



Nuclear: Today, Tomorrow and for the Future

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New Nuclear Generation & License Renewal



THREE NUCLEAR STRATEGIES



- **TODAY**, continue safe, reliable, innovative and efficient operations
- **TOMORROW**, extend the operational life of our nuclear fleet and produce more energy by upgrading components through power uprates and gaining efficiencies through 24-month refueling cycles
- For the **FUTURE**, pursue new nuclear generation options to modernize our system and meet the growing needs of our customers

Nuclear generation is the only clean energy source that is always on and available 24 hours a day, complementing renewables like solar.

2025

THE NUMBERS BEHIND
DUKE ENERGY NUCLEAR

Nuclear for a Reliable Energy Future

 **11**
UNITS

 **6**
LOCATIONS

27 
Consecutive Years
with $\geq 90\%$
CAPACITY FACTOR


MORE THAN
\$281M
IN TAXES IN 2025

AVOIDED RELEASE OF
37 APPROXIMATELY
MILLION TONS
OF CO₂

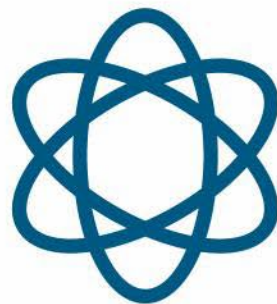
97%
ON & OPERATING
(CAPACITY FACTOR) 

Nearly **4,300**
 employees

Provides more than
50% of the 
TOTAL ELECTRICITY
and more than **90%** of the
CLEAN ENERGY

POWER TO OVER **8 million**
homes 

Nearly
11,000 
Megawatt Generation Capacity



Tomorrow

Power Upgrades: 291 MW = 1 small modular reactor



Brunswick Nuclear Plant
Add 20 MW by 2029



McGuire Nuclear Station
Add 150 MW by 2030



Catawba Nuclear Station
Add 75 MW by 2031



Oconee Nuclear Station
Added 46 MW in 2024

Subsequent License Renewals



- Extending the operational licenses of all 11 units from 60 up to 80 years
- **March 2025:** Received renewed licenses for all three units at Oconee Nuclear Station
- **April 2026:** Received a renewed license for Robinson Nuclear Plant's unit
- **Year-end 2026:** Submit Brunswick Nuclear Plant's application

2026 Carolinas Resource Plan

Continue Nuclear Optionality

- Second-mover strategy
- Licensing activities
- Technology assessments
- Site evaluations

Modeling – 2037

- 1,117 MW from one large light-water reactor at the Lee nuclear site in South Carolina
- 600 MW from two small modular reactors at Belews Creek nuclear site in North Carolina

Near-Term Actions

- **Lee nuclear site, Cherokee County, S.C.:** Develop a license amendment request to revise the combined licenses to match the as-built configuration of Vogtle unit 4 in Georgia
- **Harris nuclear site, Wake County, N.C.:** Evaluate required updates to the combined license application, including extensive engineering analyses and licensing work to update the environmental report and site safety analysis report
- **Belews Creek nuclear site, Stokes County, N.C.:** Support the Nuclear Regulatory Commission's ongoing review of the early site permit application submitted on Dec. 30, 2025

Duke Energy has not selected a site or reactor technology, and the company has not committed to building new nuclear units

Needs: Completed design; customer protections; cost and schedule certainty; and federal cost incentives to mitigate financial risk for customers

