

Methane Hydrate Advisory Committee Meeting



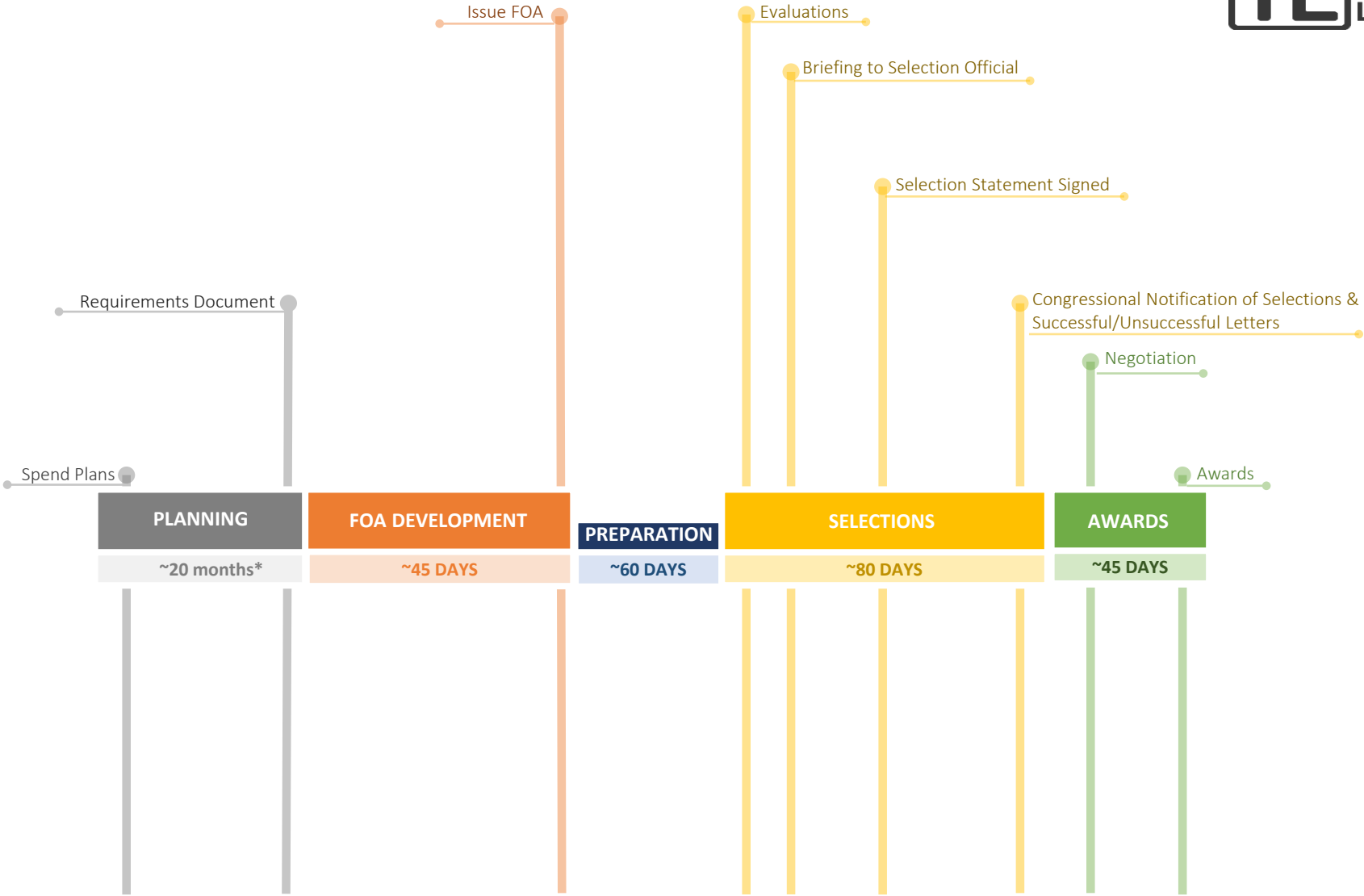
DOE-NETL Hydrate Program:

Funding Opportunity Announcement and Project / Program Review Process and History



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General Overview of Financial Assistance Process



- **Planning Stage includes activities leading to initiation of formal FOA process**
 - Guided by multiple factors
 - Overarching program guidance (Energy Policy Act, etc.)
 - Long Term Program Plans
 - Input and guidance from DOE – FE (DAS, PDAS, Oil and Gas staff)
 - Assessment of current program portfolio and needs
 - External program assessments (SEAB, FACA, NRC, etc.)
 - “Likely” program appropriation levels
 - Eligibility for the FOA (what types of entities can submit)
 - Intended to make a determination of general need, focus / objective, and expected level of FOA
 - Period where external input can be accepted without perception of Conflict of Interest
 - Planning starts a year or more in advance ideally but is often compressed due to delay in knowing final annual program appropriation level
 - Typically not fully settled until firm FY appropriation is defined
 - Results in a FOA Requirements Document – kicking off formal FOA process

- **The Development Stage takes the concept FOA from the Requirements Document to the issuance of the FOA**
- **Once Development is initiated, external interactions regarding the pending FOA are precluded to prevent giving any group potential advantage**
- **Includes development of FOA final details** (coordinated effort NETL and DOE-FE HQ)
 - Detailed technical topic areas Specific format and content for FOA packages
 - Review criteria and weighting to be used (typically includes scientific / technical merit, technical approach, and management approach / capabilities)
 - Available funding levels
 - Timing of FOA applications
- **Results in:**
 - Development of formal NETL guiding documents for specific FOA (Procurement Strategy Document, Evaluation and Selection Plan)
 - Issuance of the official FOA via the Grants.gov / FedConnect system

The FOA “Preparation” Stage

- **Period under which the FOA is “open”**
 - typically 45 – 90 days
 - Dependent on type of projects targeted
 - Dependent on time available between FOA release and end of federal FY
- **Applicants prepare and submit FOA application packages in accordance with format and requirements defined for the FOA via Grants.gov**
- **All questions regarding FOA must be formally submitted through grants.gov so that questions and answers are available to all potential applicants**
- **Direct individual contact with NETL program personnel regarding FOA is precluded**

The FOA “Evaluation and Selection” Stage

- **Stage including formal review, comment, scoring and selection of applications under the FOA (using established Eval & Selection Plan)**
- **Review coordinated by Merit Review Board (MRB) consisting of Federal Personnel with expertise in FOA focus area**
 - Single set of reviewers (3 min) or panels of reviewers for individual topic areas (depending on number of applications)
 - If panels used, results fed up to the MRB for final consensus comments and scoring
 - Reviewers typically limited to federal personnel, but can include external contributors without perceivable conflict of interest potential
 - External reviewers, if used, provide only strength and weakness comments
 - External reviewer would need to be precluded from participating if an affiliated organization was an applicant under the FOA to avoid perception of potential impartiality
 - Comments and scoring are to be done using only the criteria defined and released as part of the FOA
 - Review results documented by MRB chair and provided to the DOE-NETL designated Selection Official
- **Selection Official considers merit review results in conjunction with external factors (program need / priority, current portfolio balance, etc.) resulting in application(s) selection for negotiation of award.**
- **Congressional notification of selection are sent, selected and non-selected applicants are formally notified**

- **Focused on negotiation of new awards from selected FOA applications**
- **Involves finalization of project scope, schedules and budgets**
- **Results in formal award of a project with obligation of at least a portion of first budget period / phase funding**
 - Subsequent budget periods are approved through formal continuation applications and are subject to program level evaluation of progress and dependent upon availability of funding.

