An Enduring Partnership

Daniel B. Poneman

President & CEO

Japan Atomic Industrial Forum

April 11, 2017

Forward-Looking Statements

Disclaimer: Our commentary and responses to your questions may contain forward-looking statements, including our outlook for the remainder of the year, and Centrus undertakes no obligation to update any such statement to reflect later developments. Factors that could cause actual results to vary materially from those discussed today include changes in the nuclear energy industry, pricing trends and demand in the uranium and enrichment markets and their impact on our profitability, the competitive environment for our products and services, the impact and potential extended duration of the current supply/demand imbalance in the market for low-enriched uranium, risks related to trade barriers and contract terms that limit our ability to deliver LEU to customers, risks related to actions that may be taken by the U.S. government or other governments that could affect our ability or the ability of our sources of supply to perform under contract obligations, including the imposition of sanctions, restrictions or other requirements, as well as those provided in our most recent Annual Report on Form 10-K and subsequent reports as filed with the SEC.

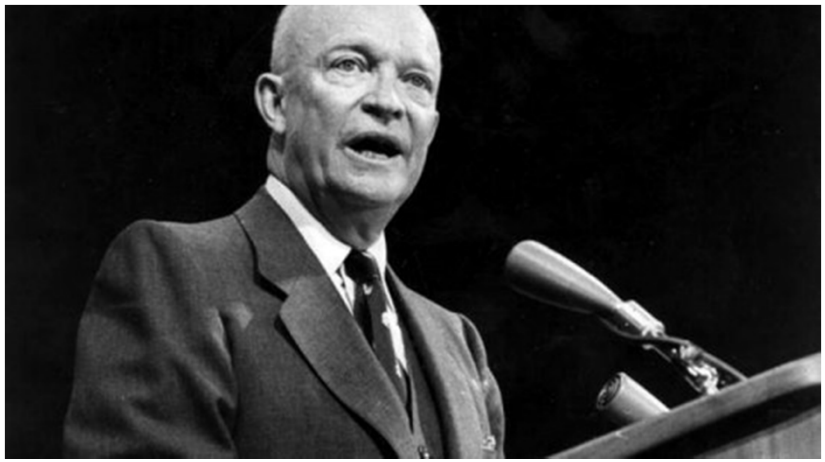
Industry / Market Data: Industry and market data used in this presentation have been obtained from industry publications and sources as well as from research reports prepared for other purposes. We have not independently verified the data obtained from these sources and cannot assure you of the data's accuracy or completeness.

History
1953 - 2017

Centrus
Fueling the Future of Nuclear Power

A New Partnership … and a Setback

December 1953: Atoms for Peace



- "…this greatest of destructive forces can be developed into a great boon, for the benefit of all mankind."

March 1954: Daigo Fukuryū Maru

- Fishermen exposed to radiation
- Strains U.S.-Japan relationship
- Stokes deep public concern, reflected in 1954 film Godzilla

Centrus
Fueling the Future of Nuclear Power

First Steps in a Lasting Partnership

June 1954: Cooperation Begins

U.S. Signs Atom Pact With Japan

WASHINGTON (INS)—The nation which developed the atom bomb and the only nation to suffer the devastation of its unleashed fury Tuesday initiated an agreement for the peaceful cooperative development of atomic energy.

Just short of 10 years after the United States blasted two Japanese cities with atomic bombs, the U.S. and Japan initialed a proposal for co-operation in research into the peaceful uses of the atom.

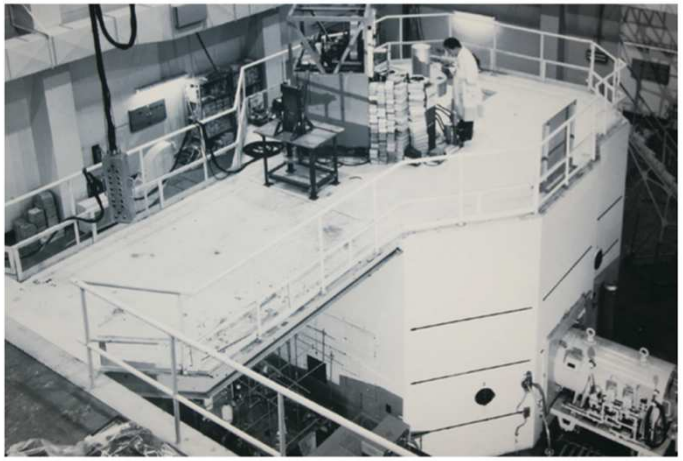
The agreement, the third signed by the U.S. with a Far Eastern nation, and the 21st with a foreign country, calls for the U.S. to:

Lease to Japan up to 13.2 pounds of enriched uranium containing a maximum of 20 per cent U-235, and,

Exchange unclassified information in the research reactor field and the use of radioactive isotopes.

- U.S./Japan to share technology and results of research
- U.S. provides enriched uranium

1957: First Reactor Online

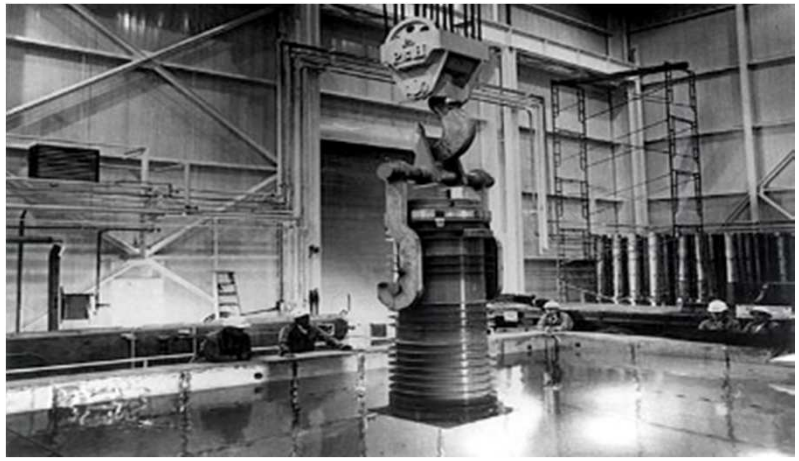


- Japan Research Reactor (JRR-1) built with U.S. partnership
- First reactor built with Japanese technology (JRR-3) in 1962
- First commercial reactor in 1966

Centrus
Fueling the Future of Nuclear Power

A Closed Fuel Cycle?

1956-1976: U.S. Pursues Reprocessing



- U.S. built three commercial reprocessing facilities
- Only one operated (1966-1972)

April 1977: Carter Reverses Course

- Disrupted nuclear energy cooperation with Japan
- Response: International Fuel Cycle Evaluation (INFCE)

Centrus
Fueling the Future of Nuclear Power

1980s and 1990s: Strong, Productive Partnership

1987: Renewing Cooperation

U.S., Japan sign nuclear agreement

From Wire Reports

TOKYO — The United States and Japan signed a 30-year nuclear cooperation pact Wednesday that gives Japan more autonomy in some areas of its nuclear energy program, officials said.

