

## National Load Despatch Centre राष्ट्रीय भार प्रेषण केंद्र

## POWER SYSTEM OPËRATION CORPORATION LIMITED पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(Government of India Enterprise/ भारत सरकार का उद्यम) B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016 बी-9, क़तुब इन्स्टीट्यूशनल एरिया, कटवारिया सराये, न्यू दिल्ली-110016

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दिनांक: 7<sup>th</sup> Nov 2020

Ref: POSOCO/NLDC/SO/Daily PSP Report

Τo,

1. कार्यकारी निदेशक, पू.क्षे.भा.प्रे.के.,14 , गोल्फ क्लब रोड , कोलकाता - 700033 Executive Director, ERLDC, 14 Golf Club Road, Tollygunge, Kolkata, 700033

2. कार्यकारी निदेशक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली – 110016 Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016

3. कार्यकारी निदेशक, प .क्षे .भा .प्रे .के., एफ3-, एम आई डी सी क्षेत्र , अंधेरी, मुंबई –400093 Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093

4. कार्यकारी निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग – 793006 Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya

5. कार्यकारी निदेशक , द .क्षे .भा .प्रे .के.,29 , रेस कोर्स क्रॉस रोड, बंगलुरु –560009 Executive Director, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Daily PSP Report for the date 06.11.2020.

महोदय/Dear Sir,

आई॰ई॰जी॰सी॰-2010 की धारा स.-5.5.1 के प्रावधान के अनुसार, दिनांक 06-नवंबर-2020 की अखिल भारतीय प्रणाली की दैनिक ग्रिड निष्पादन रिपोर्ट रा॰भा॰प्रे॰के॰ की वेबसाइट पर उप्लब्ध है।

As per article 5.5.1 of the Indian Electricity Grid Code, the daily report pertaining power supply position of All India Power System for the date 6<sup>th</sup> November 2020, is available at the NLDC website.

धन्यवाद.

## पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली



Date of Reporting: Report for previous day

A. Power Supply Position at All India and Regional level						
	NR	WR	SR	ER	NER	TOTAL
Demand Met during Evening Peak hrs(MW) (at 19:00 hrs; from RLDCs)	45606	50606	40337	17991	2535	157075
Peak Shortage (MW)	550	0	0	0	90	640
Energy Met (MU)	945	1195	889	363	44	3436
Hydro Gen (MU)	107	25	95	68	17	311
Wind Gen (MU)	1	19	40	-		60
Solar Gen (MU)*	37.22	30.14	81.85	4.42	0.10	154
Energy Shortage (MU)	2.5	0.0	0.0	0.0	1.6	4.1
Maximum Demand Met During the Day (MW) (From NLDC SCADA)	45942	53800	42187	18487	2671	158289
Time Of Maximum Demand Met (From NLDC SCADA)	11:15	09:32	12:45	17:43	17:33	18:23
B. Frequency Profile (%)						
Di EVI	- 40.7	40.7 40.9	40.0 40.0	- 40.0	40.0 50.05	- 50.05

