Oklahoma
Interim Study

October 31, 2023

Dr. Rita Baranwal
Senior Vice President

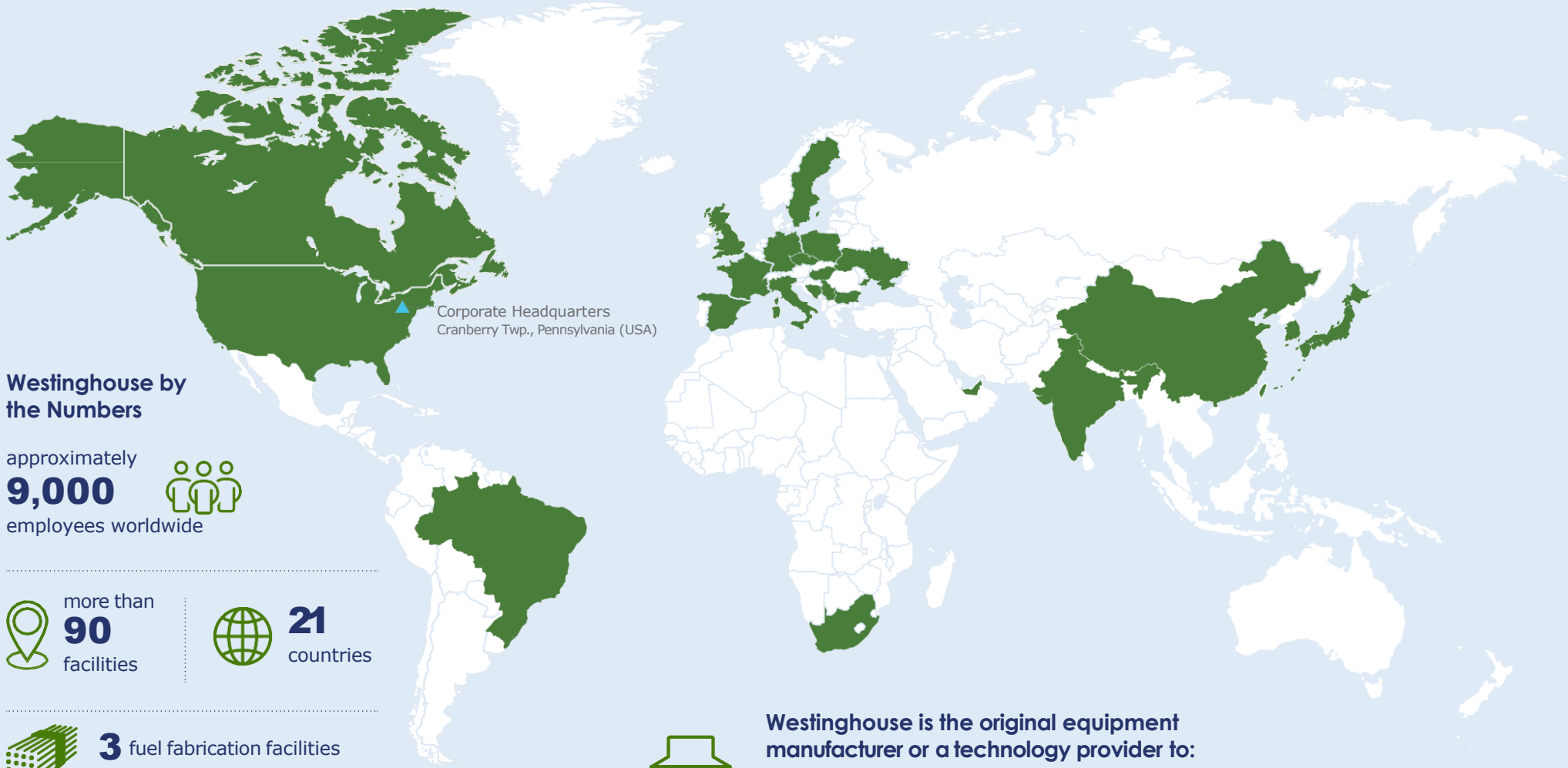
Westinghouse

Westinghouse

global presence

Legend

- Corporate Headquarters
- Countries with Westinghouse Presence



Westinghouse by the Numbers

approximately **9,000** employees worldwide

more than **90** facilities

21 countries

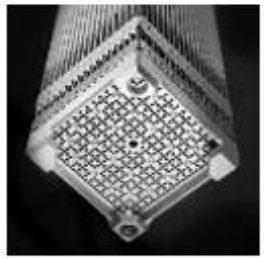
3 fuel fabrication facilities

Westinghouse is the original equipment manufacturer or a technology provider to:

~50% of the global nuclear reactor fleet, delivering capacity of ~190,000 carbon-free MWe

Westinghouse

Global Products & Services **Portfolio Snapshot**



Nuclear Fuel

Instrumentation & Control

Staffing Services

Components & Manufacturing

Field Services and Plant Modifications

New Plants

Engineering Services

Decontamination & Decommissioning Solutions

Project and Engineering Services

Westinghouse

Energy Systems

A portfolio of innovative nuclear solutions

AP1000® PWR

1100+ MW_e

Most advanced nuclear technology operating in the world today with record-setting performance

TECHNICAL CAPABILITIES

- Passive Safety Systems
- Simplified Active Systems
- Proven NSSS Components; Canned Motor Pumps
- Compact Footprint
- Modular Construction
- Digital I&C and Advanced Control Room
- Load Follow Capability
- Global Licensing Pedigree

AP300™

300 MW_e

Only SMR based on deployed, operating & advanced reactor technology

TECHNICAL CAPABILITIES

- 300MWe (990MWth) 1-loop PWR with demonstrated reliability
- Based on the fully licensed & operating AP1000 technology
- Utilizes identical passive safety systems used in the AP1000 reactor to maintain safe shutdown condition
- Ultra-compact, simplified design reduces construction timeframes
- Maximizes use of established supply chain
- Less than 0.4 acres needed for safety related buildings

