Request for Information (RFI) DE-FOA-0001615: Cellulosic Sugar and Lignin Production Capabilities

DATE: July 20, 2016

SUBJECT: Request for Information (RFI)

Responder:

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Category 2: Lignin

Question 1: To which types of research entities are you willing and able to sell or otherwise provide your lignin? (e.g., university researchers, national laboratories, industry/private sector)? Are there any types of research entities to whom you are not willing and able to sell your lignin?

National Laboratories

Industry

University startup companies incubating in University

Question 2: What are the maximum and minimum quantities of lignin that you are willing and able to sell (kg)?

Up to 20 kg for evaluation

Question 3: In what units do you sell your lignin and is it packaged (e.g., super sacks), or sold in bulk?

When at scale it will be bulk sales

Question 4: How do you ship lignin?

Dry product

Question 5: What is the lignin concentration in your product?

>90% lignin

Question 6: What type(s) of biomass do you use in your process?

US Mixed Southern hardwood

Eucalyptus

Bagasse

Empty fruit bunch

Question 7: What process do you use that produces lignin (dilute acid, ammonium fiber expansion (AFEX), hot water, organosolv, etc.)?

Acid catalysed Glycerol solvent pretreatment known as Glycell Pretreatment.

Question 8: What details of the scale of your process are you willing to share (e.g. batch and/or continuous or volumetric productivity)?

Continuous volumetric productivity

Question 9: Do you measure the typical composition of your lignin? If so, what method do you use? How consistent is the composition of your lignin?

Question 10: Do you routinely test your lignin for consistency within and between lots?

Question 11: What impurities are present in your lignin and what testing do you perform to determine the presence of impurities?

Question 12: Does your process include a purification or filtration step?

Question 13: What is the typical concentration in g/L you can provide?

N/A

Question 14: Have you examined the impacts of transport and storage on lignin? If so, can you please provide any relevant (non-proprietary) details of these impacts?

Not as yet

Question 15: What additional information are you willing and able to provide to the research community about the lignin? Please provide any non-proprietary cost information you are willing to share.

Question 16: Into what markets do you typically sell your lignin? What is a typical application for your lignin?

Aiming at the native lignin markets for phenol-formaldehyde replacement./.