



U.S. DEPARTMENT OF ENERGY LOAN PROGRAMS OFFICE

Renewable Energy and Efficient Energy Projects Loan Guarantee Solicitation

The Loan Programs Office (LPO) has issued a Renewable Energy and Efficient Energy Projects Solicitation, which would make as much as \$4 billion in loan guarantees available to support innovative, renewable energy and energy efficiency projects in the U.S. that reduce, avoid, or sequester greenhouse gases. The solicitation is intended to support renewable energy and energy efficiency technologies that are catalytic, replicable, and market ready.

Loan guarantees can be an important tool to commercialize innovative renewable energy and energy efficiency technologies because these projects may be unable to obtain full commercial financing due to the perceived risks associated with technology that has never been deployed at commercial scale.

The Renewable Energy and Efficient Energy solicitation is authorized by Title XVII of the Energy Policy Act of 2005 through Section 1703 of the Loan Guarantee Program. LPO currently manages a more than \$30 billion portfolio of approximately 30 closed and committed projects nationwide, including leading edge renewable energy projects, advanced vehicle manufacturing facilities, and one of the first new nuclear reactors being constructed in the U.S. in more than three decades.

THE SOLICITATION IDENTIFIES FIVE CATALYTIC TECHNOLOGY AREAS

The solicitation seeks applications for projects that cover a range of technologies. These technologies could include any renewable energy or energy efficiency technology that is new or significantly improved, as compared to more established technologies in service in the U.S., and reduces greenhouse gas emissions. While eligibility will ultimately be evaluated on a project by project basis, LPO has identified five technology areas of interest under this solicitation:

Technology Area 1: Advanced Grid Integration and Storage

This area focuses on renewable energy systems that mitigate issues related to variability, dispatchability, congestion, and control by incorporating technologies such as demand response or local storage. These advanced system designs will demonstrate greater grid compatibility of generation from renewable resources and open up an even larger role for renewable power generation. DOE anticipates qualifying projects may include, but are not limited to, the following: renewable energy generation, including distributed generation, incorporating storage; smart grid systems incorporating any combination of demand response, energy efficiency, sensing, and storage to enable greater penetration of renewable generation; micro grid projects that reduce CO₂ emissions at a system level; and storage projects that clearly enable greater adoption of renewable generation.

Technology Area 2: Drop-in Biofuels

This area focuses on biofuels that are more compatible with today's engines, delivery infrastructure and refueling station equipment. These projects take advantage of existing infrastructure by providing nearly identical bio-based substitutes for crude oil, gasoline, diesel fuel, and jet fuel, or produce intermediate fuel feedstocks that can be delivered to and integrated into existing oil petroleum refineries. These types of projects would not be restricted by current ethanol/biodiesel blend levels and could drive a catalytic change in the fuels market. DOE anticipates qualifying projects may include, but

are not limited to, the following: new bio-refineries that produce gasoline, diesel fuel, and/or jet fuel; bio-crude refining processes; and modifications to existing ethanol facilities to gasoline, diesel fuel, and/or jet fuel.

Technology Area 3: Waste-to- Energy

This area focuses on projects harnessing waste products such as landfill methane and segregated waste as a source of energy or fuel. These types of projects will enable commercial scale utilization of waste materials which are otherwise discarded and produce significant clean, renewable energy. DOE anticipates qualifying projects may include, but are not limited to, the following: methane from landfills or ranches via biodigesters; crop waste to energy and bioproducts; and forestry waste to energy and cofiring.

Technology Area 4: Enhancement of Existing Facilities:

This area focuses on projects incorporating renewable generation technology into existing renewable energy and efficient energy facilities to significantly enhance performance or extend the lifetime of the generating asset. DOE anticipates qualifying projects may include, but are not limited to, the following: incorporation of power production into currently non-powered dams; inclusion of variable speed pump-turbines into existing hydro facilities; and retrofitting existing wind turbines.

Technology Area 5: Efficiency Improvements

This area focuses on projects that incorporate new or improved technologies to increase efficiency and substantially reduce greenhouse gases. DOE anticipates qualifying projects may include, but are not limited to, the following: improve or reduce energy usage in residential, institutional, and commercial facilities, buildings, and/or processes; recover, store, or dispatch energy from curtailed or underutilized renewable energy sources; recover, store, or dispatch waste energy from thermal, mechanical, electrical, chemical or hydro-processes.

UNDERSTANDING THE APPLICATION PROCESS

In an effort to provide timely responses to applicants, applications will undergo a two-part review: Part I will determine the initial eligibility of a project and whether it is ready to proceed. Applications that clear Part I then proceed to Part II, which includes the full application process. Viable projects that are granted a conditional commitment from DOE then undergo the complete underwriting process and negotiation of terms for the loan guarantee.

To learn more about the solicitation, please visit <http://www.energy.gov/lpo>.