

RE plus batteries can beat new coal units on cost: Study

Says energy produced by renewables can provide enough electricity round-the-clock for India

WASHINGTON

RENEWABLE energy backed by battery storage can provide India with reliable, round-the-clock electricity at a price below that of new coal-fired plants, according to a new University of California, Berkeley study.

The study examined a landmark 1,000-megawatt auction conducted by the Solar Energy Corporation of India, or SECI, which produced a tariff of Rs5.25 per kilowatt-hour, fixed in nominal terms for 25 years.

Researchers said the auction demonstrated that renewable energy combined

with storage could deliver baseload-like power, closely matching the performance of India's existing coal fleet without exposure to future increases in fuel prices.

The study, titled "India's Renewable Energy Breakthrough: Coal-Like Reliability at a Lower, Fixed Price," was conducted by the India Energy & Climate Center at UC Berkeley.

The auction was structured to procure the largest amount of electricity during the evening, night and morning while reducing supply requirements during solar-rich mid-day hours.

Generators are required to



provide at least 90 per cent of contracted capacity during six peak hours selected by the purchaser and at least 70 per cent during the remaining non-solar hours. During solar hours, the requirement ranges from 50 to 60 per cent. Compliance will be assessed in every 15-minute

block, with shortfalls attracting a penalty equivalent to 1.5 times the contract price.

Researchers tested whether solar generation and battery storage could economically meet these requirements using 10 years of hourly weather data from 10 Indian states.

They found that for every

They found that for every 1,000 MW contracted, a least-cost project at a high-quality solar location such as Rajasthan would require about three gigawatts of solar capacity and 12 gigawatt-hours of battery storage

1,000 MW contracted, a least-cost project at a high-quality solar location such as Rajasthan would require about three gigawatts of solar ca-

capacity and 12 gigawatt-hours of battery storage.

States with different solar resources and monsoon conditions could require approximately 15 to 20 per cent more solar capacity, while the battery-storage requirement would remain close to 12 gigawatt-hours. "A key reason is India's relatively stable year-round solar resource, which is especially well suited to batteries," said Umed Paliwal, director of modelling and analytics at the centre and lead author of the study.

"Its proximity to the equator means seasonal variation in solar output is significantly smaller than in higher-lati-

tude countries, such as those in Europe, where generation can fall sharply in winter. India's main challenge is shifting abundant daytime solar into the evening and night, a task suited to mature, low-cost batteries," he said.

The auction drew bids from 16 companies. Seven developers secured capacity, with all the winning tariffs falling within a narrow range of Rs5.25 to Rs5.26 per unit.

"This price is consistent with the dramatic reductions in solar and battery costs we have seen in India," said Nikit Abhyankar, co-faculty director of the centre and a study co-author.

AMAZON Web Services (AWS), announced the general availability of OpenAI GPT-5.6 Terra and Luna models on Amazon Bedrock in India with in-country inferencing. With this capability, OpenAI model inference on Amazon Bedrock is processed on AWS infrastructure, giving organizations the ability to leverage frontier models locally.

Nitin Bawankule, Head-Enterprise Sales, India, OpenAI, said: "What we're seeing in India is a shift from AI as experimentation to AI as operating leverage. Businesses want models that can help teams write better software, work through complex information, and make higher-quality decisions in the flow of work. For many organizations in India, especially in regulated sectors, local inferencing is a key part of adopting AI with confidence. Making our models available through Amazon Bedrock gives more organizations a practical way to bring that capability into production."

Aadhaar app hits 5 crore download milestone

Over 60 lakh mobile numbers updated through app as digital-first services gain traction

NEW DELHI

THE Aadhaar app has crossed the significant milestone of 5 crore downloads, reflecting the growing adoption of convenient and digital-first Aadhaar services among residents, according to a statement issued by IT Ministry on Thursday.

The milestone marks a significant expansion of the Aadhaar app's role as a digital interface between residents and UIDAI, enabling Aadhaar number holders to access a growing range of services from their smartphones, including mobile number update, address update, email update, biometric lock/unlock and e-Aadhaar download.

