
CLEAN ENERGY MATERIALS ACCELERATOR

The Challenge

Feedback from the participants at the first three AEMC Partnerships dialogues has revealed that, while significant efforts to discover and develop advanced materials are already in place and carried out independently in public and private sectors, moving a new material into widespread adoption is larger in scope and more multi-faceted than the focus, jurisdiction, perspective, and capabilities of any one private or public entity. The scope often includes the definition of roadmaps and norms on which a range of entities across the supply chain can agree. As many of these steps require agreement and input across a wide range of stakeholders, a lack of multi-stakeholder collaboration can slow or even halt the transition of an otherwise high-impact material into widespread use.

The Response

A Public-Private Partnership (PPP) will be created to identify high-priority materials and to form focused teams to accelerate each identified material into widespread use in commercial products. This proposed public-private partnership (PPP) reduces the above-listed barriers associated with deploying newly developed materials in commercial markets by bringing together industry, academic, federal, state, and other organizations to co-invest in the following four objectives.

Objectives

- Create a platform to improve or generate the information feedback loop between the producers and users of advanced materials, and to address common needs;
- Support the implementation of advanced materials through an industry guided, high-profile, competitive process;
- Create standards (test methods, specifications, etc.) and a database for the characterization and qualification of existing advanced materials; and
- Improve access to advanced material characterization and qualification resources.

Establishment

The DOE will issue a Request for Information (RFI) and conduct appropriate internal surveys to identify key areas of interest including technology, application, or sectors that may benefit from the Clean Energy Materials Accelerator. The RFI will inform DOE's understanding of the material needs of stakeholders in clean energy sectors.

Through a competitive bidding process, the Department of Energy will select one proposal from a group of partners to become the founding members of this PPP.

Value Proposition

Founding Members

- Ability to identify and prioritize materials and leverage a broad array of partners to accelerate identified materials into commercial products;
- Allow manufacturers to better compare and contrast the performance of different materials;
- Improve the purchaser/suppliers relationship by enabling part requirements to be more accurately specified to commonly recognized standards;
- Enable researchers and process developers to provide repeatable results that can be independently verified;
- Leverage federal investments to drive individual organizational goals;
- Increase knowledge in national and university laboratories of private sector needs and priorities; and
- Generate income in exchange for access to equipment and expertise.
- General Members
- Leverage federal dollars to evaluate exciting and potentially scale-able advanced materials;
- Access intellectual and physical capital that a single company could not afford on its own; and
- Connect your business with potential customers.

The Department of Energy

- Spread risk of advancing new materials into commercial products across a whole sector by sharing information, resources and enabling common standards;
- Create a network of American entrepreneurs, start-ups and volume manufacturers that drive the deployment of advanced materials;
- Help America compete in the global race to develop large profitable clean energy technology companies; and
- Increase the speed of implementation of material science and engineering advances into the marketplace.