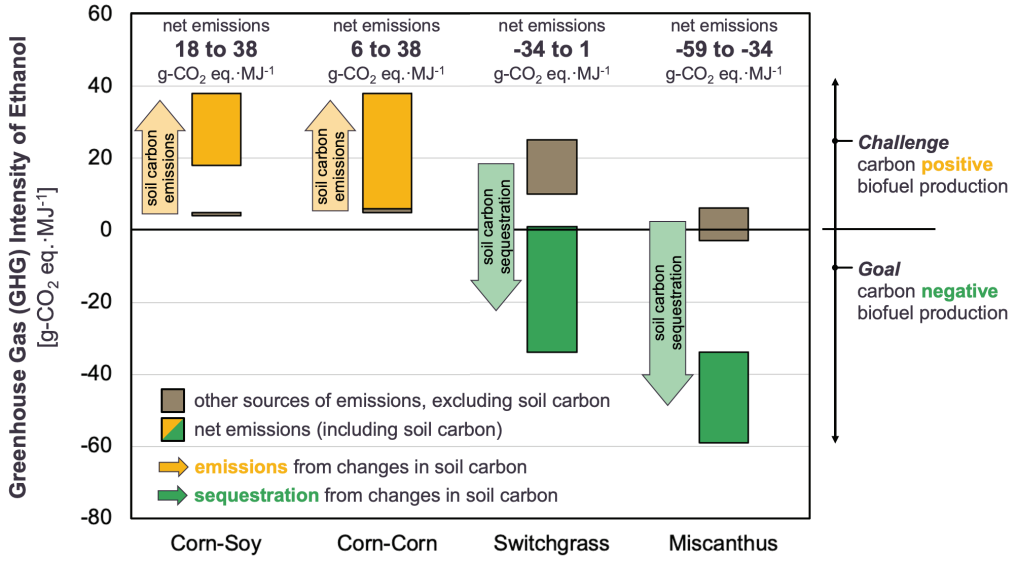

Figure 1. Greenhouse gas (GHG) emissions from cellulosic ethanol production from corn stover (from fields that rotate between corn-soy [left] or corn only [left-center]), switchgrass (right-center), and miscanthus (right). Brown boxes show the estimated range of emission from all activities (including aboveground emissions, indirect land use change, and co-product production) except changes in soil carbon. Arrows highlight the impacts of soil carbon emissions (yellow, upward arrows) or soil carbon sequestration (green, downward arrows). Modeled ranges of net emissions (including soil carbon) are shown in yellow boxes (if carbon positive) or green boxes (if carbon negative). *As demonstrated by the wide ranges of net emissions estimates, being able to accurately and cost-effectively assess emissions/sequestration associated with the production of biofuel crops is critical to developing credible policies.* This graph is created from data from: Dwivedi, P.; Wang, W.; Hudiburg, T.; Jaiswal, D.; Parton, W.; Long, S.; DeLucia, E.; **Khanna, M.** Cost of Abating Greenhouse Gas Emissions with Cellulosic Ethanol. *Environ. Sci. Technol.* **2015**, 49 (4), 2512–2522. https://doi.org/10.1021/es5052588.

