

# *Department of the Air Force*

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# Department of the Air Force Micro-reactor Pilot Program Update



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# Overview

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- **Background**
  - **Pilot Status**
  - **Acquisition Process**
  - **Design Application**
  - **NRC Licensing Process**
  - **Stakeholder Outreach & Engagement**
  - **Timeline**
  - **Questions**
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# *Department of the Air Force Micro-reactor Program*

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- **Purpose:** The Department of the Air Force (DAF) is working with the Office of the Deputy Assistant Secretary of Defense for Energy and the Department of Energy on a program to validate micro-reactor technology and determine viability for future energy resilience efforts
  - **Program Objective:** Successful demonstration of a Nuclear Regulatory Commission (NRC)-licensed, commercially viable and inherently safe micro-reactor at a permanent military installation
  - **Program Approach:** DoD purchases the commodity (electricity and thermal energy) from the micro-reactor under a 30-year (PPA) Power Purchase Agreement (10 USC 2922a); not the micro-reactor itself
  - **Execution:** Focuses on short-term actions as part of a long-term plan
  - **Pilot Location:** Eielson Air Force Base, Alaska
    - Chosen due to mission criticality & opportunity to reduce carbon emissions
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# *Pilot Status*

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## ■ **Current PPA RFP Status:**

- DLA Energy working to gain legal input on updated draft
- Sections L&M near completion
- Technical & Financial Source Selection Committee identified

## ■ **DAF, NRC, DOE & DLA Memorandum of Understanding**

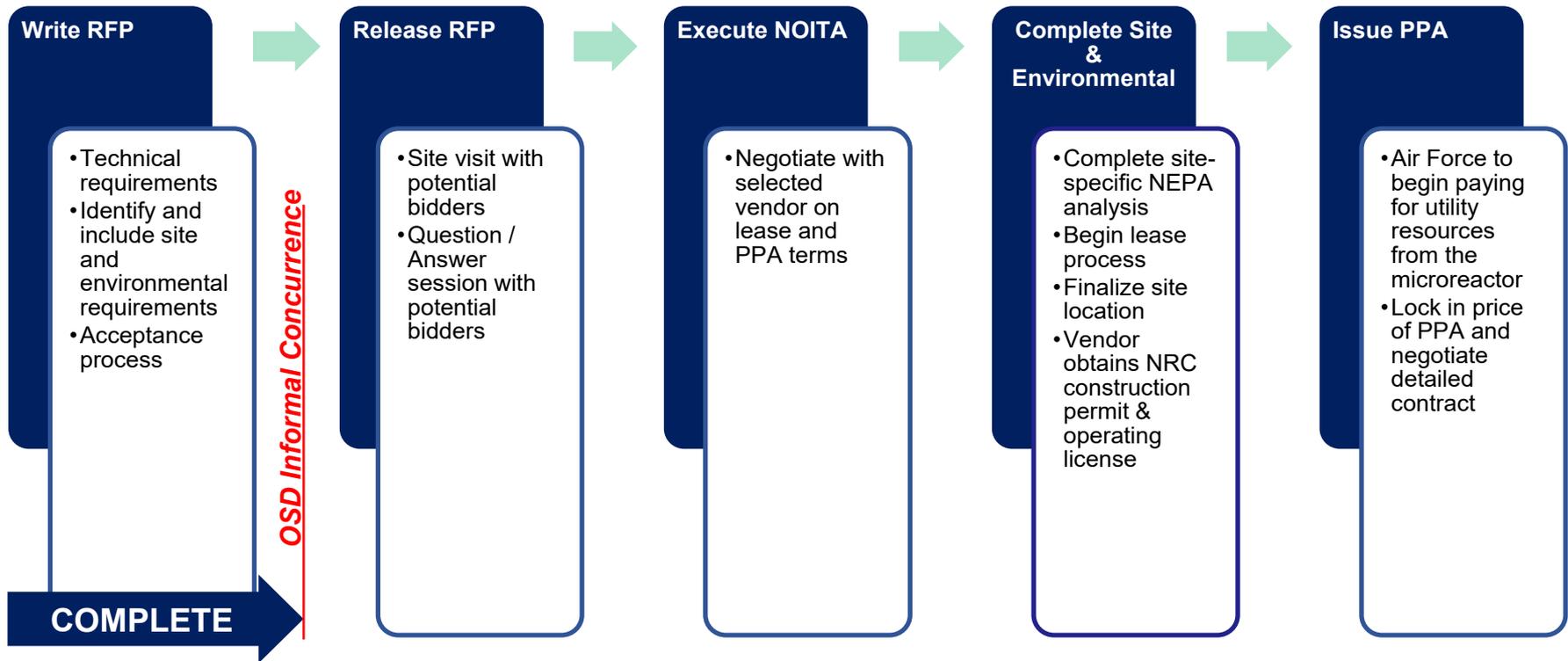
- Establishes coordination & sharing of technical expertise among DAF, DOE & DLA
- Identifies key roles & responsibilities during the pilot
- NRC reviews license application as an independent regulator