eVinci Microreactor™

5 MW_e

Microreactor designed for safe and reliable electricity and heat generation

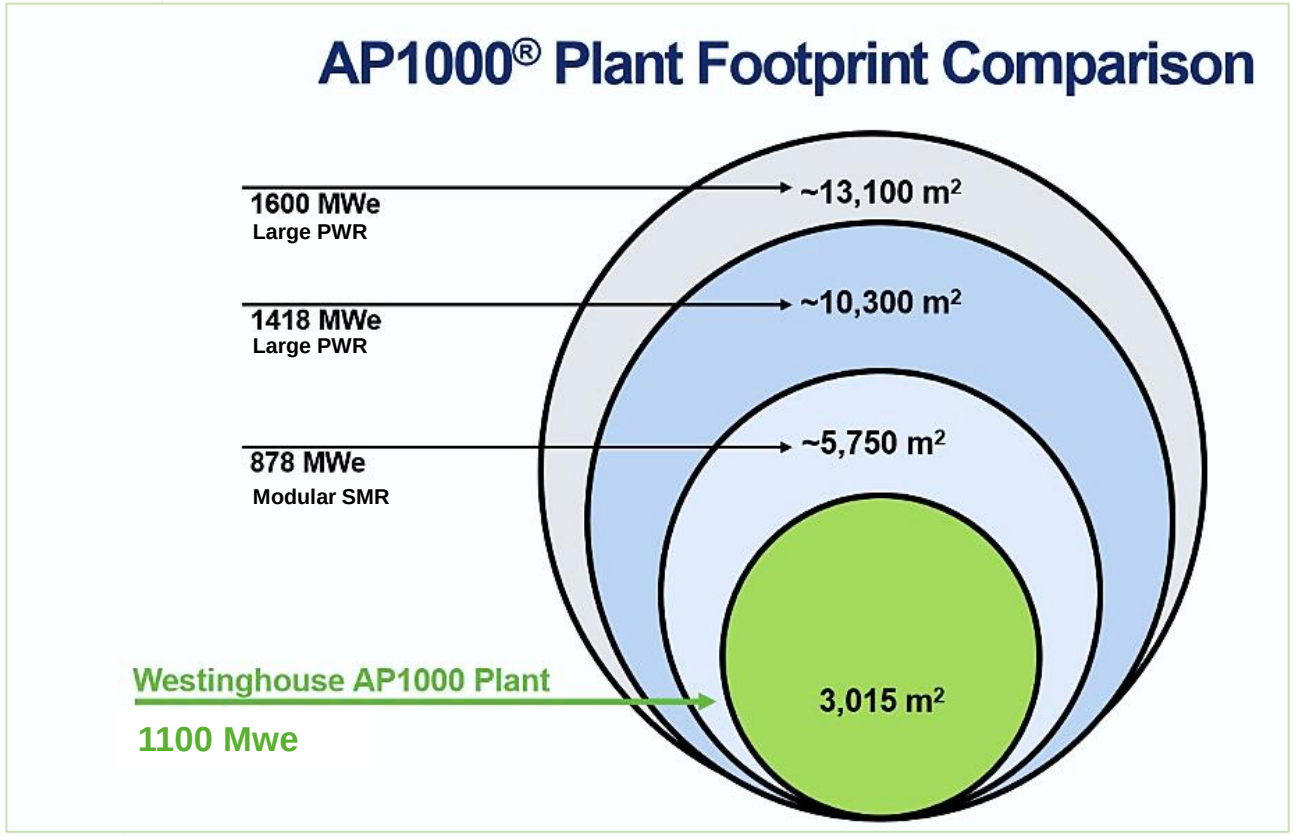
TECHNICAL CAPABILITIES

- 5 MWe + ~8MWth @ 200C cogeneration
- Minimum 8 year refueling cycle
- Transportable for ease of installation and elimination of spent fuel storage on site
- Cost-competitive plant lifecycle
- Minimal onsite personnel
- Mature technology, manufacturing, and regulatory readiness
- High speed load following capability

AP1000 Technology

Safe, simple, proven

- **Generation III+ plant**; most advanced in operation today
- **Fully passive safety systems** and 72+ hour coping after station blackout
- Optimized design utilizing **advanced modular construction**
- **Licensed by nuclear regulators** in Europe, USA, and China
- **Record-setting** operational performance
- Advanced, **load-following** capabilities
- **Safe, clean, reliable energy**



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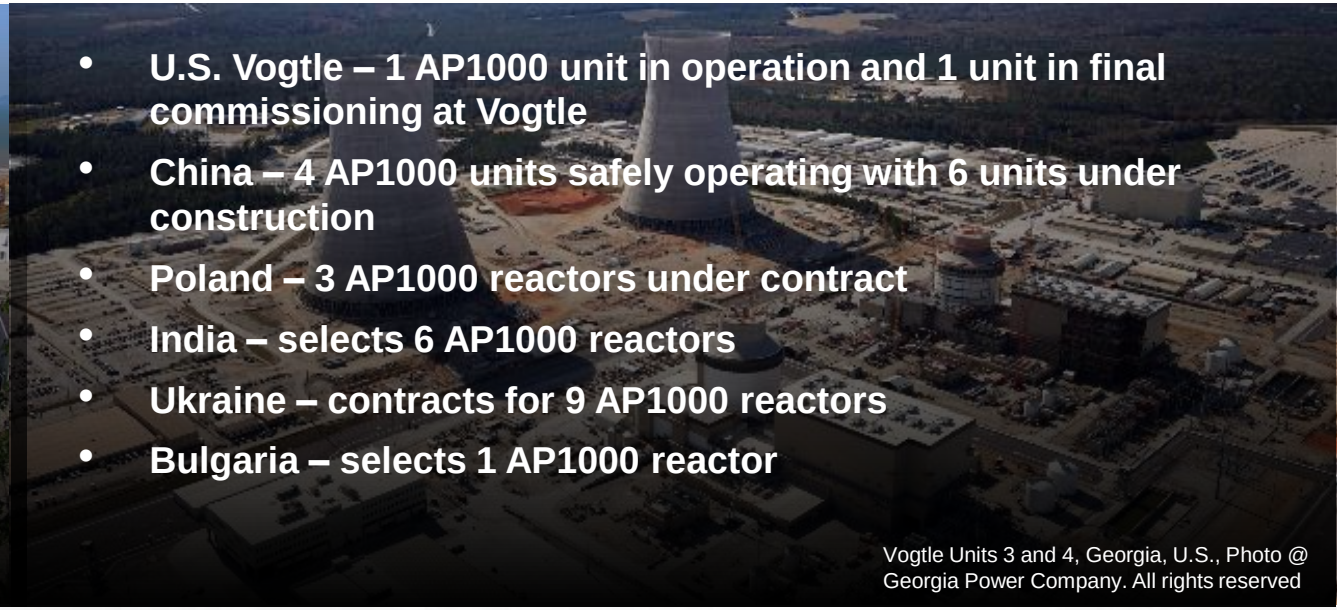
AP1000 Technology

Record-setting operations

Sanmen 1, a Westinghouse AP1000 Technology, received a perfect score by the World Association of Nuclear Operators (WANO)*

Sanmen Site, China
Photo © Sanmen Nuclear Power Company, Ltd. All rights reserved



- **U.S. Vogtle – 1 AP1000 unit in operation and 1 unit in final commissioning at Vogtle**
- **China – 4 AP1000 units safely operating with 6 units under construction**
- **Poland – 3 AP1000 reactors under contract**
- **India – selects 6 AP1000 reactors**
- **Ukraine – contracts for 9 AP1000 reactors**
- **Bulgaria – selects 1 AP1000 reactor**

Vogtle Units 3 and 4, Georgia, U.S., Photo @ Georgia Power Company. All rights reserved

**WANO assesses nuclear power plants in terms of nuclear safety, power generation, effectiveness, equipment reliability, etc.*
***Information courtesy of Southern Company*

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AP300 SMR

Only SMR based on deployed, operating & advanced reactor technology

Proven Technology

20 AP1000 reactor-years of safe operations

Based on the fully licensed & operating AP1000 technology.