		Max.Demand	Shortage during	Energy Met	Drawal	OD(+)/UD(-)	Max OD	Energy
Region	States	Met during the	maximum	(MU)	Schedule	(MU)	(MW)	Shortag
		dav(MW)	Demand(MW)	(MIC)	(MU)	(NIC)	(1111)	(MU)
	Punjab	5610	0	112.1	87.9	-0.2	151	1.5
	Haryana	6056	0	123.4	109.4	1.5	301	0.0
	Rajasthan	12696	0	248.4	93.8	1.9	467	0.0
	Delhi	3546	0	65.0	47.9	-0.2	202	0.0
NR	UP	15070	300	283.9	113.7	1.6	452	0.9
	Uttarakhand	1853	0	35.9	26.5	1.5	198	0.2
	HP	1570	0	29.2	21.7	0.0	167	0.0
	J&K(UT) & Ladakh(UT)	2594	0	43.7	41.8	-3.4	419	0.0
	Chandigarh	175	0	3.0	2.9	0.1	25	0.0
	Chhattisgarh	3473	0	72.7	22.3	-1.2	165	0.0
	Gujarat	16453	0	360.7	46.7	3.4	389	0.0
	MP	14152	0	276.1	175.3	-2.3	423	0.0
WR	Maharashtra	20058	0	431.1	140.6	-2.9	536	0.0
	Goa	480	0	10.1	9.8	-0.2	26	0.0
	DD	339	0	8.9	7.5	1.5	40	0.0
	DNH	775	0	18.0	18.2	-0.1	41	0.0
	AMNSIL	789	0	17.1	1.2	0.4	245	0.0
	Andhra Pradesh	8368	0	179.0	84.1	0.9	806	0.0
	Telangana	7385	0	150.1	48.2	0.5	534	0.0
SR	Karnataka	9781	0	185.9	50.1	0.0	474	0.0
	Kerala	3593	0	71.4	46.2	0.3	223	0.0
	Tamil Nadu	13865	0	294.6	190.4	-3.2	338	0.0
	Puducherry	391	0	8.0	8.2	-0.2	26	0.0
	Bihar	4109	0	68.8	71.6	-3.3	396	0.0
	DVC	3211	0	63.4	-31.8	1.4	239	0.0
	Jharkhand	1339	0	24.2	17.9	-1.9	134	0.0
ER	Odisha	4373	0	88.0	7.4	-0.1	164	0.0
	West Bengal	6503	0	116.9	28.7	2.4	552	0.0
	Sikkim	101	0	1.5	1.6	-0.1	37	0.0
	Arunachal Pradesh	129	1	2.1	2.2	-0.1	39	0.0
	Assam	1553	59	26.0	23.2	-0.1	109	1.5
	Manipur	208	1	2.7	2.6	0.1	27	0.0
NER	Meghalaya	331	0	6.0	2.4	-0.1	45	0.0
	Mizoram	103	1	1.7	0.7	0.8	12	0.0
	Nagaland	137	1	2.5	2.2	0.1	15	0.0
	Trinura	229	0	3.5	2.9	-0.6	16	0.0

D. Transnational Exchanges (MU) - Import(+ve)/Export(-ve)

	Bhutan	Nepal	Bangladesh
Actual (MU)	18.3	-1.3	-22.2
Day Peak (MW)	846.0	-219.9	-1017.0

E. Import/Export by Regions (in MU) - Import(+ve)/Export(-ve); OD(+)/UD(-)

	NR	WR	SR	ER	NER	TOTAL
Schedule(MU)	320.4	-325.5	120.8	-114.4	-1.2	0.0
Actual(MU)	332.2	-333.9	121.8	-121.6	-3.0	-4.5
O/D/U/D(MU)	11.9	-8.4	0.9	-7.2	-1.8	-4.5

F. Generation Outage(MW)

	NR	WR	SR	ER	NER	TOTAL
Central Sector	7210	13483	10852	2570	690	34804
State Sector	15806	12428	11786	7585	11	47615
Total	23016	25911	22638	10155	701	82420

G. Sourcewise generation (MU)

	NR	WR	SR	ER	NER	All India
Coal	405	1332	436	430	7	2610
Lignite	20	13	26	0	0	59
Hydro	107	25	95	68	17	311
Nuclear	28	21	42	0	0	90
Gas, Naptha & Diesel	20	95	16	0	26	157
RES (Wind, Solar, Biomass & Others)	58	50	162	4	0	274
Total	636	1535	776	503	51	3501
Share of RES in total generation (%)	9.04	3.23	20.87	0.88	0.20	7.82
Share of Non-fossil fuel (Hydro, Nuclear and RES) in total generation(%)	30.12	6.18	38.43	14.45	34.48	19.28

H. All India Demand Diversity Factor
Based on Regional Max Demands

Dased on Regional Max Denamos	1.030
Based on State Max Demands	1.083

## INTER-REGIONAL EXCHANGES

Import=(+ve) /Export =(-ve) for NET (MU)

