



IAEA Publishes Comprehensive Report on Near and Long-Term Thorium Uses, TEA on the Green Hour Podcast, Social Media Intern Needed



IAEA Publishes Thorium Report

Stemming from 12 years of work, the IAEA recently released the [final report](#) on near and long-term Thorium-based nuclear energy. This work effort was initiated in 2011 on the suggestion of the Technical Working Group on Fuel Performance and Technology and included input from numerous contributors representing many countries and organizations.

According to the comprehensive report, the goal was to encourage the development and sharing of research results on enhanced capabilities of thorium-based fuels for high conversion ratio fuel cycle, improved inherent safety characteristics, reduced minor actinide productions etc. Based on the research results carried out under the IAEA coordinated research project, this report highlights reactor systems for thorium deployment, thorium fuel cycle implementation scenarios, thermo-physical properties and irradiation performances of thorium based oxide fuels. The comprehensive report examines the utilization of Thorium fuels in most current and promising advanced nuclear reactor systems. The report also delves into multiple fuel cycle reprocessing and recycling technologies. The main conclusions of this report state:

- Thorium is three times more abundant in nature compared to uranium and occurs mainly as 'fertile' ^{232}Th .
- Among the fissile materials: ^{233}U , ^{235}U and ^{239}Pu , ^{233}U is the best in terms of ratio of neutron yield per fission to neutrons absorbed in thermal energy spectrum.
- Use of thorium fuel cycle include better thermo-physical and neutronic properties of thorium including inherent proliferation resistance characteristics due to the presence of ^{232}U in ^{233}U (fertile ^{238}Th converts to fissile ^{233}U).
- There is also a significant drop in the generation of the amount of minor actinides in spent fuel.
- The thorium fuel cycle generates at least one order of magnitude less long-lived minor actinides than uranium fuels.

We are hopeful that this report can remove some of the research and development hurdles for a sustainable thorium fuel cycle infrastructure, from mining, processing, and safe storage through to utilization as a fuel. With the geopolitical ramifications associated with Uranium, it makes sense to diversify our energy sources, especially those that are abundant within our own borders.

The Department of Energy's own report on Thorium, enacted in the [Energy Act of 2020](#), is expected to become public within a few weeks. This sister report to the IAEA's report will address the non-uranium fuel cycle strategies as more attention is given to the United State's precarious uranium supply chain. We are hoping the new DoE report, along with the IAEA's, spurs meaningful research investment into a domestic Thorium supply chain.

Proponents of thorium for its use as a nuclear fuel should share this research report far and wide to make sure the decision makers and stakeholders are aware of this report's inputs and results. The stated conclusions show that thorium deserves to be recognized as an abundant and safe fuel in nuclear's future.

John Kutsch Joins Green Hour Podcast for 2-Part Discussion on Thorium, Nuclear and Critical Materials

Recently, John Kutsch was interviewed by Preston Poag of the [Green Hour Podcast](#) to discuss a litany of issues; focusing on Thorium and nuclear energy, the various fuel cycle configurations, and how it all fits into a green energy future and energy security for the United States.

In this episode they discuss the history of nuclear, the problems of nuclear and the public's fear, and uranium to understand what fuels nuclear reactors today. He also spoke about the history of the Thorium Energy Alliance, how it came to be, past successes and plans for the future. This interview is a great way to learn about Thorium and nuclear energy issues we are facing domestically and globally. Share it with anyone who has ever asked you, "What is Thorium?"

Episode 1 is now available [here](#), on [apple](#), [audible](#), or wherever you get podcasts.

Episode 2 will be released shortly.

For additional information on Rare Earth Metals and Critical Materials, the Green Hour Podcast recently hosted Emma Ernst, of [Greenmet](#), to discuss the challenges and opportunities in building back a domestic supply chain for rare earth minerals.



Social Media Intern Needed - Contact the TEA Today!

If you or someone you know would like a summer internship to coordinate Thorium Energy Alliance's social media platforms contact us today. A social media intern would support the digital media staff to develop and implement outreach and promotional campaigns to boost TEA's outreach and online presence. The duties and responsibilities include:

- Assist with the design and execution of social media campaigns
- Assist in creating and distributing content such as blogs, infographics, videos and press releases on social media and traditional news outlets
- Track social media engagement to identify high-performing ideas and campaigns for scalability
- Plan and coordinate Thorium Conferences, in-person and online briefings, meetings, and outreach sessions
- Respond to comments and DMs on social media platforms
- Brainstorm and research ideas for original content
- Create compelling graphics to share across social channels



Email admin@thoriumenergyalliance.com to inquire for this position.

Support the TEA today!

The Thorium Energy Alliance just received another car donation! Thanks to another generous supporter for another much-needed vehicle donation. Let us know if you'd like to donate a car or other vehicle to the cause.

Your generous support keeps us going. You can help in many ways including:

- [Donate](#) or Become a [Supporting Member](#)
- [Donate that old car](#)
- [Buy a shirt](#)

So grateful to everyone who has made all of our successes a reality. 2023 is shaping up to be the best Thorium Year yet!

John Kutsch
Executive Director

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