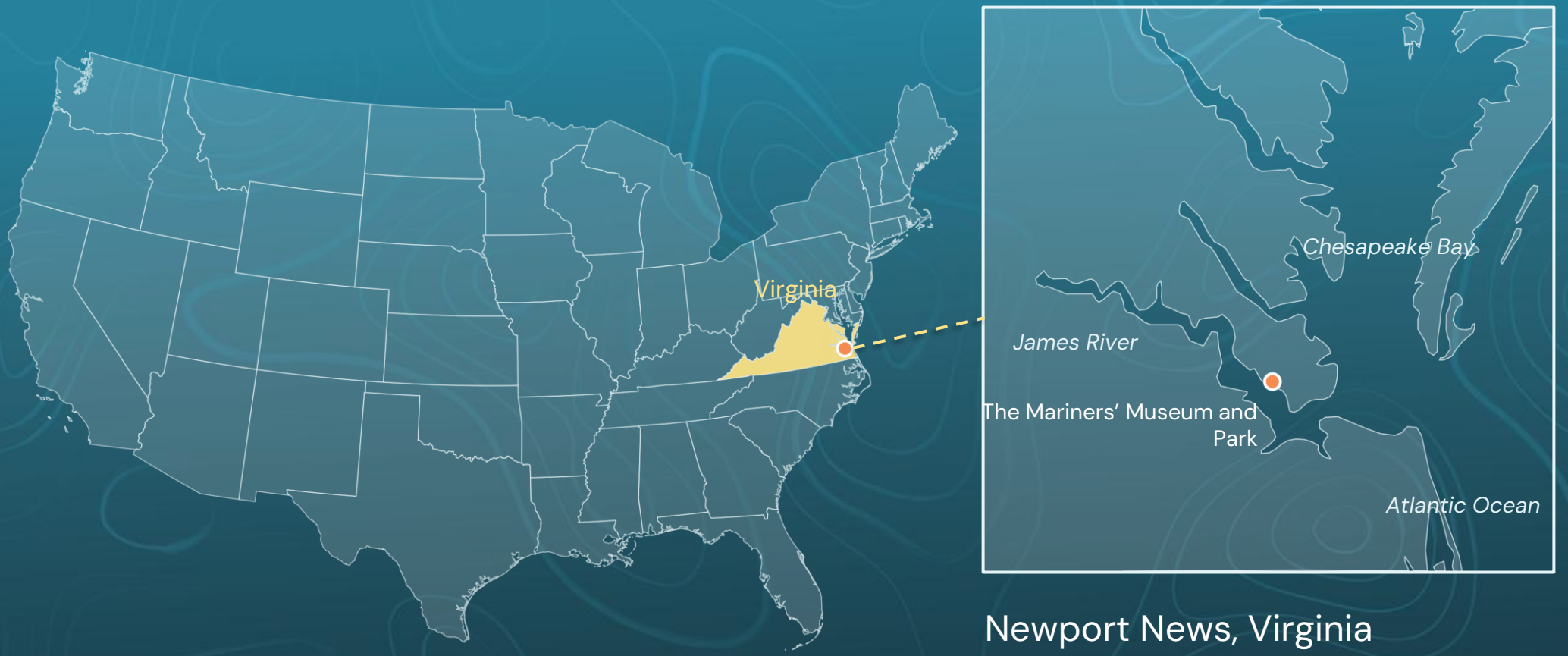
The Mariners' Museum and Park®

Starting Our Decarbonization Journey

Sabrina Jones, Senior Director of Advancement
Buildings, Energy, and Decarbonization Panel

Where We Are



Newport News, Virginia

Hampton Roads, where the James River meets the Chesapeake Bay

Map data: Natural Earth

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Who We Are

1930

Founded by Archer M. Huntington and Homer L. Ferguson

120,000

Square feet of public and gallery space

550

Acre Park, free and open to the public

200+

Tons of USS Monitor artifacts in our care



Then and now: the main entrance in 1941, and the figurehead gallery in 2022. The Mariners' Museum and Park

Designated by Congress as America's National Maritime Museum, one of only two institutions with that designation

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A Campus, Not a Single Building



The campus at sunset, with the James River beyond. The Mariners' Museum and Park

- Museum galleries, Library & Archives
- USS Monitor Center
- Mariners' Park, Mariners' Lake®, and Noland Trail

9 buildings, 217,920 gross square feet

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Why Our Energy Needs Are Different



The USS Monitor turret conservation tank and the Crabtree gallery, 2022. The Mariners' Museum and Park

Collections set the rules

Galleries and storage need stable temperature and humidity, every hour of the year

Conservation runs around the clock

Large-scale artifact treatment depends on continuous power

Aging equipment

64% of our air handlers are 20+ years old, with the oldest dating back to 1980

A coastal site

Flooding and storms put mechanical systems at risk

Every efficiency decision has to protect the collection first.

