INCREASE YOUR H_2IQ

The #H2IQ Hour

Today's Topic:

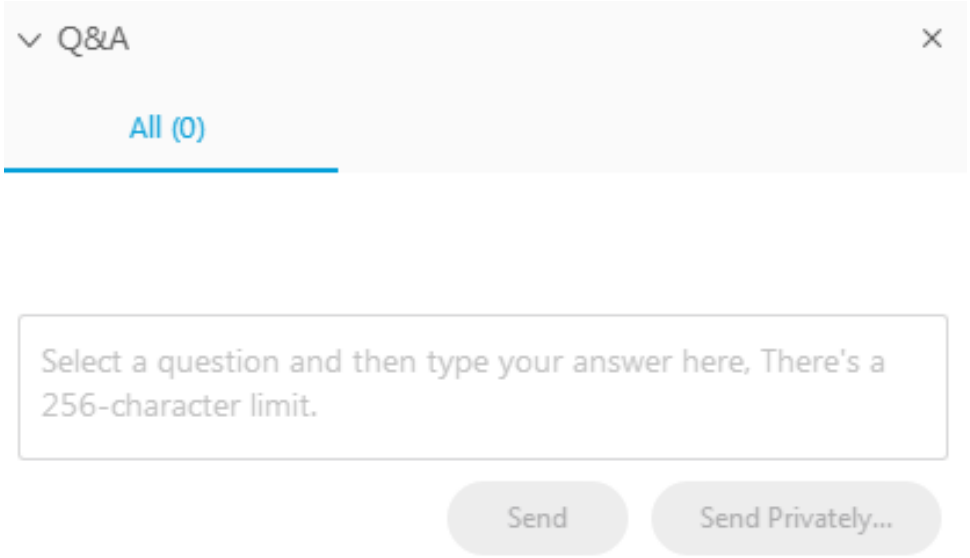
DOE Loan Programs Office Overview and Opportunities

This presentation is part of the monthly H2IQ hour to highlight research and development activities funded by U.S. Department of Energy's Hydrogen and Fuel Cell Technologies Office (HFTO) within the Office of Energy Efficiency and Renewable Energy (EERE).

INCREASE YOUR H2IQ

The #H2IQ Hour Q&A

Please type your questions into the **Q&A Box**



Loan Programs Office

H2IQ Hour

Loan Programs Office
US Department of Energy

Financing Energy Innovation

Jigar Shah, Executive Director
Monique Fridell, Origination
August 25, 2021

Agenda

Intro to LPO

- Value Proposition
- LPO Portfolio
- LPO Loan Programs

Innovative Energy Loan Program Overview

- Eligibility
- Features
- Loan Transaction Process

Financing Energy Infrastructure

The Department of Energy's Loan Programs Office (LPO) was established for borrowers seeking access to debt financing for energy infrastructure projects.

With over $40 billion in available debt capital, LPO programs finance high-impact projects and first-time commercializations, partnering with borrowers to customize deal structures.

Access to Debt Capital that private lenders cannot or will not provide.

Flexible Financing customized for the specific needs of individual borrowers.

A Committed Partner offering expertise to borrowers for the lifetime of the project.

A Diverse Portfolio of Innovative Technologies

LPO financed projects have catalyzed new energy technologies and supported thousands of jobs

Advanced Nuclear Energy

$12 Billion

First AP1000 reactor in the U.S. **(Vogtle)**

Advanced Fossil Energy

$2 Billion

CO_2 capture and sequestration conditional commitment. **(Lake Charles Methanol)**