Sl No Impor							Date of Reporting:	07-Nov-2020
No Impor	Voltage Level	Line Details	No. of Circuit	Max Import (MW)	Max Export (MW)	Import (MU)	Export (MU)	NET (MU)
	rt/Export of ER (					*****	1	
1	HVDC	ALIPURDUAR-AGRA	2	0	350	0.0	8.8	-8.8
3	HVDC 765 kV	PUSAULI B/B GAYA-VARANASI		0	297 1051	0.0	7.2 15.4	-7.2 -15.4
4	765 kV	SASARAM-FATEHPUR	ĩ	Ö	234	0.0	3.9	-3.9
5	765 kV	GAYA-BALIA	1	0	499	0.0	8.8	-8.8
7	400 kV 400 kV	PUSAULI-VARANASI PUSAULI -ALLAHABAD	1	0	212 161	0.0	4.2 2.8	-4.2 -2.8
8	400 kV	MUZAFFARPUR-GORAKHPUR	2	0	846	0.0	11.4	-11.4
9	400 kV	PATNA-BALIA	4	0	1194	0.0	18.4	-18.4
10 11		BIHARSHARIFF-BALIA MOTIHARI-GORAKHPUR	2	0	431 352	0.0	5.2	-5.2
12	400 kV	BIHARSHARIFF-VARANASI	2	0	352 414	0.0	6.1 3.6	-6.1 -3.6
13	220 kV	PUSAULI-SAHUPURI	1	8	52	0.0	0.2	-0.2
14	132 kV	SONE NAGAR-RIHAND GARWAH-RIHAND	1	20	0	0.0	0.0	0.0
15 16	132 kV 132 kV	KARMANASA-SAHUPURI	i	0	0	0.3	0.0	0.0
17		KARMANASA-CHANDAULI	î	Ŏ	Õ	0.0	0.0	0.0
T		Vial WD)			ER-NR	0.3	96.1	-95.8
1	rt/Export of ER (\) 765 kV	JHARSUGUDA-DHARAMJAIGARH	4	1332	0	20.8	0.0	20.8
2	765 kV	NEW RANCHI-DHARAMJAIGARH	2	931	68	9.9	0.0	9.9
3	765 kV	JHARSUGUDA-DURG	2	273	39	2.0	0.0	2.0
4	400 kV	JHARSUGUDA-RAIGARH	4	479	0	7.1	0.0	7.1
5	400 kV	RANCHI-SIPAT	2	334	0	4.3	0.0	4.3
6	220 kV	BUDHIPADAR-RAIGARH	1	0	115	0.0	1.7	-1.7
7		BUDHIPADAR-KORBA	2	183	0	2.8	0.0	2.8
Ļ				•	ER-WR	46.8	1.7	45.1
	rt/Export of ER (V HVDC		2	0	215	0.0	7.2	7.3
2		JEYPORE-GAZUWAKA B/B TALCHER-KOLAR BIPOLE	2	0	315 1691	0.0	7.3 40.9	-7.3 -40.9
3	765 kV	ANGUL-SRIKAKULAM	2	0	2628	0.0	49.7	-49.7
4		TALCHER-I/C	2	0	816	0.0	12.5	-12.5
5	220 kV	BALIMELA-UPPER-SILERRU	11	11	0 ER-SR	0.0 0.0	97.8	-97.8
Impor	rt/Export of ER (V	With NER)						
1	400 kV	BINAGURI-BONGAIGAON	2	0	283	0.0	2.7	-2.7
3	400 kV 220 kV	ALIPURDUAR-BONGAIGAON ALIPURDUAR-SALAKATI	2	0	545 103	0.0	4.2 1.0	-4.2 -1.0
				U	ER-NER	0.0	7.9	-1.0 -7.9
	rt/Export of NER	(With NR)						
1	HVDC	BISWANATH CHARIALI-AGRA	2	0	501 NER-NR	0.0	12.1 12.1	-12.1 -12.1
Impor	rt/Export of WR (	With NR)			MEK-MK	0.0	14.1	-14.1
1	HVDC	CHAMPA-KURUKSHETRA	2	0	2978	0.0	41.2	-41.2
3	HVDC	VINDHYACHAL B/B	- 2	443	205	7.1	1.7	5.4
4	HVDC 765 kV	MUNDRA-MOHINDERGARH GWALIOR-AGRA	2	0	1735 2797	0.0	34.8 54.8	-34.8 -54.8
5	765 kV	PHAGI-GWALIOR	2	Ŏ	1776	0.0	28.3	-28.3
6	765 kV	JABALPUR-ORAI	2	0	1227	0.0	46.1	-46.1
8	765 kV 765 kV	GWALIOR-ORAI SATNA-ORAI	1	658	0 1592	10.5 0.0	0.0 34.2	10.5 -34.2
9	765 kV	CHITORGARH-BANASKANTHA	2	0	1086	0.0	16.4	-16.4
10	400 kV	ZERDA-KANKROLI	1	0	229	0.0	2.6	-2.6
11	400 kV	ZERDA -BHINMAL	1	0	503	0.0 22.5	6.7	-6.7 22.5
12 13	400 kV 400 kV	VINDHYACHAL -RIHAND RAPP-SHUJALPUR	2	972	0 456	0.0	0.0 6.6	-6.6
14	220 kV	BHANPURA-RANPUR	1	Ŏ	147	0.0	1.8	-1.8
15	220 kV	BHANPURA-MORAK	1	11	0	0.2	0.4	-0.2
16 17	220 kV 220 kV	MEHGAON-AURAIYA MALANPUR-AURAIYA	1	105 58	0 24	0.3 1.1	0.1 0.0	0.2 1.1
18	132 kV	GWALIOR-SAWAI MADHOPUR	î	0	0	0.0	0.0	0.0
19	132 kV	RAJGHAT-LALITPUR	2	0	0	0.0	0.0	0.0