Advanced Safety

More than **30** years licensing advanced passive technologies with global regulators

We pioneered passive safety systems. AP300 utilizes identical passive safety systems used in the AP1000 reactor to maintain safe shutdown condition.

Readily Deployable

Less than **0.4** acres needed for safety related buildings

Ultra-compact, simplified design reduces construction timeframes. Maximizes use of established supply chain.

Proven Technology

Leveraging AP1000 technology with demonstrated industry leading reliability

300MWe (990MWth) 1-loop PWR with demonstrated reliability

Westinghouse AP1000 reactor passive safety technology

Reduces overall components creating a simpler plant compared to other SMRs

Identical Technology as AP1000 including:

- **Design & licensing methodologies**
- **Major equipment & components**
- **Passive safety systems**
- **Proven Fuel**
- **I&C systems**
- **Proven Supply Chain**
- **Constructability lessons learned**
- **Steel-Composite structural modules**
- **O&M procedures & practices**
- **Fast load follow capabilities**

Readily Deployable by 2030's

Proven pedigree throughout the plant lifecycle ensures deployment & operations success

Technology Readiness

Tens of millions of hours dedicated to AP1000 reactor development

5 AP1000 reactors operating, 1 nearing completion, more pending

Licensing Certainty

Based on licensed & operating AP1000 technology, the only technology to be fully licensed by the U.S NRC

Established Supply Chain

Incumbent AP1000 suppliers can deliver major equipment

Demonstrated capability to localize supply chain

Modular Construction

Simplified, modular, ultra compact nuclear island (costliest portion of any reactor) reduces construction costs/schedule

Reliable O&M

Record setting AP1000 operational & outage performance

Targeting **+80-year** life cycle

AP300 SMR Advantage

AP300 SMR reduces development risks and increases market potential

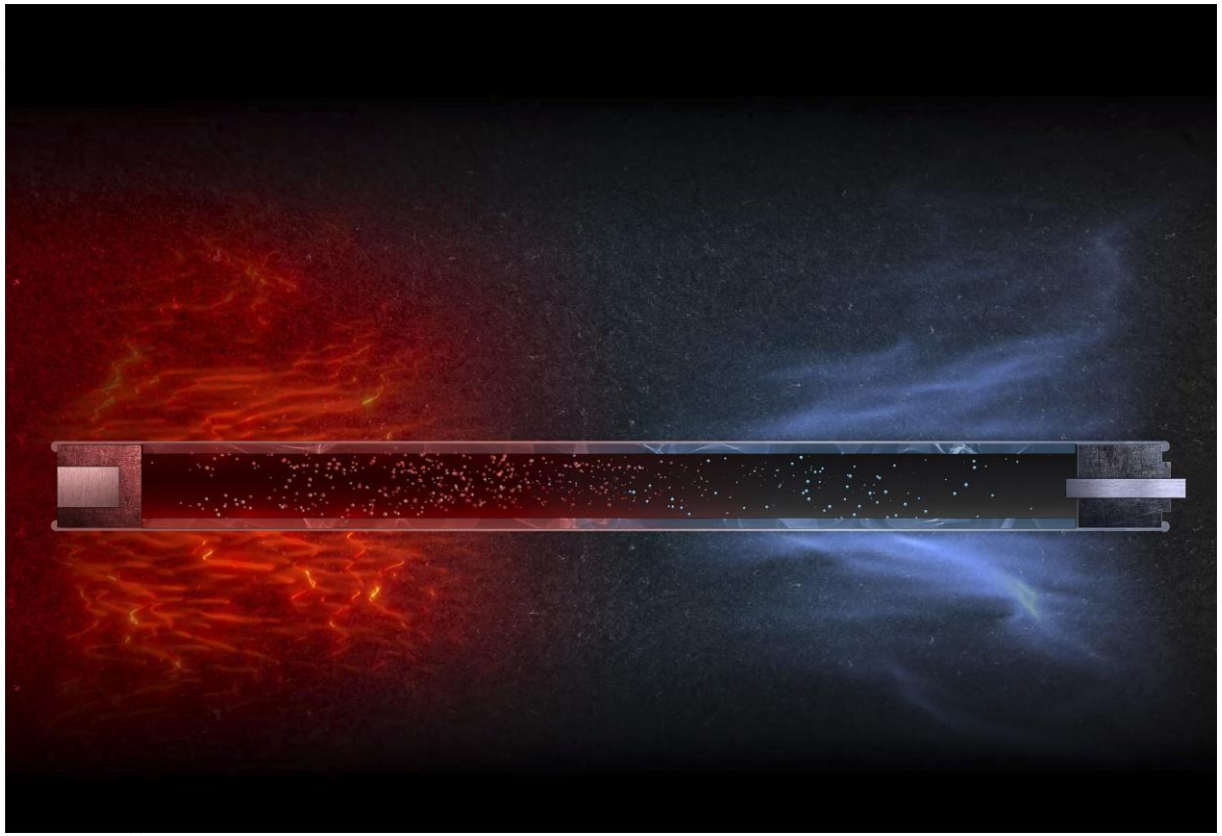
	Key Factors	Competitor #1	Competitor #2	Competitor #3	Competitor #4	Competitor #5	Westinghouse AP300™ SMR
DEVELOPMENT RISKS	Design & Technology	Low	Medium	Medium	Medium	Medium	**Low**
	Full Licensing	Low	Medium	Medium	Low	Low	**Low**
	Fuel Cycle	Low	Low	Low	Low	Low	**Low**
	Skills Availability & Supply Chain Maturity	Medium	Medium	Medium	Medium	Medium	**Low**
MARKET POTENTIAL	Design for manufacturability & construction	++	++	+	+	+	+++
	Cost Competitiveness & LCOE	+++	++	+	+	+	+++
	Utility Market: O&M synergies	++	+	+	++	+	+++
	Versatility: electricity, steam, H_2, Storage	++	+++	+++	+++	+++	+++