They stressed that the pact, which took five years to negotiate and replaces a 1968 agreement, does not allow Japan "blanket" freedom in its growing program. In some cases, it imposes more stringent controls.

U.S. Ambassador Mike Mansfield, who signed the pact with Foreign Minister Tadashi Kuranari, said the agreement "demonstrates our firm commitment to the future of civil nuclear energy under adequate safeguards and controls." His remarks were made available by the U.S. Embassy.

- 30-year agreement strengthened a long-term partnership
- Security concerns addressed

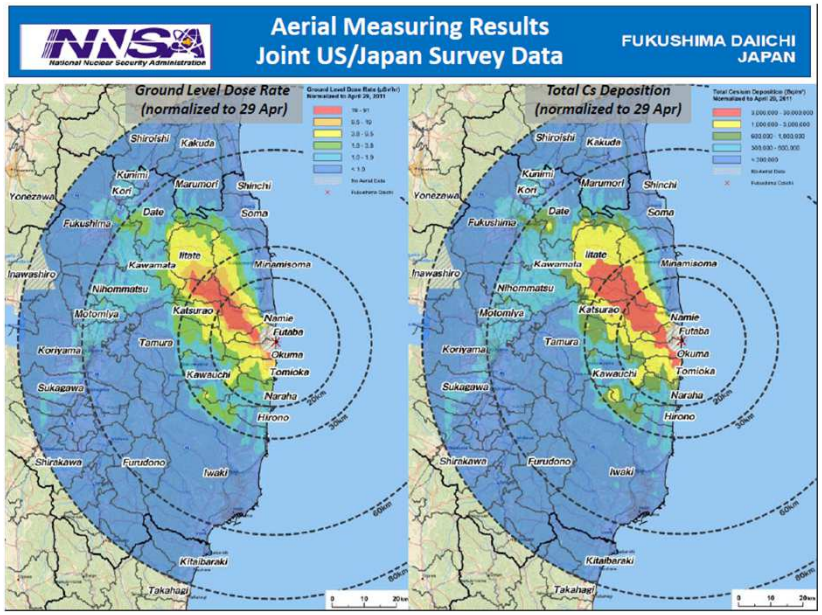
1993: U.S. Accepts Japanese Fuel Cycle

- 1970s lessons learned
- Avoided a new dispute over reprocessing
- New era of cooperation

Centrus
Fueling the Future of Nuclear Power

2011: Tragedy and Response

- U.S. provided immediate support:
  - Aerial radiation detection
  - High pressure water pumps & other equipment
  - U.S.S. Ronald Reagan (CVN-76)
- Significant technical assistance from U.S. national laboratories
- Supported by longstanding relationships



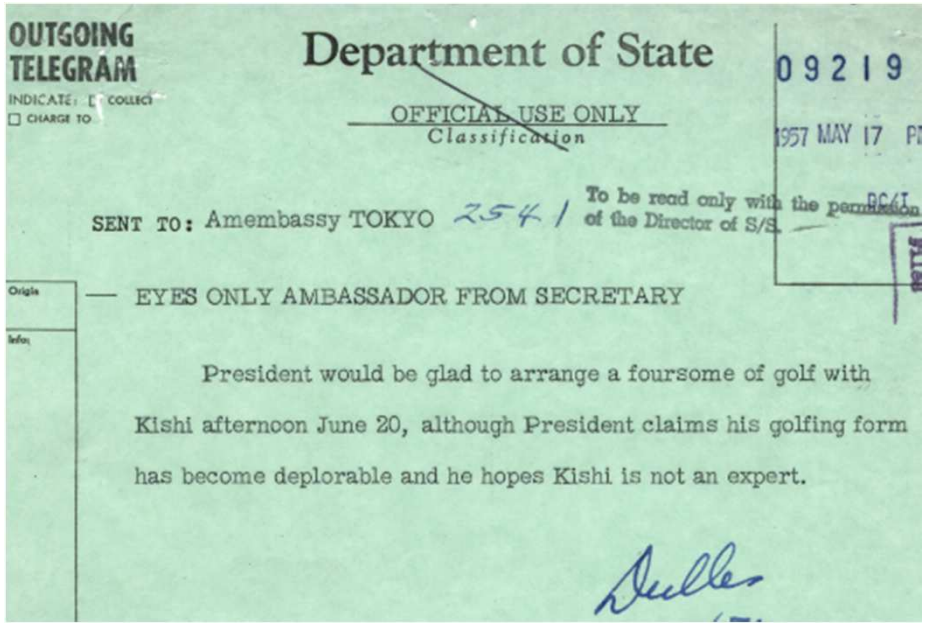
Lessons from History

Lesson #1:
Setbacks Can Be Overcome

- Relationship has endured challenges
  - Daigo Fukuryū Maru
  - April 1977 U.S. reversal
  - Fukushima
- Mutual interest in security, nonproliferation, environment, prosperity
- Apply lessons of Fukushima

Centrus
Fueling the Future of Nuclear Power

Lesson #2:
Personal Relationships Matter



OUTGOING TELEGRAM

INDICATE ☐ COLLECT
☐ CHARGE TO

Department of State

09219

OFFICIAL USE ONLY
Classification

1957 MAY 17 PM

To be read only with the permission of the Director of S/S.

SENT TO: Amembassy TOKYO 2541

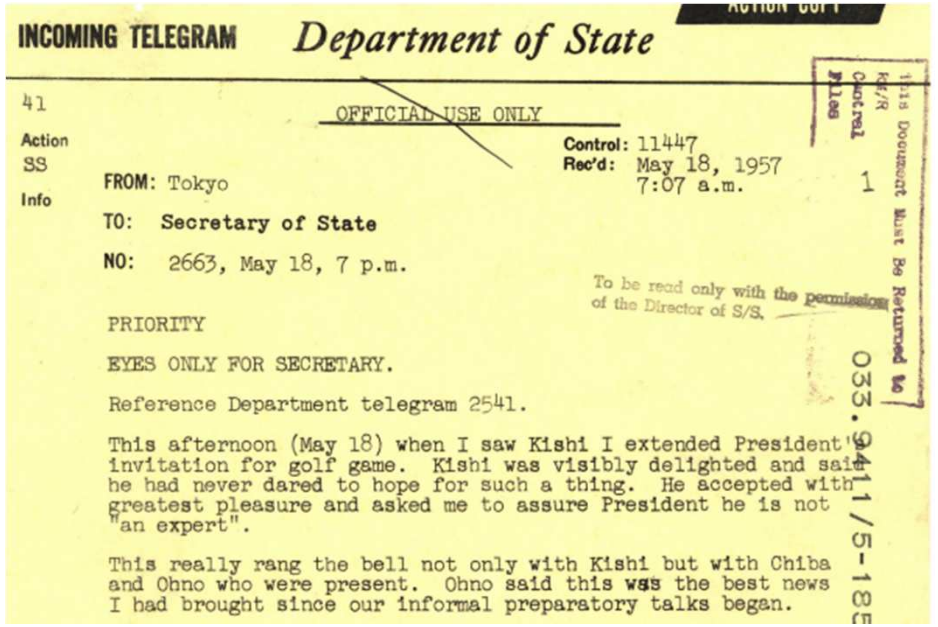
Origin

Info

— EYES ONLY AMBASSADOR FROM SECRETARY

President would be glad to arrange a foursome of golf with Kishi afternoon June 20, although President claims his golfing form has become deplorable and he hopes Kishi is not an expert.

