

WORLD POWER SYSTEMS REVIEW

15 May 2025

1 May 2025

India's power ministry sets out steps to faster nuclear energy expansion

The Consultative Committee of India's Ministry of Power has met and outlined steps needed to meet the country's target of a more than 10-fold increase in its nuclear energy capacity to 100 GW by 2047.

The meeting on Monday heard that India currently has 25 operable nuclear energy reactors with a total installed capacity of 8.88 GW, generating about 3% of the country's electricity. Eight more reactors with 6.6 GW capacity are under construction and another 10 units with 7 GW capacity are in pre-project stages. (India often classes two units at Gorakhpur where site works have begun as being under construction, although the first concrete for the reactor buildings has not yet been poured.) The meeting, which involved members of parliament, was chaired by Manohar Lal Khattar, Minister for Power, who emphasised that hitting the nuclear capacity goal was central to India's goal of reaching net zero carbon emissions by 2070, as well as strengthening India's long-term energy security.

According to the official report of the meeting he said that "as the power sector contributes over 40% of global energy-related emissions, nuclear energy, being a non-fossil and stable power source, will play an increasingly important role in India's sustainable development journey". It also sets out the key steps he outlined for the scaling up of nuclear energy capacity:

- Amending the Atomic Energy Act, 1962 and Civil Liability for Nuclear Damage Act, 2010 to enable broader participation by private and state sectors
- Strengthening public perception and enhancing awareness about nuclear energy's safety and benefits
- Facilitating faster land acquisition through brownfield expansions and repurposing retired thermal sites
- Streamlining regulatory approval processes to reduce project timelines
- Introducing tax concessions, green power classification, and long-term financing to ensure competitive nuclear tariffs
- Diversifying technology choices through competitive bidding and promoting indigenous manufacturing under Make in India
- Securing diversified uranium fuel sources and expanding the vendor base for specialised nuclear equipment
- Building skilled manpower capacity by strengthening nuclear education and training infrastructure

The Members of Parliament "actively participated in the discussions and provided valuable suggestions for expediting nuclear power deployment. They stressed the need for faster project execution, creating a favourable public narrative, ensuring technology diversification, and building robust vendor and manpower ecosystems". The minister told the meeting the Ministry of Power would "work closely with the Department of Atomic Energy, State Governments, industries, and other stakeholders to accelerate the deployment of nuclear power projects and ensure a clean, secure, and sustainable energy future for India".

WNN

<http://www.world-nuclear-news.org>

2 May 2025

Bali experiencing total power blackout across tourism island

Bali has been plunged into darkness as a total power outage has hit the province. At 4 p.m. on Friday, May 2nd, the vacation hotspot lost all connectivity.

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While backup generators have been activated in some areas, and mobile signal remains strong, residents and tourists are being warned that normal service could be some time before it resumes. The national electric provider PT PLN has confirmed that a gradual recovery process is now underway after the electricity connection to Bali was interrupted. PLN Manager, Wayan Eka Susana, has told reporters "Currently the recovery is being carried out in stages by officers in the field. We will provide information on developments periodically."

He confirmed that an investigation as to the cause of the blackout is underway, though initial reports suggest that there is a fault in the Java-Bali transfer cable. In an update posted on the PLN Distribusi Bali Instagram account at 7.45 pm local time, the energy provider shared "Developments until now at 19.50 WITA the electricity supply has been restored to 50 percent. Continue to monitor the latest information on the official PLN UID Bali account thank you for your support, prayers, and patience." As the island went into blackout initial confusion made way for chaos on Bali's busiest highways just as Friday night rush hour kicked off. With a power cut, traffic light systems went down followed by widespread reports of gridlock congestion and a series of collisions. As power starts to be restored across the island, Bali's I Gusti Ngurah Rai International Airport has confirmed that flights are still operating on schedule, though disruptions could be on the cards if the issue is not resolved soon.