## ■ **Alaska Senate Bill 177**

- Exempts micro-reactors from Legislative siting approval and from six-department project studies by the State of Alaska
  - Passed the Senate 3 May 2022 - 16 Yeas; 2 Nays
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# Acquisition Process

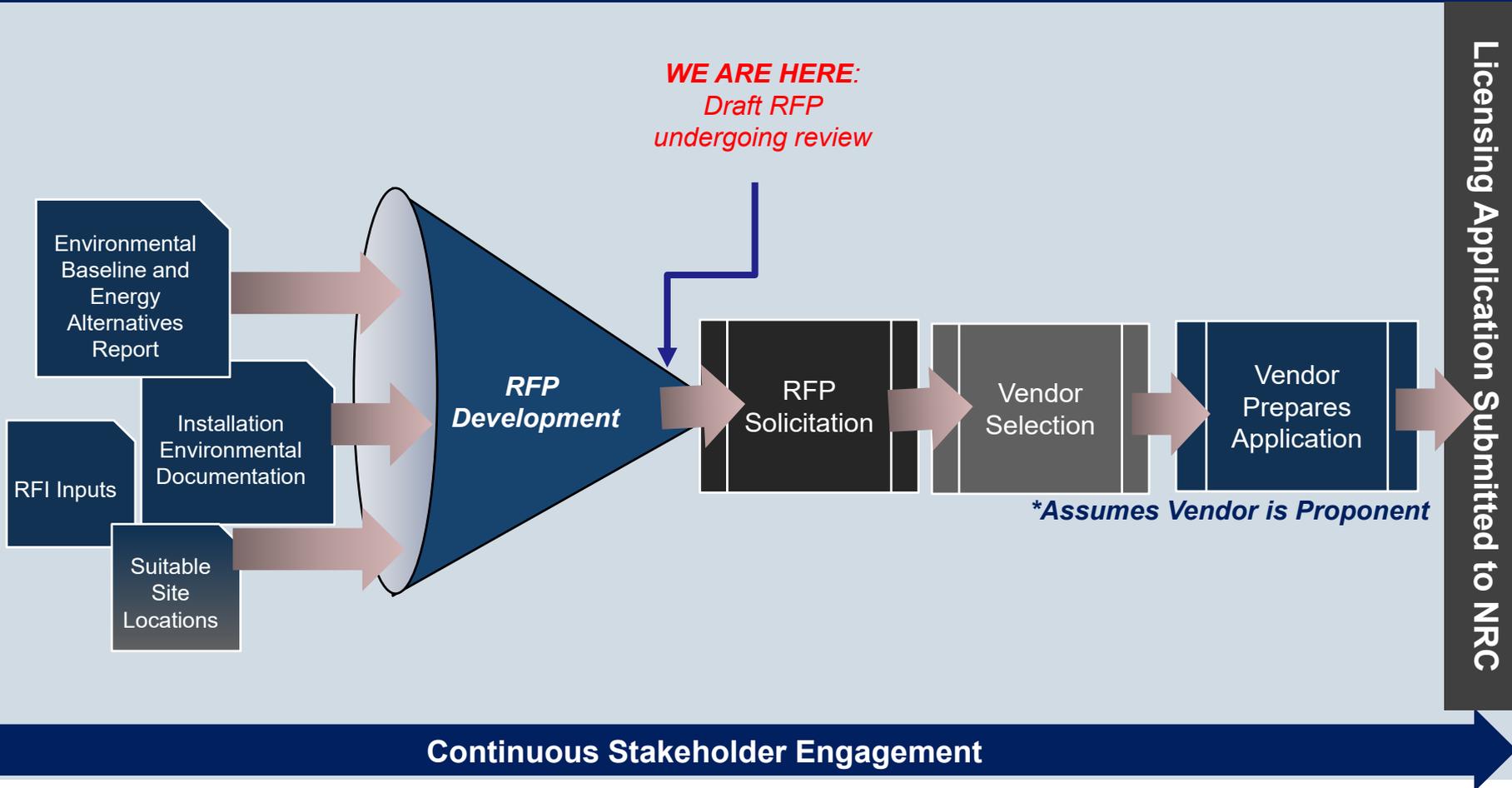


- Anticipate utilizing 30 year Lease & 20 year Energy Production Period
- Acceptance: 2 year Demonstration Period



