

Duane Arnold Regulatory Path to Potential Restart

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Introductions



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Agenda

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3 Current facility status

4 Consideration of restart

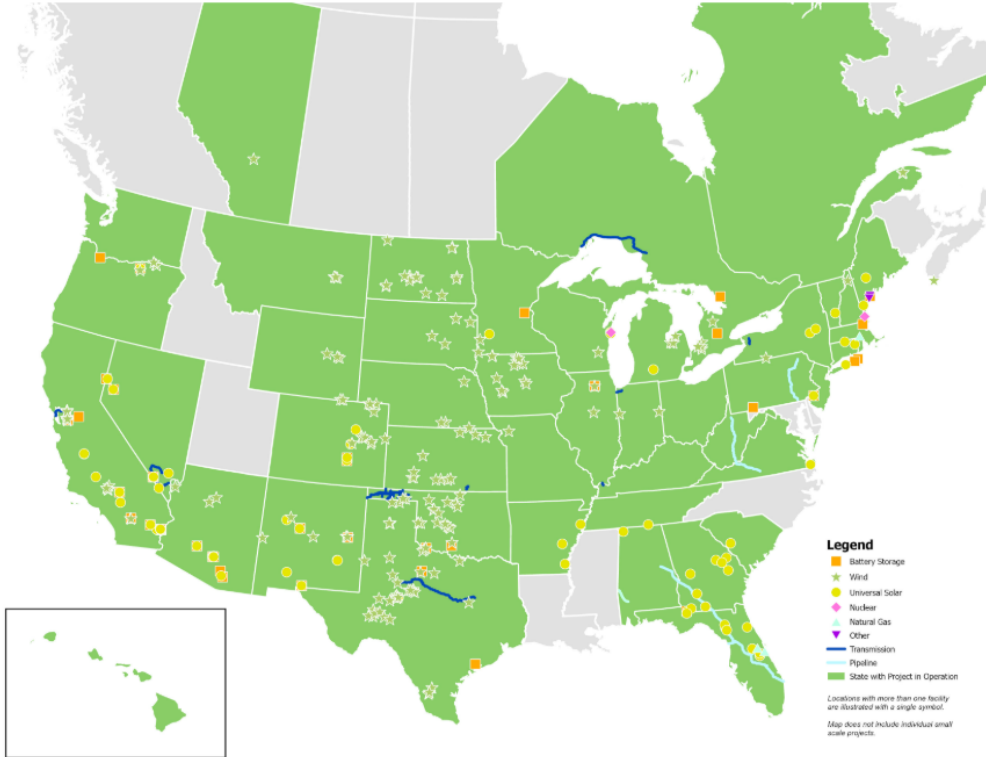
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Purpose



NextEra Energy Duane Arnold, LLC, is an indirect subsidiary of NextEra Energy, which owns more than 72 gigawatts of generation, including nearly 6,000 megawatts from four nuclear power facilities located in Florida, New Hampshire and Wisconsin.¹

There is a need to add generation infrastructure to meet the country's growing energy demands.

- NextEra knows that all forms of energy will be required to meet these needs, including gas-fired generation and renewables, as well as nuclear recommissioning.

NextEra continues to evaluate resuming operations at the facility to help meet the country's growing energy demands.

- Commercial interest and economic viability.
- Thorough review of plant systems to support reliable and safe operation.

The exemption request and licensing path to restart letter are the first steps in the possible restart process for Duane Arnold.

Duane Arnold background

Initial operating license

Feb. 22, 1974

- Located near Palo, Iowa
- GE boiling water reactor type 4
- Output – 615 MW
- Commercial operations began Feb. 20, 1975
- NextEra Energy Duane Arnold is the facility's majority owner¹

Major licensing actions

- 1991 – 24-month fuel cycle
- 2001 – Extended power uprate
- 2010 – License renewal

Renewed license expires

Feb. 21, 2034



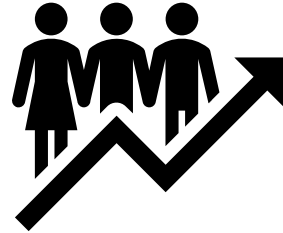
1. Other owners: Central Iowa Power Cooperative (20%) and Corn Belt Power Cooperative (10%)

Duane Arnold background



Operations

- Safely and reliably served eastern Iowa for decades.
- Plant status prior to ceasing operations:
 - Column 1 of the NRC regulatory oversight program.
 - All indicators green.
- Ceased operations in 2020.