In a written statement, I Gusti Ngurah Rai International Airport shared, "Please be informed that the disruption to the Java-Bali undersea power cable has affected the electricity supply in Bali, including I Gusti Ngurah Rai International Airport, on Friday, May, 2/5/2025." The statement continues "Currently all departures and arrivals processes continue to operate. We remain committed to providing the best possible service during this situation and continue to coordinate with the relevant authorities to closely monitor further developments." Government officials in Bali have not yet issued statements regarding the blackout, though tourists in Bali should be mindful that as power is slowly recovered across the island the province's most densely populated areas are still in darkness. At the time of publishing Denpasar, South Kuta (including Nusa Dua) as well as much of Gianyar Regency, home to tourism resorts like Ubud, are still without power.

The Bali Sun

<http://thebalisun.com/>

3 May 2025

India's route to 100 GW nuclear power by 2047 may require strategic reforms

India's plan to reach an ambitious 100 gigawatts (GW) nuclear power capacity by 2047 may require a concerted effort to overcome existing challenges and implement strategic reforms in the nuclear sector, says a report by SBICAPS.

India's plan to produce 100GW of nuclear power capacity by 2047 aligns with the target to achieve a net-zero emissions target by 2070. The report outlines several key strategies and reforms that are crucial for India to successfully expand its nuclear power capacity. One of the critical areas being, reducing the time taken for nuclear plant construction. It also notes that Indian projects currently take around 10 years to complete, significantly longer than the global best of approximately 6 years. The report suggests attracting greater foreign investment which would include allowing 49 per cent Foreign Direct Investment (FDI) in nuclear power generation sector to facilitate increased capital inflows.

Additionally "diversifying fuel sources via international agreements and accelerating the transition to Stages 2 and 3 of India's nuclear program are essential to address the nation's limited uranium reserves," the report said. The report, highlights that the India's installed nuclear capacity is around 8 GW, with an additional 7 GW under construction and

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target is to achieve the 100GW in the next two decades. The report emphasizes the need for a significant acceleration in the pace of nuclear development. Achieving the 100 GW target within the next two decades will overcome potential hurdles and for that "the Government has initiated the Nuclear Energy Mission, allocating Rs 200 billion towards R&D and the deployment of at least five Bharat Small Modular Reactors (BSMRs) as announced in the Union Budget." The BSR program will enable private sector development of Pressurized Heavy Water Reactor (PHWR) reactors for dedicated captive utilisation.

The report from the Indian bank points towards China as leading this revival, with a substantial 30 GW of nuclear reactor capacity under development. While India and Turkey are also showing increasing interest in expanding their nuclear capabilities, Europe maintains a more cautious stance. Meanwhile, SBICAPS's report underscores the significant financial and strategic implications of India's ambitious nuclear energy goals. Earlier in March, Indian Union minister Jitendra Singh also emphasized that Nuclear Energy is critical for India's net zero goal. With a roadmap now being formulated in consultation with stakeholders, the Minister affirmed that while challenges exist, achieving the 100 GW target by 2047 is both ambitious and achievable.

ET

<http://economictimes.com/>

4 May 2025

Syria to sign deal to import electricity from Turkey, minister says

Energy Minister, Mohammed al-Bashir affirmed that Syria is preparing to finalize an agreement to import electricity from Turkey via a high-voltage transmission line linking the two countries. "We are about to sign an agreement for a 400-kilovolt transmission line extending from Turkey into Syria, additionally, we are working to rehabilitate the natural gas pipeline connecting Kilis and Aleppo." The Minister said in a statement on Sunday. Minister al-Bashir said that "the preparations are underway for a new transmission line between Turkey's Reyhanlı and Syria's Harem region, through which around 80 megawatts of electricity will be delivered to northern Syria once the tender process is completed, adding that "Once operational, it could supply 6 million cubic meters of gas per day to Syria's power generation stations, significantly improving our energy situation."

Regarding the mining sector, the Minister of Energy pointed out that the issue of extracting minerals such as phosphate and lithium was discussed with the Turkish side, and the possibility of exploring for natural gas in territorial waters was also raised. Al-Bashir called on Turkish companies to invest in Syria, saying that "Investment is available in all areas of energy, including oil and natural gas exploration, refining and transportation, rehabilitation of power lines and power generation plants, and rebuilding refineries."

SANA

<http://www.sana.sy/>

5 May 2025

PJM fast-tracks 11.8 GW, mainly gas, to bolster power supplies

The PJM Interconnection on Friday said it selected 51 projects to join a fast-track interconnection review process as part of a broad effort to ensure the grid operator has adequate supplies to meet its needs.

