BEFORE THE MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

WORLD TRADE CENTRE, CENTRE NO.1,

13th FLOOR, CUFFE PARADE, MUMBAI 400005

CASE NO. 182 OF 2014

IN THE MATTER OF:

The Tata Power Company Limited ...Petitioner

Versus

BEST Undertaking & Ors. ...Respondents

INDEX

The Tata Power Company Limited/
Petitioner

Through:

J. Sagar Associates
Advocates for the Petitioner
Vakils House, 18 Sprott Road
Ballard Estate, Mumbai 400 001, India

Date: 15.09.2015
Place: Mumbai

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Additional Submission on behalf of The Tata Power Company Limited in compliance of the directions of this Hon'ble Commission passed by its Order dated 08.09.2015

The Tata Power Company Limited ("**Tata Power**") respectfully submits as under:-

1. This Hon'ble Commission by its Order dated 14.08.2014 in Case No. 90 of 2014:-

(a) Granted Distribution Licence No. 1 of 2014 to Tata Power, for a period of 25 years from 16.08.2014 for the allocated area of supply.

(b) Directed Tata Power to submit its revised Network Rollout Plan, such that the Network Rollout Plan approved by this Hon'ble Commission would form part of the Specific Conditions of Licence in terms of Section 16 of the Electricity Act, 2003 ("**Electricity Act**").

2. Tata Power filed the present Petition on 26.09.2014 seeking approval of its Network Rollout Plan pursuant to this Hon'ble Commission's Order dated 14.08.2014. Tata Power submitted its Revised Network Rollout Plan on 09.10.2014.

3. During the pendency of this Petition, Hon'ble Appellate Tribunal for Electricity ("**Hon'ble Tribunal**") disposed of Appeal No. 246 of 2012 and batch titled as *Tata Power Co. Ltd. Vs. Maharashtra Electricity Regulatory Commission and Ors.* by its Judgment dated 28.11.2014 ("**Judgment dated 28.11.2014**"),

returning certain findings, observations and directions. These were cross-appeals filed by Tata Power and Reliance Infrastructure Limited ("**R-Infra**") challenging this Hon'ble Commission's Order dated 22.08.2012 in Case No. 151 of 2011. Pursuant to the Judgment dated 28.11.2014, Tata Power submitted a revised Network Rollout Plan on 12.02.2015, which was updated and tendered on 06.08.2015 pursuant to this Hon'ble Commission's Order dated 30.07.2012.

4. On 05.09.2015, Tata Power filed its submissions on scenarios for laying of network, to service new and existing consumers, in the area where both R-Infra and Tata Power are licensed to supply electricity. During the hearing dated 08.09.2015, Tata Power also filed its presentation highlighting the said scenarios and its underlying principles.

5. During the hearing held on 08.09.2015, this Hon'ble Commission directed Tata Power to file:-

(a) A modified presentation highlighting different scenarios for releasing connections to new and existing consumers based on availability and reliability of the distribution network of parallel licensees.

(b) Plan for improving the reliability of the distribution network.

A copy of this Hon'ble Commission's Daily Order dated 08.09.2015 is annexed hereto and marked as **Annexure P-1**.

Re: Modified presentation qua different scenarios for laying of network

6. In terms of the said direction, Tata Power has revised its presentation dated 08.09.2015. The modified presentation is annexed hereto and marked as **Annexure P-2**.

Re: Tata Power's plan for improving reliability of distribution network

7. To appreciate Tata Power's plan for improving reliability of distribution network in the area where both R-Infra and Tata Power are licensed to supply electricity, it is pertinent to note the regulatory framework qua laying of network in a parallel licensing scenario.

I. Regulatory Framework

8. Provisions of the Electricity Act:-

(a) Where there exists two or more distribution licensees, having common area of supply, every distribution licensee is obliged to supply electricity

through its own distribution network. **[Proviso 6 to Section 14 of the Electricity Act]**

(b) It is the primary duty/ obligation of a distribution licensee to develop and maintain ***an efficient, coordinated and economical distribution system in its area of supply***. **[Section 42(1) of the Electricity Act]**

(c) Under the Electricity Act, there are two ways in which a consumer can avail supply of electricity i.e. either under Open Access in terms of Section 42(3) or by seeking supply of electricity from a distribution licensee from its own network in terms of Section 43 of the Electricity Act. ***The choice of the consumer is paramount and the distribution licensees are required to supply electricity in terms of the choice exercised by the consumer***. The consumer may elect both its source of supply (choose the distribution licensee from whom he wishes to avail to supply) and the mode of supply (option of open access under Section 42 or avail supply under Section 43 of the Electricity Act). **[Section 42 and 43 of the Electricity Act read with the Hon'ble Supreme Court's Judgment in the case of *BEST v. MERC*, reported as (2015) 2 SCC 438]**

9. The observations and/ or findings of the Hon'ble Tribunal in its Judgment dated 28.11.2014 were returned in the given facts and circumstances of the case, i.e., difficulties faced by Tata Power in laying network in Mumbai due to its peculiar topography and growth pattern. The principles laid down by the Hon'ble Tribunal in its Judgment dated 28.11.2014, qua laying of parallel network, are as under:-

(a) The stated objective of the directions is to protect consumer interest and honour (not constrain) consumer choice while optimizing the cost of network roll-out. The choice of the consumer is to elect its source of supply (choose the distribution licensee from whom he wishes to avail to supply) and mode of supply, i.e., supply from a distribution licensee through its own distribution network (Section 43) or from another distribution licensee/ other source from the network of any other distribution licensee (Section 42 of the Electricity Act). **[Paras 55 to 59 read with Paras 23, 24, 48, 56, 57, 60, 73 and 80(v) of the Judgment dated 28.11.2014]**

(b) The Hon'ble Tribunal permitted Tata Power to commission and capitalize the network, where considerable investment were made by Tata Power in accordance with Case No. 151 of 2011 to feed the consumers.

(c) Parallel network should be laid if:-

(i) There are existing distribution constraints and laying of ***parallel network would improve the reliability of supply***; AND

(ii) There are ***no physical constraints in laying down of any new network***; AND

(iii) The cost involved in laying down such parallel network is not very high, i.e. it is in consumer interest to lay such parallel network. **[Para 56 of the Judgment dated 28.11.2014]**

10. On a conjoint reading of the regulatory framework and Hon'ble Tribunal's Judgment dated 28.11.2014, it is pertinent to note that Tata Power should lay down its network:-

(a) To meet its Universal Service Obligation ("**USO**") under Section 43 of the Electricity Act. However, while laying down its network Tata Power must ensure that the same is economical (in consumer interest), efficient and coordinated (with R-Infra's Network).

(b) Which improves reliability of the existing network, services new consumer and such network rollout is in consumer interest.

(c) To honour the choice exercised by the consumer in terms of Section 42 or 43 of the Electricity Act.

II. Parameters of Reliability of Distribution Network

11. It is submitted that the issue on improvement of reliability of distribution network has to be understood in the factual context of the R-Infra's network as placed on record before this Hon'ble Commission pursuant to the Daily Order dated 12.08.2015. As laid down by the statutory authorities, the distribution network planning and operations are governed by:-

(a) The Integrated Power Development Schemes ("**IPDS**") guidelines, which contemplates installation of new Distribution Transformer where existing peak load of the existing Distribution Transformer exceeds 70% of its rated

capacity. A copy of the relevant part of the IPDS guidelines is annexed hereto and marked as **Annexure P-3**.

(b) MSEDCL's Circular No. CE(Dist)/ D-III/Circular 25680 dated 19.06.2008, for '*Procedure to plan for electrifying areas preparation of schemes (DPRs) and releasing new connections*'. The said circular has specified that *"The loading of the power and distribution transformers must be taken as 70% and not more than that. This will Increase the redundancy in the system"*. A copy of MSEDCL's Circular dated 19.06.2008 is annexed hereto and marked as **Annexure P-4**.

In order to ensure a reliable network, the transformation capacity is required to be augmented/ strengthened once the peak load exceeds a critical level of 70%. In this context, it is submitted that any Distribution Transformer or feeder, with a loading of 60% or above shall be considered for network augmentation/ strengthening as any scheme for design, procurement and installation of distribution transformers and related elements of network require a period of 18 to 24 months from conception to actual installation after complying with the licence conditions including tendering. As such, the planning has to commence around 24 months before the anticipated load growth to 70% or above in that segment of distribution network.

12. Once rolled out, the network would have to meet the reliability indices driven by 2 key aspects:-

(a) Performance of the Network;

(b) Promptness of the Distribution Utility in addressing the network problem, if any.

13. It is submitted that the analysis of the aforesaid factors will lead to identification of specific transformation capacity/ equipment which require augmentation/ strengthening for improving its reliability. In this regard, it is pertinent to note that an exercise was carried out through the aegis of the office of this Hon'ble Commission. The data regarding peak loading of power transformers, peak loading & tripping history of 11 kV network & loading of distribution transformers was collated for both Tata Power and R-Infra for the Mumbai Suburban Area. It is pertinent to note that this data is helpful in assessing the current situation of the existing distribution network of the Utilities in Mumbai

Suburban Area. The said data collated is annexed hereto and marked as **Annexure P-5**.

III. Principles of Network Rollout for improving reliability

14. The key components of a Distribution Network relevant to the present consideration are:-

(a) Distribution Transformers.

(b) HT Cables.

LT Cables and Auxiliary equipment like breakers, isolators, protection panels etc. are specific to a Distribution Network and their replacement / augmentation has to be managed only by the Distribution Utility who owns it.

15. It is submitted that a combination of mechanism, like replacement, augmentation, strengthening, re-organisation of load, may be adopted by a distribution licensee to improve reliability of its network. In such a situation, it is necessary to identify and highlight the manner/ scenarios in which network rollout by one distribution licensee helps in improving the network reliability of the other distribution licensee. Such scenarios have been analysed and dealt with by Tata Power in its submissions hereinafter.

16. In view of the above, Tata Power proposes the following principles for network rollout for improving the reliability of the existing network:-

(a) ***The loading on the Power Transformers & Distribution Transformers should be considered as the key parameter to determine reliability of a network.***

(b) Wherever a distribution licensee's transformer is loaded above 60% of its rated capacity, and the other distribution licensee has its transformer/ substation in the vicinity which is under-loaded, then the other distribution licensee should be permitted to lay down the downstream parallel network to service the consumers and improve the reliability of the existing network.

(c) Consider a situation where a distribution licensee (Utility-2) has laid down its own network which is under-loaded and where the network of the other distribution licensee (Utility-1) in the same area is constrained/over-loaded. In that situation, the existing loads of Utility-1 may be shifted on the

network of Utility-2 either on 'Changeover' mode (i.e. connected to Utility-2 but getting supply from Utility-1) or on 'Switchover' mode (i.e. connected to and getting supply from Utility-2) to optimise the network/ enhance the reliability.

IV. Scenarios for network development for improving reliability of existing network

17. In light of the principles set out hereinabove, the following scenarios are identified and highlighted for improving reliability of the existing network.

Table No. 1: Scenarios for network development for improving reliability of an existing network

Scenario	Particulars
Scenario 1: Network of Utility- 2 exists in the vicinity and is under-loaded	(a) In this case, the downstream network of Utility-2 shall be laid & used to improve reliability. (b) Utility-1 will not be required to incur any capital expenditure to augment their network till the network of Utility-2 gets optimally loaded to 70%.
Scenario 2: Network of Utility-2 does not exist in the vicinity.	In such a scenario, the Utility-1 shall be allowed to augment its network to improve its reliability.
Scenario 3: Utility-2 has network in the vicinity but is optimally loaded / also needs augmentation	In this case, the Utility which provides a cost competitive solution which neutralises the impact on Wheeling Charge shall be allowed to develop/ augment the network.

A. Scenario 1 for Mumbai Suburban area

18. ***As regards Scenario 1 identified in Table No.1 above***, it is submitted that based on the data made available by the Utilities qua reliability of network, Tata Power has mapped the existing overloaded transformation capacities of R-Infra with that of the existing under-loaded transformation capacities of Tata Power in the vicinity, which is highlighted in Tables below:-

Table No. 2 A: Mapping of Power Transformers of Tata Power& R-Infra

	R-Infra					Tata Power				
	Name of 33-22/11kV SS	Total Installed Capacity (MVA)	Total Loading (MVA)	Overall Loading (%)	R-Infra Spare Capacity (MVA)	Name of 33-22/11kV SS	Total Installed Capacity (MVA)	Total Loading (MVA)	Overall Loading (%)	Tata Power Spare Capacity (MVA)
1	Siddharth Nagar	10	10	95.30%	0.47	Vrindavan DSS	30	4	13%	26
2	Gorai	50	42	83.40%	8.30	Essel World DSS	10	2	18%	8
3	Shanti Star Mira	45	35	78.19%	9.82	Mira Road DSS	40	3	8%	37
4	Palm Court	40	31	76.75%	9.30	Mindspace DSS	60	12	19%	49
5	RNA Royal Park	40	31	76.40%	9.44	Malad DSS	20	2	8%	19
6	Meghawadi	40	30	75.70%	9.72	Oberoi JVLR DSS	40	0	0%	40
7	Juhu	32	24	74.80%	8.06	Arogyanidhi DSS	40	3	6%	38
8	Goregaon	70	52	74.75%	17.68	Mindspace DSS	60	12	19%	49
9	Bhayander (W)	40	29	73.15%	10.74	Mira Road DSS	40	3	8%	37
10	Bombilwadi	40	29	72.40%	11.04	BMC Pumping Bandra	35	6	17%	29
11	Anik	30	22	72.10%	8.37	Vrindavan DSS	30	4	13%	26
12	Malad	40	29	71.90%	11.24	Malad DSS	20	2	8%	19
13	Kalina	30	22	71.87%	8.44	MIAL DSS-1	40	6	15%	34
14	Bandra	60	43	71.20%	17.28	BMC Pumping Bandra	35	6	17%	29
15	Bhayander	60	43	71.10%	17.34	Mira Road DSS	40	3	8%	37
16	Shimpoli	20	14	71.05%	5.79	Borivali RSS	70	23	32%	48
17	Seepz	60	42	70.60%	17.64	Reservoir Plot DSS Pocket 10 DSS	60	19	32%	41
18	Chandivali SRA	20	14	70.30%	5.94	Kilick Nixon DSS	40	5	11%	36
20	Bandra Terminus	10	7	70.10%	2.99	BKC DSS	60	30	50%	30
21	Ambivali	80	56	69.70%	24.24	Versova	40	8	20%	32
22	Cama	20	14	69.40%	6.12	NESCO	40	9	22%	31
23	Kandivali	20	14	69.35%	6.13	Malad DSS	20	2	8%	19
24	Chembur	50	34	68.02%	15.99	Vrindavan DSS	30	4	13%	26
25	Chunabhati	40	31	77.60%	8.96		No DSS			
26	Chakala	20	14	68.00%	6.40	DSS-3, Reservoir Plot DSS	90	22	24%	68
27	Saraswati Road	40	27	67.80%	12.88	Arogyanidhi DSS	40	5	13%	35
28	Hingwala Lane	20	13	67.25%	6.55	Address DSS	40	1	3%	39
29	Borrosil	10	7	65.90%	3.41	Reservoir Plot DSS	50	16	32%	34
30	Devidas Lane	60	39	65.80%	20.52	Sureshwari DSS (Proposed)	40	0	0%	40
31	Mira	50	33	65.80%	17.10	Mira Road DSS	40	3	8%	37
32	Vile Parle	50	33	65.46%	17.27	DSS-3,DSS-1	80	12	15%	68
33	Dindoshi	70	45	64.71%	24.70	ESIC DSS	20	2	10%	18
34	Dahisar	50	32	64.32%	17.84	Dahisar DSS	40	5	13%	35
35	Tagore Nagar	30	19	63.53%	10.94	Vikhroli RSS	90	29	32%	61
36	Mahananda	40	25	63.10%	14.76	NESCO DSS	40	9	22%	31
37	Ghodbunder	60	38	62.83%	22.30	Mira Road DSS	40	3	8%	37
39	Juhu North	40	24.96	62.40%	15.04	Arogyanidhi DSS	40	3	6%	38
40	Tilak Nagar	50	32.13	64.26%	17.87		No DSS			
41	Versova	80	49.88	62.35%	30.12	Versova	40	8	20%	32
42	Hiranandani	40	24.7	61.75%	15.30	Supreme Housing DSS	40	5	11%	36
44	Nirlon	60	37	61.67%	23.00	NESCO	40	9	22%	31
45	Shivaji Nagar	50	30.82	61.64%	19.18	Mankhurd RSS	20	1	5%	19
46	Kurla	50	30.68	61.36%	19.32	Market City DSS	40	5	13%	35
47	Saki	90	55.145	61.27%	34.86	Kilick Nixon DSS	40	5	11%	36
48	24th Road	20	12.02	60.10%	7.98	BMC Pumping Bandra	35	6	17%	29
					Total Spare Capacity					378 *

* *Excluding Common DSS.*

Table No. 2 B: Comparison of Loading of Distribution Transformer Capacities of Tata Power & R-Infra.