Dulles



INCOMING TELEGRAM

Department of State

41

OFFICIAL USE ONLY

Action
SS

Info

Control: 11447
Rec'd: May 18, 1957
7:07 a.m.

FROM: Tokyo

TO: Secretary of State

NO: 2663, May 18, 7 p.m.

To be read only with the permission of the Director of S/S.

PRIORITY

EYES ONLY FOR SECRETARY.

Reference Department telegram 2541.

This afternoon (May 18) when I saw Kishi I extended President's invitation for golf game. Kishi was visibly delighted and said he had never dared to hope for such a thing. He accepted with greatest pleasure and asked me to assure President he is not "an expert".

This really rang the bell not only with Kishi but with Chiba and Ohno who were present. Ohno said this was the best news I had brought since our informal preparatory talks began.

Control Files

033.9411/5-1857

Centrus
Fueling the Future of Nuclear Power

The Return of Golf Diplomacy

1957: Kishi and Eisenhower

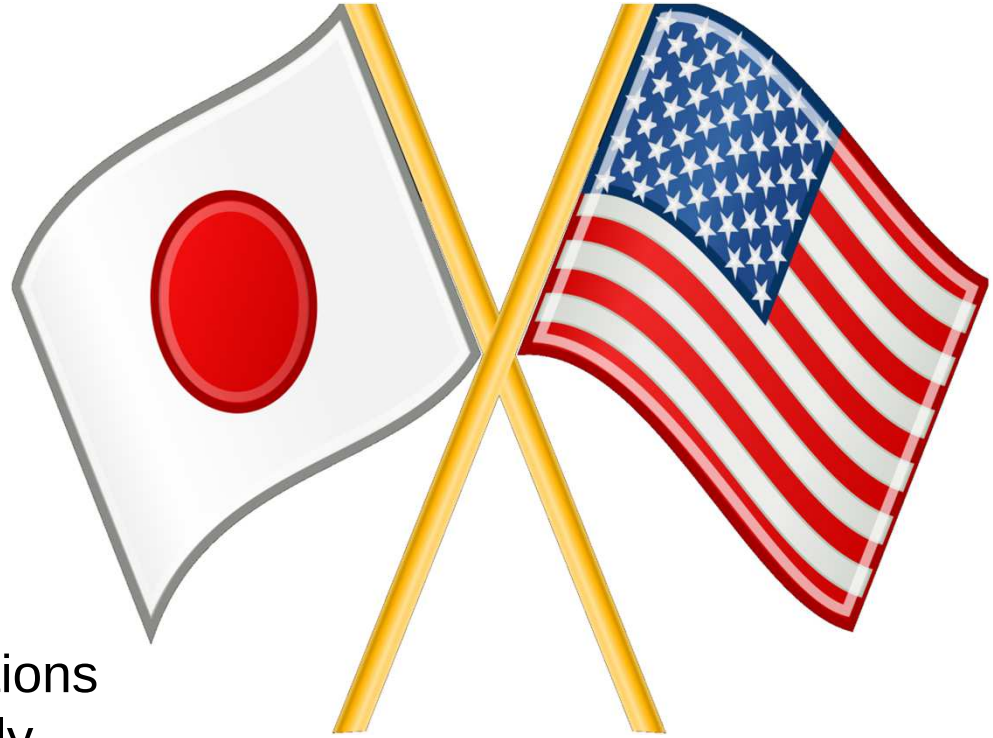
2017: Abe and Trump

Donald J. Trump @realDonaldTrump · Feb 11
Having a great time hosting Prime Minister Shinzo Abe in the United States!
facebook.com/DonaldTrump/po...

Centrus
Fueling the Future of Nuclear Power

Lesson #3:
Focus on First Principles

- Common values:
  - Democracy
  - Opportunity
  - Environment
- Common interests:
  - Security
  - Nonproliferation
  - Prosperity
- Partnership strengthens both nations to compete regionally and globally



Centrus
Fueling the Future of Nuclear Power

What Future Will We Choose?

Centrus
Fueling the Future of Nuclear Power

Two Possible Futures

2027: Japan and U.S. Exit Nuclear

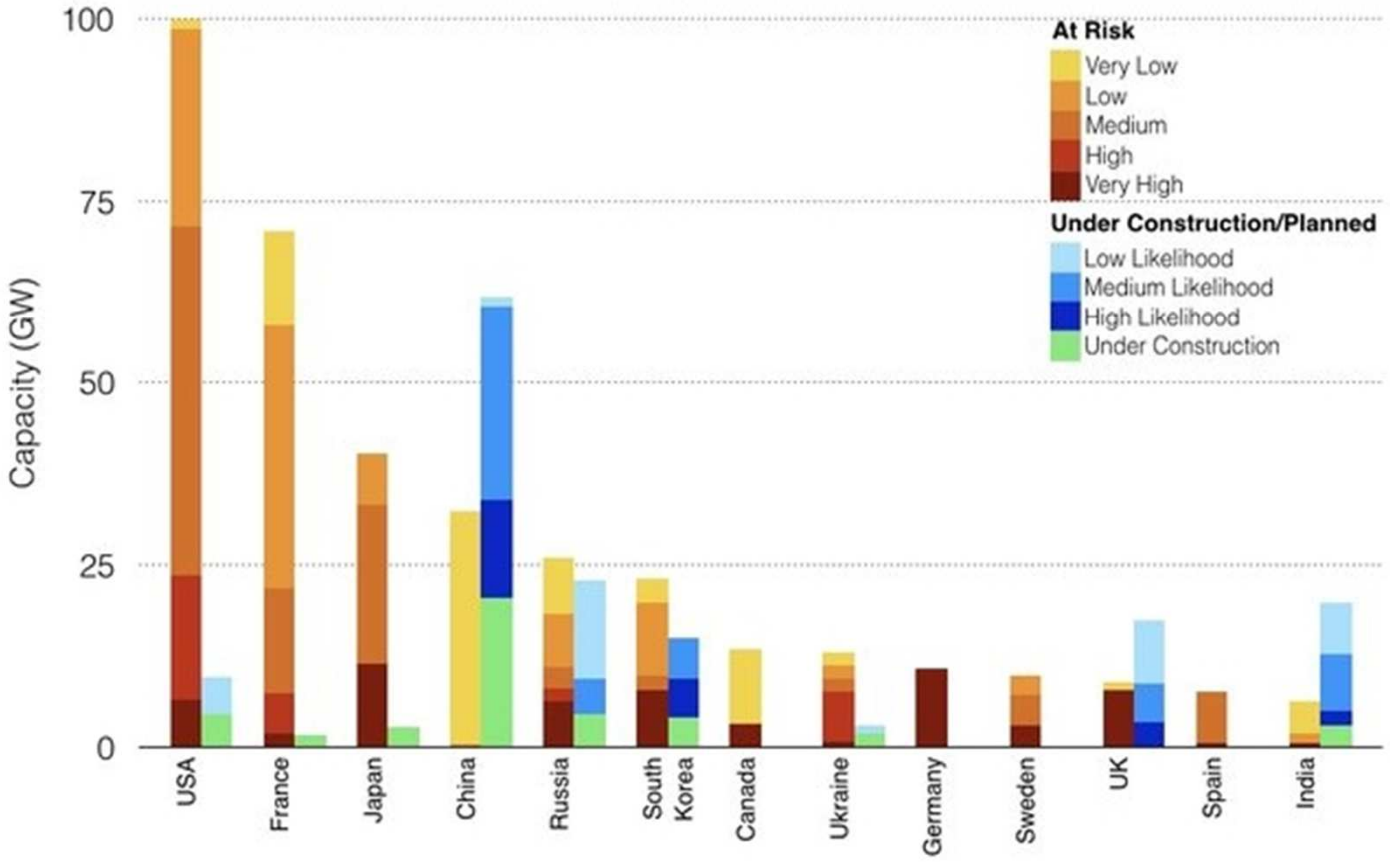
- Most of Japan's reactors offline
- 15-20 U.S. reactors close
- Russia, China, Korea lead the global market