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Case Study: The USS Monitor Center



Conservation work inside the USS Monitor turret, 2025. The Mariners' Museum and Park

$30M

Capital campaign, the largest in our history

$10M

Bond to cover remaining costs, still being repaid

63,500

Square feet of new construction

How it came together

- Opened in 2007, built in partnership with NOAA
- Campaign support included a Kresge Foundation challenge grant
- 20,000 sq ft of conservation labs and classrooms

What it means for energy

Shares the campus central plant, whose steam boilers date to 1985 and 1987

Our audit couldn't break out its energy use on its own

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A Decade Between Major Investments

2007

USS Monitor Center opens

$30M campaign

$10M bond, still being repaid

The decade that followed

$5M P&E Fund

Paid for:

- New air handlers
- Automation upgrades
- LED lighting
- Lighting sensors
- Sensor faucets

Also covered operations in lean years. Now depleted.

2025 to today

Data, then investment

$25K grant for an energy audit

$1.5M for energy upgrades

$124K leveraged from NMSF

Project-by-project upgrades kept our systems running, but drew down our reserves.

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What We Learned from Our Energy Audit

$7,500

The cost of our 2025 ASHRAE Level II energy audit, a small investment that will guide our long-range decarbonization plans

Not all audits are equal

What to expect:

- Walk them around
- Choose the right team member who knows the systems
- Know how you will track the energy data

What it told us: natural gas heating is our biggest energy use, and where our biggest opportunities are

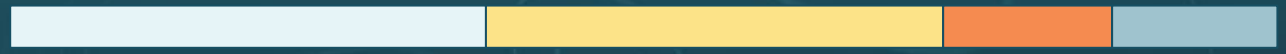
What an energy audit doesn't tell you: what to do first.

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Case Study: Leveraging a $1.5M Investment

What the $1.5M from a private foundation funds

- **$573K** — Five new air handling units
  Four serve collection spaces; one serves the NOAA Building
- **$551K** — A solar parking canopy
  One canopy, 84.8 kW DC
- **$203K** — Retro-commissioning and controls
  Valves, sensors, and controls to bring air handlers onto our building automation system
- **$199K** — Indirect costs (15%)
  Grant administration, plus moving collection objects to make room for installation



Total: $1,526,269

One investment is already helping to attract the next.

Leveraged next: National Marine Sanctuary Foundation

$124K grant

- Lighting upgrades in the USS Monitor Center
- A new electrical panel for the conservation lab, a big power draw

** Donor education & interest growing*

Timeline and sequencing

January 2026 to June 2027

1. New air handlers and controls
2. Solar canopy
3. Retro-commissioning

Sequenced by our strategy and matrix teams. Collection moves run all year, and some air handlers arrived late.

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Long-Term Plans: Where We Are

We are here

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Further along

Cincinnati Zoo & Botanical Garden



Assess

Benchmark energy use and building condition

Plan

Set goals, priorities, and governance

Fund

Align grants, donors, and incentives

Build

Deliver upgrades and new systems

Sustain

Measure, report, and improve

Starting out is an advantage: we can learn from peers and build the right foundation first.

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How We Manage Projects: Then and Now

Then

- Projects run by a small group: the CEO, development team, facilities lead, and an architect
- Affected departments and the people we serve were rarely included
- Planning in a vacuum, which helped lead to a major shortfall

Now

- A larger team, using lean principles to approach every project
- Cross-departmental matrix teams with everyone a project needs
- A strategy team of all leaders for long-range planning and sequencing

Final decision authority	The group decides together; the CEO makes the call if we can't agree
Where Advancement fits	Works with the CEO before every grant application to reflect strategy team priorities, and holds off if we're not ready

"If everyone is unhappy, we're on the right path." As our custom production director used to say

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Our Structure Today

Strategy Team

All leaders: long-range planning and the sequencing of activities

CEO | Facilities | Conservation | Collections Mgmt | Advancement | Finance | Education | Curatorial | Protection Services | Park | Library & Archives | HR

Matrix teams

Cross-departmental teams built around each project

Lean principles shape how every team scopes, tests, and improves its work

Next: a master site strategy for the whole campus, now in its earliest stages

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Lessons from the Starting Line

1

Start with data, not equipment

Our 2025 energy audit came before any major investment

2

Plan with the people affected

Planning in a vacuum cost us. Every affected department belongs at the table

3

Fund the full life of your systems

A $10M bond and a depleted $5M equipment fund taught us to plan beyond the build

4

Document as you go

Staff change. Records of systems, costs, and decisions should outlast them

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Thank you

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