Forum:Hack Forums

Thread: EU says nuclear energy is "clean energy"

Hackers - *September 12, 2025, 12:37 pm*
https://www.weplanet.org/post/eu-court-rules-nuclear-energy-is-clean-energy

I have mixed feelings because it depends on where, when, and how...

You need to be able to build the facilities in a certain way, maintain it in a certain way, and deal with waste properly. Also obviously there needs to be a lot of safety protocols involved, audits/oversight, and overall regulations to prevent errors or negligence.

It's like how an electric vehicle is not truly "green" because of how they're made and distributed.

It will be interesting to see how "clean" nuclear energy really is, in practice.
I 100% support the use of nuclear energy, and if it were up to me, we would subsidize second/third world countries and offer trillions of dollars in energy investments over the next few decades (with caveats for oversight & monitoring).

...But we should make sure we are wary of claims that it's fully clean.

Phantom_NiNja - *September 12, 2025, 12:47 pm*
(Sep 12, 2025 12:37 PM)nodes Wrote: *[CITE]*
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...But we should make sure we are wary of claims that it's fully clean.
The new technology is clean. It's cleaner than coal, oil, natural gas that gives emissions. The new reactor technology is cleaner and more efficient they will use thorium to not waste any uranium that didn't get burned / consumed. The previous tech wasn't perfect it wasted some uranium when being reacted.

So, I agree with them that it's cleaner energy but I don't get why we are building more nuclear plants when we should start building fusion plants.

also the new tech doesn't allow any nuclear radiation to be emitted it's a lot safer. However, that depends on if the staff can use the equipment effectively.

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Prepper - *September 12, 2025, 12:58 pm*

(Sep 12, 2025 12:47 PM)Phantom_NiNja Wrote: *[CITE]* The new technology is clean. It's cleaner than coal, oil, natural gas that gives emissions. The new reactor technology is cleaner and more efficient they will use thorium to not waste any uranium that didn't get burned / consumed. The previous tech wasn't perfect it wasted some uranium when being reacted.

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Fusion is in the research and development stage still, they can't just build a fusion power plant when they still do not fully understand it yet. Maybe sometimes in the next 5-10 years we will start to see some larger scale testing but likely not for commercial use yet.

TerraPower has some amazing plans as well for a new style nuclear power plant.

Hackers - *September 12, 2025, 1:30 pm*

(Sep 12, 2025 12:47 PM)Phantom_NiNja Wrote: *[CITE]* The new technology is clean. It's cleaner than coal, oil, natural gas that gives emissions.
100%
I should've been more clear with this. It is definitely cleaner than most other systems.

It is clean, I just mean that we should make sure to still monitor it and keep in mind that no two facilities will be exactly the same.

(Sep 12, 2025 12:58 PM)Prepper Wrote: *[CITE]* Fusion is in the research and development stage still, they can't just build a fusion power plant when they still do not fully understand it yet. Maybe sometimes in the next 5-10 years we will start to see some larger scale testing but likely not for commercial use yet.

TerraPower has some amazing plans as well for a new style nuclear power plant.
Really psyched for some other work being done with semi & super conductors.

One thing to keep an eye on:
zero point energy

There are several teams working on this, and I do feel that we're very close to a breakthrough.
i'm heavily invested in related companies, manufacturers, and others that are aligned.

If we can identify a way to truly extract energy from room temp, or have a conductor at high temps instead of low, we are going to be in for a really good time.
I just hope soon.

plops - *September 12, 2025, 3:03 pm*

The only truly clean energy is tricking a bunch of Africans to ride stationary bikes connected to recycled dc motors.
Or pulling it from other dimensions. Something about electrons and relativity.

I don't think there will ever be such a thing as truly clean energy. Its impossible

Jamika - *September 12, 2025, 5:54 pm*
Maybe they mean it’s cleaner than other methods that pollute the air with smoke and such… but of course, it’s not like solar energy.

Phantom_NiNja - *September 12, 2025, 11:34 pm*
(Sep 12, 2025 12:58 PM)Prepper Wrote: *[CITE]* Fusion is in the research and development stage still, they can't just build a fusion power plant when they still do not fully understand it yet. Maybe sometimes in the next 5-10 years we will start to see some larger scale testing but likely not for commercial use yet.

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No, it's not. It's past that stage. Right now they're in the engineering stage meaning taking the physics and how to physically do it with economic efficiency.
China already has one done. France is buildings theirs and we started building one in Virginia.

it is not at all at the research stage. We been past that there's been like 12 companies in the U.S.A that for the past 5 years been working on how to implement the plant. That tech is replacing nuclear tech.

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TerraPower has some amazing plans as well for a new style nuclear power plant.
It's not in the research and development phase. They figured it out since 2012. In the U.S there's 12 companies that got investors on board to finance plants.
Virginia is going to have the first one built.

just look at the video:
[Video: https://youtu.be/OxltzrLXTUE?si=_AgZh8_P7gB6ftD2]

we will have one in Illinois, Washington and Oregon.

