OKLO

From Surplus Plutonium to Clean Power

A bridge fuel pathway for disposition through fission

The U.S. has designated about 34 metric tons of plutonium as surplus to defense needs. As an alternative to the dilute-and-dispose pathway, which had been subject to significant delays and challenges, the plutonium can be used to fuel Oklo's fast-fission power plants to turn a costly, long-term liability into a source of reliable, affordable, near-term power.

What it is:

- Existing surplus material used as a finite bridge fuel
- A pathway to convert legacy material into power
- Disposition through fission under federal oversight

What it is not:

- A strategy based on future production or stockpiling of separated plutonium
- A replacement for Oklo's long-term HALEU and recycled fuel strategy
- The creation of an open-ended commercial market for plutonium

The problem:

Why this matters now

The U.S. needs to find a permanent solution, and the dilute-and-dispose program would cost taxpayers $19B.

What it is

Plutonium designated as surplus to defense needs

Current status

Stored at DOE facilities while federal disposition efforts remain unresolved

34 ~34 metric tons

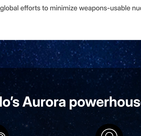
$19B Expected cost of dilute-and-dispose over 30 years

The solution:

Oklo's fast-fission technology is designed for this bridge-fuel pathway.

Use existing surplus material to generate power and reduce it through fission

Repurpose plutonium for economical, abundant power



1 Fuel fabrication

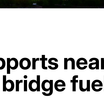
The plutonium will be subject to strict federal material physical protection, control, and accounting to prevent risks of theft or diversion during transport or fabrication.

2 Deployment in Aurora powerhouses

Fuel is used in 75 MWe Aurora powerhouse units.

3 Effectively destroyed through fission

Plutonium atoms are split during operation.



4 Managed materials

The remaining residual secondary waste is subject to stringent material management requirements.

Fission effectively disposes of plutonium and produces clean electricity in the process.

The U.S. has pledged to dispose of around 34 metric tons of plutonium. That could power New York City for just over two years, based on internal calculations and depending on the exact reactor configuration.

Oklo's fuel supply timeline

2028
Recycled EBR-II fuel supports initial Aurora powerhouse deployment.

2028/2029
Surplus plutonium can serve as a bridge from recovered EBR-II material toward scaled HALEU and recycled used nuclear fuel

2030
Domestic HALEU enrichment scales

Early 2030s
Additional recycled material available

The benefits of converting surplus plutonium to fuel

- Acts as a bridge between initial deployment and scaled HALEU supply
- Accelerates Aurora powerhouse deployment
- Provides reliable power and saves taxpayers money
- Supports global efforts to minimize weapons-usable nuclear materials

Oklo's Aurora powerhouse:

Uses a fast-spectrum architecture that efficiently fissions a broad range of plutonium isotopes

Is based on the EBR-II, which operated successfully for 30 years

Is designed for repeatable, commercial deployment

The impact:

Surplus plutonium supports near-term deployment as a bridge fuel

Effective disposition
Eliminates surplus plutonium through fission instead of diluting and burying it over decades

Energy production
Delivers clean, reliable power from Aurora powerhouses

Energy security
Reduces reliance on foreign fuel supply chain

Energy bill savings
Helps ease electricity cost pressures by adding reliable supply to meet growing demand

Fiscal impact
Reduces long-term storage burden

Economic impact
Saves $19B in dilute-and-dispose costs

Fissioning surplus plutonium in Oklo's Aurora powerhouses can deliver a win-win-win: avoid long-term taxpayer-funded disposal costs, accelerate clean and reliable advanced nuclear deployment, and permanently consumes material declared surplus to defense needs.