

## Megatons To Megawatts

BETHESDA, Md. — [USEC Inc.](#) [1] announced today that the [Megatons to Megawatts](#) [2] program has eliminated the equivalent of 15,000 nuclear warheads, completing 75 percent of the program's goal, and is on schedule to finish downblending the equivalent of 20,000 nuclear warheads into commercial nuclear power plant fuel by the end of 2013.

"We are proud of our role in implementing one of the most successful nonproliferation programs ever," said John K. Welch, USEC president and chief executive officer. "For more than 15 years, the Megatons to Megawatts program has transformed this weapons material for the long-term benefit of mankind. In utilizing this fuel, America's nuclear power plants have made us all safer while providing clean, emissions-free electricity to power our lives."

The Megatons to Megawatts program is a unique, commercially financed government-industry partnership in which 500 metric tons of weapons-grade uranium from dismantled Russian nuclear warheads are being recycled into low enriched uranium (LEU) used to produce fuel for American nuclear power plants. USEC, as executive agent for the U.S. government, and JSC "Techsnabexport" (TENEX), acting for the Russian government, implement this 20-year program.

To date, 375 metric tons of highly enriched uranium (HEU) have been downblended into 10,868 metric tons of LEU, enough to [produce electricity](#) [3] that would meet the demand for a city the size of Boston or Seattle for approximately 575 years.

Through the end of 2008, USEC had paid the Russian Federation more than \$5.6 billion for the SWU component of the LEU delivered since 1995. The total amount paid to Russia through the 20-year life of the contract is expected to substantially exceed \$8 billion.

**Background: HEU to LEU** The recycling of [HEU into LEU](#) [4] begins with a multi-step process at several facilities in Russia. HEU metal is first removed from a warhead, machined into shavings, oxidized and fluorinated. The resulting highly enriched uranium hexafluoride is then mixed in a gaseous stream with slightly enriched uranium to form LEU suitable for commercial nuclear reactors. The LEU is checked to ensure it meets commercial specifications, transferred to shipping cylinders and sent to a collection point in St. Petersburg. USEC takes possession of the material there and ships it to USEC's facility in the United States where it is inspected and then included in USEC's inventory.

USEC Inc., a global energy company, is a leading supplier of enriched uranium fuel for commercial nuclear power plants.

## Megatons To Megawatts

Published on Chem.Info (<http://www.chem.info>)

---

**Source URL (retrieved on 08/28/2015 - 10:59pm):**

<http://www.chem.info/news/2009/09/megatons-megawatts>

### Links:

[1] [http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com&esheet=6057040&lan=en\\_US&anchor=USEC+Inc.&index=1](http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com&esheet=6057040&lan=en_US&anchor=USEC+Inc.&index=1)

[2] [http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com%2Fmegatonstomegawatts.htm&esheet=6057040&lan=en\\_US&anchor=Megatons+to+Megawatts&index=2](http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com%2Fmegatonstomegawatts.htm&esheet=6057040&lan=en_US&anchor=Megatons+to+Megawatts&index=2)

[3] [http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com%2Fmegatonstomegawatts\\_energy.htm&esheet=6057040&lan=en\\_US&anchor=produce+electricity&index=3](http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com%2Fmegatonstomegawatts_energy.htm&esheet=6057040&lan=en_US&anchor=produce+electricity&index=3)

[4] [http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com%2Fmegatonstomegawatts\\_stepbystep.htm&esheet=6057040&lan=en\\_US&anchor=HEU+into+LEU&index=4](http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.usec.com%2Fmegatonstomegawatts_stepbystep.htm&esheet=6057040&lan=en_US&anchor=HEU+into+LEU&index=4)