Impor	rt/Export of WR (	With SR)			WR-NR	41.7	275.6	-233.9
1								
2		BHADRAWATI B/B	-	0	518	0.0	11.6	-11.6
3	HVDC	BHADRAWATI B/B RAIGARH-PUGALUR	2	0	401	0.0	8.5	-11.6 -8.5
	HVDC 765 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR	2 2	0 187	401 1994	0.0	8.5 20.2	-11.6 -8.5 -20.2
<u>4</u> 5	HVDC 765 kV 765 kV	RAIGARH-PUGALUR		0	401	0.0	8.5	-11.6 -8.5 -20.2 -22.4
4 5 6	HVDC 765 kV 765 kV 400 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	2 2	0 187 0	401 1994 1871 0	0.0 0.0 0.0 8.8 0.0	8.5 20.2 22.4 0.0 0.0	-11.6 -8.5 -20.2 -22.4 8.8 0.0
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	2 2	0 187 0 600 0	401 1994 1871 0 0	0.0 0.0 0.0 8.8 0.0	8.5 20.2 22.4 0.0 0.0	-11.6 -8.5 -20.2 -22.4 8.8 0.0 0.0
4 5 6	HVDC 765 kV 765 kV 400 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI	2 2	0 187 0 600	401 1994 1871 0 0 0 45	0.0 0.0 0.0 8.8 0.0 0.0	8.5 20.2 22.4 0.0 0.0 0.0 0.0	-11.6 -8.5 -20.2 -22.4 8.8 0.0 0.0 0.8
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	2 2 2 2 2 1	0 187 0 600 0 1	401 1994 1871 0 0 0 45 WR-SR	0.0 0.0 0.0 8.8 0.0	8.5 20.2 22.4 0.0 0.0	-11.6 -8.5 -20.2 -22.4 8.8 0.0 0.0
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	2 2 2 2 2 1 1 1	0 187 0 600 0 1 1 0	401 1994 1871 0 0 0 45 WR-SR	0.0 0.0 0.0 8.8 0.0 0.0 0.8 9.6	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI	2 2 2 2 2 1 1 1 INTER	0 187 0 600 0 1 1 0	401 1994 1871 0 0 0 45 WR-SR	0.0 0.0 0.0 8.8 0.0 0.0	8.5 20.2 22.4 0.0 0.0 0.0 0.0	-11.6 -8.5 -20.2 -22.4 8.8 0.0 0.0 0.8 -53.2
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	2 2 2 2 2 1 1 1 INTER Line	0 187 0 600 1 1 0 ENATIONAL EXCHA Name	401 1994 1871 0 0 45 WR-SR NGES	0.0 0.0 0.0 8.8 0.0 0.0 0.0 0.8 9.6	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW)	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI	2 2 2 2 1 1 1 INTER Line 400kV MANGDECHI te. ALIPURDUAR RR MANGBECHI HEP.	0 187 0 600 0 1 1 0 NATIONAL EXCHA Name IU-ALIPURDUAR 1&2 SCEIPT (from	401 1994 1871 0 0 0 45 WR-SR	0.0 0.0 0.0 8.8 0.0 0.0 0.8 9.6	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER	2 2 2 2 1 1 1 INTER Line 400KV MANGDECHI Le. ALIPURDUAR RE MANGDECHU HEP. 400KV TALA BINAGI	0 187 0 600 0 1 1 0 NATIONAL EXCHA Name U-ALIPURDUAR 182 CCEIPT (from 4*180MW)	401 1994 1871 0 0 45 WR-SR NGES Max (MW)	0.0 0.0 0.0 8.8 0.0 0.0 0.8 9.6 Min (MW)	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW)	-11.6 -8.5 -20.2 -22.4 -8.8 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region	2 2 2 2 1 1 1 INTER Line 400KV MANGDECHU HEP, 400KV TALA BINAGI MALBASE - BINAGG MALBASE - BINAGG MECEJIPT (From TAL)	0 187 0 600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 45 WR-SR NGES	0.0 0.0 0.0 8.8 0.0 0.0 0.0 0.8 9.6	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER	2 2 2 2 2 1 INTER LINE LINE 400KV MANGBECHI ie. ALIPURDUA RH 400KV TALA-BINAGI MALBASE HAGGE RECEIPT (from TAL 200KV CHUKHA-BIR	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239	0.0 0.0 0.0 8.8 0.0 0.0 0.0 9.6 Min (MW)	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW)	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -53.2  Energy Exchange (MII) -5.7 -9.6
