



U.S. DEPARTMENT OF
ENERGY

Fossil Energy and
Carbon Management

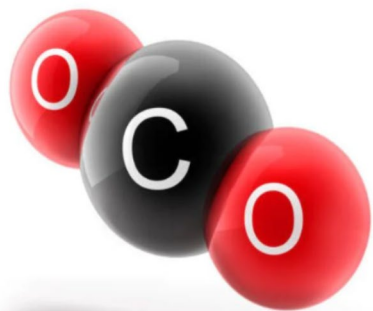
Federal Financing Mechanisms Available to Project Developers

USE-IT Act CCUS Permitting Taskforce

Robert Smith

*Carbon Transport and Storage (CTS) Program
Office of Fossil Energy and Carbon Management*

May 22, 2024



Bipartisan Infrastructure Law (BIL)

Provisions Managed by FECM Carbon Transport & Storage Division

SEC. 40303 Carbon Capture Front End Engineering Design (FEED) Studies for Transport Infrastructure
\$100 million/5 years (FY2022-2026)

SEC. 40304 *Carbon Dioxide Transportation Infrastructure Finance and Innovation (CIFIA)
\$2.1 billion/5 years (FY2022-2026)

SEC. 40305 Carbon Storage Validation and Testing: \$2.5 billion/5 years

Other Provisions Relevant to Transport and Storage

SEC. 40306 Support for UIC Class VI permitting and state primacy efforts: **\$75 million**

SEC. 40307 Geologic Carbon Sequestration on the Outer Continental Shelf

SEC. 40314 DOE will deploy **\$8 billion** for regional clean hydrogen hubs and project financing, including at least one of four projects using fossil fuels with carbon management

SEC. 40601 Orphan Well Site Plugging, Remediation, and Restoration: **\$4.7 billion**

* Managed in partnership between FECM and Loan Programs Office (LPO)



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Transport Pre-FEED/FEED Studies

Pre-FEED Study Objective:

To support advancements in infrastructure engineering and conceptual design needed for large-scale transport projects.

Up to 12 months

FEED Study Objective:

Accelerate the planning and development of CO₂ transportation infrastructure by a variety of modes, such as through rail, trucks, ships, and pipelines.

Up to 24 months

Front-End Engineering Design for CO₂ Transport

FEED Scope:

- **Engineering and Design Package**
 - Route report and map (i.e., wetlands and environmental)
- **Design basis document**
- **Critical safety and risk assessments**
 - Air dispersion and potential impact radius study, Emergency Response Plan, and redundant safety design
- **Environment, Safety & Health and Regulatory Plan analysis**
- **Community Benefits Plan**
- **Cost and Business Case**



Transport Pre-FEED/FEED Studies cont.

| Study Type | Mode/Project Type | Project General Location(s) | *Contingent Transport Capacity (MMTPA) | Selectee/Awardee |
|------------|-------------------|-----------------------------|--|-------------------------|
| Pre-FEED | Multimodal Hub | OH/PA/WV | 3.4+ | FOA Release #1 Selectee |
| Pre-FEED | Multimodal Hub | Tampa Bay area, FL | 2+ | FOA Release #1 Selectee |
| FEED | Pipeline | WY | 25 | FOA Release #1 Awardee |
| FEED | Pipeline | LA/TX | 250 | FOA Release #1 Awardee |
| FEED | Pipeline | WY/SD/MT | 60 | FOA Release #2 Selectee |
| FEED | Barge | OR/WA/CA | 1+ | FOA Release #2 Selectee |
| FEED | Barge | FL/LA | 1+ | FOA Release #2 Selectee |
| FEED | Barge | AL/MS/LA | 2+ | FOA Release #2 Selectee |

*Values are approximated based on preliminary findings and subject to change

NOTE: The plus sign (+) means potentially scalable

FOA: Funding Opportunity Announcement

MMTPA: Million Metric Tonnes per Annum

Total:

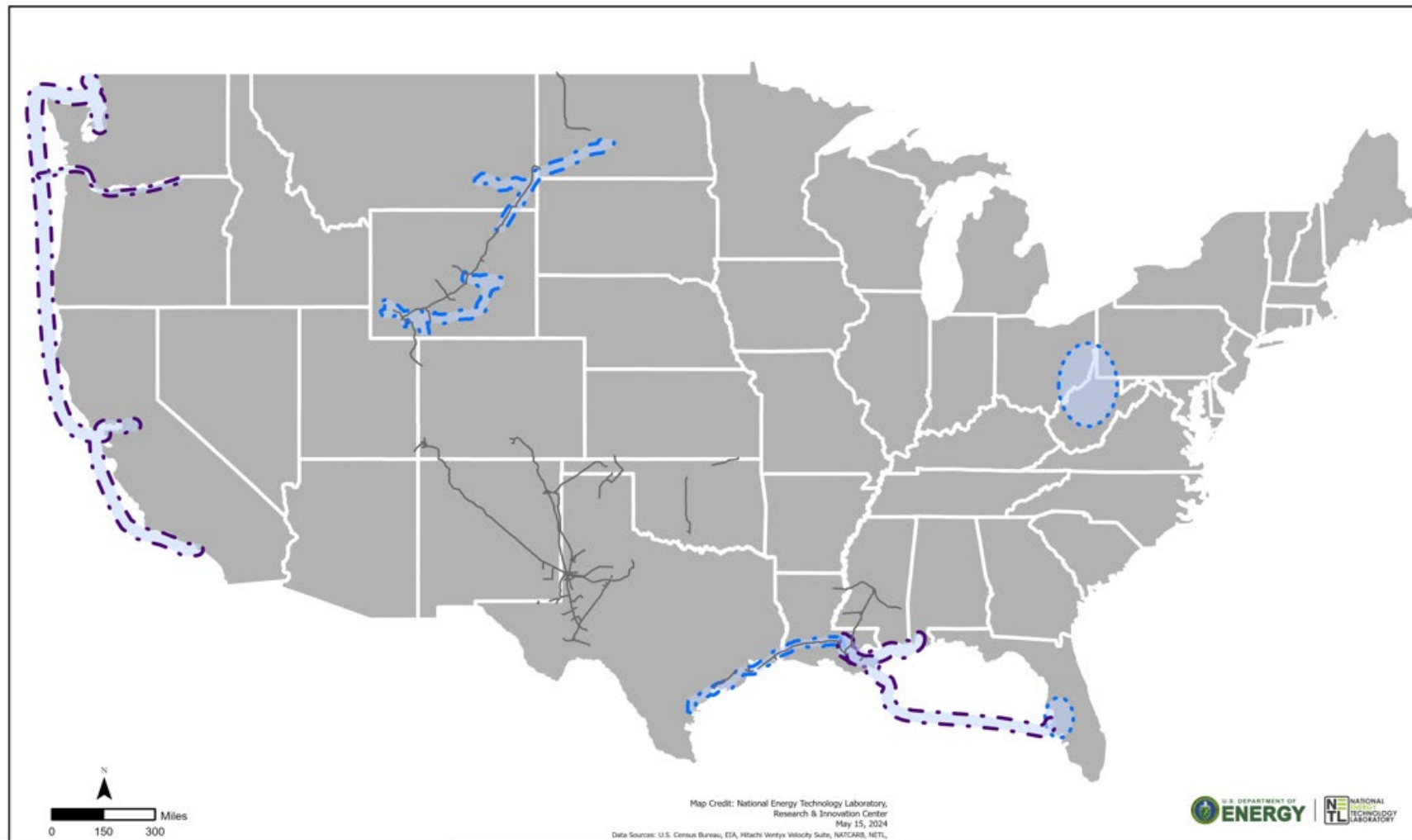
344.4+ MMTPA



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Map of Transport Pre-FEED/FEED Studies



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Fossil Energy and
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CO₂ Transportation Infrastructure Finance & Innovation Program of Loans & Grants

BIL Funding: \$2.1B with credit subsidy of approx. \$20B

Objective: Offers access to capital for large-capacity, common-carrier CO₂ transport infrastructure projects to transport CO₂ from points of capture to conversion facilities and/or storage wells.

Transport Modes: Pipeline, rail, truck, ship & barge



*CIFIA funding of up to 80% of project costs

CIFIA Program*

Loans

New &
re-purposed
transport
infrastructure

Future Growth Grants

Building
excess
capacity on
new/existing
infrastructure



Some CIFIA Program Key Eligibility Requirements

- Is a common carrier CO2 transportation infrastructure project in the United States, with total project costs greater than \$100 million, that will transport CO2 captured from anthropogenic sources and/or ambient air by pipeline, shipping, rail, or other transportation infrastructure for storage or use.
- Can attract public and/or private investment to fund Project costs not covered by the CIFIA Loan, as evidenced by binding commitments and/or expressions of interest from other potential funders.
- Will publish a publicly available tariff with just and reasonable rates, terms, and conditions for nondiscriminatory CO2 transportation service.