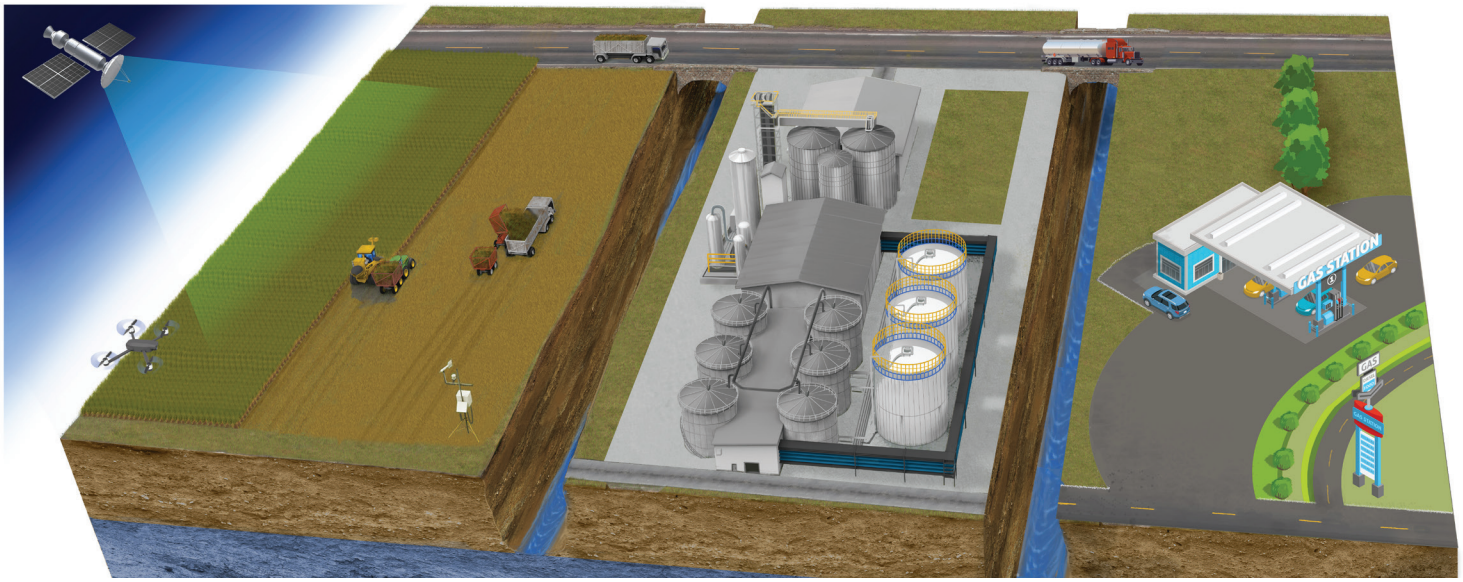

Figure 2. Researchers at the University of Illinois have developed methodologies to measure, model, and mitigate greenhouse gas (GHG) emissions across the biofuel supply chain. The proposed investment would enable the development of tools to implement a market system of de-risked climate mitigation strategies for biofuels, and would demonstrate these mitigation strategies at scale.

Appendix A: University of Illinois Faculty Biographies

Dr. Carl Bernacchi is a Professor in the Departments of Plant Biology and Crop Sciences at the University of Illinois Urbana-Champaign (UIUC) and a Research Plant Physiologist with the United States Department of Agriculture. His research focuses on environmental plant physiology from cellular to ecosystem scales, with a specific focus on global change, bioenergy production, and agriculture. Professor Bernacchi was awarded the Melvin Calvin Award by the International Society of Photosynthesis Researchers based on his significant contributions to the field of photosynthesis. Professor Bernacchi is the founding member of the American Society of Plant Biology's Environmental and Ecological Plant Physiology Section, the first discipline-based section in the society's history. Professor Bernacchi has published over 120 peer reviewed journal articles and his research has been sponsored by a number of agencies including the National Science Foundation (NSF), the U.S. Department of Agriculture, the U.S. Department of Energy, and the Bill & Melinda Gates Foundation. Professor Bernacchi's formal training includes a B.S. and M.S. in from Bradley University and a Ph.D. in plant biology from the University of Illinois.

Dr. Kaiyu Guan is a Blue Waters Associate Professor in ecohydrology and remote sensing at the University of Illinois Urbana-Champaign (UIUC). Guan's group at UIUC focuses on bringing the interdisciplinary domain knowledge (plant ecology, hydrology, biogeochemistry, and climate science), satellite/airborne data, fieldwork, supercomputing, and machine learning together to revolutionize how we monitor and model plant-water-nutrient interactions for agricultural ecosystems, across the U.S. and globe. His group's work aims to increase our society's resilience and adaptability to maintain sustainability of ecosystem services, food security and water resources under the influence of climate change and anthropogenic drivers. Guan serves as PI and Co-PI for 15+ federal grants from NASA, NSF, DOE, and USDA. In particular, Guan leads two DOE ARPA-E SMARTFARM projects aiming to (1) generate the gold-standard farm-level carbon emission and soil carbon data and (2) develop commercial solutions to measure field-level agricultural carbon credit in a scalable, accurate, and cost-effective way. Guan has published 90+ peer-reviewed papers in leading scientific journals. Guan is the awardee of NSF CAREER Award, NASA New Investigator Award, AGU Early Career Award in Global Environmental Change, Hyperion Research High-Performance-Computing Innovation Excellence Award, SoAR Foundation's National Selection of U.S. Agricultural Research, FFAR Seeding Solution Award, etc.