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER	2 2 2 2 1 1 1 1 INTER Line GORV MANGDECHI Le. ALIPURDUAR RE MANGDECHU HEP JORN TALA SINAGI MALBASE - BINAGU MALBASE - BINAGU MALBASE - BIRPAR MALBASE - BIRPAR	0 0 187 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 45 WR-SR NGES Max (MW)	0.0 0.0 0.0 8.8 0.0 0.0 0.8 9.6 Min (MW)	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW)	-11.6 -8.5 -20.2 -22.4 -8.8 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER	2 2 2 2 1 1 1 1 INTER Line 400kV MANGDECHI ic. ALIPURDUAR RE MANGDECHU HEP. 400kV TALA BINAGI MALBASE - BINAGG MALBASE - BINAGG MALBASE - BIRPAR RECEIPT (from TAL	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239	0.0 0.0 0.0 8.8 0.0 0.0 0.0 9.6 Min (MW)	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW)	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -53.2  Energy Exchange (MII) -5.7 -9.6
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER	2 2 2 2 1 1 1 1 INTER Line GORV MANGDECHI Le. ALIPURDUAR RE MANGDECHU HEP JORN TALA SINAGI MALBASE - BINAGU MALBASE - BINAGU MALBASE - BIRPAR MALBASE - BIRPAR	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239	0.0 0.0 0.0 8.8 0.0 0.0 0.0 9.6 Min (MW)	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW)	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -53.2  Energy Exchange (MII) -5.7 -9.6
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER	2 2 2 2 1 1 1 1 INTER Line 400kV MANGDECHI ic. ALIPURDUAR RE MANGDECHU HEP. 400kV TALA BINAGI MALBASE - BINAGG MALBASE - BINAGG MALBASE - BIRPAR RECEIPT (from TAL	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435	0.0 0.0 0.0 8.8 0.0 0.0 0.0 0.8 9.6 Min (MW) 236	8.5 20.2 22.4 0.0 0.0 0.0 0.0 0.0 62.7 Avg (MW) 237 398	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER	2 2 2 2 1 1 1 1 INTER Line 400kV MANGDECHI ic. ALIPURDUAR RE MANGDECHU HEP. 400kV TALA BINAGI MALBASE - BINAGG MALBASE - BINAGG MALBASE - BIRPAR RECEIPT (from TAL	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435	0.0 0.0 0.0 8.8 0.0 0.0 0.0 0.8 9.6 Min (MW) 236	8.5 20.2 22.4 0.0 0.0 0.0 0.0 0.0 62.7 Avg (MW) 237 398	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  ER  NER	2 2 2 2 2 1 1 INTER Line 400kV MANGDECHI Le. ALIPURDUAR RE MANGBECHI HEP 400kV TALA-BINAGI RECEIPT (from CHU 132kV-GEYLEGPHU 132kV Motanga-Rangi	0 187 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435	0.0 0.0 0.0 8.8 0.0 0.0 0.0 9.6 Min (MW) 236 378	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW) 237 398	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -53.2  Energy Exchange (MII) -5.7 -9.6 -2.2 -0.2
