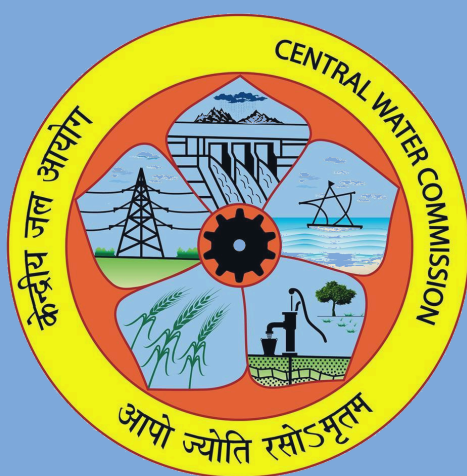


News Links on Water Sector

(26 AUGUST, 2024)



CENTRAL WATER COMMISSION

GOVERNMENT OF INDIA

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT &
GANGA REJUVENATION

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First two turbines operating at Punatsangchhu-II Hydroelectric Project in Bhutan

Date: 16/08/2024

The first two turbine-generator units are now operating at the 1,020 MW Punatsangchhu-II Hydroelectric Project, 13 years after the intergovernmental agreement between Bhutan and India was signed.

This signals the commissioning of one of the most eagerly anticipated mega hydropower projects in the country, Druk Green Power Corporation said. The next phase will involve integrating these turbines with the electrical and communication systems, leading to full-scale energy production.

Energy and Natural Resources Minister Gyem Tshering, who attended the celebration ceremony, described the event as a landmark moment that marks the beginning of a new chapter in the shared journey of Bhutan and India toward completing this project. The project, initially scheduled for completion in 2017, faced delays due to geographical challenges, flash floods, the COVID-19 pandemic, and the discovery of a significant shear zone at the dam foundation.



Source: <https://www.hydroreview.com/hydro-industry-news/new-development/first-two-turbines-operating-at-punatsangchhu-ii-hydroelectric-project-in-bhutan/#gref>

Number one biggest pumped storage plant in the world on stream

Date: 17/08/2024

State Grid Corporation of China (SGCC) commissioned the Fengning pumped storage hydropower plant (PSHP) of 3.6 GW. The facility is situated in Hebei province in the east of the country, it is the biggest PSHP in the world.

The PSHP consists of 12 hydroelectric sets, each having the capacity of 300 MW. The plant is equipped with two tanks with an elevation difference between them: during the hours of low demand cheap electricity from the common grid will be used for pumping water from the lower tank to the upper one, and from there water will be discharged during the hours of higher load actuating the hydroelectric sets. In fact, the PSP will provide for the possibility to store energy, and different from the lithium-ion batteries its efficiency practically will not depend on the number of charging-discharging cycles.



Source: <https://globalenergyprize.org/en/2024/08/17/number-one-biggest-pumped-storage-hydropower-plant-in-the-world-on-stream/>

Drought in US West Has Cost Hydropower Industry Billions in Losses

Date: 18/08/2024

Persistent drought in the West over the last two decades has limited the amount of electricity that hydropower dams can generate, costing the industry and the region billions of dollars in revenue.

The sector lost about 300 million megawatt hours of power generation between 2003 and 2020 due to drought and low water compared with the long-term average, researchers from the University of Alabama found. That equals about \$28 billion in lost revenue. Half of the drop in power generation was due to drought in Oregon, Washington and California, which produce half the hydropower generated in the U.S.

The researchers published their findings July 23 in the journal *Environmental Research Letters*.

The three states have been the most affected financially and environmentally by the decline in power production. Economic losses in California were estimated to be more than \$8.7 billion, and in Washington more than \$4 billion. In Oregon, the hydroelectricity sector is estimated to have lost more than \$1.5 billion in revenue over those 18 years.



Source: <https://cleantechnica.com/2024/08/17/drought-in-us-west-has-cost-hydropower-industry-billions-in-losses/>

Central Water Commission charting new course with its Vision 2047: Chairperson

Date: 19/08/2024

The Central Water Commission (CWC) is charting a new course with its Vision 2047, focusing on addressing the evolving challenges posed by climate change, its Chairperson Kushvinder Vohra said. In a conversation with PTI, Vohra outlined the commission's strategic plan, which is divided into short-term, mid-term, and long-term goals aimed at bolstering India's water management infrastructure.

We are creating Vision 2047 for ourselves, keeping in view the challenges, especially climate change, which has led to new emerging issues," Vohra said. He said the strategy involves a comprehensive approach to deal with the immediate, medium, and long-term needs of water management in the country.

In the short term, he said the CWC is concentrating on capacity building and the review and revision of existing guidelines. "Wherever needed, guidelines have to be upgraded, and new ideas must be brought in," Vohra said.

One of the key areas under review is the Glacial Lake Outburst Flood (GLOF) consideration, where the commission is working on new guidelines to assess risk and manage water flow from glacial.