2027: Renewed U.S.-Japan Nuclear Leadership

- Nuclear >20% of electricity
- New reactors under construction
- U.S., Japan leading the way toward advanced reactors

Centrus
Fueling the Future of Nuclear Power

Nuclear at Risk by 2030, Under Construction, and Planned

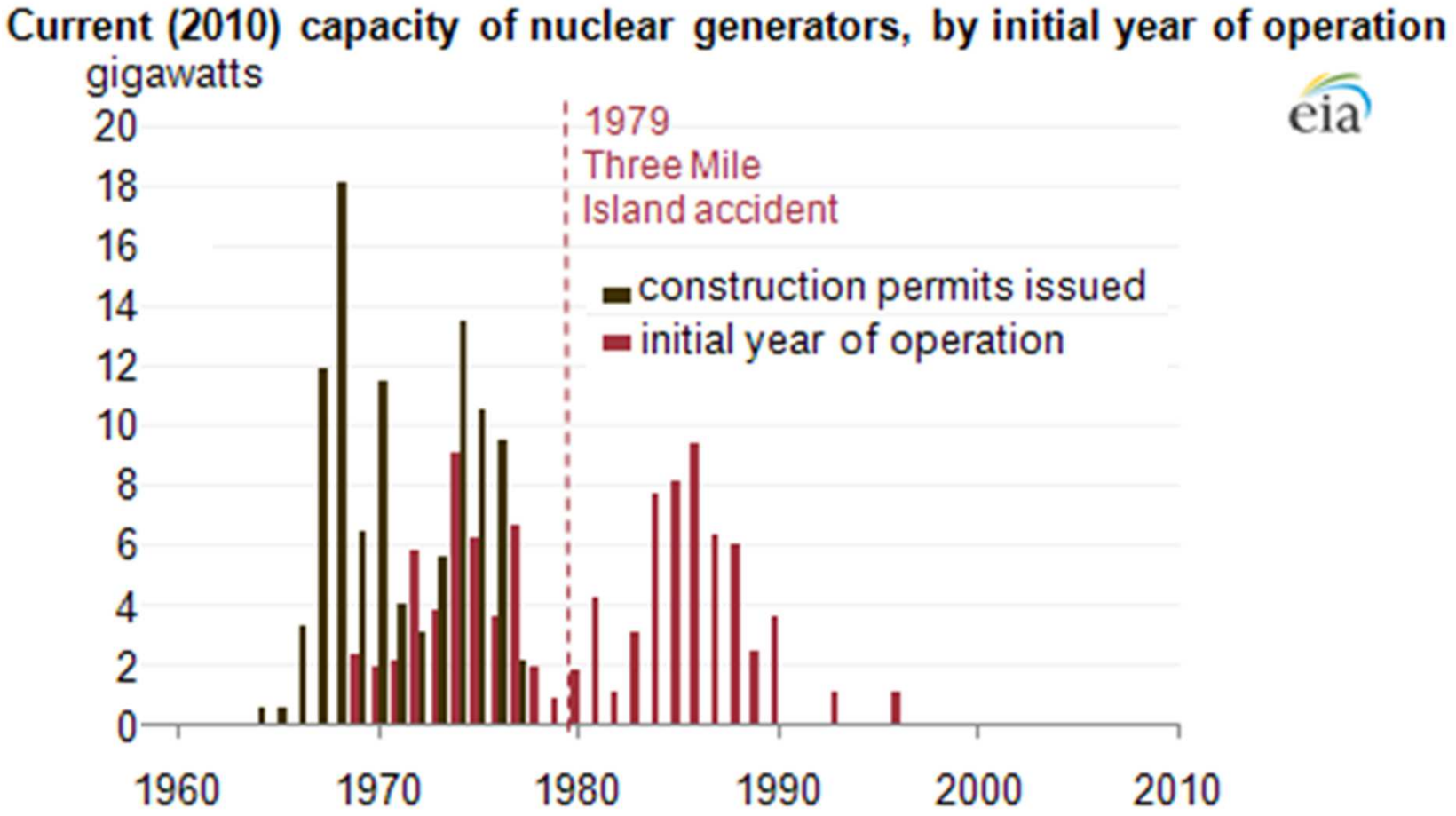


Source & Methods: EP Energy Progress Tracker, 2017. Reactor-specific ratings based on economic and energy trend analysis, political and societal assessment, and expert elicitations. Longer methodology discussion will be posted at environmentalprogress.org/energy-progress-tracker. Last updated March 2, 2017. Email info@environmentalprogress.org for more information.