Wind Energy

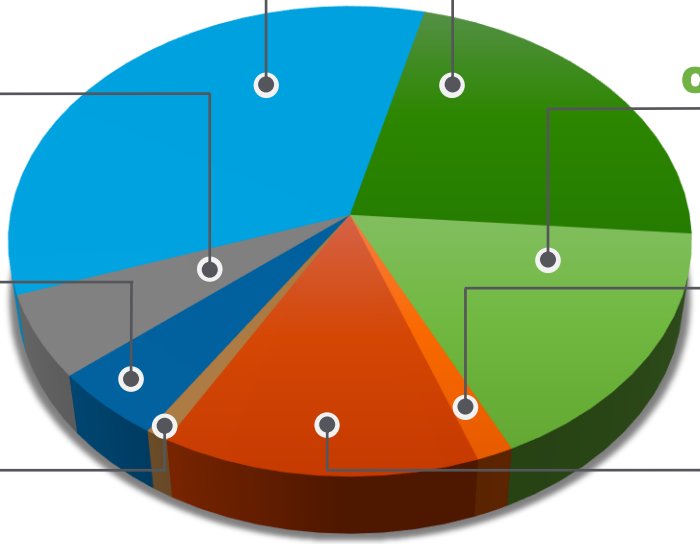
$1.7 Billion

Four onshore farms, including one of the world's largest. **(Shepherds Flat)**

Transmission

$343 Million

Advanced transmission lines for improved grid reliability. **(One Nevada Line)**



Advanced Vehicles Manufacturing

$7.8 Billion

Accelerated domestic electric vehicles manufacturing. **(Nissan, Tesla)**

Concentrating Solar Power

$5.8 Billion

Five CSP plants utilizing diverse technologies.

Geothermal Energy

$546 Million

State-of-the-art thermal extraction, revitalizing the sector.

Photovoltaic Solar

$4.7 Billion

First five utility-scale PV solar projects larger than 100 MW in the U.S.

$40 Billion in Available Debt Capital

LPO offers project financing across energy sectors through three distinct loan programs

TITLE 17
Innovative Energy Loan Guarantees

- Advanced Fossil Energy — **$8.5 Billion Available**
- Advanced Nuclear Energy — **$10.9 Billion Available**
- Renewable Energy & Efficient Energy — **Up to $4.5 Billion Available**

ATVM
Direct Loans

- Advanced Technology Vehicle Manufacturing — **$17.7 Billion Available**

TELGP
Partial Loan Guarantees

- Tribal Energy Projects — **Up to $2 Billion Available**

LPO financing can help make hydrogen technology/projects replicable and bankable

Eligibility

1. Use innovative technology.
2. Deployed fewer than 3 times in the past 5 years in the U.S.
3. Reduce, avoid, or sequester greenhouse gas emissions or air pollutants.
4. Are located in the U.S.
5. Provide reasonable prospect of repayment.

Indicative Projects/Sponsors

1. Power, fuel, transportation, materials handling, midstream infrastructure, industrial decarbonization applications.
2. Green, blue or pink hydrogen preferred.
3. Hybrid turbine, electrolyzer OEMs, H2 project developers, O&G, traditional H2 producers, transportation, other industrial corporate H2 users.

Flexible Financing Solutions

LPO can provide affordable, custom financing to meet the specific needs of individual borrowers

- ✓ **Loan Type** | Direct loan from U.S. Treasury's Federal Financing Bank (FFB) backed by 100% DOE guarantee or DOE partial guarantee of commercial loans.
- ✓ **Affordable Debt** | Senior secured, fixed or floating rate debt.
- ✓ **Competitive Pricing** | Equal to U.S. Treasury-equivalent yield curve plus a credit risk premium.
- ✓ **Long Tenor** | Tenor of up to 30 years or 90% of projected useful life of assets financed.
- ✓ **Flexible Deal Structures** | Structures may include project finance, structured corporate, corporate or warehousing lines.
- ✓ **DOE Role** | Can serve as sole lender, co-lender or partial guarantee provider.
- ✓ **Debt Amount** | Based on overall borrower credit profile, business plan, market risk, technology, certainty of cash flows, project risk allocation and other relevant factors, up to 80% of total project costs.
- ✓ **Viability Standard** | Project must be viable and represent a reasonable prospect of repayment.