PJM has been warning that it faces looming power supply shortfalls as its supply isn't keeping up with demand. That dynamic was reflected in the jump in clearing prices from PJM's last capacity auction, which sparked backlash over rising electric bills and moves by the grid to boost supplies.

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Gas-fired generation accounted for 69% of the selected capacity, followed by battery storage at 19%, nuclear at 12%, and coal at 0.1%. The projects consist of 39 uprates to existing power plants and 12 new power facilities. PJM expects 90% of the projects will be operating by 2030.

PJM estimates that the selected projects will provide 9.4 GW of unforced capacity, a measure of how much capacity the resources are expected to supply during periods of the highest reliability risk. The solicitation results will be discussed at a PJM Planning Committee meeting on Tuesday.

Among selected projects, PJM opted to advance 450 MW in uprates at four power plants owned by Alpha Generation in Maryland, New Jersey and Ohio, according to Jack Lynch, a spokesman for the independent power producer. The projects, which were assessed based on certain reliability and commercial operation date criteria, will be added to the just-started interconnection Transition Cycle 2 process, which already contains about 550 projects totaling about 50 GW in nameplate capacity.

PJM estimates the selected projects will be able to come online 18 months earlier than if the projects followed the grid operator's normal interconnection process. The RRI attracted 94 applications totaling 26.6 GW, the grid operator said in March. The Federal Energy Regulatory Commission approved PJM's one-time RRI in mid-February on a 3-1 vote.

In a prelude to potential lawsuits over FERC's approval of the initiative, various companies, state officials and organizations in March asked the agency to reconsider its decision. They include Invenergy Renewables, the American Clean Power Association, the Solar Energy Industries Association, Advanced Energy United and MAREC Action, the Sierra Club, the Natural Resources Defense Council and other groups, the Office of the Ohio Consumers' Counsel and the Environmental Law & Policy Center. In part, they contend the RRI discriminates against proposed power projects that have been waiting in PJM's interconnection queue.

Utility Dive

<http://www.utilitydive.com/>

6 May 2025

World Bank's loan to support Bosnia and Herzegovina's energy transition

The World Bank has approved a substantial financial package to bolster Bosnia and Herzegovina's energy security and economic transition. On 1 May, the Board of Executive Directors sanctioned a €79.90m loan and a €2.89m grant to advance the country's National Energy and Climate Plan.

This strategic move aims to enhance energy independence, foster job opportunities and strengthen local economies in regions transitioning away from coal. The Just Transition in Select Coal Regions of Bosnia and Herzegovina Project is set to repurpose post-mining lands in Banovići, Zenica and Kreka. This includes facilitating the closure of underground works in Zenica and installing renewable energy systems at Banovići and Kreka mines. Additionally, the project will offer social protection and skills development programmes for workers and communities transitioning from the coal sector.

World Bank Country Manager for Bosnia and Herzegovina and Montenegro Christopher Sheldon said: "This new project is an opportunity to boost Bosnia and Herzegovina's energy security while supporting communities, making sure no one is left behind." Bosnia and Herzegovina is committed to reducing greenhouse gas emissions and decarbonising its power sector by 2050. The World Bank's support aims to ensure that mine closures are managed in an environmentally and socially responsible manner, while

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simultaneously creating new job opportunities and invigorating local economies in the former coal regions.

In a related development, the World Bank and the African Development Bank unveiled terms in January this year for African countries to access \$40bn in power finance through the Mission 300 programme. This initiative aims to connect half of the continent's population to the national grid and the other half through off-network solutions like solar mini-grids. The programme promises \$30bn from the banks, with an additional \$10bn anticipated from private institutions, marking a significant step in addressing varied electricity access across sub-Saharan Africa.

Power Technology

<http://www.power-technology.com/>

7 May 2025

Irish Distributed Solar Hits 66 GWh of Electricity in April, Setting New Record

In April 2025, Ireland's small-scale solar output reached a new record of 66 GWh, enough to power the monthly average demand of around 188,000 homes. This output, valued at over €15 million (\$17 million), marks a significant increase compared to March, where the value was just under €10 million. By the end of April, Ireland's total small-scale solar generation for 2025 surpassed 137 GWh.

