

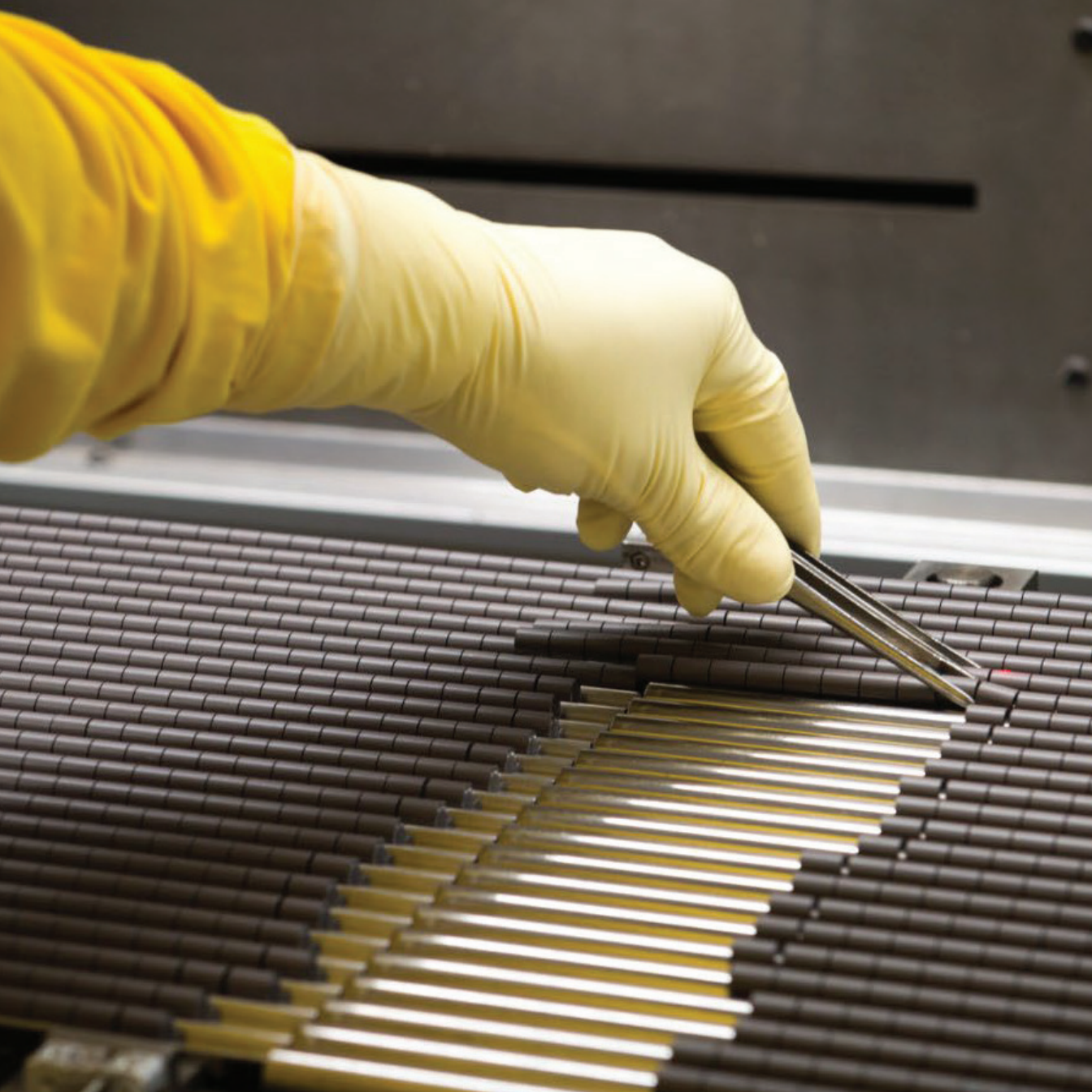
framato**me**

| **AFM**

Advanced Fuel Management

Energizing plant operations and
improving the bottom line





What is Advanced Fuel Management?

Advanced Fuel Management (AFM) is a globally integrated Framatome program designed to deliver fuel with higher enrichment and burnup limits. Enriching uranium oxide past the traditional 5 weight percent threshold combined with Framatome's latest technology allows you to maximize your energy production. The increases in enrichment and burnup open the door to improved economic performance by extracting more cycle energy from your reactor core and reducing Operations & Maintenance (O&M) costs. The AFM program encompasses all aspects of the nuclear fuel cycle including enrichment services, regulatory licensing and fuel fabrication infrastructure.

Why is this program important?

As nuclear reactors operating past their original 40-year design life continue to face increasing economic pressure, AFM can improve a plant's economic outlook. By utilizing nuclear fuel pellets with increased enrichment levels, plants have more flexibility for efficient core designs and longer operating cycles.

AFM creates economic value over the lifetime of the plant by increasing energy extraction while reducing O&M costs.

Longer operating cycles and fewer refueling outages =
better plant economics



Our expertise at work

AFM is a multifaceted program built on more than 60 years of nuclear fuel experience and our industry-leading cladding alloy M5^{Framatome}. The features and technologies in this program are part of our continuing commitment to value-added solutions utilizing our global team of experts.

60+ Years
experience

230,000+
Fuel assemblies
manufactured

125+ Reactors
supplied

Benefits of AFM

- Increased revenue per fuel cycle
 - Increased energy generation possible with Framatome's best-in-class, fuel cladding, high burnup, and high enrichment technologies
- Decrease the amount of outages for the life of your plant
 - Save on Operation and Maintenance (O&M) costs
- Improve plant safety
 - Decrease radiation exposure to site personnel
- Reduce total used fuel quantities
 - Decrease fuel handling and dry cask storage demands

The bottom line

AFM can improve your business operation by up to \$10 million per year by reducing outage frequency and increasing total power generation.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
18-month cycle	Outage 1	Outage 2		Outage 3	Outage 4		4 outages in 6 years
24-month cycle	Outage 1		Outage 2		Outage 3		3 outages in 6 years

Savings from one outage every six years = \$30M

Industry responsibility



The industry's leaders must act together to develop capabilities for higher enrichment and burnup



Framatome
manufacturing
Engineering, licensing
support and facility
modifications



Regulatory
and licensing
U.S. NRC, U.S. DOE
and NEI engagement



Enrichment
services
Modifications to
produce higher
enriched uranium



Utilities
Preparations to
implement AFM

Our plan to bring Advanced Fuel Management to the market

2021



>5% Topical report



High burnup
topical report

The Framatome AFM program leverages our best-in-class technologies and facilities, along with a service mindset to provide recurring benefits for utilities.

We understand the challenges to disrupting the traditional nuclear fuel market, and it is going to take commitments from the entire nuclear energy industry. Utilities can join the Framatome AFM program to accelerate the delivery of the first batches of AFM fuel.



Framatome is committed to bringing Advanced Fuel Management to the industry and investing in this technology. AFM is the next step in nuclear fuel and will have long-term benefits for plant operators.



See how our solutions
can work for you
www.framatome.com/solutions

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