

U.S. DEPARTMENT OF
ENERGY

Office of
NUCLEAR ENERGY

Civil Nuclear Credit (CNC) Program: Program Overview and Request for Information

3 March 2022

Provision Requirements

Overview

CNC Program will:

- Certify reactors for program eligibility
- Establish a process to accept sealed bids for credits from certified reactors
- Allocate credits to certified reactors
- Conduct periodic audits, with possible recapture of credits

Bipartisan Infrastructure Law (BIL) appropriates \$1.2 billion in each of five years (Fiscal Years 2022-2026) for the CNC program (\$6 billion total).

Provision Requirements Certification

Secretary certifies a reactor based on several criteria:

- Competes in a competitive electricity market
- Projected to cease operations due to economic factors
- Pollutants would increase if reactor retired
- Nuclear Regulatory Commission (NRC) assurance
- Post “credit period” operations plan
- Uranium and fuel source

Provision Requirements

Bid Process and Allocation

Secretary shall:

- Establish a process to evaluate bids through a sealed bid auction process in consultation with heads of applicable agencies
- Select certified reactors to receive credits.
- Allocate credits to as many certified nuclear reactors as possible.

Bid must include:

- \$/MWh for credits sought.
- Commitment for generation during 4-year credit period

Provision Requirements

Recertification, Audit, Recapture

Credits allocated for four years

Funds available until spent

- Reactors may be recertified
- No credits may be allocated after September 30, 2031

Periodic audits required during the 4-year credit period

Recapture credits if recipient

- Terminates operations
- Does not operate at an annual loss in the absence of credits

The Department of Energy implementation of this program will emphasize transparency, equity, and effectiveness.

The CNC Program will:

- Maximize retaining jobs and carbon-free nuclear generation
- Responsibly leverage taxpayer dollars
- Provide clear eligibility guidance and certification requirements
- Transparently communicate and apply the application review/bid structure
- Streamline processes to minimize delays
- Periodically audit allocations and processes

Request for Information

The RFI was drafted to solicit broad feedback.

Proposals do not reflect DOE's final determinations for guidance.

Request for Information

Framework

(RFI Section V)

DOE is considering a three-part process:

- Part 1: Applications for certification
- Part 2: Bids for credits
- Part 3: Allocation of credits via auction and funds distribution

DOE proposes conducting two application periods for reactors not receiving/receiving State assistance.

Request for Information

Proposed Program Considerations
(RFI Section III)

1. Inclusivity
2. Confidentiality
3. Acceptance of Applications
4. Standards of Analyses and Representation
5. Evaluation of Applications for Certification
6. NRC Assurance
7. Consultation with Heads of Applicable Agencies
8. Terminology
9. Credit Allocation and Funds Disbursement
10. Audit
11. Adjustment
12. Recapture

Request for Information

Proposed Program Considerations
(RFI Section III)

1. Inclusivity

- Encourage all reactors that project ceasing operation due to economic factors to apply for certification

2. Confidentiality

- Privileged business information will be protected from public release, as allowed
- Names of applicants not released until/unless they receive an award

3. Acceptance of Applications

- One application for each reactor
- Exception: multiple units at one site with identical situations, but distinguish each reactor

Request for Information

Proposed Program Considerations
(RFI Section III)

4. Standards of Analyses and Representation

- Applicants providing their own representation of the economic situation to be vetted by DOE and compared with other filings

5. Evaluation of Applications for Certification

- Review panel of DOE staff

6. NRC Assurance

- Rely on the NRC for input

Request for Information

Proposed Program Considerations
(RFI Section III)

7. Consultation with Heads of Applicable Agencies

- Consult with other Federal agencies

8. Terminology

- “credit”
- “reactor”

9. Credit Allocation and Funds Disbursement

- Up to \$1.2 billion could be awarded in Fiscal Year 2022
- Future years depend on availability of funds

Request for Information

Proposed Program Considerations
(RFI Section III)

10. Audit

- Yearly operational and economic reports from each awardee
- Assess differences between projections and actual performance

11. Adjustment

- Use an index or strike price
- Establish a ceiling on adjusted credit value

12. Recapture

- If adjustment is not possible or if the reactor terminates operations
- In part or in whole

Request for Information

Certification Criteria
(RFI Section IV)

Competes in a competitive electricity market

Economic factors

Emissions impact

Post “credit period” operations plan

Uranium and fuel source priority

NRC assurance

... Other criteria?

Request for Information

Certification Criteria
(RFI Section IV)

Competes in a competitive electricity market

- Broad approach to competitive pressures considered

Economic factors

- Wide range of cost and revenue factors need to be included
- Market and operation risk

Request for Information

Certification Criteria (RFI Section IV)

Emissions impact

- Impacts of closure on criteria pollutants, carbon dioxide, and methane
- Based on the emissions characteristics of the anticipated replacement generation

Post “credit period” operations plan

- Possible changes during the award period
- Consistent with economic factors criterion

Request for Information

Certification Criteria (RFI Section IV)

Uranium and fuel source priority

- Information about the countries of origin of uranium and fuel services planned to be used in the award period
- No specific sourcing requirement in determining whether to certify

NRC assurance

- Rely on input from the NRC to meet this requirement

Other criteria?

- Secretary could require applicant to submit other information

1. Do the proposed approach and considerations for certification of a qualified nuclear reactor, including key aspects of CNC Program implementation and other aspects and outcomes of the CNC Program, as described in Section III, support the intent of Congress to assist nuclear reactors at risk of early closure? Why or why not? If not, please suggest alternative approaches to be considered.

2. Are the evaluation criteria being considered for certification as described in this RFI appropriate? If not, please suggest alternative criteria.

3. Is the information requested for the applications for certification appropriate and sufficient? Why or why not?

4. Is the proposed CNC Program structure, including timing, process, and evaluation approach for certification, acceptance of bids, credit allocation, and periodic audits appropriate? If not, please suggest alternatives.

5. Please identify any regulatory or business barriers that might impede the implementation of the CNC Program. Please propose solutions to eliminate or mitigate any identified barriers.

6. Should DOE establish a standard format and methodology for each applicant to present economic data, projections, analysis, and other information in support of an application for certification? If so, please address the components that should be included as part of a standard format and methodology and what information should be required.

7. What information should be considered by the Secretary in assessments of the marginal impact of projected reactor closures on emission of air pollutants? Should a standard methodology be adopted to address estimation of incremental air pollutants? Why or why not? What methodologies could be considered?

8. How should the certification methodology prioritize reactors that utilize U.S.-produced fuel and fuel constituents? Are there additional criteria that should be prioritized, and if so, how?

9. Is the use of an indexing mechanism to re-set annually the value of credits allocated to a nuclear reactor as described herein appropriate? Please consider the advantages and disadvantages of such an approach and the basis for such an approach. Should the indexing mechanism be subject to a floor and/or cap? How would an indexing mechanism interact with the recapture provision discussed herein?

10. Using the bid requirements in the Act of price per megawatt-hour and megawatt-hour commitment for a 4-year period, should DOE award credits starting with the lowest price bid and continuing until available funds are exhausted? What policy considerations or parameters other than bid price would inform the determination of which bids would most cost-effectively achieve the objectives of the Act? Should DOE use any other methodology or criteria for awarding credits to bidders?

11. How should DOE incorporate evaluation of the impacts of the closure or continued operation of nuclear reactors on disadvantaged communities?

12. Please provide any other input DOE should consider in the establishment and implementation of the CNC Program, including any other information and criteria that might be useful in DOE's approach for and implementation of both the certification process and the sealed-bid process for credits.



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