The app has seen strong



and sustained usage since its launch. While more than 60 lakh people updated their mobile number using the Aadhaar app, over 15 lakh address updates and more than 23 lakh email updates were done through the Aadhaar app.

The growing adoption of these services reflects the increasing preference among residents for availing Aadhaar-related services digitally, without the need to visit an Aadhaar centre, the statement said.

The Aadhaar app is designed around the principle

of "Show, Share and Verify", giving Aadhaar number holders greater control over how their Aadhaar information is used while enabling convenient identity verification.

Alongside the growth of the Aadhaar app, UIDAI continues to expand the ecosystem for secure and convenient offline verification. UIDAI has now onboarded more than 200 entities as Offline Verification Seeking Entities (OVSEs), since its roll out in January, according to the statement.

This milestone marks a major advancement in enabling secure, consent-based, and paperless verification through Aadhaar offline mechanism -- empowering both service providers and

people, alike. The onboarding of these OVSE partners reflects growing confidence in Aadhaar-enabled, privacy-first digital verification frameworks that prioritise user control while ensuring ease of access, the statement said.

By leveraging Aadhaar offline verification methods such as QR code-based verification and secure digitally signed documents, these entities will now be able to verify identity information without requiring real-time connectivity to UIDAI's central database. This approach brings a strong resident-centric focus, ensuring that Aadhaar number holders can share only the minimum necessary data, thereby enhancing privacy.

IISc uses AI to find a universal antivenom for snakebites

Researchers use venom data to identify common toxin targets across multiple snake species

KOLKATA



THE Indian Institute of Science (IISc), Bengaluru, is using artificial intelligence (AI) to develop broadly neutralising anti-venoms capable of treating bites from multiple snake species, potentially addressing a major public health challenge that claims tens of thousands of lives in India every year.

"India loses an estimated 58,000 lives to snakebite every year. The remarkable diversity of snake venoms across species and regions makes this an enormously challenging scientific problem, and one where AI can help us analyse data at a scale and speed that were previously difficult to achieve," IISc has said.

The Evolutionary Venomics Lab (EVL) at the Centre for Ecological Sciences (CES), IISc, is using Claude, through

Anthropic's AI for Science programme, to annotate complex venom datasets and identify shared toxin targets for developing broadly neutralising antivenoms.

What researchers are trying to do is to develop antivenoms that would act in the case of bites of different species of snakes. This would reduce the need for hospitals to stock a wide variety of antivenoms.

"We are excited to explore how the convergence of artificial intelligence, evolutionary biology, and translational science can help deliver the next generation of snakebite therapies," IISc said.

EVL has been doing pio-

neering work in the development of anti-venoms.

After developing a synthetic anti-venom in 2024, the laboratory created "venom maps" in 2025. These maps use local climate conditions to help predict the venom characteristics of Russell's Viper, a deadly snake found across the country.

The Russell's Viper is arguably the clinically most important snake species in the world. It kills and maims more people than any other snake species.

The venom maps could help clinicians select the most appropriate treatment for patients with snake bites, researchers say. It is important to precisely unravel the composition, activity and potency of Russell's Viper venoms and understand the role of biotic and abiotic factors in shaping them, researchers say.

82% of Indians have damaged smartphones

BIZZ BUZZ BUREAU
HYDERABAD

ONEASSIST, India's highest-rated InsurTech platform, unveiled findings from its latest consumer insights report, The Great Indian Smartphone Protection Crisis commissioned in collaboration with Hansa Research, a full-service global market research agency. The report examines smartphone usage, accidental damage and protection adoption across India.

The report highlights a growing disconnect between consumers' increasing dependence on smartphones and their relatively low adoption of protection plans, despite frequent accidental damage, rising device costs and longer ownership cycles.

