

5G by 2020, a \$1-trn bet for India

Govt-appointed committee suggests increasing the quantum of spectrum with lower pricing

KIRAN RATHEE New Delhi, 23 August

Fifth-generation (5G) telecommunication services, which can create an economic impact of \$1 trillion in India by 2035, are expected to be launched in the country by 2020. To make 5G a success in India, a steering committee on 5G has suggested increasing the quantum of spectrum with lower pricing. The committee, headed by Stanford University Professor A J Paulraj, was formed in September last year to formulate a road map for 5G in India. "By acting early to embrace the 5G opportunity, India can accelerate the 5G dividend and potentially also become an innovator in 5G applications," the panel said in its report submitted to the government. The panel has given wide-ranging recommendations entailing spectrum policy, reg-

ulatory policy, development of application standards, education, etc. The panel feels the quantum of licensed mobile spectrum in India is much lower as compared to countries like the US and the UK. Also, the cost of spectrum, relative to per capita gross domestic product, is much higher than most countries. "Both these factors drive up infrastructure costs. Also, in recent years, the high cost of spectrum has left large quantities of unsold spectrum. It is important that India correct these anomalies in 5G," the panel said. It has also proposed that to enhance spectrum availability, there should be coordination with relevant ministries, and 5G spectrum should be allocated at the earliest. Paulraj said the 5G road map pursued by India should not only move the country forward but also result in progress



The 5G road map should also see progress of weaker sections, said professor A J Paulraj, head of committee on spectrum of weaker sections of society. The panel has also proposed some kind of financial support as 5G networks will need new business models which will bring higher investment risks to service providers. "We recommend that the government offer a comprehensive

up is needed to ensure successful trials that advance India's 5G progress. It has been proposed that a trials oversight committee should be constituted for each of the major trials, with representatives from the original equipment manufacturer, lead telecom operator, and related entities. 5G has been designed for global adoption, with flexibility to support a wide number of applications. Its adoption in India will involve many use cases adopted widely in the world, but also some unique applications to suit India's needs. The panel feels 5G's value for India may be even higher than in advanced countries because of the lower levels of investments in physical infrastructure. "5G may offer 'leapfrog' opportunities by providing 'smart infrastructure' that offers lower cost and faster infrastructure delivery," it added.

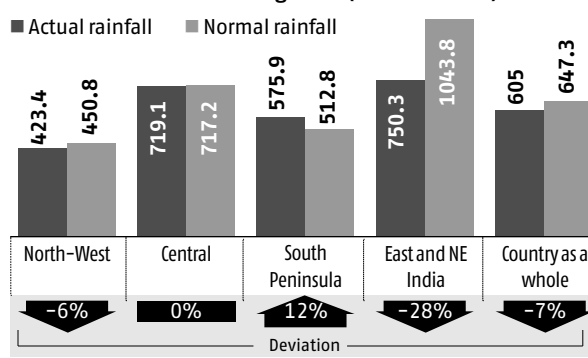
Monsoon to make central, eastward shift by Aug-end

SANJEEB MUKHERJEE New Delhi, 23 August

After pounding Kerala and other southern states, the southwest monsoon is now expected to become active over states such as Uttar Pradesh, Bihar, Jharkhand, Odisha, and West Bengal, till August-end, and then over central India. In its latest weekly update, the India Meteorological Department (IMD) said the rains would become active over east India and parts of central India due to the influence of a low pressure area likely to formed over the Bay of Bengal. "The rains have revived over some parts of east India and around August 26, a fresh low pressure area will form over the Bay of Bengal. Though not very strong, it will bring rains over central India and parts of the west coast," said Mritunjay Mohapatra, additional director general, IMD. He said in the southern peninsula, rainfall intensity would gradually peter out. The region, according to the IMD's latest weekly bulletin, has received around 81 per cent excess rainfall during the August 16 to August 22 week. This was due to the deluge in Kerala along with parts of Karnataka. The revival of rains over eastern and central India over the next few weeks should augur well for the standing kharif crops, which were facing moisture stress due to a prolonged dry spell. "So far, the monsoon distri-



SHOWER SEASON Monsoon from June 1 to August 22 (in millimeters)



Source: India Meteorological Department (IMD)

No chance at all: CEC on simultaneous LS, Assembly polls

PRESS TRUST OF INDIA Aurangabad, 23 August

Putting to rest all speculation, Chief Election Commissioner O P Rawat on Thursday emphatically ruled out the possibility of holding simultaneous elections to state assemblies along with the Lok Sabha anytime soon. Rawat also said a legal

framework is needed to be in place for holding simultaneous polls. There had been speculation in recent weeks that Assembly polls in Madhya Pradesh, Chhattisgarh, Rajasthan and Mizoram due this year-end may be deferred and held simultaneously along with the Lok Sabha elections, scheduled for April-May 2019.

