Jefferson Lab has been an excellent investment for the Commonwealth:

- $44M in Virginia investments returned more than $2B in Federal funding since 1995 (as of 1/2014)
- $5M for Free Electron Laser (FEL) in mid-1990's leveraged $120M in Department of Defense research funds
- Virginia's $9M investment in 12 GeV Upgrade leveraged $338M in Federal funding – Upgrade now more than 80% complete
An Intellectual Engine for Virginia Universities

Jefferson Lab’s world leadership position has substantially strengthened Virginia universities in nuclear science and related research and technologies

- Eight Virginia universities are actively participating in Jefferson Lab research.

- Significant federal funding has been awarded to Virginia universities related to Jefferson Lab science and technology, allowing them to grow and advance leading research programs.

- Virginia universities have a key role in the 12 GeV Upgrade and research program (JMU, ODU, W&M, Norfolk State, University of Richmond, Hampton University, UVA, Va Tech) providing critical equipment or leading approved experiments.

- Currently 25 graduate students and two postdoctoral students are funded through JLab at Virginia universities.

- Five Virginia Universities have Joint Professors/Appointments at Jefferson Lab, and 23 of Jefferson Lab’s top scientists serve as faculty, adjunct faculty, and research faculty at Virginia universities.
• Created to build and operate the Continuous Electron Beam Accelerator Facility (CEBAF), world-unique user facility for Nuclear Physics:
  – Mission is to gain a deeper understanding of the structure of matter through advances in fundamental research in nuclear physics and through advances in photon science and related research
  – In operation since 1995
  – 1,356 active users
  – 176 completed experiments to date; 59 have been approved for the future 12 GeV program
  – Produces more than 1/3 of US PhDs in Nuclear Physics (419 PhDs granted, 204 more in progress)

• Managed for the Department of Energy (DOE) by Jefferson Science Associates, LLC (JSA)

• Human Capital:
  – 800+ FTEs
  – 23 Joint Faculty, 25 Post Docs, 14 Undergraduate; 30 Graduate Students

• K-12 Science Education Program serves as national model

• Site is 169 Acres, and includes:
  – 79 Buildings and Trailers; 704K Square Feet
  – Replacement Plant Value: $317M

FY 2012:
Total Lab Operating Budget: $98.0M
Total Lab Construction Budget: $62.3M
Total Non-DOE Budget: $12.0M
TOTAL: $172.3M
Electron Ion Collider - Facility for the Future

Nuclear Science Advisory Committee (NSAC) 2007 Long-Range Plan:

“An Electron-Ion Collider (EIC) with polarized beams has been embraced by the U.S. nuclear science community as embodying the vision for reaching the next QCD frontier. EIC would provide unique capabilities for the study of QCD[Quantum Chromodynamics] well beyond those available at existing facilities worldwide and complementary to those planned for the next generation of accelerators in Europe and Asia.”

• New $600M+ science construction project
• Competition with only one other Laboratory
• Would secure leadership position of Jefferson Lab in Newport News and in Virginia for many decades
Economic Impact of Proposed Facility

- As an engine of economic development, JLab’s science programs make a significant impact on the area, state and nation. With its 700+ FTE employment base, in 2011, the Lab generated:
  - $151 million income and more than 1,700 jobs statewide
  - $318 million income and nearly 2,700 jobs nationwide

- A 2014 study – updating the 2011 report by the Wessex Group Ltd., commissioned by Jefferson Sciences Associates – estimates that construction and initial operation of the EIC would create a cumulative **4,974 jobs** over seven to ten years in the Commonwealth of Virginia.

- The 2014 study also estimates that increased spending (direct and induced) resulting from ongoing operations of the new facility will be approximately $71.6M/year.
A Path to EIC Realization

Assumes endorsement for an EIC at the next NSAC Long Range Plan
Assumes relevant accelerator R&D for down-select process done around 2016

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SB30 includes $4.6M in the FY15 - FY16 biennium to help improve Virginia’s competitive position for the EIC:

- $1.3M in FY15 to initiate the site studies; $2.4M in FY16 to complete the site studies
- $0.4M in FY15 and $0.5M in FY16 to attract a leading scientist to Virginia

These investments are critical and attracting to attracting the EIC to Virginia.
Thank You!

Questions?