



Tripartite Pact on Electricity Trade: Climate Challenges Remain

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Summary

A tripartite agreement on Nepal's electricity exports to a third country, Bangladesh, via India was signed last week in Kathmandu. This long-awaited development marks a significant milestone in advancing sub-regional cooperation on renewable energy within South Asia. However, numerous challenges remain ahead, particularly as climate change-induced disasters increasingly impact hydropower generation and transmission.

Nepal, Bangladesh and India [signed a tripartite agreement](#) on 3 October 2024 for electricity exports from Nepal to Bangladesh via India. This is a historic achievement and a milestone in the sub-regional cooperation on energy trade in South Asia. Electricity trade in South Asia has existed at the bilateral level, particularly between India and its immediate least-developed country neighbours (India-Nepal, India-Bhutan and India-Bangladesh). The signing of the latest tripartite agreement will enable electricity exports from Nepal to a third country. As per the agreement, Nepal will export electricity to Bangladesh every year during the rainy season when Nepal has surplus electricity, particularly from 15 June to 15 November. The validity of the agreement is for five years, with the possibility of extension.

On 6 December 2023, the Bangladesh government [approved the decision](#) to purchase 40 megawatts (MW) of hydropower from Nepal. Subsequently, Nepal and Bangladesh entered into negotiations for agreements on the unit price of electricity and other details. After several rounds of negotiations, an agreement was reached that Bangladesh will pay Nepal US\$0.64 (S\$0.87) per kilowatt hour of electricity imported. Since Nepal and Bangladesh do not share borders, Nepal's electricity export to Bangladesh will have to pass through India using the latter's transmission infrastructure. Therefore, a tripartite agreement between the three countries was essential to export electricity from Nepal to Bangladesh. The agreement was [earlier scheduled](#) for 28 July 2024 but the agreement could not be concluded then due to the political turmoil in Bangladesh. The political change in Bangladesh also appeared to create fissures in [India-Bangladesh relations](#). Hence, there were uncertainties if and when the tripartite agreement would be possible again. Against this backdrop, the signing of the agreement now is noteworthy.

According to the [agreement](#), electricity will be exported from Nepal to India via the Dhalkebar (Nepal)-Muzaffarpur (India) 400 kilovolts (kV) transmission line and from India to Bangladesh via the Baharampur (India)-Bheramara (Bangladesh) 400kV transmission line. Nepal will calculate the price of electricity export to Bangladesh based on metre readings in Muzaffarpur, bearing all the technical losses until that point. The technical losses and wheeling charges that need to be paid to India for transmission beyond that point will be borne by Bangladesh. Bangladesh will also pay India the [trading margin](#) at the rate of ₹0.0595 (S\$0.001) per kilowatt hour. Thus, the electricity export from Nepal to Bangladesh via India

based on this agreement is expected to be beneficial to all three countries. While Nepal will earn foreign exchange by exporting its surplus electricity, Bangladesh will get clean and renewable power to add to its energy mix, and India will receive transmission charges and trading margin from Bangladesh.

To begin with, Nepal will export 40 MW of electricity to Bangladesh. According to the [Nepal Electricity Authority](#), Nepal can export more electricity to Bangladesh but it is unable to do so due to the limitation in electricity transmission capacity in the Baharampur-Bheramara transmission line. India itself [exports 900-940 MW of electricity](#) to Bangladesh using this transmission line that has a capacity to transmit up to 1,000 MW. With an expansion in transmission capacity in the future, there are prospects of exporting additional electricity from Nepal to Bangladesh. The two countries have shown interest in this regard and have kept their discussions alive.

Based on a [memorandum of understanding](#) between Nepal and Bangladesh signed in 2018, the two countries have formed a Joint Working Group and a Joint Steering Committee that have met several times and discussed issues of hydropower cooperation. Plans to export 500 MW of electricity to Bangladesh generated from the [Upper Karnali hydropower project](#) in Nepal, to be developed jointly by India and Nepal, are still in the books. Nepal, Bangladesh and India have also been discussing the [joint development](#) of the 683 MW Sunkoshi III hydropower project in Nepal.

The signing of the tripartite agreement that would facilitate electricity exports from Nepal to Bangladesh happened at a time when Nepal had [unusually heavy rains](#) for that time of the year. The rains caused [massive floods and landslides](#), resulting in the loss of more than 200 lives and millions of dollars in [damages to personal property and infrastructure](#). The disaster was such that the floods washed away several villages that lay along river banks, swept away long stretches of roads that linked the country's capital to its other parts and obstructed the borders between Nepal and China, leaving containers with goods inbound for Nepal [stranded at the borders](#). Hydropower-generating infrastructure and several transmission lines were also damaged due to the disaster. As a result of the damages, about 1,000-1,100 MW of electricity generation has been [disrupted](#). It might take several months for some of the hydropower projects to recover and restart generation. The changing climate has added tremendous uncertainty and made disasters worse and more frequent.

The progress that Nepal has made in hydropower generation and in expanding transmission and distribution infrastructures in recent years, its long-term agreement with India for hydropower exports, the rise in hydropower exports to India and the tripartite agreement between Nepal, Bangladesh and India for Nepal's electricity exports to Bangladesh are encouraging developments for Nepal and the South Asia sub-region. However, given the harsh reality of climate change and the disasters it has ensued, several challenges need to be overcome to make these initiatives successful.

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