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region ER ER ER NER	2 2 2 2 2 1 1 INTER Line 400EV MANGDECHI Le. ALIPURDUAR RE HANGDECHI HEP 400EV TALA-BINAGI RECEPT (HORD TAL MALBASE - BINAGI RECEPT (HORD TAL MALBASE - HORDER 132EV-GEYLEGPHU 132EV-GEYLEGPHU 132EV-GEYLEGPHU 132EV-TANAKPUR(I	0 187 0 0 000 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435	0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.8 9.6 Min (MW) 236 378	8.5 20.2 22.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 7 Avg (MW) 237 398	-11.6 -8.5 -20.2 -22.4 -8.8 -9.0 -9.0 -9.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -0.2 -0.6
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  ER  NER	2 2 2 2 2 1 1 INTER Line 400kV MANGDECHI Le. ALIPURDUAR RE MANGBECHI HEP 400kV TALA-BINAGI RECEIPT (from CHU 132kV-GEYLEGPHU 132kV Motanga-Rangi	0 187 0 0 000 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435	0.0 0.0 0.0 8.8 0.0 0.0 0.0 9.6 Min (MW) 236 378	8.5 20.2 22.4 0.0 0.0 0.0 0.0 62.7 Avg (MW) 237 398	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -53.2  Energy Exchange (MII) -5.7 -9.6 -2.2 -0.2
4 5 6 7	HVDC 765 kV 765 kV 265 kV 400 kV 220 kV 220 kV 220 kV BHUTAN	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI FONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER NER NER	2 2 2 2 2 1 1 INTER Line 400EV MANGDECHI Le. ALIPURDUAR RE HANGDECHI HEP 400EV TALA-BINAGI RECEPT (HORD TAL MALBASE - BINAGI RECEPT (HORD TAL MALBASE - HORDER 132EV-GEYLEGPHU 132EV-GEYLEGPHU 132EV-GEYLEGPHU 132EV-TANAKPUR(I	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435 129 18	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 62.7  Avg (MW) 237 398 90 -10	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -0.2
4 5 6 7	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region ER ER ER NER	2 2 2 2 2 1 1 INTER LINE LINE 400KV MANGDECHI LE. ALIPURDUAR RE MANGBECHI HEP. 400KV TALA-BINAGI RECEIPT (from TAL 200KV CHURLA-BIR MALBASE - BIRPAR RECEIPT (from CHU 132KV CEYLEGPHI 132KV Motanga-Rangi 132KV-TANAKPUR( MAHENDRANAGAR	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435	0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.8 9.6 Min (MW) 236 378	8.5 20.2 22.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 7 Avg (MW) 237 398	-11.6 -8.5 -20.2 -22.4 -8.8 -9.0 -9.0 -9.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -0.2 -0.6
4 5 6 7	HVDC 765 kV 765 kV 265 kV 400 kV 220 kV 220 kV 220 kV BHUTAN	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  NER  NER  NER	2 2 2 2 2 1 1 INTER Line 400KV MANGDECHI Le, ALIPURDUAR RI MANGDECHI HEP, 400KV TALA-BINAGI RECEIPT (from TAL MALBASE - BINAGI RECEIPT (from TAL MALBASE - BINAGI MALBASE - BINA	0 187 0 0 0 0 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56	0.0 0.0 0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 237  Avg (MW)  237  398  90 -10 -25 -8 -43	-11.6 -8.5 -20.2 -22.4 -8.8 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -2.2 -0.2 -0.6 -0.2