# Design Application Process

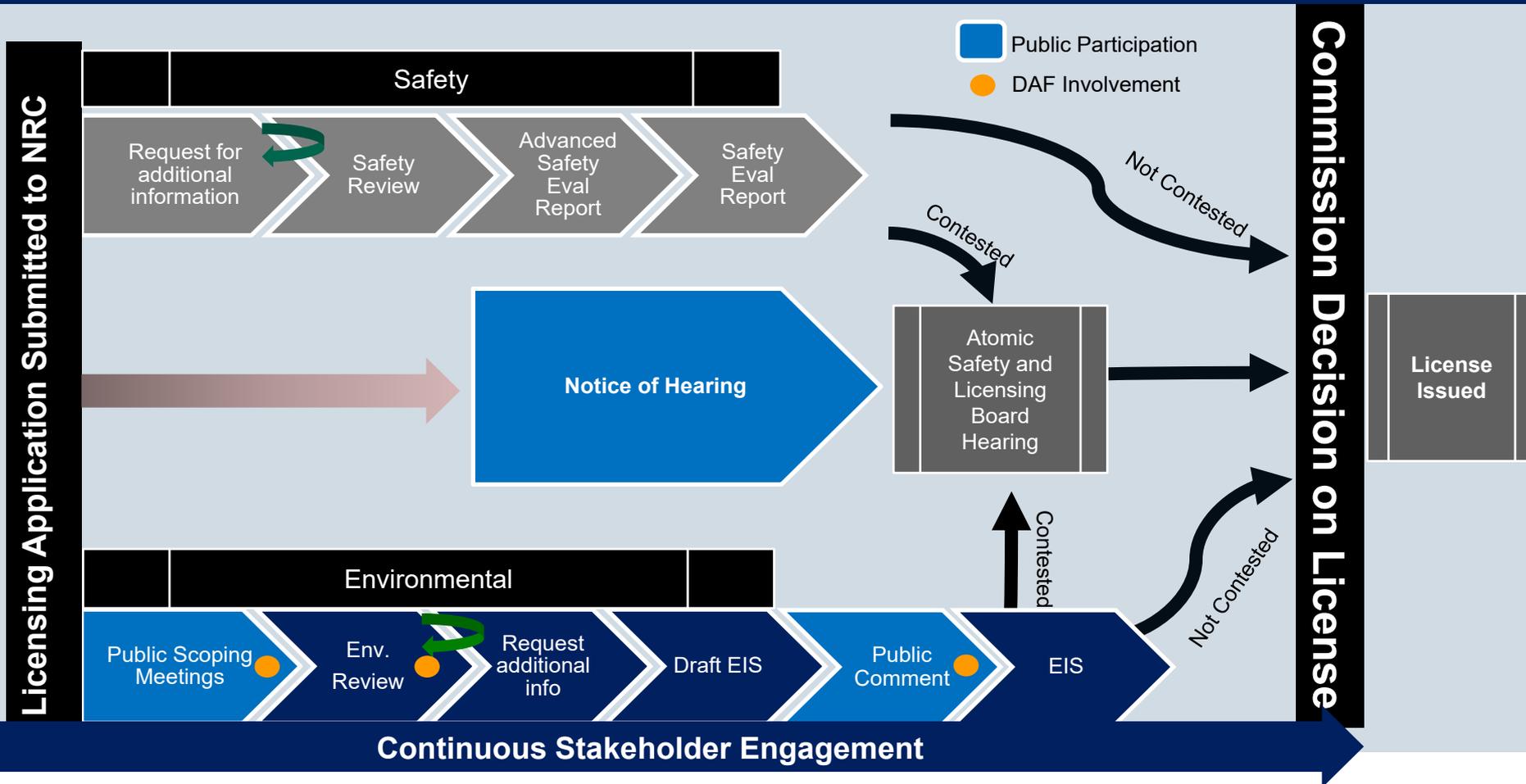
## Regulatory Roadmap





# NRC Licensing Process

## Regulatory Roadmap





# *Stakeholder Outreach & Engagement*

## ■ **Nov 2021 – May 2022 Engagements**

- Tribal Nations & Mayors initiated
- Alaska Senators' staff briefing
- Alaska Department of Environmental Conservation
- Alaska Nuclear Energy Working Group
- Quarterly Newsletter Initiated



## ■ **Eielson Pre-Proposal Conference**

- Provide opportunity for offerors to see potential sites & ask questions
- Potential speakers to include Eielson AFB, DLA, SAF/IEE, NRC, & SAF/GCN
- Results will be documented and made available to all interested offerors on the SAM.gov website



# High Level Timeline



## Near-term targets for successful RFP:

- Ensure technical, operational, and site requirements are adequately depicted in draft RFP

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