This data comes from Kilowatt.ie, an online tool that tracks small-scale solar energy in Ireland. The platform was founded by Dominic Ó Gallachóir, who attributed the record output to a combination of factors. "With above-average sunshine levels last month and a strong pipeline of installations going live, April 2025 marks a significant step forward for domestic and small-business solar in Ireland," Ó Gallachóir commented at the start of May. He added that consumers would notice the impact on their energy bills.

Ireland's small-scale solar capacity has doubled over the past two years, with more than 132,000 installations in place, totaling 560 MW of capacity. The government has actively supported this growth by offering various incentives for solar energy adoption. These include grants like the Solar for Schools scheme, commercial solar PV grants, and retrofitting programs for residential solar installations.

Kilowatt.ie, which launched its solar tracker tool in March, reported that as of that month, over 120,000 small-scale solar systems were installed across Ireland, contributing a combined 500 MW of capacity. The growth in small-scale solar is seen as a positive step toward meeting Ireland's renewable energy goals.

Overall, Ireland's small-scale solar sector has experienced significant growth, driven by favorable weather conditions, strong government incentives, and increasing consumer adoption. As the number of installations continues to rise, solar energy is expected to play a larger role in meeting Ireland's energy needs, with benefits extending to both households and businesses.

Pv-magazine

<http://www.pv-magazine.com/>

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Ørsted Discontinues 2.4GW Hornsea 4 Offshore Wind Farm in UK

Ørsted has decided to discontinue the Hornsea 4 project in the U.K. in its current form, citing adverse developments like increase in supply chain costs, higher interest rates, and an increase in the risk to construct and operate the project on the planned timeline.

Ørsted has taken the decision to stop further spend on the 2,400 MW Hornsea 4 project at this time and terminate the project's supply chain contracts, meaning that Ørsted will not deliver Hornsea 4 under the CfD awarded in AR6.

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The company said it will evaluate options for future development of the Hornsea 4 project given the continuing seabed rights, grid connection agreement and Development Consent Order. As a consequence of the decision, Ørsted expects to incur break-away costs of \$470 million to \$680 million (DKK 3.5 to 4.5 billion) in 2025. The EBITDA impact is expected to be \$455 million to \$530 million (DKK 3.0 to 3.5 billion), this includes a write-down of the offshore transmission assets and a provision for contract cancellation fees (not part of guided EBITDA).

In addition, capitalized construction costs of approximately \$76 million to \$152 million (DKK 0.5 to 1.0 billion) will be written down (impact below EBITDA). “Our capital allocation is based on a strict and value-focused approach, and after careful consideration, we’ve decided to discontinue the development of the Hornsea 4 project in its current form, well ahead of the planned Final Investment Decision later this year.

“We’ve been maturing the project over the past nine months and have been working relentlessly with stakeholders and suppliers to manage the different project risks for a project of this scale. Throughout the development phase we’ve been very diligent in our approach to capital commitment to our suppliers, and our committed capital is well below our threshold. The adverse macroeconomic developments, continued supply chain challenges, and increased execution, market and operational risks have eroded the value creation.” “I’d like to emphasise that Ørsted continues to firmly believe in the long-term fundamentals of and value perspectives for offshore wind in the U.K. We’ll keep the project rights for the Hornsea 4 project in our development portfolio, and we’ll seek to develop the project later in a way that is more value-creating for us and our shareholders,” said Rasmus Errboe, Group President and CEO of Ørsted.

Offshore Engineer

<http://www.oedigital.com/>

7 May 2025

Welsh government commits £2m to advance tidal energy

The Welsh government has made a £2m (\$2.6m) equity investment in tidal energy firm Inyanga Marine Energy Group to support tidal energy development.

The funding, revealed by First Minister Eluned Morgan at the Marine Energy Wales Conference taking place in Cardiff on 7 and 8 May 2025, underscores the government’s commitment to renewable energy, particularly tidal power. The investment will enhance tidal turbine technology at the Morlais tidal energy site off Ynys Mon (Anglesey).

It will be directed towards refining the turbines to increase their energy output by up to 60%. These advancements are expected to benefit the majority of tidal energy projects planned for the Morlais site. The 35km² Morlais site holds the potential to generate sufficient electricity to power over 180,000 homes, making it one of Europe’s “largest consented tidal energy projects”, according to a news release by the Welsh government.