Source: <https://economictimes.indiatimes.com/news/india/central-water-commission-charting-new-course-with-its-vision-2047chairperson/articleshow/112633133.cms?from=mdr>

India Boosts Nepal's Power Exports with New 251 MW Deal, Total Reaches 941 MW

Date: 20/08/2024

In a significant development for South Asian **energy** cooperation, India has greenlit an additional 251 megawatts (MW) of electricity imports from Nepal, bringing the total power export from the Himalayan nation to 941 MW. This move not only strengthens Nepal's position as a net electricity exporter but also marks the first instance of Nepal supplying power to Bihar under a medium-term sales agreement.

The Indian Embassy in Nepal announced that the country's Designated Authority for Cross-Border Trade has approved power exports from 12 new hydropower projects in Nepal.

This expansion builds upon the existing framework, which previously allowed for 690 MW of electricity exports from 16 projects. The rapid growth in Nepal's power export capacity is noteworthy. In October 2021, India approved just 39 MW of electricity exports from Nepal.

India has further incentivised power purchases from Nepal by allowing hydropower imports to count towards the Hydropower Purchase Obligation (HPO) for Indian buyers. This policy change is expected to stimulate increased demand for Nepalese hydropower.

Looking ahead, both countries have set ambitious targets. A long-term power trade agreement envisions the sale of up to 10,000 MW of power from Nepal to India over the next decade.



Source: <https://menafn.com/1108581545/India-Boosts-Nepals-Power-Exports-With-New-251-MW-Deal-Total-Reaches-941-MW>

EP Water to add wastewater as another source of drinkable water in the coming years

Date: 21/08/2024

Texas: El Paso Water will soon add wastewater as a source of drinkable water, furthering their efforts to make the Borderland drought-proof.

“Wastewater is becoming incredibly valuable to desert communities all across the west. It’s being used for irrigation, golf courses and irrigation parks. That’s the first step that you would take and then you start looking at the purified concepts,” said water resources manager for EP Water, Scott Reinert.

“The technology is there and the effluent resource in your community is there. So now we want to take advantage of that, and that’s what El Paso’s going to do with this purified water project,” Reinert said.

The water will be purified at the facility through a “rigorous four-step process:”

- Membrane technology
- Reverse osmosis
- Ultraviolet disinfection with advanced oxidation
- Granular activated carbon filtration



Source: <https://www.ktsm.com/news/ep-water-to-add-wastewater-as-another-source-of-drinkable-water-in-the-coming-years/>

Hydropower expected to increase throughout the U.S., but climate change could affect how and when we use it

Date: 21/08/2024

The Pacific Northwest could see a slight increase in hydropower generation within the next 15 years, but climate change could affect how and when that energy could be used, a new study suggests. The Pacific Northwest National Laboratory found hydropower generation, a renewable energy resource that uses the force of moving water to generate power, could increase by 5% by 2039 and 10% by 2059 throughout the United States. Only the Southwest is expected to see an average decrease in hydropower in that time frame due to drought.

Oregon and Washington saw a 20% drop in production in 2023 compared to 2021, the lowest in two decades.

But in looking further into the future, federal researchers gathered data from more than 1,400 hydropower facilities and compared it with data that showed how an increase in global temperatures could impact water flow and volume. PNNL's data showed as the planet continues to warm, the increase in seasonal precipitation gives a slight boost to hydropower generation.



Source <https://www.opb.org/article/2024/08/21/hydropower-electricity-pacific-northwest-renewable-energy-climate-change/>

India to spend \$300 M to build drains and expand water bodies in big cities

Date: 21/08/2024

India will spend nearly \$300 million in two years to expand water bodies like lakes and build drains in seven cities including Mumbai, Chennai and Bengaluru to mitigate floods and conserve water, a government official told Reuters on Wednesday.

Flooding, often fatal, is common in Indian cities every monsoon as rapid urbanisation devours city lakes and waste clogs drains. Such flooding has been preceded by severe water shortages in recent years, especially in Delhi and Bengaluru, where once-plenty water storage spaces have shrunk. Ratings agency Moody's warned in June that India's growing water stress could affect its growth, which at a projected ..

The federal government spending, the first flood control measure focused on water bodies, was approved recently and will also incorporate early-warning systems, said Krishna S. Vatsa, one of the three members of the National Disaster Management Authority.

"It could become one of the most significant approaches to flood mitigation in the cities," Vatsa said in an interview.



Source: <https://economictimes.indiatimes.com/news/economy/policy/india-to-spend-300-mln-to-build-drains-and-expand-water-bodies-in-big-cities/articleshow/112675253.cms?from=mdr>

India, Nepal seal 10,000 MW hydropower deal for 10 years

KATHMANDU/DELHI: India and Nepal signed several agreements, including one for purchase of 10,000 MW of hydropower by India from Nepal, as external affairs minister (EAM) S Jaishankar held "comprehensive and productive" talks with his counterpart N P Saud and also called on President Ramchandra Paudel and prime minister Pushpa Kamal Dahal Prachanda.



Source: <https://www.msn.com/en-in/news/India/india-nepal-seal-10000-mw-hydropower-deal-for-10-years/ar-AA1mtyZg?ocid=BingNewsVerp>