ENVIRONMENTAL PROGRESS

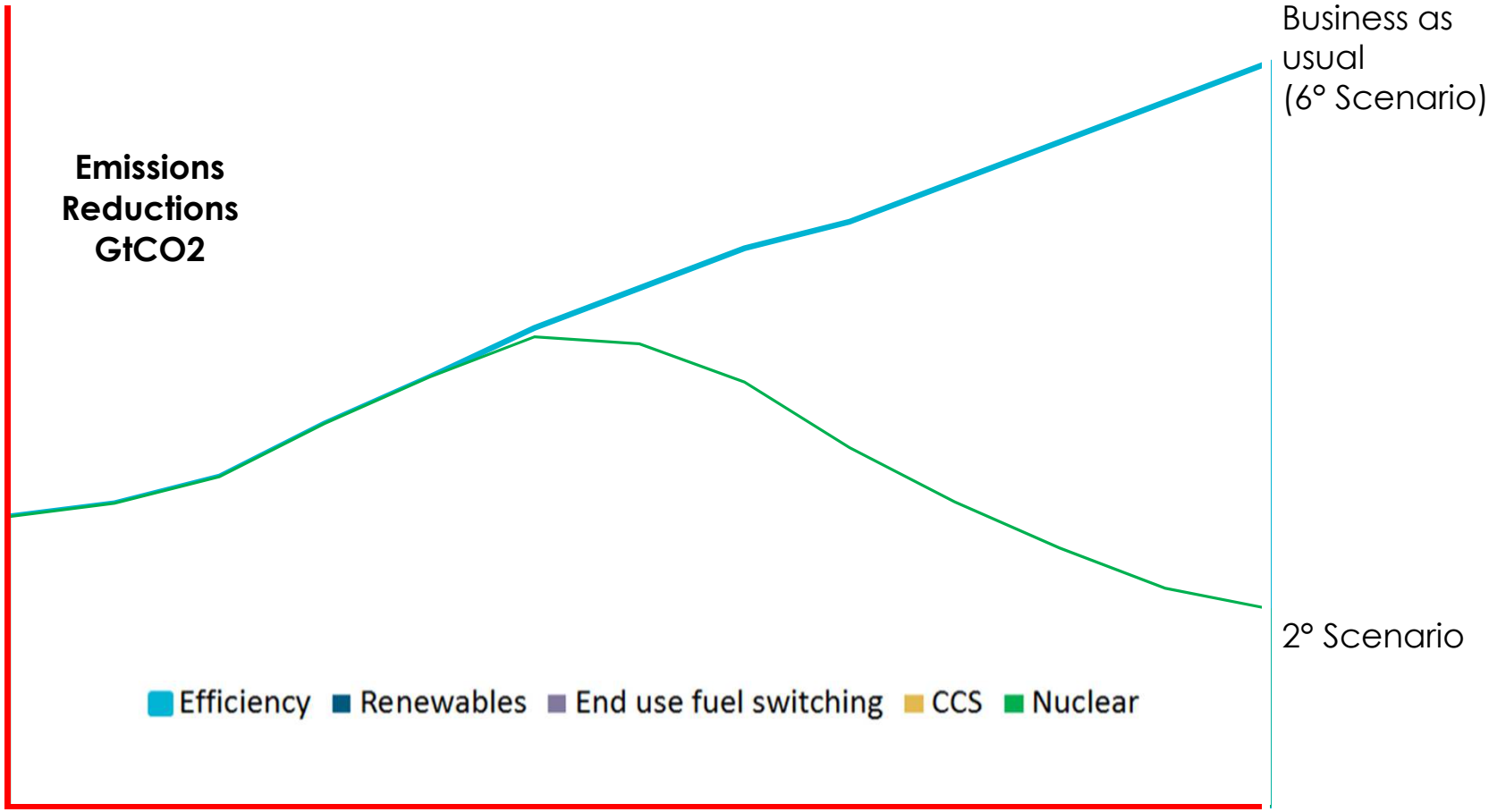
Centrus
Fueling the Future of Nuclear Power

United States -- Nuclear Growth Stalled in the 1980s



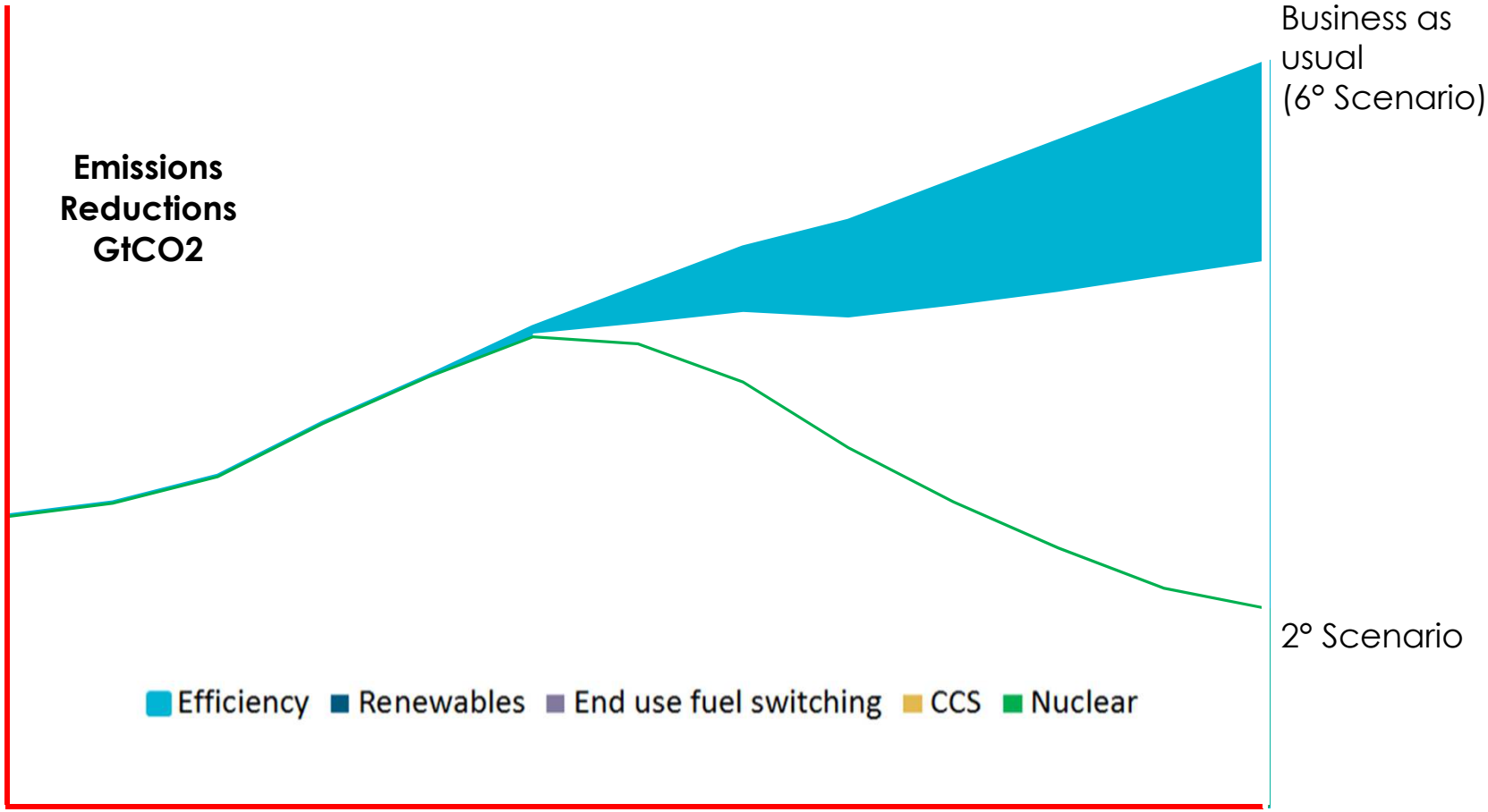
Centrus
Fueling the Future of Nuclear Power