Morgan stated: “This investment is a big step forward for Wales’ clean energy future. Tidal energy offers reliable, clean power and creates quality jobs in coastal communities where they’re needed most.

“By investing in innovation, we’re putting Wales at the forefront of marine energy technology. The improved turbines will explore making tidal energy more practical, helping speed up the global move away from fossil fuels. “Following my visit to the international Wind Europe conference in Copenhagen last month, today’s investment shows how serious we are about renewable energy and its important role in meeting our future energy needs.”

Inyanga Marine Energy Group CEO Richard Parkinson added: “Our patented HydroWing tidal array technology is right at the forefront of developments in renewable energy, untapping the full potential of ocean tides as a perpetual and predictable source of

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energy. "This significant £2m equity investment from the Welsh government completes the financing for the demonstration phase of our ambitious technology."

Power Technology

<http://www.power-technology.com/>

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Google to fund development of three nuclear power sites

Tech giant Google is expanding its nuclear energy plans by providing early-stage capital for Elementl Power to prepare three potential sites in the USA for advanced nuclear power projects. The aim is that each of the three sites would have "at least 600 MW of capacity". The value of the investment has not been included in the two companies' collaboration announcement, or the locations of the three proposed sites.

Google said: "This agreement is part of our continued work to source 24/7 baseload energy to support our operations and strengthen power grids. It also helps Elementl advance its goal of bringing significant nuclear capacity online by 2035. This innovative approach links capital investment directly with the growing demand for clean baseload power, with Google having the option for commercial off-take once projects are complete."

Elementl Power Chairman and CEO Chris Colbert said: "Innovative partnerships like this are necessary to mobilise the capital required to build new nuclear projects, which are critical to deliver safe, affordable and clean baseload power and help companies advance their long-term net-zero goals. We look forward to working with Google to execute these projects and bring safe, carbon-free, baseload electricity to the grid." The two companies will work "with utility and regulated power partners to identify and advance new projects" and Elementl "will continue the evaluation of potential technology, engineering, procurement and construction, and other project partners, while prioritising specific sites for accelerated development"

Elementl Power, founded in 2022, describes itself as a technology-agnostic advanced nuclear project developer which aims to provide "turn-key development, financing and ownership solutions for customers that want access to clean baseload power but may not want to own or operate nuclear power assets". It says its mission is to "to deploy over 10 gigawatts of next-generation nuclear power in the US by 2035".

It is not Google's first nuclear power deal - in October 2024 the company signed an agreement with Kairos Power to purchase power from its fluoride salt-cooled high-temperature small modular reactors, with a fleet of up to 500 MW of capacity by 2035. The aim of the power purchase agreement was to facilitate Kairos Power to develop, construct, and operate plants and sell energy, ancillary services, and environmental attributes to Google. At the time of that announcement Google said that it would help it achieve net-zero emissions across all of its operations and value chain by 2030.

Fellow tech companies Amazon, Microsoft and Facebook owner Meta have all signed agreements in recent months which could lead to them utilising nuclear technology to provide power for their growing data centre needs. The advantage of nuclear power is seen to be the ability to have 24/7 reliable, and clean, energy.

WWN

<http://www.world-nuclear-news.org/>

12 May 2025

Puget Sound Energy Inks Agreement to Join Markets+

Puget Sound Energy said May 12 that it is joining Markets+, marking another win for SPP shortly after the Bonneville Power Administration issued its final market policy in favor of the day-ahead market. Washington-based and investor-owned utility PSE announced in

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a news release that it has signed an agreement with SPP's Markets+, saying the day-ahead market's governance structure was a key factor in the decision. The announcement comes three days after BPA issued its decision May 9 to join SPP's Markets+ instead of CAISO's Extended Day-Ahead Market. BPA's decision was perhaps unsurprising given a draft policy the federal power agency issued in March that emphasized the benefits of Markets+.

Still, BPA's announcement in favor of Markets+ represented "a crucial development enabling PSE to fully leverage the benefits of this new market structure, given the interconnected nature of its electric transmission operations with BPA in the Pacific Northwest," PSE stated. "As BPA's largest transmission customer, this coordination can deliver substantial operational efficiencies and cost benefits for our customers," Josh Jacobs, PSE's vice president of clean energy strategy and planning, said in a statement. "This collaborative approach allows us to actively participate in the market's development while preserving our ability to serve our customers' specific needs."