4 5 6 7	HVDC 765 kV 765 kV 265 kV 400 kV 220 kV 220 kV 220 kV BHUTAN	RAIGARH-PUGALUR SOLAPUR-RAICHUR WARDHA-NIZAMABAD KOLHAPUR-CHIKODI FONDA-AMBEWADI XELDEM-AMBEWADI Region ER ER ER NER NER	2 2 2 2 2 1 1 INTER LINE LINE LINE 400KV MANGDECHI Le. ALIPURDUAR RE MANGBECHI HEP. 400KV TALA-BINAGI RECEIPT (from TAL 200KV CHALBASE - BINAGI RECEIPT (from CHU 132KV-GEYLEGPHU 132KV-GEYLEGPHU 132KV-TANAKPUR(MAHENDRANAGAR 132KV-BIHAR - NEP.	0 187 0 0 0 0 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR NGES Max (MW) 239 435 129 18	0.0 0.0 0.0 0.0 0.0 8.8 0.0 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 62.7  Avg (MW) 237 398 90 -10	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -0.2
4 5 6 7	HVDC 765 kV 765 kV 265 kV 400 kV 220 kV 220 kV 220 kV BHUTAN	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region ER ER  ER  NER  NER  NER  ER  ER  ER	2 2 2 2 2 1 INTER LINE LINE LINE 400KV MANGDECHI LE ALIPURDUAR RE MANGBECHI HEP- 400KV TALA-BINAGI RECEPT (from TAL 132KV-BIHASE - BIRPAR RECEPT (from CHU 132KV-TANAKPUR(! MAHENDRANAGAR 132KV-BIHAR - NEP- 220KV-MUZAFFARF	0 187 0 0 0 0 0 1 1 0 0   ENATIONAL EXCHA  Name RU-ALIPURDUAR 1&2 CCEIPT (from 44180MW) URI 1;2,4 (& 400kV RUB 1;2,4 (& 400kV RUB 1;2,4 (& 400kV A) Le BINAGURI A HEP (6-170MW) PARA 1&2 (& 220kV A) Le BIRPARA  KIRH HEP 4*84MW) J - SALAKATI  iia  WH) - (PG)  AL  URI - DHALKEBAR	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56 -100	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 62.7  Avg (MW) 237 398 90 -10 25 -8 -43	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -2.2 -0.6 -0.2 -1.0
4 5 6 7	HVDC 765 kV 765 kV 265 kV 400 kV 220 kV 220 kV 220 kV BHUTAN	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  NER  NER  NER	2 2 2 2 2 1 1 INTER Line 400KV MANGDECHI Le, ALIPURDUAR RI MANGDECHI HEP, 400KV TALA-BINAGI RECEIPT (from TAL MALBASE - BINAGI RECEIPT (from TAL MALBASE - BINAGI MALBASE - BINA	0 187 0 0 0 0 0 1 1 0 0   ENATIONAL EXCHA  Name RU-ALIPURDUAR 1&2 CCEIPT (from 44180MW) URI 1;2,4 (& 400kV RUB 1;2,4 (& 400kV RUB 1;2,4 (& 400kV A) Le BINAGURI A HEP (6-170MW) PARA 1&2 (& 220kV A) Le BIRPARA  KIRH HEP 4*84MW) J - SALAKATI  iia  WH) - (PG)  AL  URI - DHALKEBAR	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56	0.0 0.0 0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 237  Avg (MW)  237  398  90 -10 -25 -8 -43	-11.6 -8.5 -20.2 -22.4 -8.8 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -2.2 -0.2 -0.6 -0.2
4 5 6 7 8	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV  State	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  NER  NER  NER  NER  ER  ER  ER	2 2 2 2 2 1 1 INTER Line 400kV MANGDECHI ie. ALIPURDUAR RE MANGBECH HEP. 400kV TALA-BINAGI RECEIPT (from TAL 20kV CHIKHA-BIR MALBASE - BINAGI RECEIPT (from CHU 132kV-GEYLEGPHU 132kV-GEYLEGPHU 132kV-TANAKPURG MAHENDRANAGAR 132kV-TANAKPURG MAHENDRANAGAR 132kV-MUZAFFARF DC BHERAMARA HVDG	0 187 0 0 0 0 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56 -100 -64 -921	0.0 0.0 0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 237  Avg (MW)  237  398  90 -10 -25 -8 -43 -2 -844	-11.6 -8.5 -20.2 -22.4 -8.8 -9.0 -9.0 -9.8 -53.2  Energy Exchange (MU) -5.7 -9.6 -2.2 -0.2 -0.6 -0.2 -1.0 -0.1 -20.2
