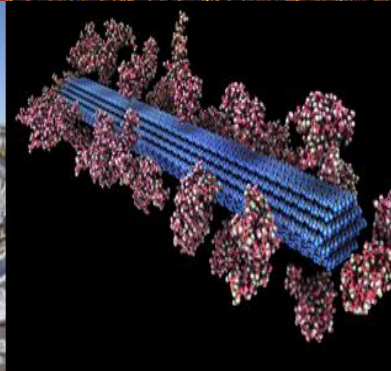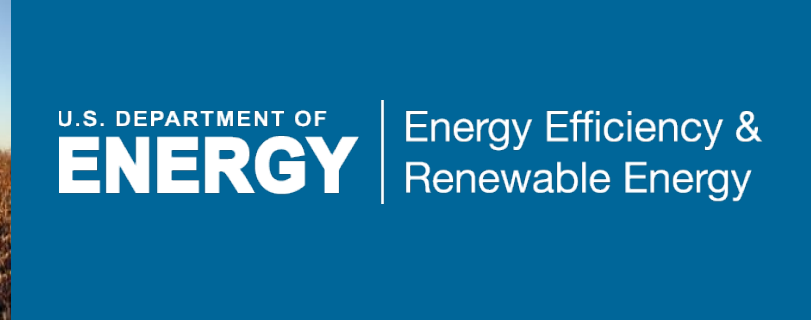# Welcome to BETO's Leveraging Existing Bioenergy Data Virtual Workshop!

We welcome you to answer the networking questions and use Chat for informal discussions.

The program will begin at 12:45pm Eastern.

Welcome and Introduction

Leveraging Existing Bioenergy Data
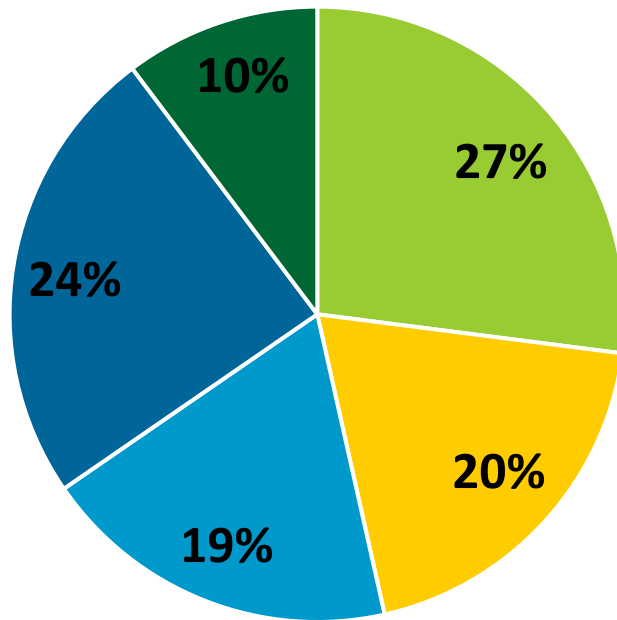Virtual Workshop

July 21, 2020

Elizabeth Burrows, PhD

Technology Manager

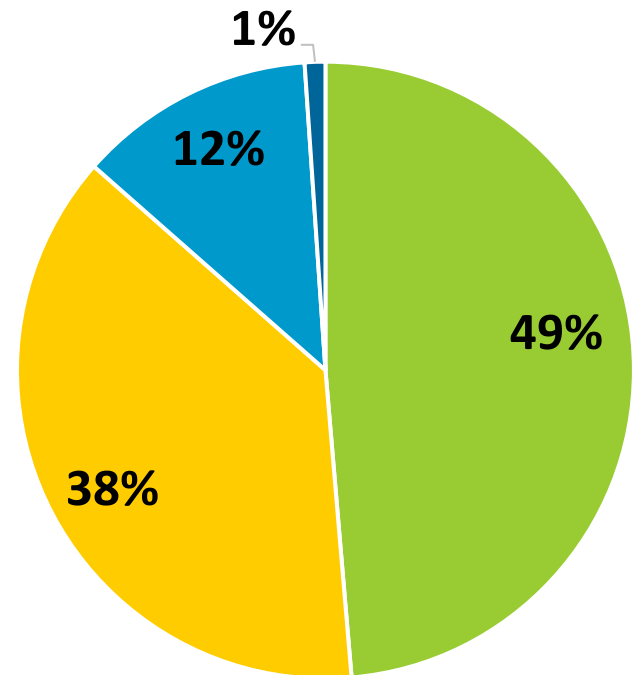Bioenergy Technologies Office (BETO)
US Department of Energy

