

Bioenergy Technologies Office

**2017 Program Management
Review**

Waste to Energy Response

Kevin Craig

Program Manager

Arlington, Virginia

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WASTE TO ENERGY REVIEW PANEL

NAME	AFFILIATION
Luca Zullo*	VerdeNero, LLC.
Philip Marrone	Leidos
Brandon Emme	ICM, Inc.
Jeremy Guest	University of Illinois at Urbana-Champaign

- “It is the unanimous opinion of the Review Panel that the introduction of WTE area is consistent with the larger BETO mission and a welcome addition to the portfolio.”
- “The value of inventory tools – especially when enhanced by GIS systems – to the practitioners cannot be underestimated. We strongly feel that this area is one where the National Labs can provide unparalleled leadership by developing tools and methods accessible to the larger community of researchers, engineers and project developers.

Waste to Energy # of Projects	9
Waste to Energy Total Funding Reviewed	\$18,733,224
% of BETO Total	3%

- Introduction to Program Manager and Session Lead
 - Program Manager Kevin Craig
 - Session Lead Andrea Bailey

Extend the focus on the fundamentals of AD (microbiology to enhanced control and monitoring)

- Systems biology understanding of AD has been specifically identified as an area of interest in the FY18 WTE lab call
 - Improved understanding of bacterial and archaeal community dynamics within digesters
 - Toolkit development, including omics

Develop methods and standards for industry, use realistic conversion benchmarks (as opposed to just HTL)

- Future analysis efforts, including those in FY18, will include more industrially accepted baselines for evaluating resource potential
 - E.g. AD for sludge and manure, compost for food waste

Recalibrate modeling effort starting at the local level rather than at the national level

- BETO hosted a workshop in California in June 2017 to learn more about WTE resources and policy frameworks at the state level
- Resource assessment activities are establishing regional (and even state) supply curves
 - County-level (and point source) resource data is available for sludge, manure, biogas, food-waste, and fats/oils/greases
- Systems modelling effort is developing regional models
 - California-only model will be developed by the end of FY 2017