4 5 6 7 8	HVDC 765 kV 765 kV 265 kV 400 kV 220 kV 220 kV 220 kV BHUTAN	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region ER ER  ER  NER  NER  NER  ER  ER  ER	2 2 2 2 2 1 INTER LINE LINE LINE 400KV MANGDECHI LE ALIPURDUAR RE MANGBECHI HEP- 400KV TALA-BINAGI RECEPT (from TAL 132KV-BIHASE - BIRPAR RECEPT (from CHU 132KV-TANAKPUR(! MAHENDRANAGAR 132KV-BIHAR - NEP- 220KV-MUZAFFARF	0 187 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56 -100	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 62.7  Avg (MW) 237 398 90 -10 25 -8 -43	-11.6 -8.5 -20.2 -22.4 -8.8 -0.0 -0.0 -0.8 -53.2  Energy Exchange (MII) -5.7 -9.6 -2.2 -0.6 -0.2 -1.0
4 5 6 7 8	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV  State	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  NER  NER  NER  NER  ER  ER  ER	2 2 2 2 2 1 1 1 INTER Line 400EV MANGDECHI Le. ALIPURDUAR RE MANGDECHU HEP. 400EV TALA-BINAGI MALBASE - BINAGI 132EV-GHYENDI TAL 132EV-GHYENDI TAL 132EV-TANAEPUR(! MAHENDRANAGAR 132EV-BIHAR - NEP. 220EV-MUZAFFARF DC BHERAMARA HVDC 132EV-SURAJMANI COMILLA(BANGLA	0 187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56 -100 -64 -921	0.0 0.0 0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 237  Avg (MW)  237  398  90 -10 -25 -8 -43 -2 -844	-11.6 -8.5 -20.2 -22.4 -8.8 -9.0 -9.0 -9.8 -53.2  Energy Exchange (MU) -5.7 -9.6 -2.2 -0.2 -0.6 -0.2 -1.0 -0.1 -20.2
4 5 6 7 8	HVDC 765 kV 765 kV 400 kV 220 kV 220 kV 220 kV  State	RAIGARH-PUGALUR SOLAPUR-RAIGHUR WARDHA-NIZAMABAD KOLHAPUR-KUDGI KOLHAPUR-CHIKODI PONDA-AMBEWADI XELDEM-AMBEWADI  Region  ER  ER  NER  NER  NER  NER  ER  ER  ER	2 2 2 2 2 1 1 INTER Line 400KV MANGDECHI ie, ALIPURDUAR RI MANGDECHI ie, ALIPURDUAR RI MANGDECHI ie, ALIPURDUAR RI MANGDECHI HEP, 400KV TALA-BINAGI RECEIPT (from TAL 200K CHUKILA BIR MALBASE - BIRPAR RECEIPT (from CHU 132KV-GEYLEGPHU 132KV-GEYLEGPHU 132KV-TANAKPUR(! MAHENDRANAGAR 132KV-TANAKPUR(! MAHENDRANAGAR 132KV-BIHAR - NEP 220KV-MUZAFFARF DC BHERAMARA HVDC	0 187 0 0 0 187 0 0 0 10 0 11 0 ENATIONAL EXCHA Name II:-ALIPURDUAR 182 CCEPT (from 4*180MW) URI 12.4 (8.400W) URI 12.4 (8.400W) URI 12.4 (8.400W) URI 12.4 (8.400W) J- SALAKATI  iia  NH) - ((PG) AL  PUR - DHALKEBAR  ((BANGLADESH)  DESH)-1  NAGAR -  DESH)-1  NAGAR -	401 1994 1871 0 0 0 45 WR-SR  NGES Max (MW) 239 435 129 18 25 -56 -100 -64 -921	0.0 0.0 0.0 0.0 0.0 8.8 8.8 0.0 0.0 0.0	8.5 20.2 20.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 237  Avg (MW)  237  398  90 -10 -25 -8 -43 -2 -844	-11.6 -8.5 -20.2 -22.4 -8.8 -9.0 -9.0 -9.8 -53.2  Energy Exchange (MU) -5.7 -9.6 -2.2 -0.2 -0.6 -0.2 -1.0 -0.1 -20.2