While the term of the Mizoram Assembly ends on December 15, the terms of Chhattisgarh, Madhya Pradesh and Rajasthan assemblies will end on January 5, January 7 and January 20, 2019, respectively. "Koi chance nahi (no chance at all)", Rawat told a select media meet in Aurangabad, when asked if it

was feasible to hold simultaneous elections in the near future. His comments come against the backdrop of BJP president Amit Shah's recent call for a "healthy and open debate" among stakeholders for simultaneous elections. "The lawmakers will take at least a year to frame a law that can be enforceable. This

process takes time. As soon as the Bill to amend the Constitution is ready, we (the Election Commission) will know that things are now moving," Rawat said. The Election Commission commences preparations for the Lok Sabha elections 14 months before the scheduled timeframe of polling, Rawat said.

tribution has been good. Else kharif sowing would not have progressed well," Mohapatra clarified. He said though the overall monsoon deficit between June 1 and August 23 stood at 7 per cent, there is a possibility it might go down further in the next seven days. Of the 36 meteorological subdivisions, rainfall between June 1 and August 23 has been normal in 25 and deficient in the remaining 11 subdivisions. Of these, in Bihar, the rainfall this season has been 22 per cent less than normal; Jharkhand has been less than 28 per cent; Karnataka (-21 per cent); Rayalseema (-42 per cent); Assam and Meghalaya (-34 per cent); and Saurashtra (-21 per cent). The IMD in its second-stage forecast had predicted that the August rains would be normal at 94 per cent of the long-period average. The forecast is with a model error of plus and minus 9 per cent. "I cannot say how much the deficit would go down as there is still a week left for the month to end," Mohapatra added. Mahesh Palawat, chief meteorologist at Skymet said rains in the coming week to 10 days would be good.

NATIONAL PLASTIC INDUSTRIES LIMITED. Notice of Annual General Meeting. Notice is hereby given that the 31st Annual General Meeting (AGM) of the members of National Plastic Industries Limited will be held on Wednesday, September 19, 2018 at 4.00 P.M. at Hotel Suba Galaxy, N. S. Phadke Road, Off. Western Express Highway, Andheri (East), Mumbai - 400 069, to transact the business as set out in the AGM Notice.

Bharat Heavy Electricals Ltd. Bhopal. Materials Management - Feeders. BHEL Bhopal invites online bids (E-Enquiry) on BHEL E-Tendering website https://bhel.abcpocure.com for following item. Complete tender document can be seen from E-Tendering website. The tender must be submitted on or before enquiry due date through E-Procurement website only.

AMBER ENTERPRISES INDIA LIMITED. Registered Office: C-1, Phase - II, Focal Point, Rajpura Town - 140 401, Punjab. Corporate Office: Universal Trade Tower, 1st Floor, Sector-48 Sohna Road, Gurgoan - 122 018, Haryana.

NOTICE OF THE 28th ANNUAL GENERAL MEETING, REMOVE E-VOTING INFORMATION AND BOOK CLOSURE. Notice is hereby given that the 28th Annual General Meeting (AGM) of the Members of Amber Enterprises India Limited (formerly known as Amber Enterprises (India) Private Limited ("Company") will be held on Monday, 17th September, 2018 at 11.00 A.M. at Eagle Metal, Grand Trunk Rd, Rajpura, Punjab 140421, to transact the business mentioned in the Notice of AGM.

SJVN Thermal (P) Ltd. E-TENDER NOTICE (INTERNATIONAL COMPETITIVE BIDDING). SJVN Thermal (P) Ltd. A Wholly Owned Subsidiary of SJVN Ltd. invites online bids in Single Stage Two Parts (i.e. Part-I: Techno-Commercial Bid and Part-II: Price Bid) for its Buxar Thermal Power Project (2 X 660 MW) at Chausa, District Buxar (Bihar), India Pin - 802103 on EPC basis as per following details:

CRAVATEX LIMITED. Registered Office: 4th Floor, Sahas, 4142, Veer Savarkar Marg, Prabhadevi, Mumbai - 400 025. Tel No.: +91 22 66967474. Fax: +91 22 24973210.

NOTICE IS HEREBY given that the 66th Annual General Meeting of the Members of the Company will be held on Monday, September 17, 2018 at 10.30 a.m. at Textiles Committee Auditorium, P. Balu Road, Prabhadevi Chowk, Prabhadevi, Mumbai - 400 025 to transact the business as mentioned in the Notice dated May 25, 2018 which has been sent to all the Members along with the Annual Report and Audited Financial Statement for the financial year ended 31st March, 2018 by permitted mode. The dispatch/forwarding of all notices has been completed by the Company on August 23, 2018.

MUSIC BROADCAST LIMITED. NOTICE OF THE 28th ANNUAL GENERAL MEETING AND E-VOTING INFORMATION. Notice is hereby given that the 28th Annual General Meeting (AGM) of the Members of Music Broadcast Limited (formerly known as Music Broadcast (India) Private Limited ("Company") will be held on Monday, 19th September, 2018 at 11.30 A.M. at Eagle Metal, Grand Trunk Rd, Rajpura, Punjab 140421, to transact the business mentioned in the Notice of AGM.

PIONEER INVESTCORP LIMITED. NOTICE OF 33RD ANNUAL GENERAL MEETING, BOOK CLOSURE AND E-VOTING INFORMATION. NOTICE IS HEREBY given that the 33rd Annual General Meeting (AGM) of the Members of the Company will be held on Wednesday, 19th September, 2018 at 11.30 a.m. at Khandesh Conference Room, 2nd Floor, Indian Merchant Chambers, INC Marg, Churghata, Mumbai - 400 020, to transact the business as set out in the Notice, which along with the Annual Report and other documents for the financial year 2017-2018 has been sent in electronic mode through email on 24th August, 2018 to those members who have registered their email addresses with their Depository/ Company's Registrar & Transfer Agent (RTA) and to other members through physical mode on 24th August, 2018. The full Annual Report can be accessed from the Company's website www.pinc.co.in.