New Nuclear Generation Options

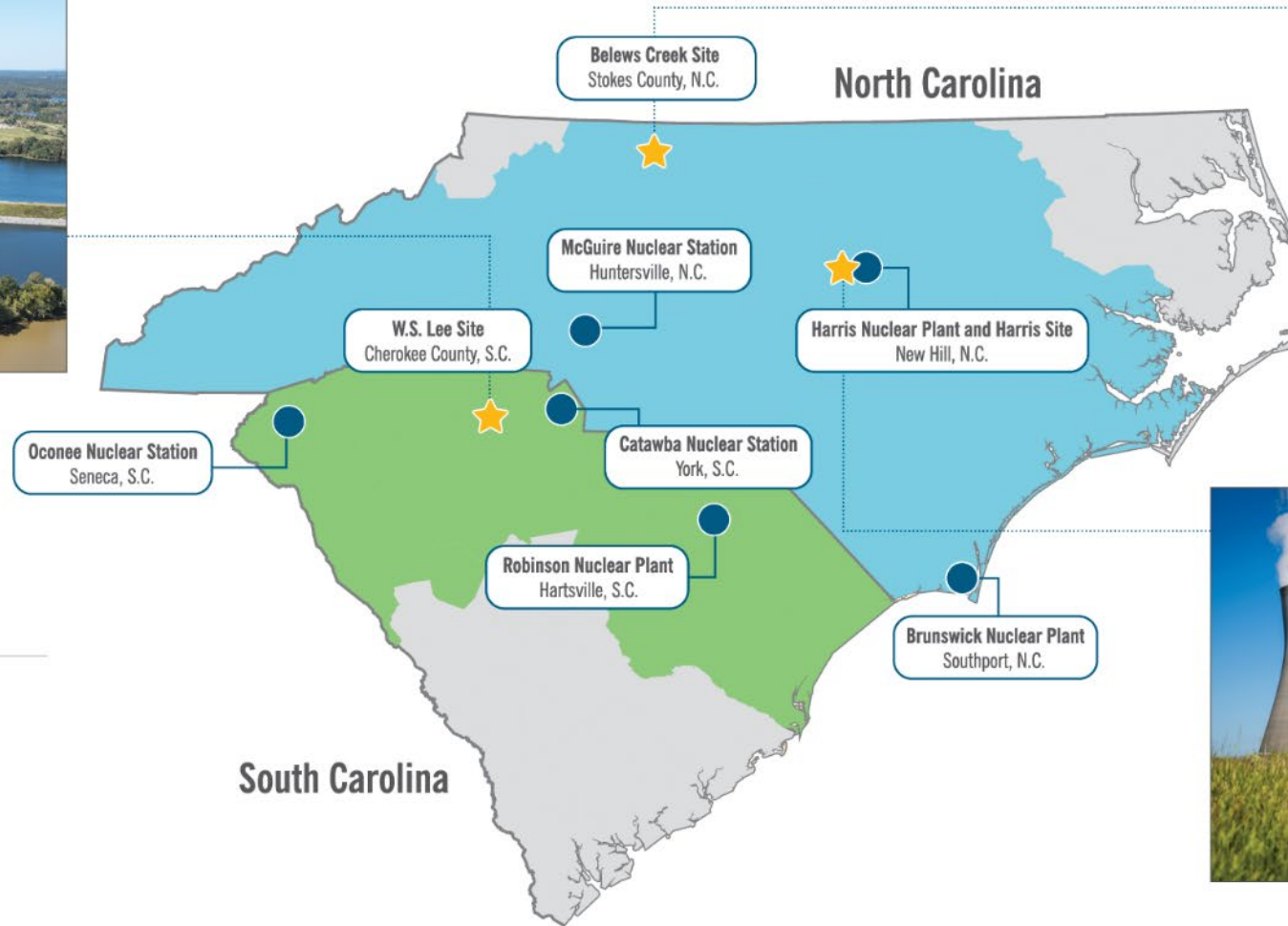
W.S. Lee Site



Belews Creek Site



Harris Site



Legend

- Existing nuclear sites
- ★ New nuclear generation sites



Lee Nuclear Site

Cherokee County, S.C.