	Tata Power				R Infra			
Division	**<= 50 %**	**50 – 80 %**	**80 – 100 %**	**> 100 %**	**<= 50 %**	**50 – 80 %**	**80 – 100 %**	**> 100 %**
South	72%	23%	4%	0%	41%	56%	2%	0%
South Central	90%	10%	0%	0%	52%	47%	1%	0%
Central	91%	9%	1%	0%	36%	59%	5%	0%
North	94%	6%	0%	0%	33%	60%	6%	1%
East	93%	7%	0%	0%	48%	45%	6%	1%
Total	**89%**	**10%**	**1%**	**0%**	**42%**	**53%**	**4%**	**0%**

19. As evident from Table No.2A and 2B above, there are a number of transformation capacities of R-Infra which are overloaded and the under-loaded network of Tata Power is available in the vicinity. The total Spare capacity available after screening out the duplications is **378 MVA**. Considering N-1 requirement of 50% of this capacity to be utilised for reliability improvement, the spare capacity available for network reliability improvement is **189 MVA.**

20. Applying the principles of network laying in such areas, it may be prudent and economical to first utilise the network already developed by Tata Power, instead of R-Infra incurring any additional capital expenditure by adding new transformation capacity to improve its network reliability. Tata Power will require to develop the downstream 11 kV network and Consumer Substations (11/0.4 kV) to relieve the stressed network of R-Infra.

21. To enable use of this spare capacity for improving reliability, capital expenditure is required for establishing/ extending the 11 kV network. The additional Network Rollout Plan and the respective capital expenditure required over a period of 5-7 years for the same is as per Table No.3 below:-

Table No. 3: Capital Expenditure for improving reliability

Assumptions for HT Cables	Units	Quantum
DSS Spare Capacity	MVA	189
No. of Outlets (5 MVA capacity each)	Nos	38
Average 11 kV Cable Length (@ 5 kM Ring)	kM	189
HT Cable Cost	**Rs. Crores**	**42**
RI & Excavation Cost	**Rs. Crores**	**124**
CSS Cost	**Rs. Crores**	**79**
Total HT Network Cost	**Rs. Crores**	**245**

22. Considering the above, an additional capital expenditure of around **Rs. 245 Crores** over and above the Rollout Plan already submitted to this Hon'ble Commission shall be required to create the necessary network towards reliability improvement.

B. Scenario 2 for Mumbai Suburban area

23. From the bare perusal of Table No.2 A and 2B above, it is evident that there are around 2 to 3 transformation capacities of R-Infra where network of Tata Power does not exist in the vicinity. In such a scenario, if R-Infra has already put in the basic infrastructure in place, it may be prudent to allow R-Infra to continue its network development to address its network reliability issues. Hence, in our opinion, as far as the current network rollout is concerned, there is no network Rollout Plan and capital expenditure planned under this scenario.

C. Scenario 3 for Mumbai Suburban area

24. As per the data available, there is no situation in Mumbai Suburban Area currently, where the networks of both Utilities are optimally utilised/ overloaded. Hence, in our opinion, as far as the current network rollout is concerned, there is no network Rollout Plan and capital expenditure planned under this scenario.

25. In view of the above, Tata Power's overall Network Rollout Plan for the Mumbai Suburban Area along with the comprehensive capital expenditure is provided in Table No.4 below:-

Table No.4: Tata Power's overall Network Rollout Plan and comprehensive capital expenditure for Mumbai Suburban area

Rs. Crore

Network Components	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
DSS of 20 MVA	13 to 25	13	13	13	13 to 25	13	25	102 to 127
DSS of 40 MVA	0	25	0 to 25	25	0 to 25	25	25	102 to 127
33 kV Cable Network	7	15	7 to 11	19 to 30	7 to 11	15 to 19	19	89 to 111
11 kV Cable Network	16 to 33	33 to 35	25 to 49	33 to 36	33 to 40	33	38	211 to 264
Consumer Substation (CSS) - 0.5 MVA	11 to 16	12	12 to 16	12 to 20	16 to 24	16 to 28	16	94 to 130
Consumer Substation (CSS) - 1 MVA or more	9	10	10	11	11	12	11	74
Additonal Transformer for CSS	4	4	4 to 4	4 to 5	4 to 6	4 to 6	6 to 7	28 to 35
LT Cable Network	15 to 16	16	15 to 19	23	15 to 26	18 to 29	16	117 to 146
Capex in Mumbai Suburbs (Rounded Values)	**80 to 110**	**130**	**80 to 150**	**140 to 160**	**100 to 140**	**130 to 160**	**160**	**820 to 1010**
Additional Capex towards Reliability Improvement	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**245**

Re: Meaning of the term 'new consumer/ connection' proposed by Tata Power

26. On 08.09.2015, in addition to the above, this Hon'ble Commission had also sought clarification from Tata Power as to whether its understanding of the term

'new consumer/ connection' as used in Hon'ble Tribunal's Judgment dated 28.11.2014 was in consonance with the provisions of the Electricity Act and the rules and regulations made thereunder. In this regard, it is submitted that Tata Power has derived the meaning of the term 'new consumer/ connection' from and in accordance with the provisions of the Electricity Act and the rules and regulations made thereunder (as highlighted in its Affidavit dated 28.08.2015).

27. It is submitted that, Tata Power prays that the present submissions be taken on record. Tata Power reserves its right to file additional affidavit(s) to place on record any other information sought by this Hon'ble Commission and/ or required for the consideration of the present matter.

The Tata Power Company Limited/
Petitioner

Through:

J. Sagar Associates
Advocates for the Petitioner
Vakils House, 18 Sprott Road
Ballard Estate, Mumbai 400 001, India

Date: 15.09.2015
Place: Mumbai

BEFORE THE MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

WORLD TRADE CENTRE, CENTRE NO.1, 13th FLOOR,

CUFFE PARADE, MUMBAI 400005

CASE NO. 182 OF 2014

IN THE MATTER OF:

The Tata Power Company Limited ... Petitioner

Versus

BEST Undertaking & Ors. ... Respondents

AFFIDAVIT

I, Mr. Bhaskar Sarkar, son of Mr. Arup Kumar Sarkar, aged 49 years, Head Business & Regulations (Mumbai Operation) of The Tata Power Company Limited ("**Petitioner/ Tata Power**"), having my office at Dharavi Receiving Station, Near Shalimar Industrial Estate, Matunga, Mumbai 400 019, Maharashtra, India, do hereby state on solemn affirmation as under:-

1. I state that I am the authorized signatory of Tata Power, the Petitioner, in the present Petition and as such I am fully conversant with the facts and circumstances of the present case and I am duly authorized and competent on behalf of Tata Power to swear and affirm this Affidavit.

2. I state that I have read and understood the accompanying Submissions in the captioned Petition and the same has been drafted under my instructions and after carefully going through the same, I state that the content of the same are true and correct to my knowledge and belief and it is stated that no part of it is false and nothing material has been concealed there from.

3. I state that the annexures along with the accompanying Submissions, if any, are true copies of their respective originals.

DEPONENT

VERIFICATION

I, the deponent above named, do hereby verify that the contents of my above Affidavit are true and correct, no part of it is false and nothing material has been concealed therefrom.

Verified at Mumbai on this 15th day of September, 2015.

DEPONENT

NOTARIAL NOTARIAL NOTARIAL
ROSHAN MINOCHER MASTER
Reg. No. 404
NOTARY, MUMBAI
NOTARIAL NOTARIAL

15.9.2015

Before me:

Ms. ROSHAN M. MASTER
NOTARY, GREATER BOMBAY
2403, ORCHID TOWER A
BELLASIS ROAD,
MUMBAI - 400 008.
Reg. No. 404

S. no. 12449

ANNEXURE - P-1

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400005
Tel. 022 22163964/65/69 Fax 22163976
Email: mercindia@merc.gov.in
Website: www.mercindia.org.in / www. merc.gov.in

Case No. 182 of 2014

Dated: 8 September, 2015

CORAM: Smt. Chandra Iyengar, Chairperson
Shri Azeez M. Khan, Member
Shri. Deepak Lad, Member

In the matter of
Petition of The Tata Power Company Ltd. for Approval of Revised Network Rollout Plan in compliance to the direction of the Hon'ble Commission in Case No. 90 of 2014.

The Tata Power Company Ltd.(TPC) .....Petitioner

V/s.

Reliance Infrastructure Ltd. (RInfra)
BEST undertaking .....Respondents

Representative for the Petitioner:	Shri. Amit Kapoor (Advocate) Shri. Ashok Sethi (Rep.) Shri. Bhaskar Sarkar (Rep.) Shri. Chintamani Chitnis (Rep.)
Representative for the Respondent (RInfra):	Shri. J. J. Bhat (Advocate)
Representative for the Respondent (BEST):	Shri. Harindar Toor (Advocate)
Consumer Representative:	Shri. Ashok Pendse, TBIA

Daily Order

Heard the representatives of the Petitioner and Respondents.

TPC made a presentation highlighting different scenarios of releasing the connections to new and existing consumers based on availability and reliability of the distribution network of parallel licensees. TPC further presented the comparative study of reliability and loading of TPC's and RInfra's network. As the presentation requires some modification/ clarification, TPC assured that they will submit the modified presentation within a week.

TPC has clarified that proposed network roll out plan is prepared based on the projected consumer demand and reliability aspect is yet to be factored in. The Commission directed TPC to submit its plan for improving reliability of distribution network.

TPC submitted that it has tendered its proposal to BEST for utilizing BEST's network on payment of charges for supplying power to their consumers. However, it has not received any response from BEST. The Commission directed BEST to submit its say on TPC's proposal of sharing of network before next hearing with copies served on all the parties

Both TPC and RInfra presented their views on the interpretation of ATE Judgment in Appeal No. 246 of 2012. RInfra, inter alia, contended that as per ATE Judgment, choice of supply is available to the existing consumers, however option of choosing the network is not available. TPC stated that such interpretation would be against competition and consumer's choice.

The Commission directs TPC to file its further submission within one week with copies served on all the parties. RInfra is directed to file its rejoinder within one week after receipt of TPC's submission with copies served on all the parties.

Post the matter for further hearing on Tuesday, 22 September, 2015 at 11.30 AM.

Sd/-	Sd/-	Sd/-
(Deepak Lad)	**(Azeez M. Khan)**	**(Chandra Iyengar)**
Member	**Member**	**Chairperson**

TATA

Agility Care Ethics Safety Diligence Respect

Case No.182 of 2014
- Scenarios for Network Development in Mumbai Suburb (RInfra) Area

15.09.2015

TATA POWER
Lighting up Lives!

ANNEXURE - P-2

Premise: Definition a of 'New Consumer/ Connection'

Tata Power's interpretation of 'New Consumer/ Connection'

[Submitted by Tata Power by its Affidavit dated 24.08.2015]

- The term 'New Consumer/ Connection' includes:-
  a) Any person who has made an application for supply of power and whose premises is, for the time being, not connected to the works of a distribution licensee for receiving supply of electricity and also includes a person whose premises have been permanently disconnected by a licensee.
  b) Any person who has made an application for supply of power and whose premises is, for the time being, connected to the works of a distribution licensee, only for receiving temporary supply of electricity.
  c) Any other person/ premises as may be decided by the Hon'ble Commission from time to time.
- Basic elements to be satisfied:-
  a) Any person who has made an application for supply of power;
  b) The said person is not permanently connected, for the time being, to the works of a licensee for the purpose of receiving such supply.

Underlying Principles for scenarios for network development

- Consumer choice and competition: underlying principles while developing the scenarios.

- Availability of DSS (33/ 11 kV Substation): Determining Factors for extension of underlying distribution network

  - ✓ If a consumer approaches a Utility and if that utility has an adequate DSS capacity in that particular area, it shall lay the relevant network to serve the consumer.

  - ✓ Distribution Utilities obliged to provide last mile connectivity to consumers, if spare capacity exists in their DSS. This should be independent of the fact whether the request arises directly from consumer or from other Distribution Utility (to whom consumer has approached).

- Duplication of network to be avoided if not in consumer interest.

- Creation of infrastructure always creates extra capacity during initial period which is essential for and in the interest of competition and consumers in the long run.