SPP has officially set Oct. 1, 2027, as the go-live date for Markets+, its centralized, day-ahead offering in the Western Interconnection. Between now and then, much will happen, with Sept. 1, 2025, emerging as a key date. That is the deadline for balancing authorities to join in time to be a part of the market when it goes live. Entities like Xcel Energy subsidiary Public Service Company of Colorado, El Paso Electric and Tacoma Power already have committed to joining SPP's day-ahead market.

When asked if BPA's decision could influence other entities, Carrie Simpson, SPP vice president of markets, told RTO Insider that BPA's policy "may support the evaluation process for other entities, which could result in others moving forward with decisions on market choice." PSE, which has been known to lean in favor of SPP's market option, emphasized opportunities in Markets+ to expand renewable integration within the day-ahead market's geographical area.

"Additionally, the program strengthens resource adequacy through regional coordination, allowing for more efficient use of existing resources and improved reliability for customers," PSE said in the statement. PSE also touted Markets+'s "member-driven governance structure," saying it allows the utility to "appropriately" represent its customers. The governance issue has been a significant focus for potential participants weighing whether to join Markets+ or EDAM.

BPA, like others in favor of Markets+, has often stated the SPP market's governance structure is "superior" to that of EDAM, despite ongoing efforts by the West-Wide Governance Pathways Initiative to relax the state of California's oversight of CAISO's EDAM and Western Energy Imbalance Market (WEIM) by handing over governance to a proposed independent regional organization. "PSE supports the incremental development of greater independence for CAISO and the West. Governance was just one factor among many that PSE considered in its market decision," Phil Haines, PSE director of energy supply and trading, told RTO Insider. PSE said it "looks forward to working with SPP and other regional participants through Phase 2 development and toward market implementation."

RTO Insider

<http://www.rtoinsider.com/>

12 May 2025

Georgia could host up to 87 GW of solar

A significant portion of Georgia's land area is well suited to solar deployment, with a maximum development potential of up to 87 GW, according to a new report from IRENA.

The "Investment opportunities for utility-scale solar and wind areas: Georgia zoning assessment" report uses zoning assessment methodology to identify favorable areas in Georgia for future renewables deployment. The government of Georgia requested the

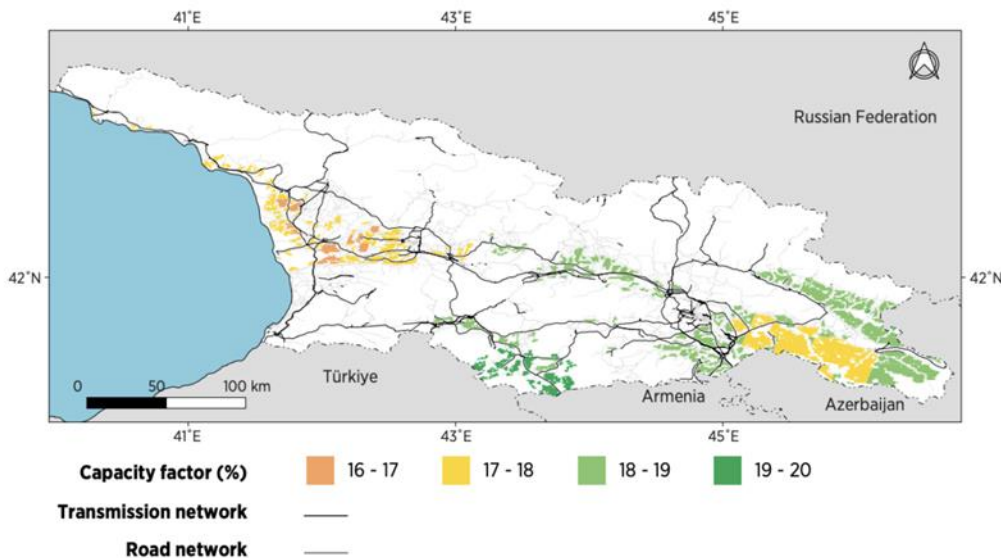
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assessment, with support from the Ministry of Economy and Sustainable Development and Georgian State Electrosystem, to help inform national infrastructure planning.