Workshop Registrant Info: 189 total

What is your affiliation?

- Academia (27%)
- Government (20%)
- Industry/Consultant (19%)
- National Labs (24%)
- Other (10%)

Have you attended a BETO workshop before?

- Yes (49%)
- No (38%)
- No Response (12%)
- Undecided (1%)

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Bioenergy Technologies Office's Mission and Vision

Vision

A thriving and sustainable bioeconomy fueled by innovative technologies

Mission

Developing transformative and revolutionary sustainable bioenergy and coproducts technologies for a prosperous nation

Strategic Goals

Develop industrially relevant technologies to enable domestically produced biofuels, biopower, and coproducts

BETO Reduces Technology Uncertainties and Enables Affordability Through R&D

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

Bioenergy Technologies Office's Program Areas

Production & Harvesting

Feedstock Supply
Develops technologies to cost-effectively transform renewable carbon sources into high-quality, sustainable, and energy-dense feedstocks.

Advanced Algal Systems
Focuses on improving the productivity of algal biomass and enhancing the efficiency of cultivation and harvesting.

Conversion & Refining

Conversion
Develops technologies to convert non-food feedstocks into biofuels, bioproducts, and biopower.

Conducts feedstock blend testing, separations, materials compatibility evaluations, and techno-economic analyses to focus research on highest impacts.

Distribution & End Use

Advanced Development and Optimization
Aims to reduce technology uncertainty in bioenergy by integrating individual technologies into a system/process and provides vital knowledge fed back to research programs.

Crosscutting

Sustainability and Strategic Analysis
Supports program decision-making and develops science-based strategies to understand and enhance the economic and environmental benefits of advanced bioenergy.

Workshop Goal

Discuss strategies for collecting and valorizing underused datasets and **<u>associated knowledge</u>**, with the objective of making this information public on existing databases

Focus of Workshop:
Currently used data: operating conditions, methods, partial datasets
Previous used data: full range from trade secrets to broad analyses, etc.
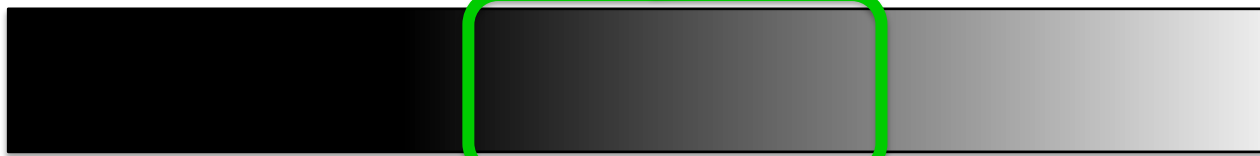
Trade secrets
Business sensitive IP
Currently used proprietary data
Currently used non-sensitive data
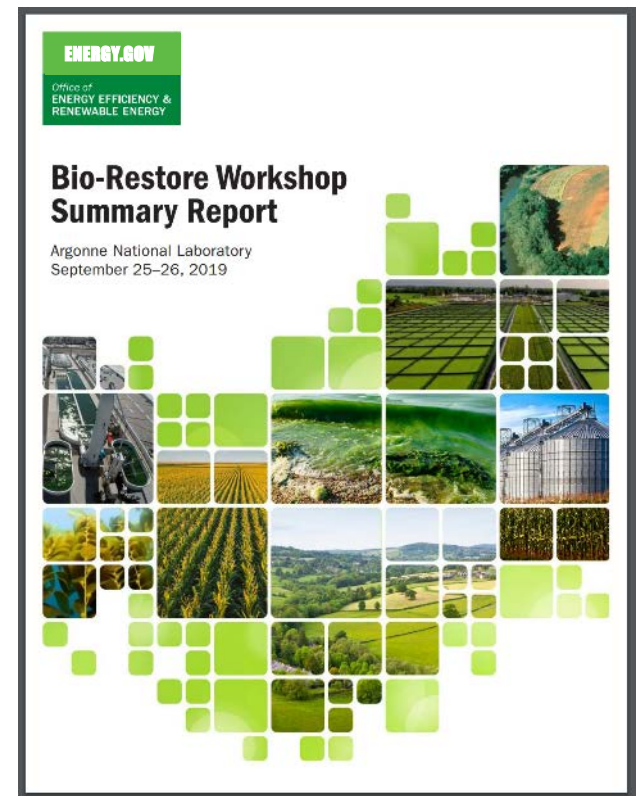Previously used data
Published Patents
Published data
Open access published data