Agility Care Ethics Safety Diligence Respect

Analysis of Scenarios for Network Development

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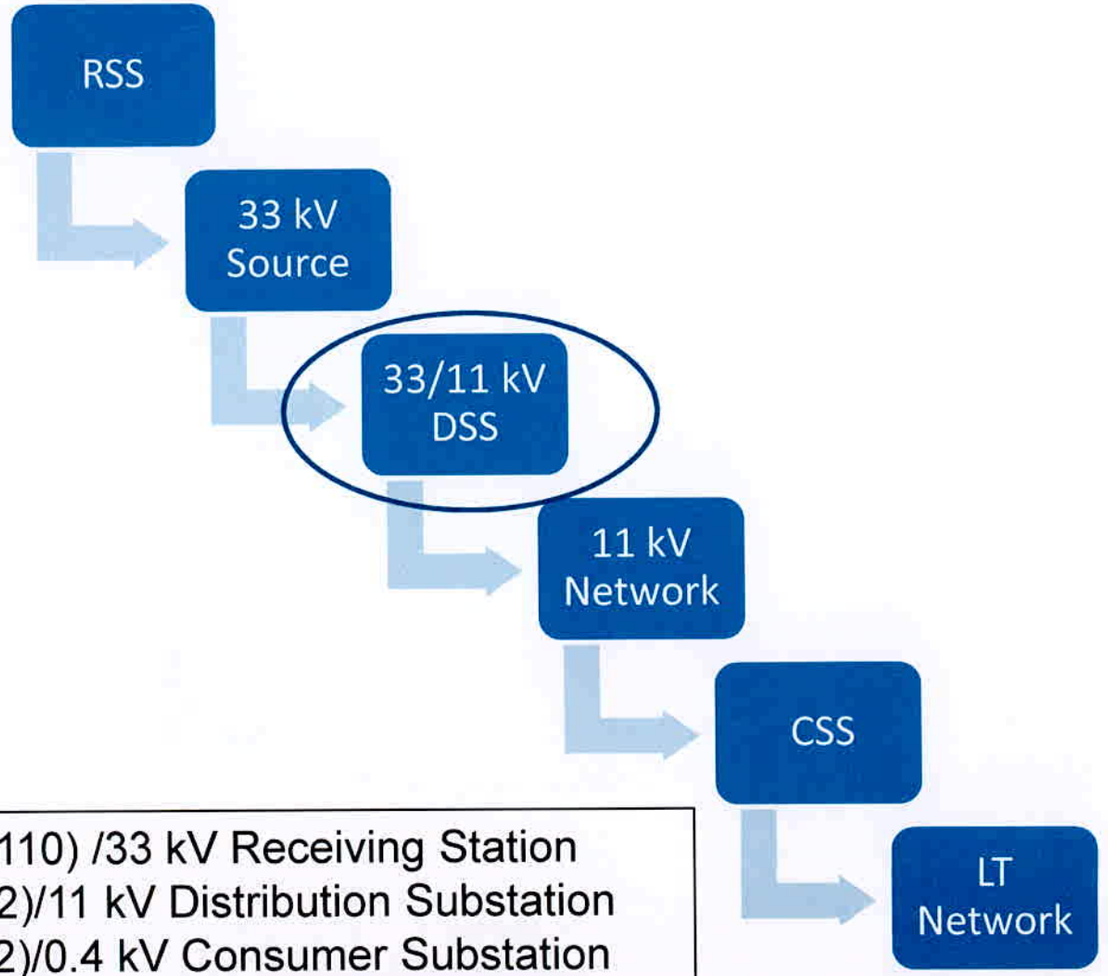
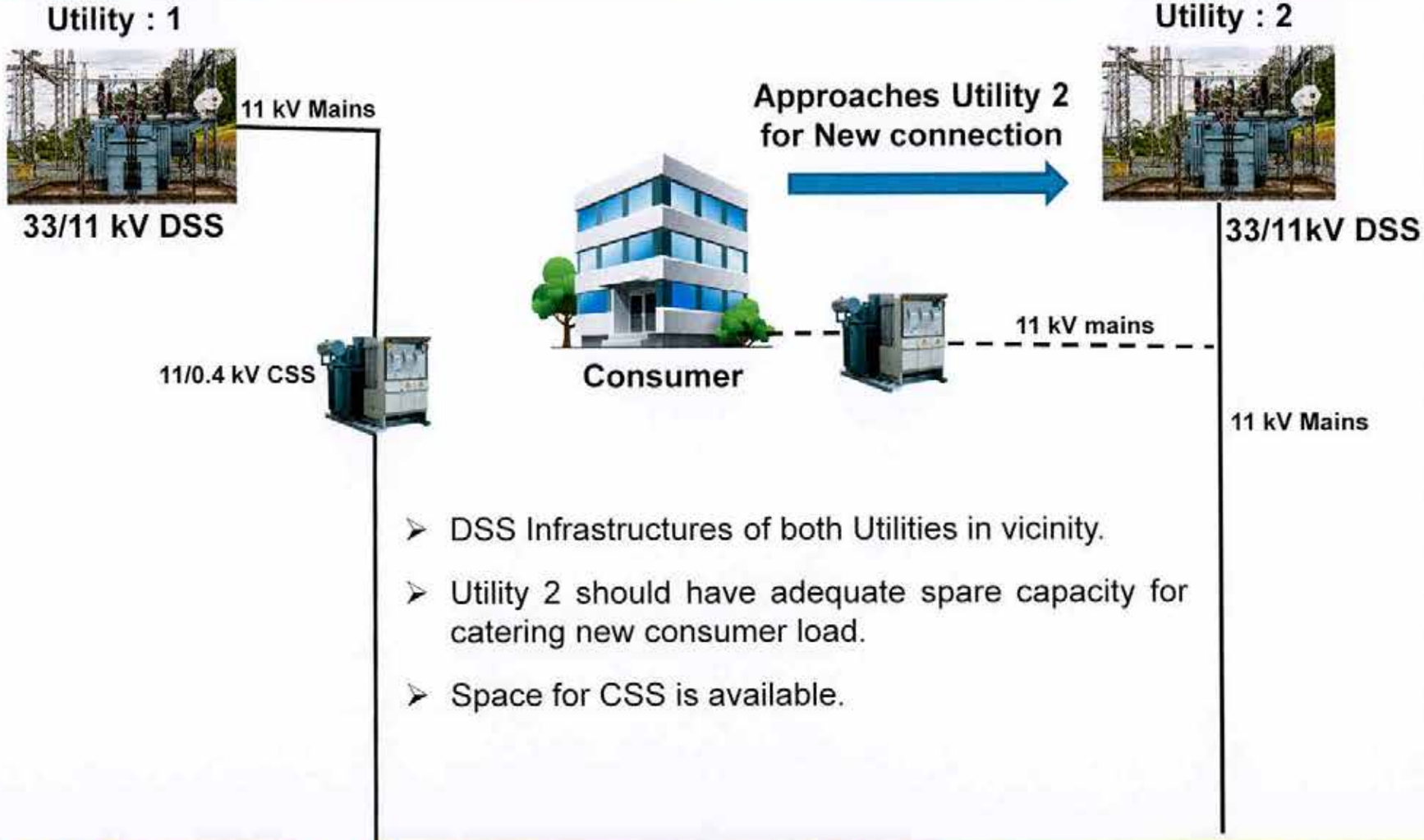
Value Chain –Critical Link -DSS



RSS	220(110) /33 kV Receiving Station
DSS	33(22)/11 kV Distribution Substation
CSS	11(22)/0.4 kV Consumer Substation

Scenario1: New Consumer approaching Distribution Utility having adequate 33/11 kV DSS infrastructure in the vicinity



- DSS Infrastructures of both Utilities in vicinity.
- Utility 2 should have adequate spare capacity for catering new consumer load.
- Space for CSS is available.

Scenario 2: New Consumer approaches a Distribution Utility whose network would get overloaded & needs augmentation

Utility : 1

Utility 1 approaches Utility 2 for laying & Sharing of network

Utility : 2

Approaches Utility 1 for New connection

Network of Utility1 would get overloaded

Requires augmentation/ strengthening to cater to new consumer load

Consumer

Utility 2 Network is underloaded

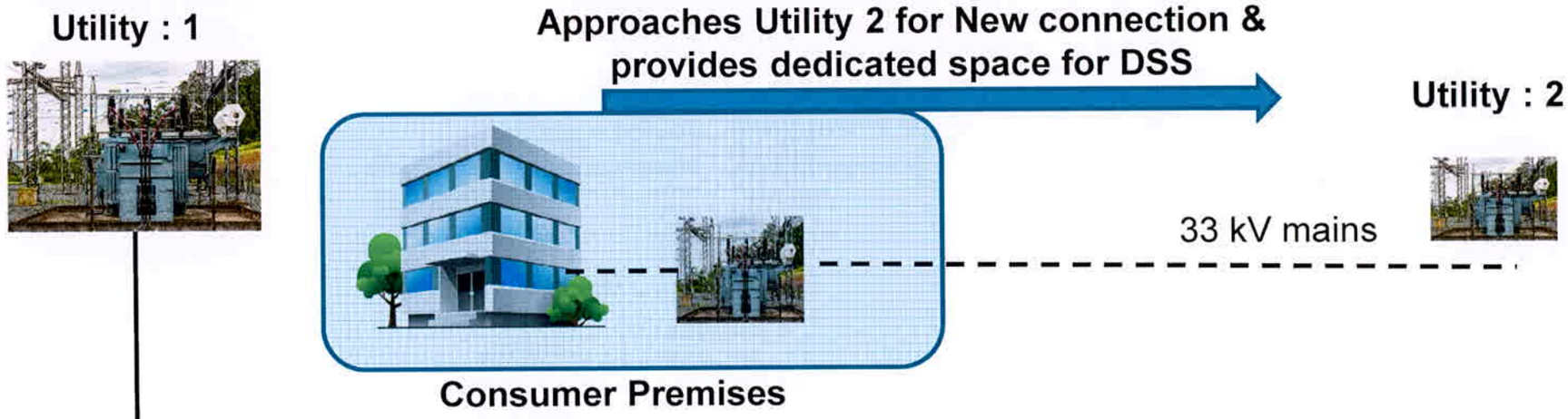
Utility 2 provides connection to new consumer on behalf of Utility1

- DSS of Utility 2 has adequate capacity to cater to new consumer Load.
- New Consumer shall pay applicable charges as determined by Hon'ble Commission.
- Hon'ble Commission to decide appropriate mechanism for operationalising Scenario 2.

Scenario 3: New consumer approaching a Distribution Utility without adequate 33/11 kV DSS infrastructure in the vicinity

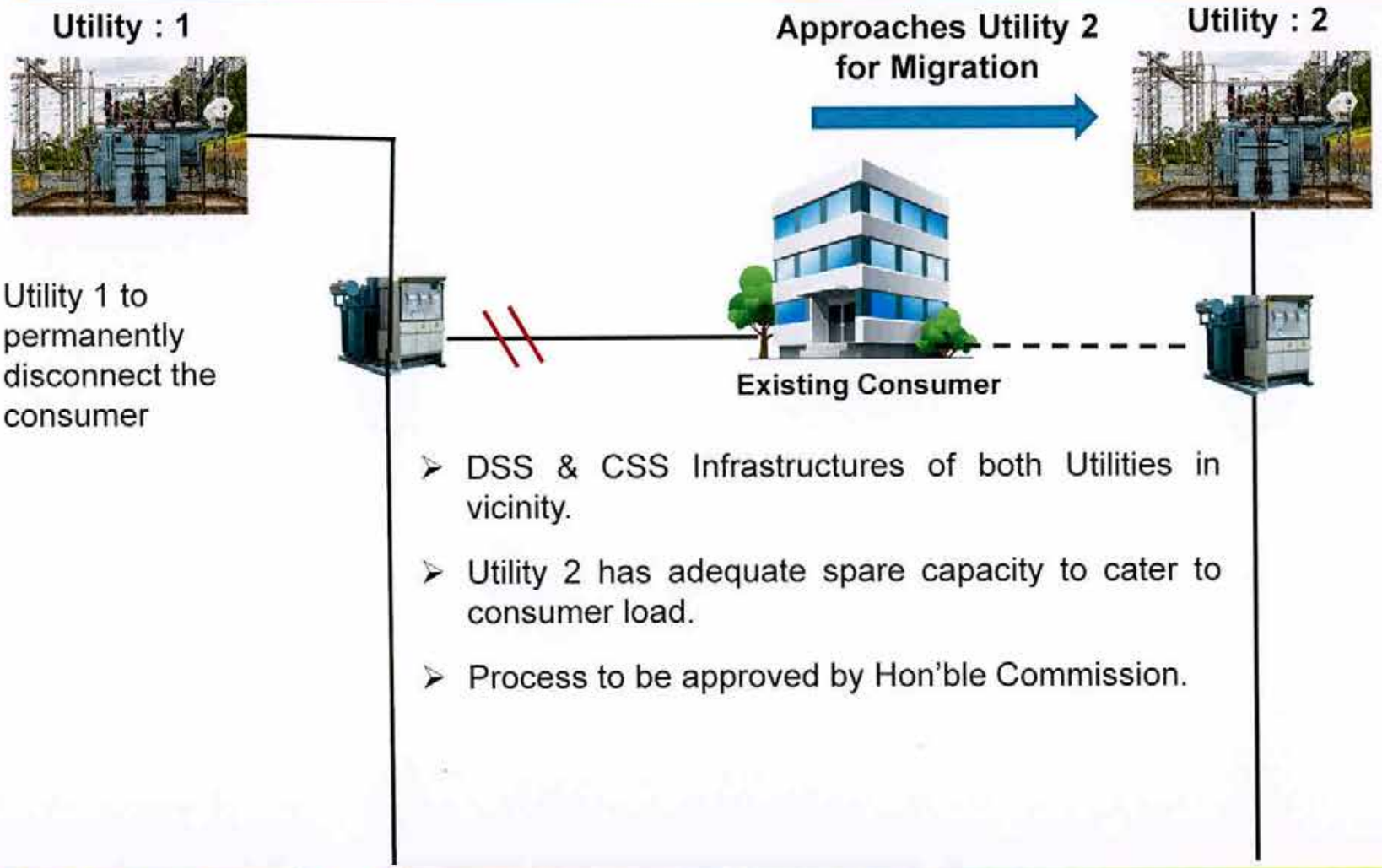
- DSS of Utility 1 should have adequate capacity to cater to consumer Load
- New Consumer shall pay applicable charges as determined by Hon'ble Commission
- Hon'ble Commission to decide appropriate mechanism for operationalising Scenario 3.

Scenario 4: New consumer approaching utility without DSS in the vicinity and provides space for DSS



- Consumer willing to provide sufficient space to create DSS infrastructure.
- Imperative to utilise opportunity to develop DSS for future growth.
- DPR to be approved by Hon'ble Commission (if mandated).

Scenario 5: Existing Consumer seeks migration on network of other Distribution Utility having adequate DSS/ CSS in vicinity



- DSS & CSS Infrastructures of both Utilities in vicinity.
- Utility 2 has adequate spare capacity to cater to consumer load.
- Process to be approved by Hon'ble Commission.

Suggestions for Capex Approval Process

- Distribution Coordination Committee (DCC): Hon'ble Commission to lay down institutional framework for scrutinizing and recommending network development in Mumbai.

- The proposed DCC may work on the lines of Grid Coordination Committee established by Hon'ble Commission for transmission infrastructure in the State.

- Hon'ble Commission to develop a mechanism (e.g. web based tool) providing information about loading of DSS of all utilities in the city.

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ANNEXURE - P-3

Ministry of POWER
GOVERNMENT OF INDIA
सत्यमेव जयते

GUIDELINES

INTEGRATED POWER DEVELOPMENT SCHEME (IPDS)

(Approved by IPDS Monitoring Committee)

पी एफ सी
PFC

NODAL AGENCY

INTEGRATED POWER DEVELOPMENT SCHEME

(IPDS)

State

Name of Govt Utility Implementing Project

Name of the Project Area (Circle/ Zone/ Utility)

Detail Project Report

Strengthening of sub-transmission & distribution network including metering

Ref no. of DPR

Submitted to

POWER FINANCE CORPORATION LTD.

Date of Submission

POWER FINANCE CORPORATION LTD.

Detail Project Report

Guidelines for DPR Preparation & Implementation

The DPR shall be prepared, base on IPDS guidelines as issued from MoP, GoI. Some salient features of IPDS guidelines & additional guidelines for DPR preparation is mentioned below. In case of any mis-match between IPDS guideline issued from MoP &DPR guideline as mentioned below, the IPDS guideline as issued from MoP, GoI shall prevail.