Emissions Reductions to Achieve 2° Scenario



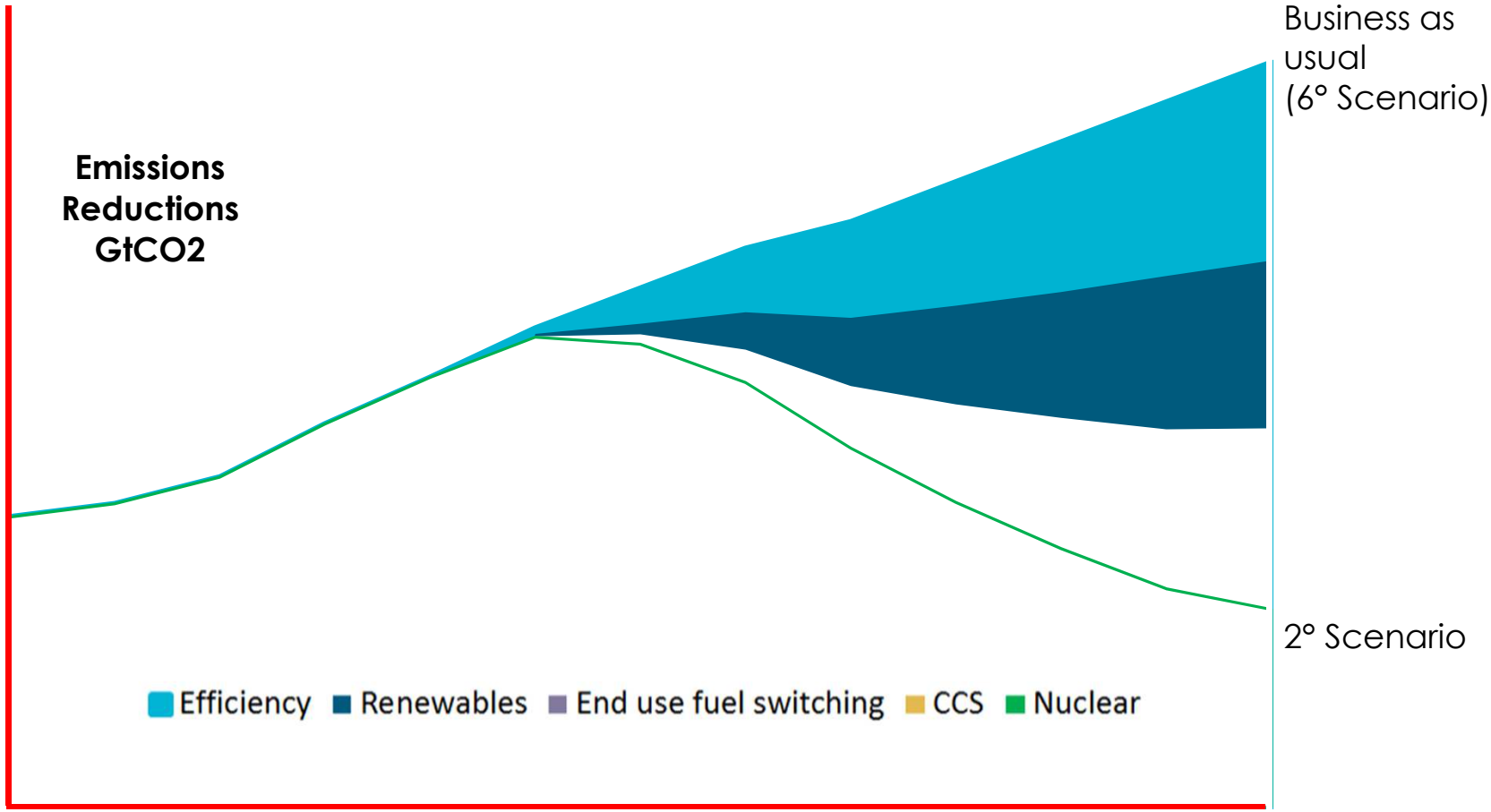
Centrus
Fueling the Future of Nuclear Power

Emissions Reductions to Achieve 2° Scenario



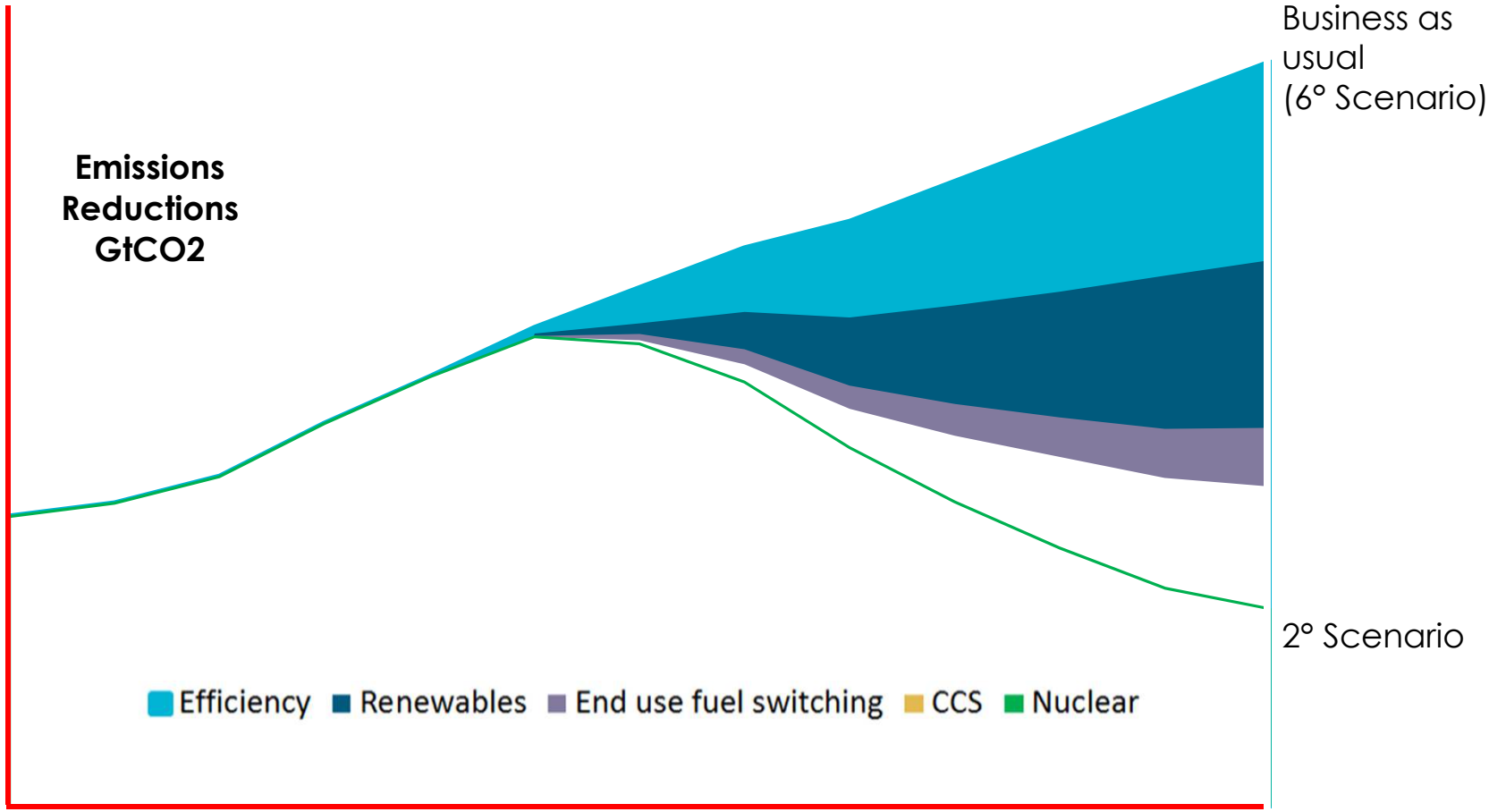
Centrus
Fueling the Future of Nuclear Power