The 87 GW estimate accounts for a land-use footprint of 50 MW/km², a maximum solar concentration of 5 GW per zone, and a land utilization factor between 20% and 30%.

Most of the potential sites identified for renewables are located in the central, southern, southwestern and southeastern parts of Georgia and are alongside transmission and road networks. The eastern part of the country was found to be particularly favorable for solar. The report identifies and maps these zones, detailing the techno-economic attributes of each area, including installed capacities, potential hourly and annual energy generation, localized cost of electricity (LCOE), and distances from existing transmission line networks.

Figure 12 Capacity factors of the most promising zones for utility-scale solar PV projects



IRENA said its findings are intended to prompt in-depth investigation that establishes specific sites for more detailed evaluation using high temporal and spatial resolution resource data.

It acknowledged there are several limitations to the project, with the study not factoring in permit connection requirements, land ownership, or protected land status, so the maximum deployment figure should be treated with caution. However, IRENA said the findings suggest that Georgia could raise its renewable energy targets. The country currently aims to reach 5.289 GW of renewables by 2030, according to the 2024 Global Energy Monitor. Georgia had deployed 133 MW solar by the end of 2024, according to statistics from IRENA, up from 64 MW at the end of 2023.

Pv-magazine

<http://www.pv-magazine.com/>

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House GOP proposes early phaseout of IRA clean energy tax credits

Federal tax credits that benefit energy developers, manufacturers and utilities face an early phaseout in a budget proposal released Monday by a key GOP-controlled House committee. The House Ways and Means Committee's draft reconciliation package steps down the investment and production tax credits for nuclear power, wind, solar, batteries, geothermal and other clean energy technologies after 2028, and eliminates them completely after 2031. It preserves a comparatively generous credit for carbon sequestration and extends the clean fuels production credit. Energy industry groups and customers slammed

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the proposal, saying it would raise electricity prices, quash a manufacturing boom spurred by the Inflation Reduction Act and erode the United States' competitive advantage on artificial intelligence.

The Ways and Means budget gives clean energy developers and producers until 2028 to claim the full 45Y and 48E tax credits for clean energy investment and production. The credit values step down to 80% in 2029, 60% in 2030 and 40% in 2031 before zeroing out in 2032. A separate credit for nuclear power production would phase out on the same schedule. As originally passed, the Inflation Reduction Act of 2022 allowed taxpayers to claim the full value of all three credits into 2032. "While our industry is ready to engage constructively and find a workable path forward, the Committee's approach simply goes too far too fast," American Clean Power Association CEO Jason Grumet said in a statement. "With energy demand surging, this is not the time for disruption."

The Ways and Means proposal also tightens eligibility for 45Y and 48E by requiring projects to be "placed in service" to qualify for the credit. The Inflation Reduction Act based eligibility on the year projects began construction, a more generous framework in a world where the timeline for grid interconnection and long-lead electrical equipment can stretch for years. The placed-in-service requirement "severely crimps utility scale renewables" to the point that "the only projects that will get the full ITC and PTC are those already in the queue," Advait Arun, senior associate for energy finance at the Center for Public Enterprise, said in an interview.

Clean energy advocates warned that the Ways and Means budget could disproportionately harm the "clean firm" technologies President Trump and House Republicans seem to favor, like advanced nuclear and geothermal. "Some of America's largest companies are attempting to advance critical new technologies like geothermal and advanced nuclear energy, but those technologies will not move forward if these tax credits are phased out," Clean Energy Buyers Association CEO Rich Powell said in a statement. Powell's organization represents major technology and industrial firms driving demand for clean electricity, such as Microsoft and Amazon.

A key nuclear power trade group whose April 30 plea to preserve key IRA tax credits attracted more than 100 signatories earlier this month said the Ways and Means budget would set back an industry critical to U.S. national security. "Underlying conditions in the market have not changed and nuclear energy is not appropriately valued for its ability to provide reliable, secure, and affordable energy to an increasingly clean electric grid," Michael Flannigan, vice president of governmental affairs at the Nuclear Energy Institute, said in a statement.