Methane Hydrate Program FOA

An overview of recent FOA History



• **FY12 MH FOA**

- Three Topic Areas: 1) Field Programs for Deepwater Hydrate Characterization; 2) Response of Methane Hydrate Systems to Changing Climates and 3) Advances in the Understanding of Gas Hydrate Bearing Sediments
- 26 Applications received and reviewed
- 14 new projects awarded (SMU, Fugro (2), Ohio State, UTA, COL, Oregon State, U Miss, GT, CSM, Ok. State, Wayne State, UCSD – Scripps, UNH)

• **FY13 MH FOA**

- Three Topic Areas: : 1) Characterization of Gas Hydrate Deposits; 2) Response of Methane Hydrate Systems to Induced Change and 3) Response of Methane Hydrate Systems to Environmental Change
- 31 applications received, 24 reviewed (other 7 deemed to be unresponsive to the FOA)
- 7 new projects were awarded (Oregon State, MIT, U Washington, TAMU, GT, U Oregon, UTA)

• **FY14 MH FOA**

- Two Topic Areas: : 1) Extended Duration Testing of Arctic Gas Hydrate Deposits; 2) Field Programs for Marine Hydrate Characterization
- 8 applications received, 6 reviewed (1 deemed non-responsive to FOA, other withdrawn (JOGMEC))
- 1 new project was awarded (UTA)

• **FY16 MH FOA**

- Two Topic Areas: : 1) Hydrate System Response to Production Activities (Induced Change); 2) Response of Methane Hydrate Systems to Natural Environmental Change
- 35 applications received and 33 reviewed (other 2 determined to be duplicate submissions)
- 6 new projects were awarded (U Rochester, UTA, LSU, TAMU (2), UCSD - Scripps)

Methane Hydrate Project / Program Review

Processes and Challenges



- **Project Review**

- No set process for formal review of projects under the Methane Hydrate program
- Past project reviews: peer review – type or information meetings
- Intent of each is a little different but both provide opportunity for broad interaction across portfolio of projects and feedback to performers on specific research focus and findings
- Both provide valuable technical insight through view of other hydrate experts outside the project and foster collaboration across projects

- **Program Review**

- As part of prior project reviews, program attempted to provide program level information and seek feedback on priorities and progress
- Various other forms of external review (NRC studies 2005 and 2010; SEAB 2015)
- MHAC meetings are opportunity for Program level feedback and input / guidance in Program planning
- Periodic Program input and feedback from partner Federal Agencies through Technical Coordination Team meetings

- **Challenges for large scale project / program reviews**

- Costs: planning, holding and supporting travel to such meetings must come from overall program budgets (or individual performer research budgets to cover their time and travel)
- Logistics of planning and hosting such meetings with a portfolio of 20+ projects at various stages of performance and people associated with those projects (100+ people typically) including venue, travel, food options, etc.
- For Peer-Review type meetings, how to fairly and effectively assess projects across technical areas and performance stages
- Optics of large scale meeting when Program budgets are often uncertain.

Methane Hydrate Project / Program Review

Recent History of MH Program led reviews



- **Merit Review of National Lab efforts**
 - January 2006 at USGS in Denver, CO
 - External reviewers used to evaluate and score hydrate related work from: BNL, LBNL, NETL, ORNL, PNNL
 - Formal feedback provided to each lab
- **Program / Project Peer Review**
 - September 2007, at Colorado School of Mines in Golden, CO
 - Broken out by research focus areas, covering ~15 projects and the overall program
 - External reviewers used to review projects providing scores and comments
 - Formal feedback compiled and sent to individual projects
- **Peer Review of National Lab and Interagency efforts**
 - August 2008, at NETL in Pittsburgh, PA
 - Broken out by focus area (lab, modeling and field studies)
 - External reviewers used to review projects providing scores and comments
 - Formal Feedback provided to each lab / interagency group
- **Project / Program Information Meeting**
 - January 2010, at Georgia Tech, Atlanta, GA
 - Broken out by research focus areas, covering ~25 projects with ~120 persons in attendance
 - Also included a poster session to share more project information
 - Open feedback. Targeted interactive approach with questions / comments during presentations and opportunities for detailed discussions