Emissions Reductions to Achieve 2° Scenario



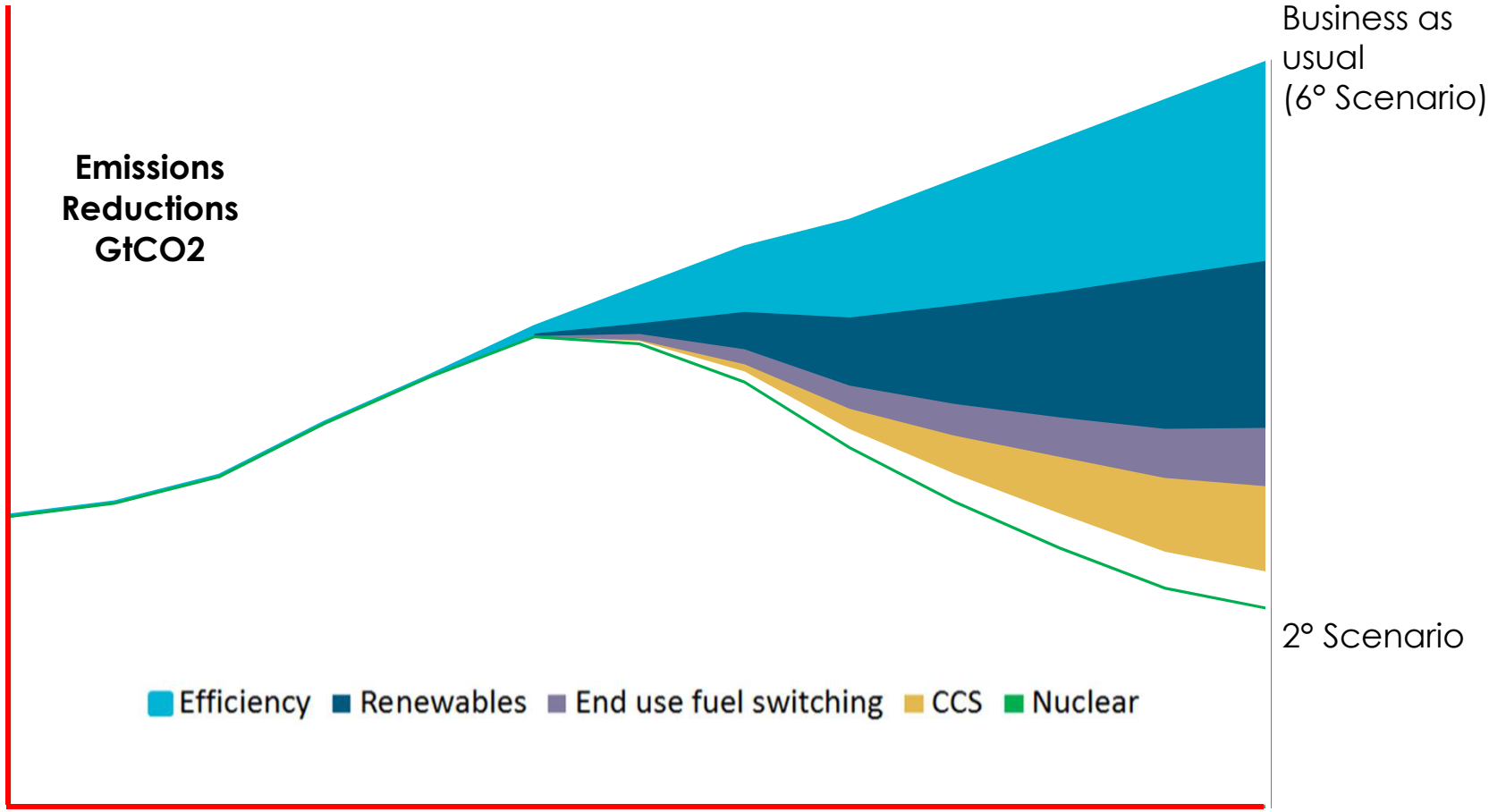
Centrus
Fueling the Future of Nuclear Power