NOTE: See “CIFIA Program Guide” for the full list of requirements

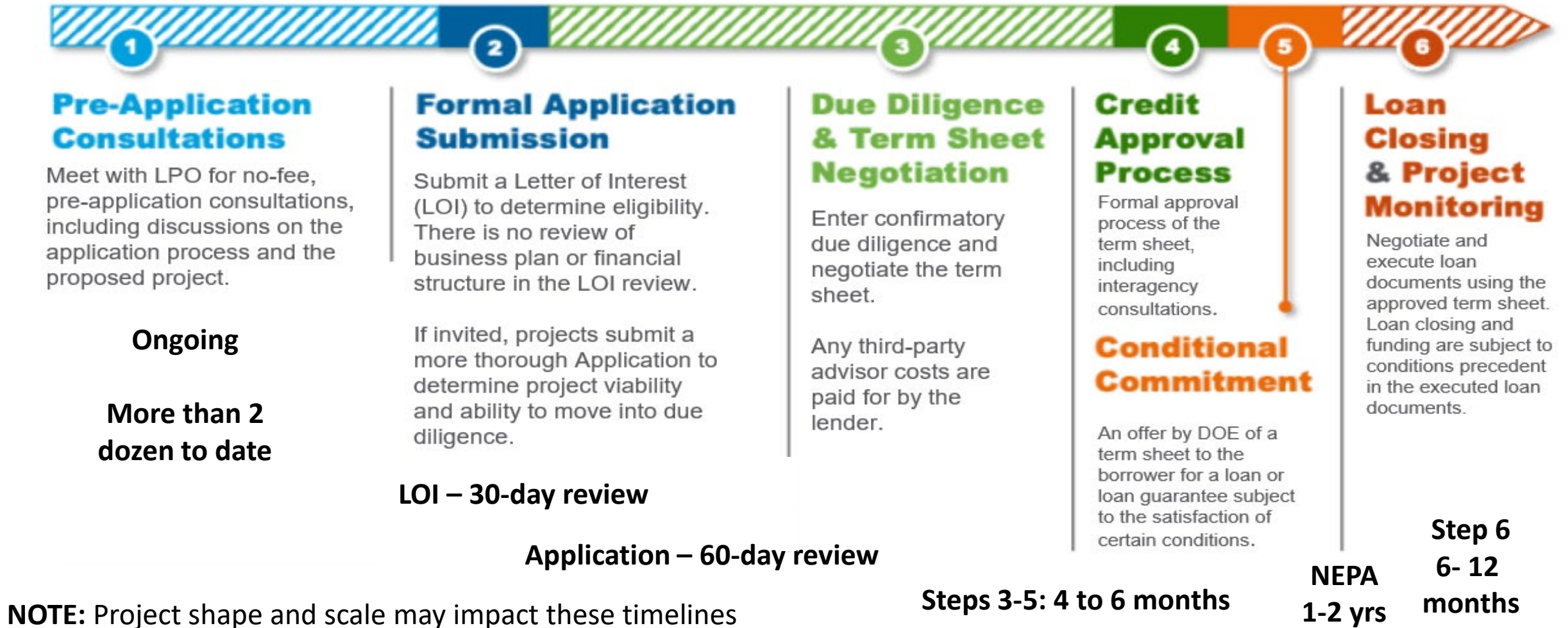


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[Click here to visit the CIFIA
Program webpage](#)

CIFIA Loan Application Process



CIFIA Loan Pre-Application Consultations

Potential applicants to CIFIA may request free, informal Pre-Application Consultations with DOE by visiting the CIFIA webpage at www.energy.gov/lpo/cifia or by sending an email to CIFIA@hq.doe.gov.

During Pre-Application Consultations, DOE will:

1. Evaluate Project eligibility for CIFIA,
2. Determine whether the project is ready to proceed with a CIFIA Application,
3. Discuss the phases of the process to get a CIFIA Loan, and
4. Answer questions that the potential Applicant may have.

Based on Pre-Application Consultations, DOE/Loan Programs Office may invite potential Applicants to submit a Letter of Interest on Projects deemed Ready to Proceed.