1	DPR is to be prepared based on the broad scope of work validated by Nodal agency at 1st Stage during discussion with utility on NAD, on detailed field survey and latest approved schedule of rates for various items of work. The DPRs shall be duly recommended by the Distribution Reforms Committee (DRC) at the State level. The Nodal Agency will separately provide comparable costs sourced from CPSUs for major equipment for reference of the utility. These reference rates shall be used as ceiling rates for sanctioning of the projects
2	The DPR under the scheme has been formulated for **urban areas** (Statutory Towns) **only**
3	In case of private sector Discoms where the distribution of power supply in urban areas is with them, projects under the scheme will be implemented through a concerned State Government Agency and the assets to be created under the scheme will be owned by the State Government / State owned companies. The areas under franchisee shall be covered under the scheme subject to compliance with the terms & conditions of their respective agreements and Cooperative Societies shall also be eligible, but they would be required to submit Audited statements annually regarding the utilization under the approved project through State Cooperative Department and the concerned Discom. Further, all the projects need to be recommended by the State Level DRC.
4	In case of private sector Discoms/Distribution Franchisee/Co-operative Societies, the DPR shall be submitted to PFC by its State Govt Agency.
5	The circle/zone/Utility wise DPRs shall be prepared by the utility and recommended by Distribution Reforms Committee (DRC) at State level. To avoid duplication of works with scope already sanctioned under RAPDRP scheme, Utility shall indicate the additional work component proposed under IPDS DPRs with comparative BOQ for such R-APDRP project area.
6	BoQ for R-APDRP towns in the project area to be filled in Sheet Vol II.b and BoQ for non-RAPDRP towns to be filled in sheet Vol II.c.
7	For ERP & IT component a separate consolidated DPR shall be prepared by respective state.
8	For linking of all 33 KV or 66 KV grid substations/billing offices/Regional/Circle/Zonal offices of Discoms with optic fiber network of NOFNA, a separate and consolidated DPR shall be prepared by the respective utility in consultation with BBNL or any designated agency like BSNL, RailTel, PGCIL etc.
9	The projects shall be implemented on turn-key basis. However, in exceptional circumstances, execution on partial turnkey/departmental basis (to be proposed by utility along with respective DPR duly recommended by DRC) shall be permitted with the approval of the Monitoring Committee.
10	In either mode of implementation (turnkey/partial turnkey/departmental), the maximum time limit for completion of the project viz award and implementation shall not be beyond **thirty months** from date of communication of the approval of the Monitoring committee.
11	An appropriate Project Management Agency (PMA) will be appointed preferably utility-wise to assist them in project management ensuring timely implementation of the project.
12	The work(s) already executed/to be executed under R-APDRP/NEF/GOI other scheme, etc is/are not eligible under IPDS.
13	The works proposed in the DPR shall aim for meeting utility level AT&C loss reduction trajectory as finalised by MoP in consultation of state utilities (The committed AT&C loss reduction trajectory is given in Annexure-I)
14	Utility to ensure installation of bounadry meters for ring fencing of Non-RAPDRP Towns having population more than 5000.
15	The Utility will have to certify that the DPR is in line with guidlines issued by Ministry of Power/ PFC for IPDS & DRC clearance has been obtained, before the same is forwarded to PFC for consideration of sanction.
16	Utility shall ensure timely availability of any other infrastructure or facilities that are essential for implementation of IPDS works but are not in the scope of Contractor viz. land acqusition, RoW, pole location etc.
17	Utility shall provide detailed informantion regarding exisitng infrastrucuture, any bottleneck in implementation of the works and the works proposed in the project to the Contractor before award of contract.
18	The cost estimates should not include any departmental overhead expenses. All such expenditures should be borne by the utility.
19	No cost escalation shall be admissible for the schemes sanctioned under IPDS. Any additional cost on any account whatsoever to complete the project shall be borne by utility.
20	Distribution Transformers procured under IPDS scheme, shall have efficiency level equivalent / better than that of three star ratings of BEE, where ever BEE standard is applicable. For other DTs, where, BEE standard is not applicable, CEA guidelines shall be followed (available on CEA web site).
21	AMI, Smart meters can be considered for deployment in the towns where SCADA has been/being established under R-APDRP.

22	For Solar Panels - only cost of Solar panels with support structure and Net-meters shall be permissible under IPDS. Utility shall bear cost of associated items.
23	**Additional Guideline for DPR preparation**
a	Load growth of 05 year in case of HT system & 03 years in case of LT system to be considered for proposing the DPR.
b	For replacement of existing HT & LTCT Electromechanical consumer meters (AMR compatible, open protocol) tamper proof electronic metersand replacement of whole current electromechanical consumer meters, the guidelines of CEA shall be adopted.
c	Service line for new consumers is not eligible in the scheme. In case of installation of meter pillar box or if existing service line is prone to tamper and pilferage the same shall be replaced with armored or XLPE cable for which minimum configuration should be :
	(i) Single Phase consumers: min. 4 sq.mm
	(ii) Three Phase consumers: min. 6 sq.mm
d	Installation of new Distribution Transformers in following cases:
	(i) If the length of LT feeder is more than 300 mtr then new Distribution transformer may be proposed to improve HT: LT ratio.
	(ii) If existing peak load on DT is more than 70% of its rated capacity then new DT may be proposed.
	(iii) Even if the length of LT feeder is below 300 meter but the peak load on the feeder is more than 70% of rated thermal capacity of the conductor, new DT should be installed or conductor should be replaced by higher size.
e	Provision of Isolator, HT fuse / horn gap & LA at each Distribution Transformer, if not provided earlier. Alternatively this isolator, HT fuse / horn gap fuse can be replaced with drop out fuse with On Load maintenance facility thereby reducing system interruptions.
f	Provision of LT distribution box for control and protection of outgoing LT circuits.
g	Each Distribution Transformer of 25 KVA & above shall be provided with minimum two LT feeders.
h	If the peak load on existing 11KV feeder is more than 75% of rated thermal capacity of the conductor, conductor with higher capacity may be proposed or feeder bifurcation may be proposed.
i	If peak load on existing 33/11KV S/S is more than 80% of its transformer capacity, new 33/11KV S/S may be proposed.
j	11 Kv feeder segregation may be proposed for reducing boundary metering points, fixing greater accountability and responsibility etc.
k	Ring Main Unit may be proposed in case of underground cabling area only.
l	Sectionaliser may be proposed in SCADA town only.
m	The Distribution Transformer may be provided with the capacitors of following ratings at LT side:
	(i) 100 KVA : 12 KVR
	(ii) 63 KVA : 8 KVR
	(iii) 40 KVA : 6 KVR
	(iv) 25 KVA : 4 KVR
n	Installation of ABC cables in dense, theft prone & congested areas. Both HT & LT ABC may be proposed. The capacity of ABC shall be 20% more than that of bare conductor, as thermal overloading capacity of ABC is less than Bare conductor.
o	In theft prone area and to improve HT:LT ratio, HVDS may be proposed. Total capacity of HVDS shall be higher by 20% than conventional LT S/S.
p	The following works/ items shall not be eligible for coverage under IPDS scheme:
	(i) Works already sanctioned under other schemes of Govt. of India (like R-APDRP/RGGVY/DDUGJY/NEF etc.). The projects for which any other grant / subsidy from Government of India has already been received / proposed to be received shall not be eligible under this scheme.
	(ii) AMI in the towns where SCADA is not planned under R-APDRP
	(iii) Civil works other than sub station
	(iv) Service lines to new consumers
	(v) GIS survey of consumers
	(vi) Cost of land for sub-stations
	(vii) Compensation towards right of way
	(viii) Distribution automation
	(ix) Office equipment / fixtures
	(x) Spares (other than mandatory spares prescribed by manufacturer)
	(xi) Tools and Plants (T&P)
	(xii) Vehicles
	(xiii) Salaries and Establishment Expenditure

ANNEXURE - P-4

MAHAVITARAN
Maharashtra State Electricity Distribution Co. Ltd.

Office of the Chief Engineer (Distribution.)
Maharashtra State Electricity Distribution Co. Ltd.
"Prakashgad", 5th Fl., St.Road, Bandra(East), Mumbai - 400 051.
Tel. : (P) 26478252 (O) 26474211 Fax : (022) 26472937
E-mail:cedist@mahadiscom.in

CE(Dist)/D-III/Circular/25680 **Date: 19.06.2008**

CIRCULAR

Sub:- Procedure to plan for electrifying areas preparation of schemes (DPRs) and releasing new connections .

Ref: CE(Dist)/D-III/Circular/22197 dtd. 20.05.2008.

In continuation with the above reference and in order to discharge the universal supply obligation u/s 43 of EA 2003 and recovery of charges u/s 46 of EA 2003, and MERC (Electricity Supply Code and other conditions of Supply) ,Regulations, 2005 and in compliance of MERC Order(Schedule of charge) 8th September 2006 in case No.70/2005, the following procedure shall be followed.

1) For the convenience of larger group of consumers in shortest possible time MSEDCL while releasing LT connections will give Divisionwise priority in the following sequence- applications received from area A,area B & area C. For consumers falling in BPL and weaker section and residing in remote non electrified areas, MSEDCL through special schemes develop infrastructure on priority and release connections.

2) ***Chief Engineers and their field officers will regularly and proactively review the developments taking place in their Areas and plan and prepare schemes/DPR for creating infrastructure for extending electric connections to consumers in these areas and obtain funding from Financial Institutions and keep the works on shelves and in appropriate cases keep the contracts and materials (in case the work is to be done through non-turnkey contractors) ready for execution. As soon as demand from potential consumers***

come, the work under these schemes should be executed and connections should be released. In areas where fast and concentrated, and large developments are taking place, the field officers shall proactively plan and create backend infrastructure such as creation/up gradation of substations to meet immediate future demand.

3) The list of pending applications in order of chronology, (category wise) and areas as per the priority defined in the above paras shall be kept ready. In case any consumer or group of consumer wants connections out of turn or out of its own volition or choice, he may get the work executed at his expense under MSEDCL supervision and get the refund of the expenses so incurred through his energy bills. However he will have to get the estimates and specifications sanctioned from the appropriate authorities and he will not be required to pay supervision charges to MSEDCL.
4) The priority of applications seeking release of power supply shall be indicated in the DPRs.
5) Single line diagrams (SLDs) shall be accompanied with the estimates/ DPRs.
6) Circle wise/Division wise detail project report /estimates be prepared with latest cost data and with appropriate overheads and cost. DPRs be prepared in usual REC:P.IE format and submitted to corporate Office.
7) HT,LT ratio shall be observed as 1:1.
8) The loading of the power and distribution transformers must be taken as 70% and not more than that. This will Increase the redundancy in the system.
9) Normally for every 1000nos.of agricultural pump sets a new sub-station (33/11kV) shall be proposed with minimum 3 outlets.
10) Minimum 50sq.mm conductor in rural area with PSC poles must be used for 11kv feeder and in urban area 100sq.mm with RSJ. In urban area the provision of double circuits on same supports for meeting future load demand must be borne in mind while preparing the estimates. Or else a

switching station establishment must be thought of with minimum two incomers.

11) The conductor shall never be loaded beyond it's rated capacity.

12) Sub-station capacitors of appropriate capacity must be included in the substation estimates.

13) ON line capacitors of 0.6MVAR must be installed on each 11 kv feeder for efficient reactive power management in Urban as well as in Rural areas This will help in many ways such as improvement in voltage profile, reduction in technical loss and loading of the lines.

14) All cut points, jumpers in the substation and lines must be provided with crimping/wedge connectors.

15) In the coastal area the G.I. structure instead of MS, anti fog insulators especially PVC string type insulators must be used.

16) The estimate/(s) being sanctioned shall be given number as-

i)EE/Division/Tech/ARR/Non-DDF/08-09/...date,(Register-1), Recover only charges from consumer/(s) as per MERC Order(Schedule of charge) dated 8th sep 2006.

ii)EE/Division/Tech/ARR/Non-DDF,CC&RF/08-09/...date, (Register-2) and Recover charges from consumer/(s) as per MERC Order(Schedule of charge) dated 8th sep 2006(non refundable) in addition to the infrastructure cost.

iii)EE/Division/Tech/DDF/08-09/.....date, (Register-3). Recover total infrastructure cost from consumer/(s).

Estimate sanction registers shall be maintained as mentioned above.

At Circle Office :-

i)SE/Circle/Tech/ARR/Non-DDF/08-09/.....date,(Register-1) Recover only charges from consumer/(s) as per MERC Order(Schedule of charge) dated 8th Sep 2006.

ii)SE/Circle/Tech/ARR/Non-DDF,CC&RF/08-09/.....date, (Register-2) and Recover only charges from consumer/(s) as per MERC Order(Schedule of charge) dated 8th sep 2006(non refundable) in addition to the infrastructure cost.

iii)SE/Circle/Tech/DDF/08-09/.....date, (Register-3) Recover total infrastructure cost from consumer/(s).

At Zone Office :-

i)CE/Zone/Tech/ARR/Non-DDF/08-09/.....date,(Register-1) Recover only charges from consumer/(s) as per MERC Order(Schedule of charge) dated 8th sep 2006.

ii)CE/Zone/Tech/ARR/Non-DDF,CC&RF/08-09/.....date, (Register-2) and Recover charges from consumer/(s) as per MERC Order(Schedule of charge) dated 8th Sep2006(non refundable) in addition to the infrastructure cost.

iii)CE/Zone/Tech/DDF/08-09/... ..date, (Register-3) Recover total infrastructure cost from consumer/(s).

(**DDF**-Dedicated Distribution Facility, **ARR**-Aggregate Revenue Requirement, **CC&RF**- Consumer Contribution & Refund thereof through energy bills).

17) Non DDF cases but opt to get execute the work initially incurring the expenditure at their own & desire refund through energy bills.

18) Such estimates shall be technically sanctioned at Division/Circle/Zone levels as per the powers delegated to them under G.O.II.

19) A separate register with details of such sanctioned estimates shall be maintained as this is very much necessary in furnishing the very vital information at the time of ARR filing to MERC.

20) DPR must be forwarded to Corporate Office in order to process them and seeking administrative approval of Competent Authority and in-principal approval of MERC for investment.

21) After approvals as cited above, such DPRs will be posed to financing institutions for seeking finance.

22) An annual contract will be required to place in order to release the power supply to the applicant who in turn completes the formalities. The material being used in the construction shall be as per the specifications of MSEDCL only, in order to maintain the quality of the works.

23) To remove the backlog of release of Agricultural connections in GoM notified Backlog Districts as well as in non-backlog districts. The net result of this will be to release power supply to Agricultural consumers, on demand.

24) In all above every field Officer shall take initiative proactively so that MSEDCL will be in a position to meet the demand of prospective consumers.

25) All the information shall be made available in soft (i.e. in MS Excel) & shall be updated regularly and such information be submitted to Corporate Office quarterly for ARR purpose.

Sd/-

Chief Engineer (Distribution)

Copy swr to :---

1. Managing Director , MSEDCL
2. Director (Operations) MSEDCL
3. Director (Finance) MSEDCL
4. Director(V&S),MSEDCL
5. Executive Director –CP/I/II/III/HR MSEDCL

Copy fwc to:--

1. All Chief Engineers Comm /PP /IR /LM /DSPC /AMR /APDRP/ Stores /PCDF/SE(TRC)
2. Chief General Manager F&A/Internal Audit/(T/E)/Chief Legal Advisor/General Manager (Fin-Cap)/Corporate Acctt.
3. Chief General Manager (IT)
   --- It is requested to upload this circular on MSEDCL's website.
4. All Chief Engineers(O&M) Zones.

Copy to:--

1. All Superintending Engineers (O&M) Circles.
2. All Executive Engineers
3. All SDOs

ANNEXURE - P-5

RELIANCE

Reliance Infrastructure Limited
Devidas Lane, Off SVP Road
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Borivali (W)
Mumbai 400 092, India
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www.rinfra.com

27-08-2015

To

The Principal Secretary,
Maharashtra Electricity Regulatory Commission
13th Floor, World Trade Center I,
Cuffe Parade
Mumbai 400 005

Subject: Submission of information as per email dated 20-08-2015

Respected Sir,

The Hon'ble Commission vide its email dated 20-08-2015 sought information as per formats attached in the said email in respect of data of RInfra Receiving Stations/Sub-Stations and its associated network along with Reliability Indices. While we enclose the data as required, we request Hon'ble Commission to consider the following:

1. RInfra-D has been a power distribution utility in suburban Mumbai for more than 8 decades. It has evolved through this time as one of the best distribution utilities in the country and has been awarded by various agencies for its customer centric approach providing highest levels of reliability through use of latest technologies.

2. RInfra-D has built a robust distribution network across HT and LT level in every nook and corner of its area of supply, brief details of which are given below:

   2.1 77 nos. of 33(22)/11kV substations with power transformer installed capacity of 3,297 MVA. These 33(22)/11kV substations are fed through a network of nearly 880kms of underground 33kV cable network spread across the supply area.

   2.2 Installed capacity of distribution transformer as of May-June 2015 was about 4606 MVA in more than 6,700 nos. of distribution substations (i.e. more than 17 substations/sq.km and nearly 12 MVA of installed capacity/sq. km). A meshed open-ring 11kV cable network, totalling to about 3,200 kms of circuit length, feeds the distribution substations.