Benefits

- \$255 million of economic activity.¹
- Provided nearly 1,500 jobs (during plant operations and refueling outages).
- Staff annual salaries of approximately \$85 million.
- More than \$1 million in employee and company donations to area charitable non-profits.



1. Nuclear Energy Institute Economic Impact of NextEra Energy's Duane Arnold Energy Center – May 2014 (during previous plant operations)

Current facility status

Duane Arnold facility currently idled and in decommissioning status.

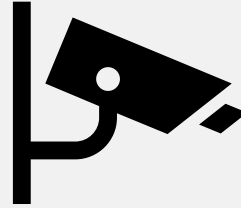
- Defueled certification docketed Oct. 12, 2020.
 - All spent nuclear fuel currently stored at Duane Arnold in dry storage.
- All regulatory submittals and regulatory approvals completed to reflect a facility that is permanently defueled.

Facility currently in SAFSTOR configuration.

- Main power block buildings remain intact.
 - Reactor building, control building, turbine building, pumphouse, river intake structure and radwaste building.
- Some support structures removed.
 - External office buildings and some maintenance facilities.
- Large transformers and the non-safety cooling towers removed.

Consideration of restart

A comprehensive evaluation is underway to assess systems status for resuming operations at the plant.



- Restoration of plant systems to ensure the facility's safety, security and reliability.
- Training and hiring qualified personnel to operate the facility.
- Nuclear Regulatory Commission licensing.



- Restore plant equipment to operational status.
- Upgrade equipment, as needed.
- Environmental reviews under federal regulation.
- Renewing state and local permits for operations.
- Increasing the plant's resiliency to severe weather.

Duane Arnold facility work

Initial facility inspections demonstrate feasibility

Facility restoration plans

- Detailed inspection will be conducted.
- Proactive equipment refurbishment/upgrades to address obsolescence and assure reliability.
- Rebuild cooling towers, training center and additional maintenance facilities.
- Restore security features.

Restart readiness

- Perform all preventative maintenance tasks to make them current.
- Perform all technical specification surveillances to make them current.
- Perform all necessary inspections of components.

Adopt NextEra Energy fleet programs and procedures

- Engineering programs.
- Quality assurance program.
- Fleet emergency plan.

Duane Arnold facility work

Major inspections

- Reactor vessel.
- Reactor coolant system.
- Containment.
- Aging management program.
- System restoration plans.

Major work

- Cooling towers.
- Training center.
- Transformers.
- Refurbishment of pumps and motors.
- Plant computer.
- Restore licensing basis.

Duane Arnold restart regulatory path

- **Licensing path to restart letter outlines process to assure predictability and efficiency (following the same regulatory path as Palisades Nuclear Generating Station and the Crane Clean Energy Center).**
- **Reinstate current licensing basis at the time of shutdown.**
- **Submit subsequent license renewal (SLR) application concurrent with performing all SLR inspections and remediations, if necessary.**

Preliminary submittals schedule

Q3 2025

- License amendment to restore technical specifications.
- Updated final safety analysis submittal.
- Operator licensing program submittal.



Q4 2025

- Security plan.
- Cybersecurity plan.
- Emergency plan.
 - Including FEMA review and alert and notification system design report.
- Transitional quality assurance plan.



Q1 2026

- Application for subsequent license renewal, including environmental.
- Adopt fleet quality assurance program.
- Assess commitments and industry initiatives for reinstatement.

Q2 2026

- Miscellaneous submittals for rescission of exemptions for decommissioning.
- Reinstatement of commitments.



Q1/Q2 2028

- Operational readiness letter.
- NRC authorization to support reactor fuel loading.

Q4 2028

- Estimate restart of commercial operations.



Staffing and qualifications

- Initial Duane Arnold staffing to be combination of previous site personnel, some transferring fleet personnel and new hires.
- Training programs are being reconstituted, based on current NextEra Energy fleet programs.
- Operator training will be a priority to assure sufficient staffing for initial fuel loading and start-up.
- Maintenance and technical training programs.
- Security training.
- Emergency response organization training.

Duane Arnold will be fully integrated into NextEra Energy's nuclear fleet of four operating facilities

Questions?