Cherokee Nuclear Station: 1970s – 1980s



1970s

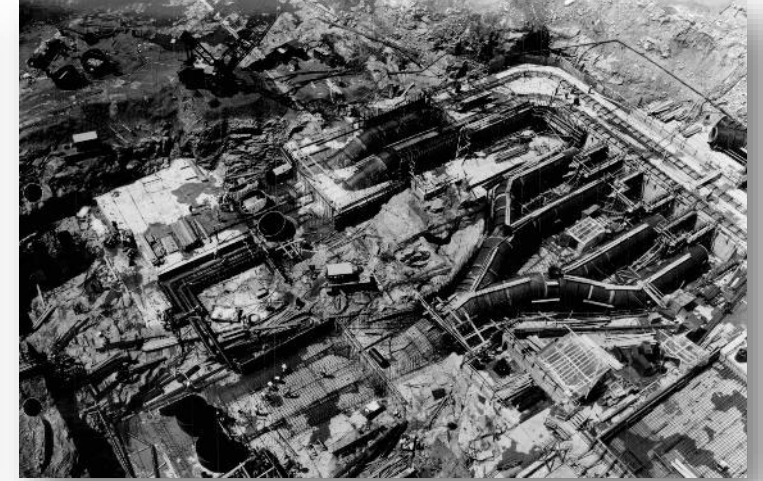
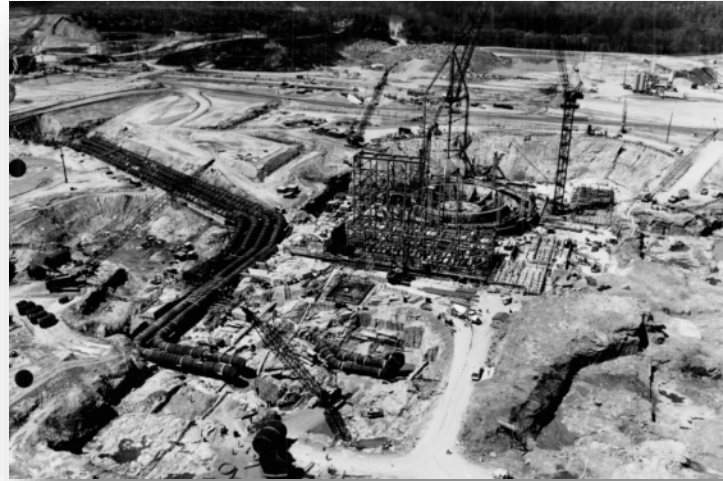
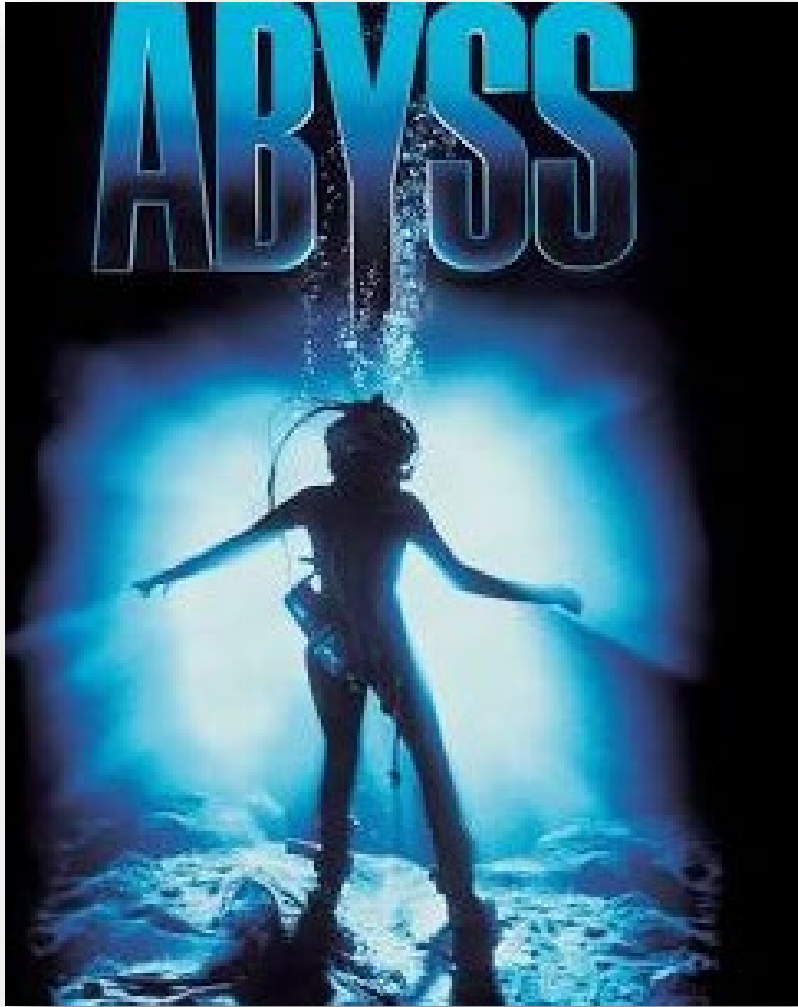
- **1974:** Duke Power submitted a construction application to the Atomic Energy Commission; in-service of first unit planned in 1982
- **1977:** Received construction permit for three Combustion Engineering 1,280-MW System 80 pressurized water reactors and started construction
- **March 1979:** Event occurred at Three Mile Island in Pennsylvania, creating new federal regulations and escalating costs
- **June 1979:** Announced delay of unit 1 to 1987 and unit 2 to 1989



1980s

- **1982:** Canceled unit 2 and unit 3 before starting construction
- **1983:** Canceled unit 1 with construction about 17% completed
- **1985:** Sold 2,000-acre site to Earl Owensby Studios for \$2 million
- **1988-1989:** The movie The Abyss is filmed at the site
- **1990s:** Property sold to a real estate company that marketed the land as river-front

Cherokee Nuclear Station | Cherokee County, S.C.



Lee Nuclear Site History: 2005 – today



2005-2006

- Southern buys the site from the real estate company (Mark V Development)
- Duke Energy enters agreement with Southern to jointly develop a combined license application
 - Southern: 45% ownership of unit 1
 - Duke Energy: 55% ownership of unit 1, 100% ownership of unit 2

2007

- Southern withdraws from the project; Duke Energy buys property and Southern's 45% interest
- Duke Energy submits combined license application to NRC to construct and operate two Westinghouse AP1000 units



2016

- NRC issues two combined licenses to construct and operate two AP1000s at the site

2017

- Work stops due to market conditions
- Significant engineering work is completed, e.g., engineering design for systems, structures and components
- Maintenance of licenses continues

Today

- Developing a license amendment request to revise the combined licenses to reflect the as-built configuration of Vogtle unit 4

Lee Nuclear Site



Today



Potential Future Option

Today: Developing a license amendment request to revise the combined licenses to reflect the as-built configuration of Vogtle unit 4

Timeline: Large Light-Water Reactors

Lee Nuclear Site



DUKE ENERGY LICENSING PATH

< 2 Years

Submit LAR
to Revise COLs

Receive
Updated
COLs



DUKE ENERGY CONSTRUCTION

1 Year

2.5 - 3 Years

5.5 - 8 Years

1 Year

Ensure Long-Lead Equipment
Ordered and Start Front-End
Engineering and Design

Start Site
Preparations

Pour First Nuclear
Concrete, Marking the
Start of Construction

Start Fuel
Loading and
Low-Power
Testing Unit 1

Achieve
Commercial
Operation
Unit 1

Achieve
Commercial
Operation
Unit 2



*BUILDING A **SMARTER** ENERGY FUTURE®*