   2.3 At the LT level, the total LT mains network length is nearly 5,900 kms; irrespective of whether the consumer is from densely populated slum area of Shivaji nagar or premium residences in Khar, Juhu, Bandra areas, or remotely located fishermen colonies in Uttan area.

3. The overall reliability of the network is amongst the best in the country with ASAI of 99.99% and is achieved as a result of distribution network, which is developed as an interconnected mesh, at various voltage levels and through deployment of state-of-the-art systems like SCADA (Supervisory Control And Data Acquisition), DMS (Distribution Management System), Integrated GIS (Geographical Information System) and OMS (Outage Management System) which support the physical network and are unparalleled in the country. The unique 11kV and LT Interconnected Mesh network is far more effective than the traditionally used 'ring' network to ensure that electricity is restored during a power outage, with the least delay or in-convenience to the customers. RInfra has already filed a detailed note on *"Network Reliability and Expansion Philosophy for RInfra-Distribution"* along with our submissions made on 11-08-2015 in Case No 182 of 2014. Copy of the same is also annexed herewith as **Exhibit "1"** for ready reference.

4. Salient features of planning of RInfra network to maintain high levels of Reliability is as given below:

   4.1 At 33(22)/11kV substation level, (N-1) reliability is maintained through interconnected 11kV network by forming **clusters** of nearby interconnected 33(22)/11kV substations, so that in case of failure of any of the incoming 33(22)kV feeds in the cluster, supply to the entire network within a cluster is restored with minimum number of operations. Further, even clusters are interconnected with one another, which facilitates transfer of load across clusters as well, in case the load interrupted is large and cannot be restored through diversions within the cluster.

   4.2 At 11kV level, a meshed open-ring network enables restoration of supply in the event of contingencies of 11kV cable/switchgears. More than 40% of the 11kV feeders have (N-2) or more redundancy while the rest satisfy at-least (N-1) condition.

   4.3 LT Main Line network is developed in the form of a meshed open ring system. Usually, either one of at least two or three of the circuits of any LT distribution pillar can interchangeably be used as incomer. Under normal conditions, one of the circuits acts as Incomer for the outgoing circuits and the service points fed from that distribution pillar. During any abnormality in the related LT network, the network is rearranged by isolating the faulty sections and restoring the supply to the affected consumers through normally open circuits.

5. In respect of Distribution Transformers (DT) i.e. 11/0.4kV substation level, the loading of DT is monitored on a monthly basis. Due to load growth, some DTs reach their 80% loading limit as the load on its associated LT network increases. Each year, the loading of such DTs is regulated through a step-by-step approach, as explained below:

   5.1 The LT network is reconfigured through the 'normally off' points in order to balance the loading of a loaded DT by transferring its part load to the DTs in nearby area;

5.2 In case above is not feasible, then considering availability of space nearby or within the same 11/0.4kV substation, a new DT is commissioned or the existing DT is upgraded and LT network is rearranged to balance the loadings

The above details would show that RInfra has over the years put itself in a position where due to the strengths derived from the design and configuration of its network, not only is RInfra able to efficiently and reliably serve its existing load, but is also is a position to most optimally meet the load growth, with continuous assurance of efficient and reliable supply.

As said above, RInfra is submitting the data as sought for by the Hon'ble Commission along with the additional information on how the network is planned at Cluster Level to maintain (n-1) reliability. The said data is annexed herewith and marked as Exhibit as per details given below:

Format	Exhibit	Remark
Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise	"2"	Cluster level data is included as (n-1) reliability is ensured by forming clusters
Format 2: Information of HT Network Strengthening (Preceding 12 months) – Divisionwise	"3"	
Format 3: Information of DT Up gradation and Augmentation (Preceding 12 months) – Divisionwise	"4"	DT Failure is considered as DT burnt and irreparable during the said period (Preceding 12 months)
Format 4: Reliability Data (Preceding 12 months) – Divisionwise	"5"	Cluster-wise Reliability data is submitted (excluding one off special events and cable damaged by third parties)

Thanking You,

For Reliance Infrastructure Limited

Vivek Mishra
Assistant Vice President – Regulatory Affairs

RELIANCE 4

EXHIBIT - '1'

Network Reliability and Expansion Philosophy for RInfra-Distribution

Table of Contents

1.0 Introduction:

RInfra-D (erstwhile BSES) has been a power distribution utility of the suburban Mumbai since more than 8 decades. It has evolved through this time as one of the best distribution utilities in the country and has been awarded by various agencies for its customer centric approach providing highest levels of reliability through use of latest technologies.

RInfra-D has a total of 77 nos. of 33(22)/11kV substations within its licensed supply area with total installed capacity of 3297 MVA. The peak arithmetic demand as seen by the 33(22) kV network during May 2015 was 1998 MVA & coincident demand 1825 MVA; thus having an optimal installed capacity to demand ratio of 1.6. These 33(22)/11kV substations are fed through a network of nearly 880kms of underground 33kV cable network spread across the supply area.

The total installed distribution transformer capacity as of May-June 2015 was about 4606 MVA in more than 6700 nos. of distribution substations (i.e. more than 17 nos. of substations/sq.kms and nearly 12 MVA of installed capacity/sq. km). A meshed open-ring 11kV cable network, totaling to about 3200 kms of circuit length, feeds the distribution substations.

At the LT level, the total LT mains network length is nearly 5900 kms reaching each and every domestic consumer; irrespective of whether, the consumer is from densely populated slum area of Shivaji nagar or premium residences in Khar, Juhu, Bandra areas, or remotely located fishermen colonies in Uttan area.

Some of the main elements of the network are given in table-1 below.

Table-1: Major Network Components

Sr. No.	Network Element	UoM	Status as on May 2015
1	No. of 33(22)/11kV substation	Nos.	77
2	PT Installed Capacity	MVA	3297
3	Average Loading of PT's	%	61
4	33kV Network Length	kms	880
5	11kV Feeders	Nos.	1047
6	11kV Network Length	kms	~3200
7	Average Loading of 11kV network	%	47%
8	No. of Distribution Substation	Nos.	6735
9	DT Installed Capacity	MVA	4606
10	Average Loading of DT's	%	51%
11	LT Network Length	kms	~5897
12	No. of RInfra-D Consumers	Nos.	~29 Lakhs

The unique 11kV and LT Interconnected Mesh network is far more effective than the traditionally used 'ring' network, to ensure that electricity is restored during a power outage, with the least delay or in-convenience to the customers.

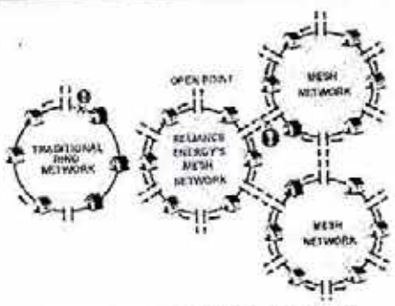


Figure-1: Meshed Network Concept

The overall reliability of the network is among the best in the nation with ASAI of 99.99% and is achieved in view of interconnected mesh network at various voltage level and through deployment of state-of-art systems like SCADA (Supervisory Control And Data Acquisition), DMS (Distribution Management System), Integrated GIS (Geographical Information System) and OMS (Outage Management System) which support the physical network and are unparalleled in the country. Reliability of RInfra-D network has to be computed for area as a whole to reflect the strengths of its mesh network built over decades.

Table-2 below gives the various reliability indices of RInfra-D network for FY2014-15.

Table-2: RInfra-D Reliability Indices (FY2014-15)

Sr. No.	Description	SAIDI (mins)	SAIFI (nos.)	CAIDI (mins)
1.	Overall	53.94	1.69	31.91
2.	Excluding one-off events* and external utility damages	31.80	1.1	28.50

* Simultaneous multiple events at HT level in the same locality

In order to understand the philosophy of network reliability and expansion, with the perspective of parallel network, following points are briefed in this document.

1. 4-levels of network reliability
2. Forward path for network reliability improvement
3. Cost effectiveness for new and redevelopment projects

2.0 4-Levels of Network Reliability:

At RInfra-D, the power distribution network has been divided into four levels, which play key role in maintaining the highest levels of reliability.

2.1 LT Network:

Since more than 90% of our customers are supplied power at LT level, this clearly is the most spread out network in the power distribution system. Every single customer is fed through a largely interconnected LT Main Line network in the form of a meshed open ring system. A sample LT Main Line network is depicted in the figure-2 below.

Fig-2: Sample LT Network of RInfra-D

Usually either one of at least two or three of the circuits of any LT distribution pillar can interchangeably be used as incomer. Under normal conditions, one of the circuits acts as an incomer for the outgoing circuits and the service points being fed from that distribution pillar. During any abnormality in the related LT network, the network is rearranged by isolating the faulty sections and restoring the supply to the affected consumers through normally open circuits.

The average loading of the LT Main Line feeders is about 40%, which facilitates easy load transfers in the event of LT abnormalities. By monitoring and maintaining the loading of the LT feeders, the supply is restored in minimum time.

2.2 HT Network:

The HT network consists of 11kV and 33(22) kV network. The 11kV network, comprising of more than 750 nos. of feeders, feeding more than 6000 nos. of distribution substations, forms the backbone of the entire distribution system. Whereas, the 33(22)kV network acts as source to the 11kV network and comprises of about 190 feeders emanating from various EHV stations of RInfra-T and TPC-T spread across the entire supply area.

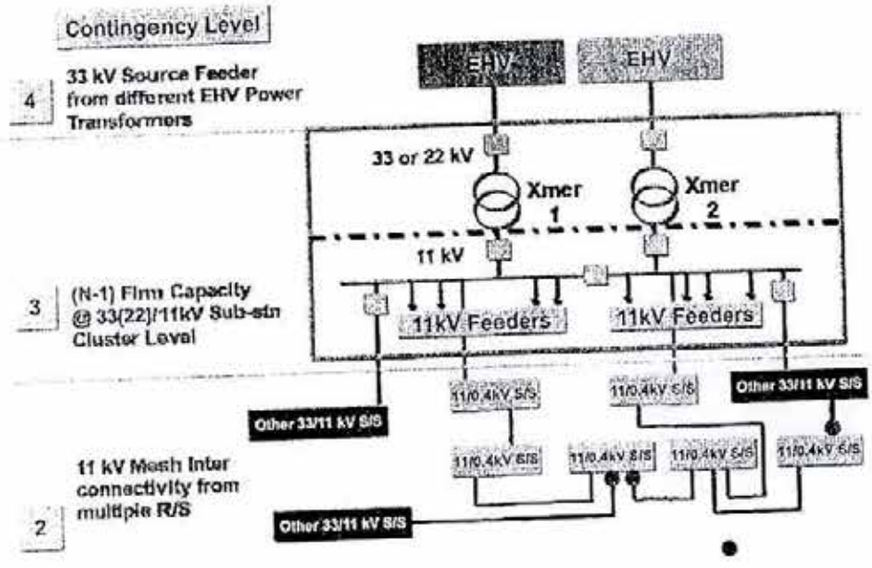


Figure-3: Typical HT Network of RInfra-D

A typical HT network is shown in figure-3. The network redundancy is maintained through the other three levels (LT network being the first level of the network as explained in section 'An' above).

1. At 11kV network level – by having a meshed open-ring network which enables restoration of supply in the event of contingencies of 11kV cable/switchgears. More than 40% of the 11kV feeders have (n-2) or more redundancy while the rest satisfy at least (n-1) condition.
2. At 33(22)/11kV substation level – by ensuring (n-1) reliability through interconnected 11kV network by forming clusters so that supply to the entire network is restored in minimum number of operations during failure of any one of the incoming feeds in the cluster.

   Cluster-based philosophy ensures that the huge investment (approx. Rs. 20-30 Crs. per 40MVA installed capacity, excluding cost of land) required for commissioning of 33(22)/11kV substations is utilized in an optimum manner. The average loading of 33 (22)/11kV substations is limited at 60%-70% level instead of 50% (as would be required for achieving

substation-wise (n-1) for a 2x20MVA substation configuration)]. In case of failure of one of the incomers (PT/33kV feeder), partially the load is restored through the 11kV bus coupler in the affected 33(22)/11kV substation. At the same time, the balance affected customers are restored remotely, on the interconnected 11kV network within the clusters, through direct feeders/DMS operated 11kV switchgear in distribution substations and if required through operations in the field.

3. At 33(22)kV source level – by ensuring each 33(22)/11kV substation receives power from difference EHV Power Transformers (if feasible, from difference EHV stations). This strategy secures against possible mass black-out due to issues at EHV level.

3.0 Forward Path for Network Reliability Improvement:

RInfra-D, as an organization, strives to better itself in every possible way. In continuation of its efforts to provide more and more reliable and quality supply in the most economic way to the consumers, RInfra-D is working at various levels as described below.

a) Commissioning of new 33/11kV substations – As a regular practice, RInfra-D commissions new 33(22)/11kV substations every year based on system loading and load growth requirements, in order to strengthen its 33kV network and meet the growing demand of its supply area.

The table below gives the existing and proposed loading scenario at power transformer level post execution of WIP projects

Division	MD (MVA)*	PT Capacity (MVA)	% Existing PT Loading	Capacity Addition WIP (MVA)**	Total post WIP Commissioning (MVA)	% PT Loading post WIP Commissioning
SD	339	552	61%	69	621	55%
SCD	336	610	55%	20	630	53%
CD	476	760	62%	80	840	57%
ND	355	515	69%	60	575	62%
ED	490	860	57%	26	886	55%
Total	1996	3297	60%	255	3552	56%

** Peak Demand as of May 2015*

*** WIP projects as approved in DPR considering capex FY2015-16*

b) Improvement of 11kV Cable network – The 11kV network is being strengthened by replacing smaller size and fault prone sections for increasing available system margins and improving reliability of its network.

c) Expansion of DMS program – RInfra-D has witnessed an improvement in SAIDI level from 212 minutes in FY 2006-07 to 54 mins in FY 2014-15. This improvement in reliability was realized mainly due to automation and FPI (Fault Passage Indicator) installation at about 1487 nos. of its substations (only about 22% of total volume) under the DMS program. Going forward RInfra-D will increase the proportion of automated substations to further improve reliability of network.

d) Improvement in LT Network – Various new initiatives/technologies (Theft-proof pillars, theft aversion boxes, Fuse strip pillars, LT network standardization and automation, etc) are being implemented on the LT side of the network to further enhance the system security at LT levels.

4.0 Cost effectiveness for Supply to New & Redevelopment projects:

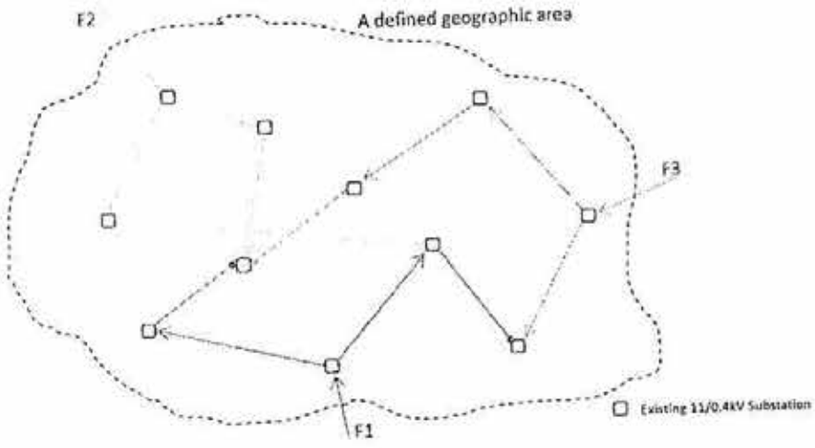
4.1 Supply to New projects:

As explained in the introduction section above, RInfra-D, being the power distribution utility since 8-decades in the sub-urban Mumbai, has an existing distribution network spread all across the entire licensed area (except areas in Versave & Chene Village as these areas are recently added to RInfra-D's licensed area and Ganpat Patil Nagar in Dahisar West area due to CRZ restriction and stretches inside Borivali National Park due to forest restrictions). As a result of this extensive network, it is relatively easy for RInfra-D to release new connections by extending/upgrading/augmenting the existing network depending on the quantum of load required.