As smartphones become central to how Indians work, bank, shop, communicate and entertain themselves, they have also become one of consumers' most valuable everyday assets. With smartphone prices continuing to rise and consumers holding on to their devices for longer, the financial impact of accidental damage and repairs has become increasingly significant.

Gujarat pitches AI, chips and data centres to US tech firms

GANDHINAGAR

GUJARAT government is exploring potential partnerships in artificial intelligence, data centres and semiconductor manufacturing with major US technology companies, with Chief Minister Bhupendra Patel holding discussions with Micron, Google, Perplexity AI and The Indus Entrepreneurs (TIE) on



the third day of his US visit. The meetings, held as part of the state's preparations for the Vibrant Gujarat Summit 2027, covered possible collaborations ranging from AI training and agricultural

applications to semiconductor manufacturing, data security and the establishment of engineering, research and development facilities in Gujarat.

During the delegation's visit to Micron, Chairman and CEO Sanjay Mehrotra thanked Patel for approving 20 acres of land for the company's Sanand facility within a day.

'Insta uses 'don't ask, don't tell' mode for U-13 users' safety'

NEW DELHI

A former Meta engineering director testified in a US federal court that Instagram took a "don't ask, don't tell" approach to children under 13, prioritising user engagement and growth over safety, accusing the company of harming young users, according to multiple reports.

Arturo Bejar -- who has previously testified before Congress on child safety -- said during his second day

on the stand that Meta measured employee performance and compensation largely by engagement metrics such as user numbers and time spent on the platform.

"In that context, safety was an afterthought," he said according to the reports.

Bejar also testified that his research found "tens of thousands" of children under 13 using Instagram and that it was "common knowledge" within the company that such young users were using



the application. The trial that pits Meta against California, Colorado, Kentucky, and New Jersey, saw Bejar pointing out that Meta had sophisticated systems to detect fake accounts but it did not have any "goals or metrics" for employees to detect and check

the ages of children suspected to be under 13. The states leading the charge in federal court are among 29 that sued the tech giant in 2023, accusing it of contributing to the youth mental health crisis by knowingly designing features that encouraged children to become addicted to its platforms. Reports suggest that the lawsuit also alleged that Meta routinely collected data from children under 13 without parental consent, in violation of federal law.

Quiet channel between ICE and Iran shaped deportation flights

US Immigration and Customs officials apparently heeded some last-minute changes to deportation lists at Iran's request



THE POLITICA

Nothing political about it

SAFIYAH RIDDLE

US immigration officials worked with Iran to deport Iranians in 2025, newly released emails show, revealing a working relationship between the US and Iranian governments despite tensions mounting between the countries.

Hundreds of emails exchanged between US immigration officials, which were obtained by the National Iranian American Council and made public Tuesday, offer the most transparent play-by-play yet of how the two countries worked together to arrange for more than 100 Iranians to be flown back to Iran on three separate immigration flights in September and December 2025 and January 2026.

The emails show that Iranian officials had some influence over which Iranian immigrants in the US were sent back to their home country, and US Immigration and Customs Enforcement officials apparently heeded some last-minute changes to deportation lists at the request of Iran.

"Per request from the Iran Embassy I added a few cases," one unnamed ICE official wrote in late August, a month before the first deportation flight in September. Just over a week later, someone with the same job title moved to make another, unspecified change to the deportation list

after they said they met with the "Director at the Iranian Embassy." "Iran has requested that I amend the previous manifest and expedite the removal process," the official wrote.

In a Sept. 26 email, just three days before the deportation flight left US soil, an ICE official said in an email that the Iranian Embassy was still making requests for three additional Iranians on the flight. It's not clear who ended up on the flight, which ended up being much smaller than initially planned. Iranian officials were still making requests the day the flight departed, although one official wrote that those requests were denied.

Coordination of the flights remained a high priority even as ICE officials acknowledged internally that Iranians were fleeing Iran amid the deadly 12-day war with the US and Israel in June 2025, emails show. The flights departed just months after the US and Israel agreed to a ceasefire with Iran.