Emissions Reductions to Achieve 2° Scenario



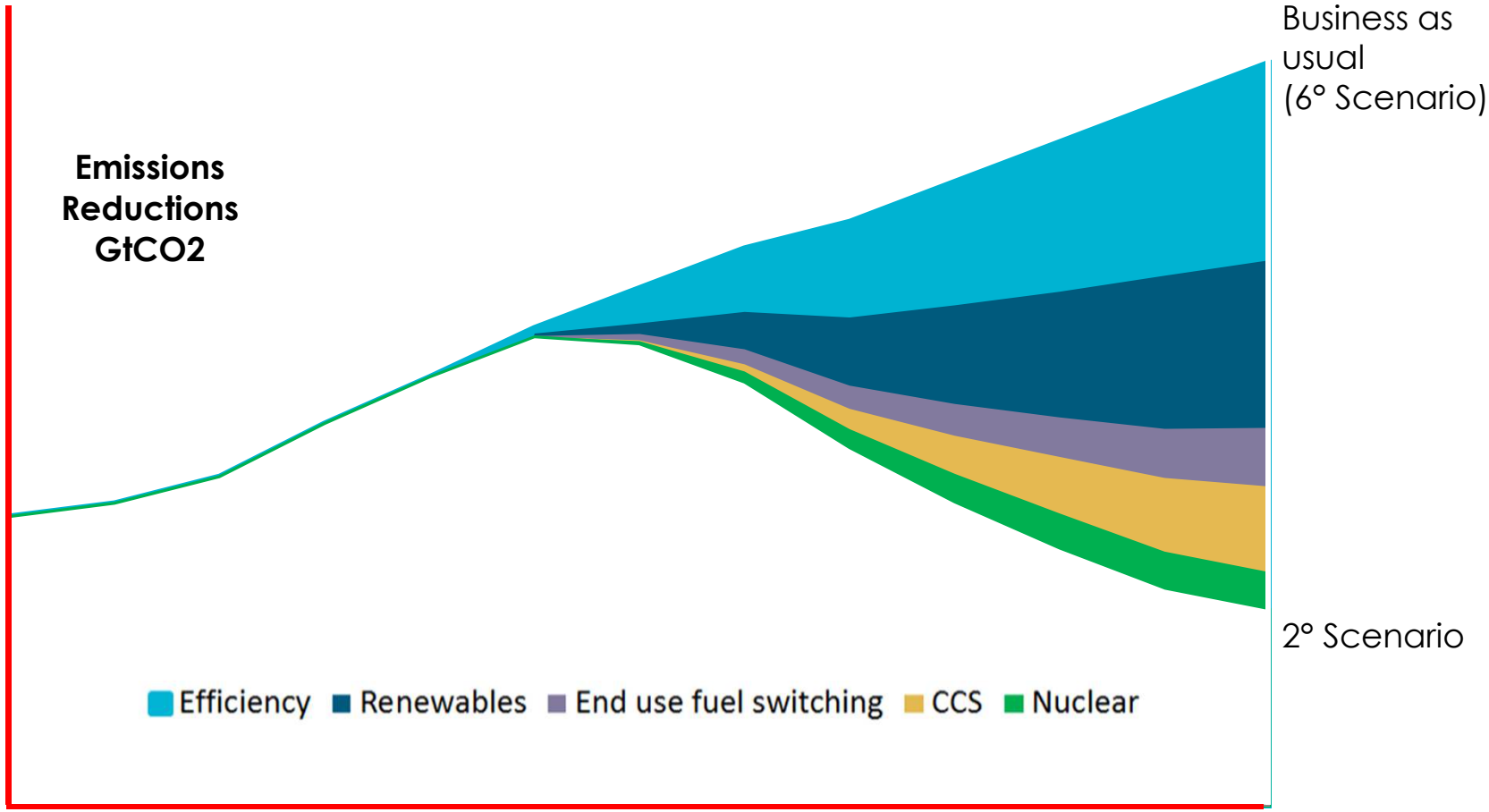
Centrus
Fueling the Future of Nuclear Power

Emissions Reductions to Achieve 2° Scenario



Centrus
Fueling the Future of Nuclear Power

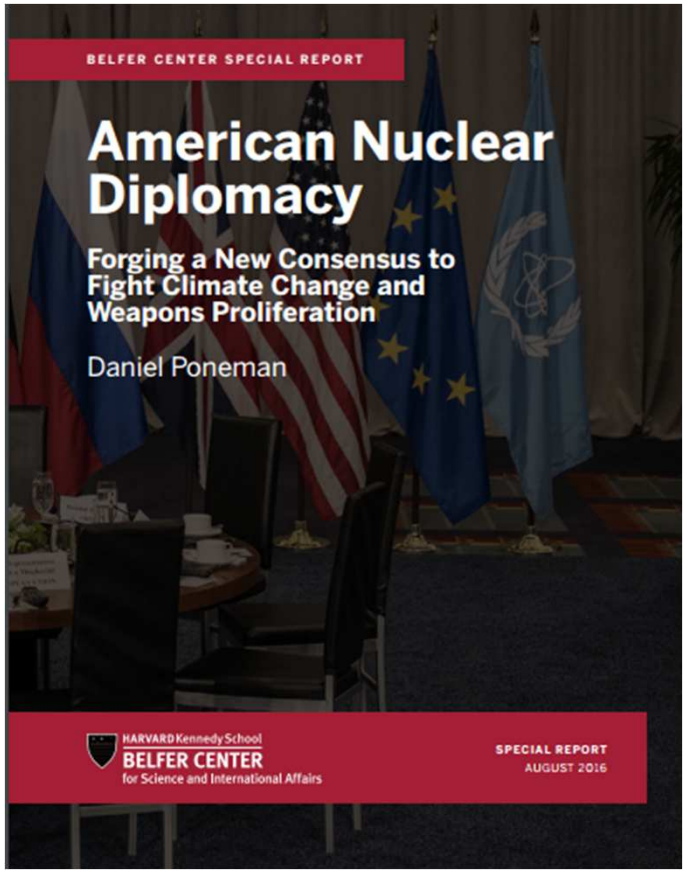
Emissions Reductions to Achieve 2° Scenario



Centrus
Fueling the Future of Nuclear Power

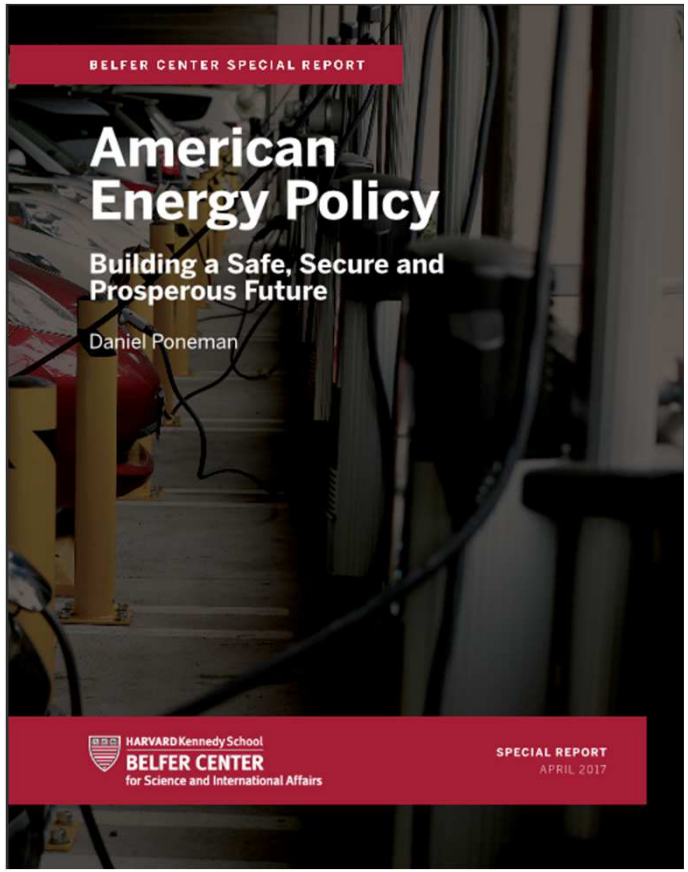
Assured Nuclear Fuel Services Initiative

- Nuclear power important to energy security
- Safety and security paramount
- U.S.-Japan partnership supports highest levels of safety/security



Centrus
Fueling the Future of Nuclear Power

The Road Ahead



- World needs all forms of energy to meet growing demand
- Nuclear is essential hedge against climate risk
- Nuclear offers technological, economic, and manufacturing opportunity
- ***We can agree on what to do even if we do not agree on why.***

Centrus
Fueling the Future of Nuclear Power


Centrus
Fueling the Future
of Nuclear Power