

## Response to request for information 81 FR 46917

I think down blending to 20% would be the best choice.

### Advantages:

- Will no longer be weapons material
- Less work than going to 5%
- Will not lower already low 5% prices
- Will support advanced reactor development

Several advanced reactor designs could use this supply of 20% uranium.

ThorCon is a company designing an advanced reactor (<http://thorconpower.com>). Here is a footnote from the ThorCon Executive Summary:

Footnote 38 This [20% enrichment] will require an expansion in enrichment capability. But if the demand is there so will the supply. Urenco has indicated they can have a 20% LEU enrichment plant operating four years after the decision to make the investment is made.

I infer that ThorCon will use 5% uranium to prove its concept and for its first installs while waiting for Urenco to produce 20% uranium. If a supply of 20% uranium were available, ThorCon's prototype could use 20% uranium.

Terrestrial Energy (<http://terrestrialenergy.com>) is another advanced reactor designer similar to ThorCon but with truck/train delivery instead of ThorCon's barge delivery. Terrestrial would

also be a candidate to use the 20% uranium. Terrestrial is currently applying for a DOE loan guarantee.

The advanced molten salt reactors will be able to run many different fuel mixes as is shown in the table below taken from a ThorCon presentation. I would rather the initial tests be run with the Economic Baseline rather than conventional LEU.

Mission	Startup Salt	Th	U	U233	U235	Other U
1) Initial tests	NaBe	0	100%	0	3%	97%
2) Economic Baseline	NaBe	82%	18%	0	20%	80%
3) Better fuel utilization	FLiBe	82%	18%	0	20%	80%
4) Best Fuel Utilization	FLiBe	82%	18%	12%	0%	88%
5) Breeder	FLiBe	82%	18%	88%	1%	11%

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