Title 17 Loan Transaction Process

LPO engages early with applicants and remains a partner over the life of the loan

Pre-Application Consultations

Meet with LPO for no-fee, pre-application consultations to review project

Formal Application Submission

Submit Part I application to LPO to determine basic eligibility, followed by a more thorough Part II application to determine project viability.

Due Diligence & Term Sheet Negotiation

Enter due diligence, analyze risks, develop project financial model and negotiate term sheet.

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Credit Approval Process

Formal DOE approval process of credit package, including interagency consultations.

Loan Closing & Project Monitoring

Negotiate and execute loan documents based on the approved term sheet. Loan closing and funding are subject to conditions precedent in the executed loan documents.

After loan closing, LPO monitors the loan through final maturity.

More Variable Timing Length of these stages varies greatly, depending on project complexity and readiness.

Less Variable Timing Timing for these stages is largely fixed, with targeted timelines.

Loan Programs Office

Let's Talk About Your Project

Contact LPO to see what financing options may be available for your project:

Call or write to schedule a no-fee, pre-application consultation: **202-586-8336 | lpo@hq.doe.gov**

Learn more about LPO and all of its lending programs at: **energy.gov/LPO**

Monique Fridell

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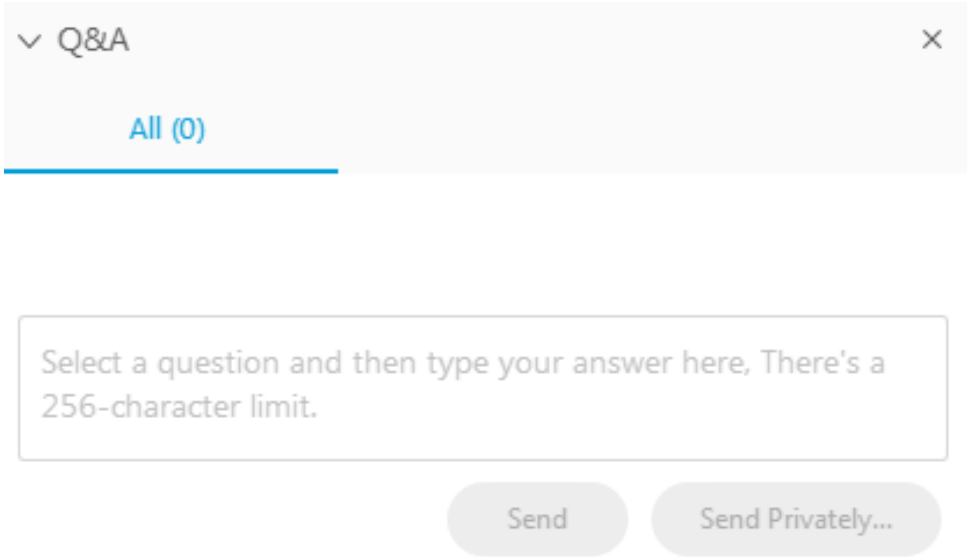

Register for the Hydrogen Shot Summit

The U.S. Department of Energy (DOE) **Hydrogen Shot Summit** will convene thousands of stakeholders online to introduce the Hydrogen Shot, solicit dialogue, and rally the global community on the urgency of tackling the climate crisis through concrete actions and innovation. The Hydrogen Shot Summit will be held virtually **August 31 and September 1, 2021.**

DOE will share results from the recent Request for Information and obtain feedback on pathways to achieving the Hydrogen Shot's "1 1 1" goal of $1 for 1 kg of clean hydrogen in 1 decade. Breakout sessions on various clean hydrogen production pathways as well as deployment and financing will help identify key challenges and potential strategies to address them.

The #H2IQ Hour

Thank you for your participation!

Learn more:

energy.gov/fuelcells
hydrogen.energy.gov