We are all behind. China has completed their first facility in Shanghvi it burns hotter than the sun.

France is constructing one but they're getting financial issues. They started before the U.S.A and according to the experts we are surpassing them.
it's not something easy to do.

but my point is why built nuclear facilities when you can just use the future up to date tech and fusion is much safer and cleaner. I understand it's more expensive and harder to do. I just feel like using older tech is worthless meaning we could've used the space to use newere tech when we have the money to do so.

DramaKing - *September 13, 2025, 4:49 am*
(Sep 12, 2025 12:47 PM)Phantom_NiNja Wrote: *[CITE]* The new technology is clean. It's cleaner than coal, oil, natural gas that gives emissions. The new reactor technology is cleaner and more efficient they will use thorium to not waste any uranium that didn't get burned / consumed. The previous tech wasn't perfect it wasted some uranium when being reacted.

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it doesn't mean it gets rid of all the possibilities of nuclear radiation.
We're not building any fusion plants because we've barely reached ignition. The idea of a power plant is to generate electricity, not consume it. We just don't have the technology. Get back to me when experimental reactors can produce net positive power for more than 8 minutes, and there's a reliable supply chain for fuel. I don't get my science from news shows.

And yes, nuclear energy is widely considered clean. It has less of a carbon footprint than other methods of power generation, is the safest type of power plant, and is firm power. Let me correct the record on fusion reactors emitting radiation, however. Nuclear fusion emits tons of radiation. Have you ever seen the movie The Core?

Phantom_NiNja - *September 13, 2025, 6:36 pm*
(Sep 13, 2025 04:49 AM)DramaKing Wrote: [CITE] We're not building any fusion plants because we've barely reached ignition. The idea of a power plant is to generate electricity, not consume it. We just don't have the technology. Get back to me when experimental reactors can produce net positive power for more than 8 minutes, and there's a reliable supply chain for fuel. I don't get my science from news shows.

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Dang, get back at me when your knowledge isn't stuck back 10 years in the past. I am not getting my knowledge from news shows. It's from actual companies that have been researching this for many years this includes DOD and scientific papers.

The proof of concept has already been done. They tested for 22 minutes and it produced 69 megajoules per pulse.

They are building such facilities in the U.S.A, France, China, Russia. The physicists have proof of concepts they got the theory proven.
They tested it and it's sound. Right now it's just engineers tweaking things to see with different setups if they can produce more power per hour.
They will be online by 2030 in the U.S.A. It is not going to be mainstreamed until 2050 to 2060 because of the costs it's not cheap to do.

However, the technology can power cities. The experimental reactors produced over ten megawatts. It's expected based on concept they can produce more than 500 megawatts of power with one reactor. You should really update your knowledge and stop living back in 2015.

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record on fusion reactors emitting radiation, however. Nuclear fusion emits tons of radiation. Have you ever seen the movie The Core?
So, you get your science from Sci-Fi movies? lol

The fusion reactors don't emit radiation. The radiation is contained... the tech is cleaner that nuclear fission. The radioactive waste is half the life of fission nuclear waste. It's safer tech.. there's no way of a nuclear meltdown. It's more easier and better to manage. This is hat I am talkin about.

When I said in the last post that it doesn't have nuclear radiation it was short. I have no desire to go into pages upon pages as to why explaining all these little things that you keep nibbling on. My point that you miss is that fusions is a better tech and it's going to replace all the other power generating tech in the future. No, never seen the move core and don't plan on watching it. The whole point is that fusion is safer and cleaner than any tech that we have.
Don't say solar energy or wind energy those are not real energy producing units. It's not economical. Solar energy will pick up once we start using graphene in them. Just we don't have that yet and the current tech isn't worth while to invest in because it doesn't give you a return on your investments.

DramaKing - *September 13, 2025, 7:11 pm*

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500 megawatts isn't much for a reactor. And maybe they will make the 2030 deadline, but it's a new technology. Fission reactors take decades to build, so either fusion is less complex from an engineering and construction standpoint already, or the estimates are too optimistic.

I do sometimes study fusion developments, and I know that the radioisotopes needed are scarce. ^3H has a global supply of about 25 kg and costs $33 million per kg. New research shows that a gigawatt particle accelerator could convert nuclear waste into 2 kilograms of ^3H annually. I don't have any calculations, but that seems horribly inefficient.

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Let me point out then that fission reactors don't emit radiation, either. The radiation is contained. Yes, fusion has a major benefit in being able to be shut down completely at the flick of a switch.

Grapheme solar? Solar panels have gotten pretty cheap. It does cost less per watt than current nuclear technology that needs government subsidies in order to function.

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Well we will see by 2030 if the AI don't kill us. A lot of older folks that I know want to die before this because the feel we are now trying to play god. They don't think it will end well for us. We will see how that turns out for us.