Dr. Jeremy Guest is an Associate Professor in the Department of Civil and Environmental Engineering at the University of Illinois Urbana-Champaign (UIUC). His research focuses on the development of technologies for circular economies, with a focus on sustainable biofuels, bioproducts, and agriculture. Professor Guest currently serves as the Acting Associate Director for Research for the Institute for Sustainability, Energy, and Environment (iSEE) at UIUC, and as the techno-economic analysis (TEA) and life cycle assessment (LCA) lead for the Center for Advanced Bioenergy and Bioproducts Innovation (CABBI) funded by the U.S. Department of Energy (DOE). He is the recipient of a National Science Foundation (NSF) CAREER Award, the 2016 recipient of the Paul L. Busch Award for innovation in applied water quality research from the Water Research Foundation, and the 2021 James J. Morgan *Environmental Science & Technology* Early Career Award for creativity and leadership in his field. Professor Guest has published over 50 peer reviewed journal articles, and his research has been sponsored by a number of agencies including the National Science Foundation (NSF), the U.S. Environmental Protection Agency, the U.S. Department of Agriculture, the U.S. DOE, the USAID, and the Bill & Melinda Gates Foundation. Professor Guest's formal training includes a B.S. and M.S. in civil engineering from Bucknell University and Virginia Tech, respectively, and a Ph.D. in environmental engineering from the University of Michigan.

Dr. Emily Heaton is a Professor of Regenerative Agriculture in the Department of Crop Sciences at the University of Illinois Urbana-Champaign (UIUC), Director of the Illinois Regenerative Agriculture Initiative, and UIUC Extension Biomass Specialist. Dr. Heaton leads research, teaching, public engagement and extension programming in ecophysiology of perennial grasses in temperate climates, precision conservation, spatial integration of perennials into cropland, and biomass crop production and management. She serves as Feedstock Production Theme Leader while also conducting Sustainability Theme research for the Center for Advanced Bioenergy and Bioproducts Innovation (CABBI), funded by the U.S. Department of Energy (DOE). Dr. Heaton is the recipient of Outstanding Young Alumni Award from the UIUC College of Agriculture, Consumer, and Environmental Sciences, and the Early Achievement in Extension and Outreach Award from Iowa State University. She serves on the Editorial Board of Global Change Biology Bioenergy, the top-ranked journal in her field, and is currently vice-president of the Ecology and Environmental Plant Physiology section of the American Society of Plant Biologists. Professor Heaton has published over 65 peer reviewed journal articles and 120 Extension products. Her research has been sponsored by the U.S. Department of Agriculture and the U.S. DOE, as well as the Fresh Taste Foundation and numerous state, local, and industry stakeholder groups. Professor Heaton's formal training includes a B.S. and Ph.D. in Crop Sciences from UIUC then two years with industry before returning to academia, becoming a Professor in the Agronomy Department at Iowa State University (ISU). She remains an Affiliate Professor at ISU, conducting regionally collaborative research and extension that addresses wicked problems in agriculture.

Dr. Madhu Khanna is the ACES Distinguished Professor of Environmental Economics in the Department of Agricultural and Consumer Economics and Interim Director of the Institute for Sustainability, Energy, and Environment, at the University of Illinois Urbana-Champaign. She is also the Theme Leader for the Sustainability Theme in the Center for Advanced Bioenergy and Bioproducts Innovation at the University of Illinois, Urbana-Champaign. She received her Ph.D. from the University of California at Berkeley. She is a Fellow of the Agricultural and Applied Economics Association, a University of Illinois Scholar and a Leopold Leadership Fellow of the Woods Institute at Stanford University. She is also the President-Elect of the Agricultural and Applied Economics Association. Dr. Khanna is an internationally renowned economist working on the economic and greenhouse saving benefits of low carbon transportation fuels by integrating life-cycle analysis methods with economic models of agricultural, transportation and electricity sectors to conduct a systems analysis. She studies the direct life-cycle GHG savings, indirect land use change effects and biogenic carbon effects of first generation biofuels from food crops as well as second generation biofuels from dedicated energy crops and other feedstocks and of bioelectricity. Her research considers spatial variations in land availability, land use change and the intended and unintended consequences of biofuels for food and fuel markets and GHG savings across the US under a range of climate and renewable energy policies, including the Low Carbon Fuel Standard, the Renewable Fuels Standard, carbon taxes and others. She has served on the Chartered Science Advisory Board of the USEPA and twice as a chair for their panel assessing the EPA's Accounting Framework for Biogenic CO2 Emissions from Stationary Sources. Her research on low carbon fuels has been published in *Nature Energy*, *Nature Communications*, and *Environmental Science and Technology*. Dr. Khanna's research on low carbon fuels has been funded by the USDA, USDOE, NSF and the BP-funded Energy Biosciences Institute at the University of Illinois.

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