

Bioenergy Technologies Office

2017 Program Management Review

Steering Committee Recommendations

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- **BETO Portfolio: Overall Assessment**
- **BETO Communications Portfolio Evaluation**
- **Portfolio Impact: Advancing Domestic Resources for a Thriving Bioeconomy**
- **Strategic Plan for a Thriving and Sustainable Bioeconomy**
- **Technologies and Market Trends**

1) What are the overall strengths and weaknesses of the Bioenergy Technologies Office (BETO) project portfolio?

- Performing Well
 - Program Management approach is strengthening rigor – stage gates and validation efforts are key.
 - Consortia are addressing industry-relevant challenges.
 - Enhanced integration across technology areas.
 - Staff continuity strengthens impact, enhances effectiveness.
- Needs Improvement
 - Interaction with industry needs continued emphasis.
 - Portfolio focus for near-term success – without “victories” to point to, will support continue?
 - A focus on maintaining an innovation pipeline is needed.
 - Low levels of international engagement mean that opportunity to leverage funding and expertise are being left on the table.

- 2) Overall, is BETO funding high impact projects that have the potential to significantly advance the state of technology for the industry?**
- Does BETO's portfolio include novel and innovative projects that represent the newest industry thinking?
 - Willingness to change focus is commendable.
 - Possible to get out ahead of industry. Also possible to lag. Consistent coordination is key.
 - Is the focus of BETO support appropriate in light of private sector investments in these technologies?
 - BETO is right to have different risk profile and return expectations than industry. Complementary role.
 - Again, close coordination is key to ensure outcomes are industry relevant.
 - Cost share requirements are appropriate.

1) What are the overall strengths and weaknesses?

- **Strengths**

- High quality, well-received events and materials
- Amount of data and documentation available
- Expansion of digital media
- Partnerships and collaboration

- **Weaknesses**

- Lack of focused, concise strategy with clear priorities

2) Which areas of the BETO communications strategy require the most funding?

- Funding should follow priorities, which need to be defined according to:
 - Overarching objectives of communication
 - Stakeholder groups to engage
- Opportunities to leverage communications of grantees

- 3) Are the investments aligned with the level of effort? Is there adequate coordination between the Communications programs and other programs in the Office?**
 - Need to ensure strategy for dissemination and use of the high quality outreach products that already exist
 - Prioritize coordination w/ Analysis and Sustainability team
- 4) How well are key BETO communications messages defined and how well are they being adopted by key audiences?**
 - Opportunity to define key messages and top priorities; “Brand” development
 - Opportunity to define/refine metrics of success
- 5) Does the communications strategy target the appropriate mix of stakeholders?**
 - Six identified stakeholders are appropriate, but need to prioritize
 - Industrial communications seen as most crucial to mission
 - Workforce development is necessary, but w/ partners (BETO not lead)
 - Mixed recommendations on public engagement, social media

Portfolio Impact

- 1) How well do you think the portfolio is poised to contribute to a growing bioeconomy?**
 - BETO's work is central to US's developing bioeconomy

- 2) Are there areas in the project portfolio you think could be improved?**
 - A move beyond 'drop-in' fuels toward performance-plus fuels
 - Enhancing DMT allocation would improve portfolio balance and impact (near term success needed)

- 3) Are there areas in the project portfolio that you think are missing?**
 - Linking up and promoting workforce development impacts of the bioeconomy

- 4) Are there areas along the bioenergy supply chain where BETO should place more or less focus?**
- Spread across supply chain is appropriate, given the breadth of technical challenges to be addressed and the defined roles and responsibilities of other Federal Agencies
- 5) What is the value in BETO flagship bioeconomy efforts such as the Billion-Ton Report and the Billion Ton Bioeconomy Initiative?**
- Immensely valuable efforts, highlight the reality of the big opportunity
 - Dispel myths regarding scale, impacts,
 - Provide guidance for BETO's own strategic plan and research directions (e.g. where, what and how much feedstock)

1) Has the program articulated a vision and strategy that is clearly understood and motivates action?

- Increased cooperation and communication of BETO's vision with our business partners and other stakeholders concerning our successes needed.
- Broader audience needs to grasp the vision of the "Billion Ton" effort for the strategy to be realized.

2) Are there areas missing within this strategic plan that will hamper the program's ability to meet its visionary goals?

- Need to create a balance between investments in bio-products and energy
- Entertain relaxing the required bioenergy requirement
- The pursuit of differing biobased products should be prioritized based on market viability.
- All technologies are not equally useful in developing.

1) From your perspective, are there other technologies that could impact BETO's goals?

- Can you provide recommendations on research and development solutions to mitigate the impact of these technologies on achieving BETO's goals?
- Can you provide suggestions for capitalizing on these technologies to achieve BETO's goals?
- Potential for new natural-gas based technologies to undercut BETO's technologies.
 - Need to stay well informed and connected to researchers in that area
- Battery and clean power technologies electrifying light vehicle fleet. Follow-on effects on gasoline, fuel markets.
 - Consider bio-based technologies to leverage low-cost petro-aromatics as feedstock for distillate/jet production

2) What are the market trends that could impact BETO's goals?

- Can you provide recommendations on research and development solutions to mitigate the impact of these market trends on achieving BETO's goals?
- Can you provide suggestions for capitalizing on these trends to achieve BETO's goals?
- Increasing efforts to put cost on carbon emissions
 - Use existing tools to understand trade-offs on yield/carbon LCA, scenarios in which carbon capture in durable products/uses is favored over fuel applications
- Cheap, clean electricity
 - Alternate low carbon source of hydrogen?
 - Accelerated implementation of electrofuels?
 - Close coordination with other DOE offices that cover these technology areas is needed.

Thank You