The new emails highlight a clear departure from a decades-long practice by the US of welcoming Iranian dissidents, exiles and others since the 1979 Islamic Revolution forced a large number of Iranians to flee.

The deportation of Iranians to a country whose government has a pattern of violent persecution

against women, religious minorities and political dissidents has drawn significant criticism from human rights activists.

The Department of Homeland Security did not offer comment in response to an emailed request sent Tuesday afternoon.

Some deportees were hand-picked by Iranian officials, emails show

Iranian officials acknowledged in September 2025 that as many as 400 Iranians could be returned under an agreement with the Trump administration. They said most of the Iranians had crossed into the US from Mexico illegally, while some faced other immigration issues.

It is not clear from the emails how frequently US immigration officials had direct contact with the Iranian government. Sometimes messages were conveyed through Qatari officials, who helped charter the deportation flights through Doha, but other times officials reference regular meetings with the "Iranian delegation," the "Director at the Iranian Embassy", and other unnamed Iranian officials.

It is not clear whether the people Iran put on the list had volunteered to repatriate or if they were forced. Previous reporting from The New York Times revealed that asylum-seekers were among those deported to Iran, while



The new emails highlight a clear departure from a decades-long practice by the US of welcoming Iranian dissidents, exiles and others since the 1979 Islamic Revolution forced a large number of Iranians to flee

others said they were deported against their will.

At least one person was deported who wasn't supposed to be, emails showed. "An Iranian not included on the final manifest we sent to the Qatari MOI was boarded on the flight," an unnamed US official wrote.

In response, another unnamed US official wrote, "I have no idea how the case/person got through on the plane."

US prioritised deportation efforts during war

Emails suggest that pressure

to carry out the Iranian deportations came from the highest levels of the Trump administration, even when US and Israel were exchanging strikes with Iran in a 12-day conflict between June 13 and June 24, 2025.

Just days after Trump's June 16 warning on social media that "Everyone should immediately evacuate Tehran!" the former acting director of ICE, Todd Lyons, called the repatriation of Iranian immigrants a "priority" in an email sent to the agency's head of removal operations, Marcos

Charles and a number of unnamed staff.

Shortly after Lyons' email, Charles forwarded the message to a group of officials whose names are redacted. An unnamed ICE official responded, warning that "removal will prove difficult" amid the ongoing conflict because Iran wasn't issuing the travel documents for Iranians eligible for deportation. On top of that, the Iranian airspace was closed to all flights during the bombings, and Iranians were fleeing the country.

Charles was unfazed, telling staff in a subsequent email to make a plan to deport 58 Iranians with final removal orders in ICE custody at the time.

"We need a plan forward ASAP," Charles wrote. Another official, whose name was redacted, urged colleagues to "identify a solution for this White House priority."

Jamal Abdi, the president of the National Iranian American Council, said the emails undermine Trump's assertions that the US is at war with Iran to save ordinary Iranians from a repressive regime.

"It demonstrates that the top priority here was to kick out as many people as possible by whatever means necessary," Abdi said. **Iranian officials had access to immigration detainees**

On several occasions, the

emails show ICE officials arranging for Iranian officials to meet for unspecified reasons with people detained in the US, echoing testimony from Iranian asylum-seekers in an unrelated lawsuit filed by an unaffiliated Iranian interest group in July.

Eleven Iranians in immigration detention said they were forced to meet with Iranian government officials while in ICE detention. Those Iranian authorities knew intimate details about their asylum claims, according to the sworn declarations filed in a Washington, DC, court in July.

The lawsuit alleges that US immigration agencies have been illegally sharing confidential information about Iranian asylum-seekers with the Iranian government.

The US government is allowed to work with government officials of foreign countries to coordinate deportation logistics. However, federal regulations passed in the late 1990s prohibit the government from sharing information that could reveal that the person getting deported applied for asylum.

DHS vehemently disputed the lawsuit's allegations.

"These allegations that ICE shared asylum application records with the Iranian government are FALSE," DHS said in a statement in July.