For RInfra-D, commissioning of a new 11/0.4kV substation to release supply to a new/redevelopment project consumer, would generally require only loop-in-out of nearby existing 11kV cable whereas for another licensee with only sparce network availability, it might be necessary to lay long length 11kV cables from nearest 33(22)/11kV substation. Consequently, the incremental cost required by RInfra-D for releasing new/redevelopement loads would be much less. This is illustrated below.

Scenario-1: Existing Network of RInfra-D

(a small area being fed by RInfra-D at 11kV from 33/11kV substations outside the area)

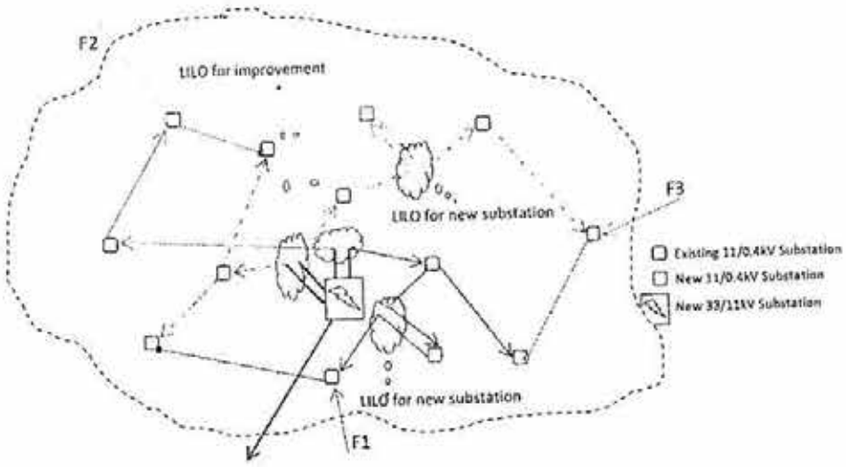


Salient points of Scenario-1:

- ✓ The area is fed by 3 nos. of 11kV feeders from 33/11kV substations outside the limits of the defined area
- ✓ These feeders are configured in a Meshed network to feed 11/0.4kV substations which in turn supply to the LT consumers through the LT Main Line and Services.

Scenario-2: New 33/11kV substation in the defined area by RInfra-D

(to meet new load and load growth 2x20MVA 33/11kV substation is commissioned within the defined area by RInfra-D)



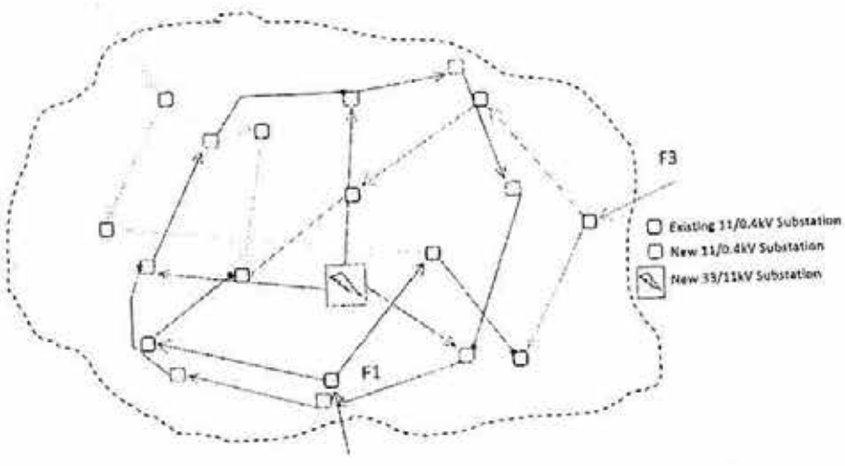
Salient points of Scenario-2:

- ✓ A new 33/11kV substation is commissioned by RInfra-D within the defined area limits
- ✓ New 11kV feeders are created by LILO of existing nearby 11kV cables (about 0.2 to 1.0 km cable is required per run)
- ✓ New 11/0.4kV substations are commissioned to cater to specific new loads by LILO of nearby 11kV cable network (about 0.2-0.3 km cable is required per run)
- ✓ The switch positions of the 11kV network is reconfigured to optimally supply to the load in the defined area
- ✓ The total 11kV cable laying required is about 5-7 kms per 2x20MVA installed capacity in order to fully utilize the new capacity.
- ✓ **Incremental capex required (only cost of 11kV cable laying considered, other costs for commissioning of 33/11kV substation being common to both utilities) is about Rs. 7.7 Crs.**

Scenario-3: New Network development in the defined area by another Licensee

(to meet new load 2x20MVA 33/11kV substation is commissioned within the defined area by another Licensee)

F2 A defined geographic area



Salient points of Scenario-3:

- ✓ Completely new network (including 33/11kV substation, 11/0.4kV substation, HT and LT cable network) is developed by the licensee to feed the consumers within the defined area
- ✓ About 32 km of new 11kV cable (reference Component-3, Section 4.2.2 of "Network Rollout Plan for Tata Power-D" dated February 2015) will be laid in order to utilize the capacity of the 33/11kV substation commissioned in the defined area.
- ✓ **Incremental capex required (only cost of 11kV cable laying considered, other costs for commissioning of 33/11kV substation being common to both utilities) is about Rs. 27.82 Crs.**

Thus it is evident through these case scenarios, that, the additional capex required for another licensee will be approximately Rs. 20 Crs as compared to RInfra-D for the same set of consumers.

4.2 Supply to Redevelopment Projects:

In case of a redevelopment projects, RInfra-D is even more cost effective, since the network to supply to the rehabilitated consumers already exists. Any additional load required for the re-development project, in most cases, can be released from the margins available on the existing network. Even if any network augmentation is required, it would only be minimal for RInfra-D as compared to any other utility, which will have to lay entirely new network, which will not only be at a much higher cost than the incremental capex required by RInfra-D, but would also make the existing network of RInfra-D completely redundant..

For illustration purposes, following situation is considered:

- ✓ An existing building having RInfra-D's substation within its layout goes for redevelopment
- ✓ The said substation houses a 630kVA distribution transformer which is loaded to about 55% (i.e. 346 kVA) out of which 250 kVA is the existing load of the said building itself, while the balance load is of some other building in the vicinity
- ✓ Post redevelopment the estimated load of the said building will be about 500 kVA (i.e. double of existing load)

Scenario-1: RInfra-D supplies to the redeveloped project:

- ✓ In order to meet the additional load of the redeveloped building, RInfra-D will have to upgrade the existing substation DT size from 630 kVA to 990kVA.
- ✓ The new loading of the substation DT, post actual realization of the estimated load will be about 60% (i.e. 596kVA; 500kVA of redeveloped building plus 96kVA of existing external loads)
- ✓ On the 11kV network, the additional 250kVA load will be easily absorbed without need of any upgradation/augmentation due to the available margins
- ✓ The total cost required would be about Rs. 0.17 Cr. (excluding the cost of LT network laying for new supply, which will be common for both the utilities)

Scenario-2: Other utility supplies to the redeveloped project:

- ✓ In order to meet the load of the redeveloped building, the other licensee will have to lay 11kV network from its nearest available network.
- ✓ Assuming that there is a nearby network of the other licensee at 2km distance from the said project, the other licensee will have to lay minimum two runs of 11kV cable for a length of 2km.
- ✓ A new 11/0.4kV substation with 990kVA DT will have to be commissioned in the said project by the other licensee
- ✓ The total cost required would be about Rs. 3.67 Cr. (excluding the cost of LT network laying for new supply, which will be common for both the utilities)

It is evident through this illustration, that, the additional capex required by a licensee other than RInfra-D will be approximately Rs. 3.50 Crs for the same set of consumers.

4.3 Cost of Supply (Summary):

In order to supply to the same set of customers within the defined/licensed area, incremental cost of RInfra-D is always going to be cheaper compared to the other licensee due to the strong and widespread existing network, especially in case of redevelopment projects.

5.0 Inference:

The optimum levels of built-in redundancy in RInfra-D's network, ensures that supply to customers is restored even in situations when there is more than one system element at various levels under outage. The testimonial to this is a consistently high value of each of the reliability indices during the recent years. Furthermore, with a strong existing network and future network augmentation plans along with technology driven initiatives, the reliability and quality of supply of RInfra-D network is set to improve manifolds in the coming years.

In addition to the splendid reliability of supply of the existing network of RInfra-D due to its unique meshed system, the presence of extensive network of RInfra-D in the area of supply also ensures that any further improvements to reliability of supply can be effected by RInfra-D with least capex. At the same time, the network reach of RInfra-D also ensures that all additional load in case of redevelopment projects and even new loads in largely green field areas can be met by RInfra-D at a much lower capex as compared to what any other distribution licensee would require, who does not have a network as extensive as RInfra-D.

EXHIBIT - '2'

RELIANCE

Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise

Sr. No.	Division	Name of 33(22)/11kV Sub Station	Power Transformer No.	Installed capacity	% Peak Loading	Total Post WIP installed capacity	% Peak Loading after WIP	RInfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to RInfra submissions dated 11/08/2015 in Case No. 182 of 2014) Cluster No.	Cluster Capacity (MVA)	Cluster % Peak Load	Cluster (N-1) at Peak (Y/N)*	Cluster % Peak Load after WIP	Network Improvement Scheme under implementation as per approved DPR's	DPR Reference
1	SD	Juhu	16 MVA 1	16.0	78.5	25.0	50.3	1	112	68%	Y	59%	1) Tranformer augumentation at Juhu (Swapping) 2) Commissioning of rec station - Khar	1) R&M 2) R-Infra D/FY14/01 (15-16)
2	SD	Juhu	16 MVA 2	16.0	71.1	16.0	55.5							
3	SD	Juhu North	20 MVA 1	20.0	53.1	20.0	53.1							
4	SD	Juhu North	20 MVA 2	20.0	71.7	20.0	71.7							
5	SD	Saraswati Road	20 MVA 1	20.0	67.1	20.0	67.1							
6	SD	Saraswati Road	20 MVA 2	20.0	68.5	20.0	57.6							
7	SD	24th Road	20 MVA 1	20.0	60.1	20.0	44.9	2	120	70%	Y	55%	Commn of receiving station -1) Pali 2) Khar	1) R-Infra D/FY14/01 (14-15) 2) R-Infra D/FY14/01 (15-16)
8	SD	Bandra	20 MVA 1	20.0	76.3	20.0	64.6							
9	SD	Bandra	20 MVA 2	20	60.7	20.0	40.6							
10	SD	Bandra	20 MVA 3	20.0	76.6	20.0	64.6							
11	SD	Bombilwadi	10 MVA 1	10.0	57.1	10.0	43.5							
12	SD	Bombilwadi	10 MVA 2	10.0	71.5	10.0	54.8							
13	SD	Bombilwadi	20 MVA 1	20.0	80.6	20.0	63.6	3	70	50%	Y	48%	Commissioning of rec station - Shivalik Rec	REL-D/FY13/02 (14-15)
14	SD	Bandra Terminus	10 MVA 1	10.0	70.1	10.0	70.1							
15	SD	Santacruz	20 MVA 1	20.0	47.1	20.0	47.1							
16	SD	Santacruz	20 MVA 2	20.0	45.1	20.0	45.1							
17	SD	Santacruz	20 MVA 3	20.0	47.3	20.0	39.7							
18	SD	Kalanagar	20 MVA 1	20.0	52.0	20.0	39.5							
19	SD	Kalanagar	20 MVA 2	20.0	56.0	20.0	43.5							
20	SD	Kalanagar	20 MVA 3	20.0	61.8	20.0	49.3							
21	SD	Kalina	10 MVA 1	10.0	68.6	10.0	38.6	4	160	59%	Y	46%	Commn of receiving station - 1) Makers 2) Motilal Nagar and 3) Godrej/Police Qtrs	1) R-Infra D/FY14/01 (14-15) (Civil) 2) R-Infra D/FY14/01 (14-15) 3) REL-D/FY13/02 (12-13)
22	SD	Kalina	20 MVA 1	20.0	73.5	20.0	58.5							
23	SD	MMRDA	10 MVA 1	10.0	68.0	10.0	28.0							
24	SD	MMRDA	20 MVA 1	20.0	62.5	20.0	47.5							
25	SD	MMRDA	20 MVA 2	20.0	50.6	20.0	50.6							
26	SD	MMRDA	20 MVA 3	20.0	44.6	20.0	44.6							
27	SD	Vile Parle	10 MVA 1	10.0	71.3	10.0	71.3	5	110	56%	Y	56%		
28	SD	Vile Parle	20 MVA 1	20.0	64.3	20.0	64.3							
29	SD	Vile Parle	20 MVA 2	20.0	63.7	20.0	63.7							
30	SCD	Airport	10 MVA 1	10.0	46.1	10.0	46.1							
31	SCD	Airport	10 MVA 2	10.0	37.7	10.0	37.7							
32	SCD	Airport	20 MVA 1	20.0	57.4	20.0	57.4							
33	SCD	Airport	20 MVA 2	20.0	44.3	20.0	44.3							

* In case of contingencies, wherever cluster is not (N-1) compliant, if required, supply is restored through multiple set of operations from 11kV network outside the cluster.

RELIANCE

Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise

Sr. No.	Division	Name of 33(22)/11kV Sub Station	Power Transformer No.	Installed capacity	% Peak Loading	Total Post WIP installed capacity	% Peak Loading after WIP	RInfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to RInfra submissions dated 11/08/2015 in Case No. 182 of 2014)					Network Improvement Scheme under implementation as per approved DPR's	DPR Reference
								Cluster No.	Cluster Capacity (MVA)	Cluster % Peak Load	Cluster (N-1) at Peak (Y/N)*	Cluster % Peak Load after WIP		
34	SCD	Ambivali	20 MVA 1	20.0	67.1	20.0	59.6	6	160	66%	Y	60%	1) Commissioning of rec stn- Patel Engg 2) Malad Augmentation	1) R-Infra D/FY14/01 (14-15) 2) REL-D/FY12/02
35	SCD	Ambivali	20 MVA 2	20.0	72.3	20.0	64.8							
36	SCD	Ambivali	20 MVA 3	20.0	67.4	20.0	59.9							
37	SCD	Ambivali	20 MVA 4	20.0	72.0	20.0	64.5							
38	SCD	Versova	20 MVA 1	20.0	63.6	20.0	63.6							
39	SCD	Versova	20 MVA 2	20.0	56.5	20.0	56.5							
40	SCD	Versova	20 MVA 3	20.0	53.7	20.0	53.7							
41	SCD	Versova	20 MVA 4	20.0	75.6	20.0	60.6							
42	SD	Sambhaji Nagar	20 MVA 1	20.0	39.8	20.0	39.8	7	100	52%	Y	48%	Commissioning of rec stn- Patel Engg	R-Infra D/FY14/01 (14-15)
43	SD	Sambhaji Nagar	20 MVA 2	20.0	48.8	20.0	48.8							
44	SCD	Andheri	20 MVA 1	20.0	50.0	20.0	50.0							
45	SCD	Andheri	20 MVA 2	20.0	60.0	20.0	50.0							
46	SCD	Andheri	20 MVA 3	20.0	60.0	20.0	50.0							
47	SCD	Chakala	10 MVA 1	10.0	74.3	10.0	59.3	8	110	51%	Y	50%	Comm of receiving station - ESIS	R-Infra D/FY14/01 (14-15)
48	SCD	Chakala	10 MVA 2	10.0	61.7	10.0	51.7							
49	SCD	HUL	25 MVA 1	25.0	21.2	25.0	41.2							
50	SCD	HUL	25 MVA 2	25.0	29.7	25.0	49.7							
51	SCD	Meghawadi	20 MVA 1	20.0	77.1	20.0	62.1							
52	SCD	Meghawadi	20 MVA 2	20.0	74.3	20.0	59.3							
53	SCD	MIDC	10 MVA 1	10.0	70.9	10.0	50.9	9	90	36%	Y	36%	Comm of receiving station - ESIS	R-Infra D/FY14/01 (14-15)
54	SCD	MIDC	10 MVA 2	10.0	19.1	10.0	49.1							
55	SCD	MIDC	10 MVA 3	10.0	62.9	10.0	52.9							
56	SCD	MIDC	20 MVA 1	20.0	29.1	20.0	29.1							
57	SCD	Sahar Plaza	20 MVA 1	20.0	40.6	20.0	40.6							
58	SCD	Sahar Plaza	20 MVA 2	20.0	17.1	20.0	17.1							
59	SCD	220kV Aarey	20 MVA 1	20.0	44.3	20.0	44.3	10	130	61%	Y	53%	Commissioning of rec stn- 1) ESIC 2) Borosil	1) R-Infra D/FY14/01 (14-15) 2) R-Infra D/FY14/01 (14-15)
60	SCD	220kV Aarey	20 MVA 2	20.0	51.7	20.0	51.7							
61	SCD	220kV Aarey	20 MVA 3	20.0	52.8	20.0	52.8							
62	SCD	Borosil	10 MVA	10.0	65.9	10.0	42.0							
63	SCD	SEEPZ	20 MVA 1	20.0	64.7	20.0	54.7							
64	SCD	SEEPZ	20 MVA 2	20.0	79.1	20.0	64.1							
65	SCD	SEEPZ	20 MVA 3	20.0	68.0	20.0	58.0							
66	CD	Cama	20 MVA 1	20.0	69.4	20.0	69.4	11	120	63%	Y	62%	Commissioning of rec stn- Gokuldham	REL-D/FY12/01
67	CD	Mahananda	20 MVA 2	20.0	57.1	20.0	57.1							
68	CD	Mahananda	20 MVA 1	20.0	69.1	20.0	69.1							
69	CD	Nirlon	20 MVA 1	20.0	71.1	20.0	61.6							
70	CD	Nirlon	20 MVA 3	20.0	43.1	20.0	43.1							
71	CD	Nirlon	20 MVA 2	20.0	70.8	20.0	70.8							