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[Click here to visit the CIFIA
Program webpage](http://www.energy.gov/lpo/cifia)

CIFIA Future Growth Grant Eligibility Requirements

Future Growth Grant (FGG) FOA now issued! LPO also posts revised CIFIA Guidance Document on CIFIA Program Website

In General: A FGG application must meet CIFIA program eligibility requirements of a base project and additional requirements stated in the FOA. Grant applications will follow a similar process of an LOI and Application as described in the FOA.

Funding Opportunity Announcement (FOA) Number: DE-FOA-0002966

FOA Type: **Amendment 000001**

Assistance Listing Number: 81.089, Fossil Energy Research and Development

| | |
|--|-----------------------|
| FOA Amendment 000001 Issue Date: | 05/16/2024 |
| Submission deadline for Letter of Interest: | 08/15/2024 5:00pm ET |
| Submission Deadline for Full Applications: | 09/30/2024 5:00pm ET |
| Expected Date for DOE Selection Notifications: | January 2024 |
| Expected Timeframe for Award Negotiations: | February to June 2024 |



Source: Virginia Mercury

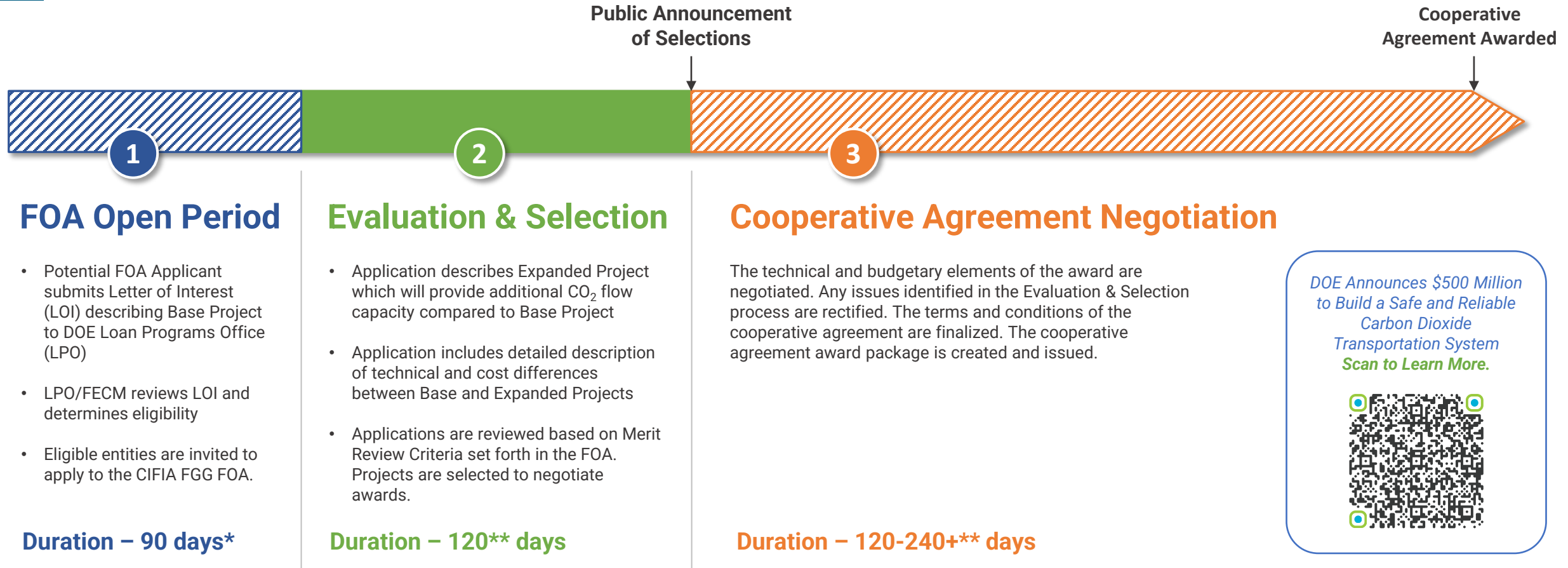


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[Click here for CIFIA
FGG Opportunities](#)

CIFIA FGG Application Process



*DOE may extend FOA Open Period to allow additional time for submission of Applications

**Size, scope, and complexity of a project may lead to longer durations.

Note: Only entities with a suitable Base Project (large-scale CO₂ transport system of >\$100 million) are eligible to apply for Future Growth Grants

Thank You!



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<https://www.energy.gov/fe/office-fossil-energy>

Sign up to receive DOE FECM's email updates [here](#).

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