An early end to clean energy tax credits would compound the impacts of downsizing at the Department of Energy, particularly in the DOE Loan Programs Office and Office of Clean Energy Demonstrations, Arun said. "If those [programs] are all going in the can, it will have just as much of an impact on the emerging technology landscape" as any changes to the tax code, he said. A proposed two-year sunset of the IRA's tax credit transferability mechanism could further curtail clean energy investment, Arun said. The IRA created a new pathway for project developers and asset owners with limited tax liability to raise capital by transferring tax credits — at a discount dependent in part on the deal's perceived risk — to third-party buyers with greater tax liability.

The change would affect small and midsize clean energy developers the most, putting them at a disadvantage to incumbents closer to the big banks that dominate the more complex, gated world of traditional tax equity finance and have limited capacity to take on new clients, Arun said. "Transferability is the biggest new development in clean energy markets ... to shut that down will dry up a lot of the liquidity clean energy developers have been counting on," he said.

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On earnings call last week, before Ways and Means released its draft budget, Sunrun Chief Financial Officer Danny Abajian said his distributed energy company would have to temporarily “[shift] how we source capital” were transferability repealed. But he said Sunrun could eventually benefit from a “flight to quality” in a tighter tax credit market. Crux, an energy capital markets platform that has emerged as a key player in the nascent transferability industry, said in a subscriber email Monday that the Ways and Means proposal “is just the starting point and we anticipate that the final bill will take a more favorable stance on transferability and tax credits.”

Though both are subject to new restrictions on transferability and foreign ownership, the Ways and Means proposal treats the 45Q tax credit for carbon capture and sequestration and the 45Z credit for clean fuels production more favorably than the technology-neutral credits. The proposal maintains 45Q through 2032 and extends the 45Z credit through 2031, giving producers of biofuels like ethanol and sustainable aviation fuel four more years to claim it.

Hydrogen producers are not so lucky. The Ways and Means proposal eliminates the 45V credit for clean hydrogen production after this year, less than 12 months after the Treasury Department released final guidance. Most of the popular consumer and builder tax credits for efficient home appliances, solar panels, electric vehicles and EV chargers are also set to wind down this year. Credits for electric and other clean-fuel fleet vehicles end after this year as well, with a seven-year grace period for orders covered by existing contracts.

Utility Dive

<http://www.utilitydive.com/>

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Equinor says it could cancel New York offshore wind project over Trump order

The developer of a major U.S. offshore wind project warned that it will cancel the Empire Wind facility off the coast of New York if it cannot in the coming days reach a resolution over a month-old stop-work order issued by the Trump administration.

Molly Morris, president of the U.S. renewable energy arm of Norway's Equinor, opens new tab, said the company was spending \$50 million a week to keep the project afloat. Interior Secretary Doug Burgum ordered Equinor to halt construction on the project on April 17, saying information suggested the administration of former President Joe Biden may have approved it without a thorough environmental analysis. President Donald Trump has directed his administration to speed approvals for energy projects to meet soaring U.S. demand. On Monday the Interior Department said it would perform an environmental review for a Utah uranium mine in just two weeks. Wind, however, is excluded from that effort. Trump issued an executive order on his first day in office pausing new leasing and permitting of wind projects, which he says are ugly, expensive and harmful to wildlife. Equinor's Morris said the stop-work order stemmed from a report by the National Oceanic and Atmospheric Administration, a division of the Commerce Department, but that the company had not seen the report and was not aware of the specific concerns it had raised. NOAA assists the Interior Department's Bureau of Ocean Energy Management in permitting offshore wind projects by assessing impacts on marine mammals and fisheries.

Interior Department officials were not immediately available for comment. A NOAA spokesperson declined to comment. Equinor has 11 vessels with 100 workers on board sitting on the water waiting for an order to resume work, Morris said. The company has already invested \$2.7 billion in the project.

Reuters

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No sign of cyberattack on grid operator during Spain's blackout, Minister says

Spain has found no indication of a cyberattack on its grid operator REE during the massive power outage that hit the country and Portugal on April 28, Energy Minister Sara Aagesen said on Wednesday.

Prime Minister Pedro Sanchez had said on April 29 that his government wasn't ruling out the possibility of a cyberattack as a cause of the blackout.

US News

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