* In case of contingencies, wherever cluster is not (N-1) compliant, if required, supply is restored through multiple set of operations from 11kV network outside the cluster.

SP

RELIANCE

Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise

Sr. No.	Division	Name of 33(22)/11kV Sub Station	Power Transformer No.	Installed capacity	% Peak Loading	Total Post WIP installed capacity	% Peak Loading after WIP	RInfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to RInfra submissions dated 11/08/2015 in Case No. 182 of 2014)					Network Improvement Scheme under implementation as per approved DPR's	DPR Reference
								Cluster No.	Cluster Capacity (MVA)	Cluster % Peak Load	Cluster (N-1) at Peak (Y/N)*	Cluster % Peak Load after WIP		
72	CD	Erangle	20 MVA 1	20.0	44.0	20.0	33.5	12	20	44%	N	34%	Commissioning of rec stn- 1) Ganesh Nagar 2) Judicial Academy	1) R-Infra D/FY14/01 (14-15) 2) REL-D/FY13/02 (15-16) (Civil)
73	CD	Dindoshi	20 MVA 2	20.0	63.7	20.0	63.7	13	70	65%	Y	56%	Commissioning of rec stn- Gokuldham	REL-D/FY12/01
74	CD	Dindoshi	20 MVA 1	20.0	72.8	20.0	63.3							
75	CD	Dindoshi	10 MVA 2	10.0	56.0	10.0	37.0							
76	CD	Dindoshi	20 MVA 3	20.0	62.0	20.0	50.1							
77	CD	Raheja IT	20 MVA 1	20.0	45.1	20.0	29.9	14	40	49%	Y	42%	Commissioning of rec stn- Gokuldham	REL-D/FY12/01
78	CD	Raheja IT	20 MVA 2	20.0	53.1	20.0	53.1	15	120	56%	Y	53%	Commissioning of rec stn- 1) Kalpataru Neo Pharma 2) Hiranandani Heritage	1) REL-D/FY13/02 (12-13) 2) 1) REL-D/FY12/01
79	CD	Lokhandwala	20 MVA 1	20.0	52.0	20.0	52.0							
80	CD	Lokhandwala	10 MVA 1	10.0	45.3	10.0	45.3							
81	CD	Poisar	10 MVA 1	10.0	68.6	10.0	68.6							
82	CD	Poisar	20 MVA 1	20.0	52.3	20.0	41.8							
83	CD	Poisar	20 MVA 2	20.0	63.1	20.0	55.5							
84	CD	Times of India	20 MVA 1	20.0	65.4	20.0	65.4							
85	CD	Times of India	20 MVA 2	20.0	48.6	20.0	48.6							
86	CD	Chinchavli	20 MVA 1	20.0	48.4	20.0	48.4	16	100	55%	Y	54%	Commissioning of rec stn- Vijay Associate	R-Infra D/FY14/01 (14-15)
87	CD	Chinchavli	20 MVA 2	20.0	53.9	20.0	53.9							
88	CD	Chinchbunder	20 MVA 1	20.0	58.0	20.0	58.0							
89	CD	Mindspace	20 MVA 2	20.0	57.7	20.0	57.7							
90	CD	Mindspace	20 MVA 1	20.0	56.6	20.0	49.9							
91	CD	Palm Court	20 MVA 1	20.0	75.8	20.0	55.8	17	40	79%	Y	60%	Commissioning of rec stn- 1) CPWD	1) REL-D/FY13/02 (14-15)
92	CD	Palm Court	20 MVA 2	20.0	77.7	20.0	63.4							
93	CD	KIE	20 MVA 3	20.0	39.6	20.0	27.2	18	120	65%	Y	54%	Commissioning of rec stn- 1) CPWD 2) Ganesh Ngr Mhada 3) Kanti Park	1) REL-D/FY13/02 (14-15) 2) R-Infra D/FY14/01 (14-15) 3) REL-D/FY10/01
94	CD	KIE	20 MVA 1	20.0	62.0	20.0	62.0							
95	CD	KIE	20 MVA 2	20.0	67.1	20.0	59.5							
96	CD	KIE	20 MVA 4	20.0	66.5	20.0	54.1							
97	CD	RNA Royal Park	20 MVA 1	20.0	78.5	20.0	61.4							
98	CD	RNA Royal Park	20 MVA 2	20.0	74.3	20.0	58.1	19	60	71%	N	54%	Commissioning of rec stn - 1) Hiranandani Heritage 2) Augumentation at Malad 3) Kalpataru Neo Pharma	1) REL-D/FY12/01 2) REL-D/FY12/02 3) REL-D/FY13/02 (12-13)
99	CD	Kandivali	10 MVA 1	10.0	70.9	10.0	38.5							
100	CD	Kandivali	10 MVA 2	10.0	67.8	10.0	56.4							
101	CD	Malad	20 MVA 1	20.0	73.1	20.0	67.4							
102	CD	Malad	10 MVA 1	10.0	77.0	10.0	69.3							
103	CD	Malad	10 MVA 2	10.0	64.4	20.0	40.8							
104	CD	Goregaon	35 MVA 1	35.0	74.3	35.0	30.3	20	70	83%	N	35%	Augumentation at Goregaon	REL-D/FY12/02
105	CD	Goregaon	35 MVA 2	35.0	75.2	35.0	40.4							

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RELIANCE

Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise

Sr. No.	Division	Name of 33(22)/11kV Sub Station	Power Transformer No.	Installed capacity	% Peak Loading	Total Post WIP installed capacity	% Peak Loading after WIP	RInfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to RInfra submissions dated 11/08/2015 in Case No. 182 of 2014)					Network Improvement Scheme under implementation as per approved DPR's	DPR Reference
								Cluster No.	Cluster Capacity (MVA)	Cluster % Peak Load	Cluster (N-1) at Peak (Y/N)*	Cluster % Peak Load after WIP		
106	ND	Kanakia	10 MVA 1	10.0	49.2	10.0	49.2	21	85	58%	Y	48%	Commissioning of rec stn - Hiranandani Heritage	REL-D/FY12/01
107	ND	Kanakia	10 MVA 2	10.0	65.5	10.0	65.5							
108	ND	NEW BORIVALI	10 MVA-1	10.0	75.4	10.0	25.9							
109	ND	NEW BORIVALI	20 MVA-1	20.0	57.1	20.0	57.1							
110	ND	NEW BORIVALI	35 MVA-1	35.0	54.7	35.0	43.6							
117	ND	Gorai	25 MVA 1	25.0	89.1	25.0	64.6	22	70	80%	N	62%	Commissioning of rec stn - 1) Kanti Park 2) Hiranandani Heritage	1) REL-D/FY10/01 2) REL-D/FY12/01
118	ND	Gorai	25 MVA 2	25.0	77.7	25.0	64.0							
119	ND	Shimpoli	10 MVA 1	10.0	75.4	10.0	64.0							
120	ND	Shimpoli	10 MVA 2	10.0	66.7	10.0	49.5							
111	ND	Dahisar	10 MVA 1	10.0	68.6	10.0	55.3	23	110	65%	Y	60%	Commissioning of rec stn - 1) Thakur 2) Kanti Park 3) Hiranandani Heritage	1) REL-D/FY09/01 2) REL-D/FY10/01 3) REL-D/FY12/01
112	ND	Dahisar	20 MVA 1	20.0	58.0	20.0	58.0							
113	ND	Dahisar	20 MVA 2	20.0	68.5	20.0	62.8							
114	ND	Devidas Lane	20 MVA 1	20.0	70.0	20.0	61.4							
115	ND	Devidas Lane	20 MVA 2	20.0	68.8	20.0	68.8							
116	ND	Devidas Lane	20 MVA 3	20.0	58.6	20.0	51.9							
121	ND	Mira	10 MVA 4	10.0	69.0	10.0	27.1	24	95	72%	Y	46%	Commissioning of rec stn - 1) Ravi Mhada 2) Kalpataru Shrusti 3) Sadguru	1) REL-D/FY13/02 (15-16) 2) REL-D/FY13/02 (12-13) 3) REL-D/FY13/02 (13-14)
122	ND	Mira	20 MVA 1	20.0	68.0	20.0	45.1							
123	ND	Mira	20 MVA 2	20.0	62.8	20.0	37.1							
124	ND	Shanti Star Mira	20 MVA-1	20.0	98.3	20.0	64.9							
125	ND	Shanti Star Mira	25 MVA-1	25.0	62.1	25.0	47.2							
126	ND	Bhayander	20 MVA 1	20.0	65.7	20.0	65.7	25	100	72%	Y	61%	Commissioning of rec stn - 1) Sadguru 2) Judicial Academy	1) REL-D/FY13/02 (13-14) 2) REL-D/FY13/02 (15-16) (Civil)
127	ND	Bhayander	20 MVA 2	20.0	71.1	20.0	62.5							
128	ND	Bhayander	20 MVA 3	20.0	76.5	20.0	56.5							
129	ND	Bhayander (W)	20 MVA 1	20.0	70.0	20.0	62.4							
130	ND	Bhayander (W)	20 MVA 2	20.0	76.3	20.0	58.2							
131	ND	Ghodbunder	20 MVA 1	20.0	68.5	20.0	45.2	26	60	62%	Y	38%	Commissioning of rec stn - Sadguru	REL-D/FY13/02 (13-14)
132	ND	Ghodbunder	20 MVA 2	20.0	65.7	20.0	19.1							
133	ND	Ghodbunder	20 MVA 3	20.0	54.3	20.0	49.5							
134	ED	Saki	20 MVA 3	20.0	72.9	20.0	62.9	27	130	56%	Y	55%	Commissioning of rec stn- Borosil	R-Infra D/FY14/01 (14-15)
135	ED	Saki	35 MVA 1	35.0	60.4	35.0	60.4							
136	ED	Saki	35 MVA 2	35.0	55.5	35.0	55.5							
137	ED	Vihar Rd	20 MVA 2	20.0	48.3	20.0	48.3							
138	ED	Vihar Rd	20 MVA 1	20.0	42.9	20.0	42.9							

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S2

RELIANCE

Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise

Sr. No.	Division	Name of 33[22]/11kV Sub Station	Power Transformer No.	Installed capacity	% Peak Loading	Total Post WIP installed capacity	% Peak Loading after WIP	Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2014)					Network Improvement Scheme under implementation as per approved DPR's	DPR Reference
								Cluster No.	Cluster Capacity (MVA)	Cluster % Peak Load	Cluster (N-1) at Peak (Y/N)*	Cluster % Peak Load after WIP		
139	ED	Chandivali SRA	10 MVA 2	10.0	66.3	10.0	51.3	28	70	59%	Y	52%	Commissioning of rec stn - Torino	REL-D/FY13/02 (13-14)
140	ED	Chandivali SRA	10 MVA 1	10.0	74.3	10.0	54.3							
141	ED	Hiranandani	20 MVA 1	20.0	52.6	20.0	52.6							
142	ED	Hiranandani	20 MVA 2	20.0	70.9	20.0	55.9							
143	ED	NAHAR SHAKTI	10 MVA 1	10.0	23.6	10.0	43.6							
145	ED	Swan Mill	20 MVA 1	20.0	54.3	20.0	54.3	29	40	40%	Y	40%		
146	ED	Swan Mill	20 MVA 2	20.0	25.7	20.0	25.7							
147	ED	Kohinoor	20 MVA 1	20.0	33.4	20.0	48.4	30	90	48%	Y	48%	33kV Network reconfiguration	REL-D/FY12/02
148	ED	Kohinoor	20 MVA 2	20.0	30.0	20.0	30.0							
149	ED	Kurla	10 MVA 3	10.0	48.0	10.0	48.0							
150	ED	Kurla	20 MVA 1	20.0	57.7	20.0	57.7							
151	ED	Kurla	20 MVA 2	20.0	71.7	20.0	56.7							
152	ED	HCC	20 MVA 1	20.0	27.4	20.0	42.4	31	70	56%	Y	56%	Commissioning of rec stn - Kalpataru Aura	REL-D/FY09/01
153	ED	HCC	20 MVA 2	20.0	73.7	20.0	58.7							
154	ED	Tagore Nagar	10 MVA 1	10.0	77.4	10.0	67.4							
155	ED	Tagore Nagar	10 MVA 2	10.0	72.0	10.0	62.0							
156	ED	Tagore Nagar	10 MVA 3	10.0	41.2	10.0	61.2							
157	ED	Runwal Park	20 MVA 1	20.0	47.6	20.0	47.6	32	100	54%	Y	51%	1) Commissioning of rec stn - Kalpataru Aura 2) 11kV Load Rearangement / Balancing	REL-D/FY09/01
158	ED	Runwal Park	20 MVA 2	20.0	61.4	20.0	51.4							
159	ED	Vikhroli	10 MVA 1	10.0	83.1	10.0	63.1							
160	ED	Vikhroli	10 MVA 3	10.0	80.0	10.0	60.0							
161	ED	Vikhroli	20 MVA 1	20.0	40.6	20.0	45.6							
162	ED	Vikhroli	20 MVA 2	20.0	40.8	20.0	50.8							
163	ED	Cheda Nagar	10 MVA 1	10.0	27.4	10.0	27.4	33	100	59%	Y	53%	Commissioning of rec stn- Mhada Mankhurd	REL-D/FY13/02 (14-15)
164	ED	Cheda Nagar	20 MVA 1	20.0	72.9	20.0	57.9							
165	ED	NATWAR PAREKH	20 MVA 1	20.0	56.0	20.0	56.0							
166	ED	Shivaji Nagar	10 MVA 2	10.0	65.2	10.0	55.2							
167	ED	Shivaji Nagar	20 MVA 2	20.0	54.3	20.0	49.3							
168	ED	Shivaji Nagar	20 MVA 1	20.0	67.2	20.0	62.2							
169	ED	Acropolis	20 MVA 1	20.0	46.9	20.0	46.9	34	80	62%	Y	52%	Commissioning of rec stn- 1) Sahakar Ngr 2) Chembur District 3) Acropolis Upgradation	1) REL-D/FY13/02 (12-13) 2) REL-D/FY13/02 (13-14) 3) REL-D/FY12/02
170	ED	Acropolis	10 MVA 1	10.0	61.3	20.0	50.7							
171	ED	Chembur	10 MVA 1	10.0	69.7	10.0	49.7							
172	ED	Chembur	20 MVA 2	20.0	62.3	20.0	52.3							
173	ED	Chembur	20 MVA 1	20.0	72.9	20.0	60.4							