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Outcomes of this workshop

- Compile information on work already done
  - Data acquisition
  - Data valuation
- Generate recommendations on how best to realize this effort
  - Tangible list of questions to ask about datasets
  - Robust list of existing datasets, their impact, and availability
  - Recommendations for how to improve current processes
    - Data room procedures
    - Industry opportunities
- Publish results in a workshop report.

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Bio-Restore Workshop Summary Report

Argonne National Laboratory
September 25–26, 2019

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Envisioning this effort

Website with:

Request Data

Supply Data

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Envisioning this effort

Request Data

<u>Requester</u>: Provides as much info as possible about data characteristics and availability.

<u>Implementer</u>: Verifies quality and pursues acquisition.

Envisioning this effort

Supply Data

Supplier:
- Provides as much info as possible about data quality, impact, and reusability.
- Identifies at least one initial committed user.

Implementer:
- Determines a fair price.
- Ensures that the data wasn't DOE funded.

Metrics of Success

Minimum:

| $ spent to acquire data | < | $ required to generate new data |

Maximum:
- Effort becomes well-known and permanent
- DOE project budgets include funding to purchase existing datasets through this effort
- Other agencies implement analogous efforts

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Keynote speakers

Kimberly J. Graber
Legal Counsel
DOE

Julia Moody
Deputy Chief Counsel, IP
DOE

John Ellersick
Founder & President
Next Rung Technology

Kjiersten Fagnan
Chief Informatics Officer
Joint Genome Institute

Charles Tait Graves
Partner
Wilson Sonsini Goodrich & Rosati

Doug Laney
Principal Data Strategist
Caserta

Didier Navez
Vice President of Strategy & Alliances
Dawex

Debbie Brodt-Giles
Group Manager-Data, Analytics, Tools, & Applications
NREL

3x5 Presentations

Speaker Name:	Company/Organization:	Talk Title:
Charles Naggar	Alston & Bird LLP	Intellectual Property: Types, Eligibility, and Protection
Bruce Adkins	Oak Ridge National Laboratory	Stranded data from KiOR
Joe Sagues	North Carolina State University	Scale-Up Data: A Hidden Asset
Deepti Tanjore	Lawrence Berkeley National Laboratory	Knowledge Representation to Capture Lessons Learned in Bioprocessing
Rachel Emerson	Idaho National Laboratory	Data Qualification Framework
Igor Grigoriev	US DOE Joint Genome Institute	Multiomics data for fungi and algae
Carrie Farberow	National Renewable Energy Laboratory	Computational Catalyst Property Database and Catalyst Deactivation
Bruce Wilson	Oak Ridge National Laboratory	Time and the Value of Data
Vijaya Gopal Kakani	Oklahoma State University	Generating and Transferring Technology to Fill Knowledge Gaps

Thank you!

Questions?

Feel free to type any questions or comments into the chat!

Beau Hoffman, co-organizer, will be moderating the session.

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