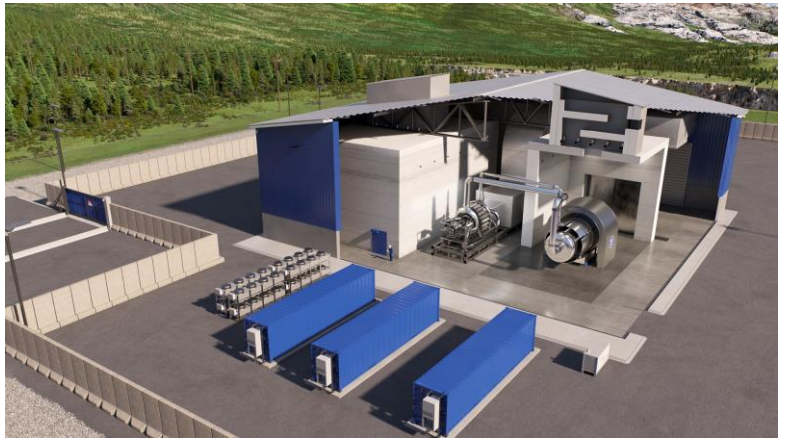
eVinci Microreactor

Clean energy beyond the grid

Nuclear battery designed for safe and reliable clean energy generation

- **5 MWe with ~7MWth @ 170º C usable heat**
- ~13.5MWth @ >700º C heat only
  - Commercial deployment before end of this decade
- **8+ years of operation without refueling**
- Transportable for ease of installation and elimination of spent fuel storage on site
- **Cost-competitive plant lifecycle**
- Minimal site construction and onsite personnel
- High speed load following capability





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eVinci Microreactor

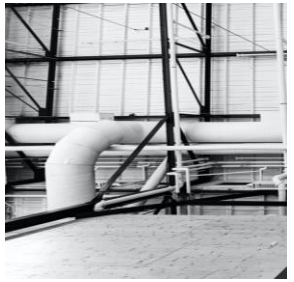
Combined heat and power capability

eVinci Microreactor

Distributed energy wherever it's needed

Remote Mining Operations

Industrial Process Heat



District Heating

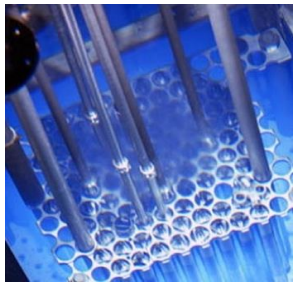
Off-grid Communities

Hydrogen Generation

Universities

Strategic Military Installations

Critical Infrastructure



Research Reactors

Thank You

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