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Format 1: Information of 33-22/11 kV S/s (Preceding 12 months) – Division wise

RELIANCE

Sr. No.	Division	Name of 33(22)/11kV Sub Station	Power Transformer No.	Installed capacity	% Peak Loading	Total Post WIP installed capacity	% Peak Loading after WIP	Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2014)					Network Improvement Scheme under implementation as per approved DPR's	DPR Reference
								Cluster No.	Cluster Capacity (MVA)	Cluster % Peak Load	Cluster (N-1) at Peak (Y/N)*	Cluster % Peak Load after WIP		
174	ED	Anik	10 MVA 1	10.0	47.6	10.0	67.6	35	50	55%	Y	56%	11kV Load Rearangement/Balancing	-
175	ED	Anik	10 MVA 2	10.0	83.8	10.0	63.8							
176	ED	Anik	10 MVA 3	10.0	85.0	10.0	65.0							
177	ED	Mahul SRA	10 MVA 1	10.0	22.9	10.0	47.9							
178	ED	Mahul SRA	10 MVA 2	10.0	13.7	10.0	33.7							
179	ED	Chunabhatti	20 MVA 1	20.0	78.6	20.0	63.6	36	50	81%	N	63%	Commissioning of rec stn- 1) Sahakar Ngr 2) Chembur District	1) REL-D/FY13/02 (12-13) 2) REL-D/FY13/02 (13-14)
180	ED	Chunabhatti	20 MVA 2	20.0	76.6	20.0	61.6							
181	ED	Siddharth Nagar	10 MVA 1	10.0	95.3	10.0	65.3							
182	ED	Hingwala Lane	10 MVA 2	10.0	51.4	10.0	51.4	37	70	65%	Y	58%	1) Commissioning of rec stn- Sahakar Ngr	1) REL-D/FY13/02 (12-13)
183	ED	Hingwala Lane	10 MVA 1	10.0	83.1	10.0	73.1							
184	ED	Tilak Nagar	10 MVA 1	10.0	47.6	10.0	47.6							
185	ED	Tilak Nagar	10 MVA 2	10.0	68.6	10.0	58.6							
186	ED	Tilak Nagar	10 MVA 3	10.0	74.7	10.0	54.7							
187	ED	Tilak Nagar	20 MVA 1	20.0	65.2	20.0	60.2							

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* In case of contingencies, wherever cluster is not (N-1) compliant, if required, supply is restored through multiple set of operations from 11kV network outside the cluster.

EXHIBIT- '3'

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RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

Sr.No	Division	Name of 33(22)/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP installed Capacity (MVA)	% Loading after WIP	No. of Trippings#
1	SD	Juhu	1	16 MVA 1	1	28486	63	Y	Y	Y	N	49	1
2	SD	Juhu	1	16 MVA 1	2	28489	44	Y	N	N	N	44	1
3	SD	Juhu	1	16 MVA 1	3	28490	26	Y	N	N	N	26	2
4	SD	Juhu	1	16 MVA 1	4	28491	29	Y	N	N	N	29	0
5	SD	Juhu	1	16 MVA 1	5	28492	70	Y	Y	Y	N	48	2
6	SD	Juhu	1	16 MVA 1	6	28493	25	Y	N	N	N	25	2
7	SD	Juhu	1	16 MVA 1	7	28494	Normally OFF	Y	N	N	N	Normally OFF	0
8	SD	Juhu	1	16 MVA 2	8	28477	34	Y	N	N	N	34	0
9	SD	Juhu	1	16 MVA 2	9	28478	59	Y	N	N	N	59	0
10	SD	Juhu	1	16 MVA 2	10	28479	29	Y	N	N	N	29	2
11	SD	Juhu	1	16 MVA 2	11	28480	65	Y	N	N	N	65	1
12	SD	Juhu	1	16 MVA 2	12	28483	34	Y	N	N	N	34	1
13	SD	Juhu	1	16 MVA 2	13	28484	14	Y	N	N	N	14	0
14	SD	Juhu North	1	20 MVA 1	1	28674	72	Y	N	N	N	72	3
15	SD	Juhu North	1	20 MVA 1	2	28675	66	Y	N	N	N	66	4
16	SD	Juhu North	1	20 MVA 1	3	28677	81	Y	Y	Y	N	62	1
17	SD	Juhu North	1	20 MVA 2	4	28679	74	Y	Y	Y	N	59	1
18	SD	Juhu North	1	20 MVA 2	5	28680	85	Y	N	Y	N	66	0
19	SD	Juhu North	1	20 MVA 2	6	28682	53	Y	N	N	N	53	0
20	SD	Juhu North	1	20 MVA 2	7	28684	53	Y	N	N	N	53	1
21	SD	Saraswati Road	1	20 MVA 1	1	28267	36	Y	N	N	N	36	1
22	SD	Saraswati Road	1	20 MVA 1	2	28268	53	Y	N	N	N	53	0
23	SD	Saraswati Road	1	20 MVA 1	3	28270	12	Y	N	N	N	12	0
24	SD	Saraswati Road	1	20 MVA 1	4	28271	56	Y	N	N	N	56	2
25	SD	Saraswati Road	1	20 MVA 1	5	35795	68	Y	N	N	N	68	1
26	SD	Saraswati Road	1	20 MVA 1	6	35796	5	Y	N	N	N	5	2
27	SD	Saraswati Road	1	20 MVA 1	7	35797	30	Y	N	N	N	30	2
28	SD	Saraswati Road	1	20 MVA 2	8	28274	Normally OFF	Y	N	N	N	Normally OFF	0
29	SD	Saraswati Road	1	20 MVA 2	9	28275	51	Y	N	N	N	51	2
30	SD	Saraswati Road	1	20 MVA 2	10	28276	51	Y	Y	Y	N	32	3
31	SD	Saraswati Road	1	20 MVA 2	11	28278	73	Y	Y	Y	N	34	0
32	SD	Saraswati Road	1	20 MVA 2	12	35800	50	Y	N	N	N	50	2
33	SD	Saraswati Road	1	20 MVA 2	13	35801	42	Y	N	N	N	42	0
34	SD	24th Road	2	20 MVA 1	1	15451	34	Y	Y	Y	N	0	0
35	SD	24th Road	2	20 MVA 1	2	15452	44	Y	N	N	N	44	2
36	SD	24th Road	2	20 MVA 1	3	15454	25	Y	N	N	N	25	2
37	SD	24th Road	2	20 MVA 1	4	15455	65	Y	Y	Y	N	51	3
38	SD	24th Road	2	20 MVA 1	5	15456	Normally OFF	Y	N	N	N	Normally OFF	0
39	SD	24th Road	2	20 MVA 1	6	15457	Normally OFF	Y	N	N	N	Normally OFF	0
40	SD	Bandra	2	20 MVA 1	1	238	68	Y	N	N	N	68	3
41	SD	Bandra	2	20 MVA 1	2	2237	83	Y	Y	Y	N	53	0
42	SD	Bandra	2	20 MVA 1	3	4338	73	Y	N	N	N	73	0
43	SD	Bandra	2	20 MVA 1	4	16504	66	Y	N	N	N	66	0
44	SD	Bandra	2	20 MVA 1	5	16505	55	Y	Y	Y	N	38	2
45	SD	Bandra	2	20 MVA 2	6	552	46	Y	N	N	N	46	1
46	SD	Bandra	2	20 MVA 2	7	2230	Normally OFF	Y	N	N	N	Normally OFF	0
47	SD	Bandra	2	20 MVA 2	8	2232	Normally OFF	Y	N	N	N	Normally OFF	0
48	SD	Bandra	2	20 MVA 2	9	2803	76	Y	Y	Y	N	41	0
49	SD	Bandra	2	20 MVA 2	10	5023	79	Y	Y	Y	N	41	1
50	SD	Bandra	2	20 MVA 2	11	16507	64	Y	N	N	N	64	0
51	SD	Bandra	2	20 MVA 3	12	5524	59	Y	N	N	N	59	2
52	SD	Bandra	2	20 MVA 3	13	5525	58	Y	Y	Y	N	43	1
53	SD	Bandra	2	20 MVA 3	14	5527	87	Y	Y	Y	N	64	1
54	SD	Bandra	2	20 MVA 3	15	17185	70	Y	Y	Y	N	45	0
55	SD	Bandra	2	20 MVA 3	16	19920	Normally OFF	Y	N	N	N	Normally OFF	3
56	SD	Bombilwadi	2	10 MVA 1	1	30375	64	Y	Y	Y	N	40	0
57	SD	Bombilwadi	2	10 MVA 1	2	30376	Normally OFF	Y	N	N	N	Normally OFF	1
58	SD	Bombilwadi	2	10 MVA 1	3	30379	28	Y	N	N	N	28	0
59	SD	Bombilwadi	2	10 MVA 1	4	30380	25	Y	N	N	N	25	2
60	SD	Bombilwadi	2	10 MVA 2	5	30392	39	Y	N	N	N	39	2
61	SD	Bombilwadi	2	10 MVA 2	6	30395	64	Y	Y	Y	N	49	2
62	SD	Bombilwadi	2	10 MVA 2	7	30396	16	Y	N	N	N	16	0
63	SD	Bombilwadi	2	10 MVA 2	8	30397	20	Y	N	N	N	20	0
64	SD	Bombilwadi	2	20 MVA 1	9	30382	44	Y	Y	Y	N	33	0
65	SD	Bombilwadi	2	20 MVA 1	10	30383	36	Y	N	N	N	36	3
66	SD	Bombilwadi	2	20 MVA 1	11	30386	67	Y	Y	Y	N	54	3
67	SD	Bombilwadi	2	20 MVA 1	12	30387	39	Y	Y	Y	N	22	1
68	SD	Bombilwadi	2	20 MVA 1	13	30389	51	Y	Y	Y	N	25	1
69	SD	Bandra Terminus	3	10 MVA 2	1	31886	62	Y	N	N	N	62	2
70	SD	Bandra Terminus	3	10 MVA 1	2	31887	39	Y	N	N	N	39	1
71	SD	Santacruz	3	20 MVA 1	1	30462	Normally OFF	Y	N	N	N	Normally OFF	0
72	SD	Santacruz	3	20 MVA 1	2	30463	88	Y	Y	Y	N	51	0
73	SD	Santacruz	3	20 MVA 1	3	30464	58	Y	N	N	N	58	2
74	SD	Santacruz	3	20 MVA 1	4	30465	17	Y	N	N	N	17	1
75	SD	Santacruz	3	20 MVA 1	5	30467	76	Y	Y	Y	N	52	1
76	SD	Santacruz	3	20 MVA 1	6	30468	43	Y	N	N	N	43	0
77	SD	Santacruz	3	20 MVA 2	7	30471	47	Y	Y	Y	N	23	1
78	SD	Santacruz	3	20 MVA 2	8	30472	58	Y	N	N	N	58	0
79	SD	Santacruz	3	20 MVA 2	9	30473	Normally OFF	Y	N	N	N	Normally OFF	0
80	SD	Santacruz	3	20 MVA 2	10	30474	11	Y	N	N	N	31	0
81	SD	Santacruz	3	20 MVA 2	11	30476	94	Y	Y	Y	N	60	2
82	SD	Santacruz	3	20 MVA 2	12	30477	51	Y	Y	Y	N	40	2
83	SD	Santacruz	3	20 MVA 3	13	30480	6	Y	N	N	N	6	1
84	SD	Santacruz	3	20 MVA 3	14	30481	75	Y	Y	Y	N	56	0
85	SD	Santacruz	3	20 MVA 3	15	30482	Normally OFF	Y	N	N	N	Normally OFF	0
86	SD	Santacruz	3	20 MVA 3	16	30483	53	Y	N	N	N	53	1
87	SD	Santacruz	3	20 MVA 3	17	30485	43	Y	Y	Y	7	27	1
88	SD	Santacruz	3	20 MVA 3	18	30486	35	Y	Y	Y	N	35	0
89	SD	Santacruz	3	20 MVA 3	19	31869	42	Y	N	N	N	42	0
90	SD	Santacruz	3	20 MVA 3	20	31870	Normally OFF	Y	N	N	N	Normally OFF	0
91	SD	Kalanagar	4	20 MVA 1	1	6527	Normally OFF	Y	N	N	N	Normally OFF	0
92	SD	Kalanagar	4	20 MVA 1	2	6528	79	Y	Y	Y	7	40	0
93	SD	Kalanagar	4	20 MVA 1	3	6530	75	Y	Y	Y	N	56	1
94	SD	Kalanagar	4	20 MVA 1	4	6531	81	Y	Y	Y	N	53	1
95	SD	Kalanagar	4	20 MVA 1	5	7355	Normally OFF	Y	Y	Y	N	Normally OFF	0
96	SD	Kalanagar	4	20 MVA 1	6	11828	9	Y	N	N	N	9	0
97	SD	Kalanagar	4	20 MVA 2	7	7036	16	Y	N	N	N	16	0

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

RELIANCE

Sr.No.	Division	Name of 33(22)/33kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP installed Capacity (MVA)	% loading after WIP	No. of Tripping#
98	SD	Kalanagar	4	20 MVA 2	8	7037	60	Y	Y	Y	N	64	1
99	SD	Kalanagar	4	20 MVA 2	9	7033	62	Y	N	N	N	62	2
100	SD	Kalanagar	4	20 MVA 2	10	7354	Normally OFF	Y	N	N	N	Normally OFF	0
101	SD	Kalanagar	4	20 MVA 2	11	13439	35	Y	Y	Y	N	0	1
102	SD	Kalanagar	4	20 MVA 2	12	13440	Normally OFF	Y	N	N	N	Normally OFF	0
103	SD	Kalanagar	4	20 MVA 3	13	30960	23	Y	Y	Y	N	0	0
104	SD	Kalanagar	4	20 MVA 3	14	30961	42	Y	N	N	N	42	1
105	SD	Kalanagar	4	20 MVA 3	15	30962	73	Y	N	N	N	73	0
106	SD	Kalanagar	4	20 MVA 3	16	30964	57	Y	Y	Y	N	0	1
107	SD	Kalanagar	4	20 MVA 3	17	30965	53	Y	N	N	N	53	1
108	SD	Kalina	4	10 MVA 1	1	35374	42	Y	N	N	N	42	0
109	SD	Kalina	4	10 MVA 1	2	35375	60	Y	N	N	N	60	0
110	SD	Kalina	4	10 MVA 1	3	35377	24	Y	N	N	N	24	0
111	SD	Kalina	4	10 MVA 1	4	35378	55	Y	Y	Y	N	17	0
112	SD	Kalina	4	20 MVA 1	5	35366	81	Y	Y	Y	N	44	1
113	SD	Kalina	4	20 MVA 1	6	35367	60	Y	Y	Y	N	42	1
114	SD	Kalina	4	20 MVA 1	7	35369	52	Y	N	N	N	53	0
115	SD	Kalina	4	20 MVA 1	8	35370	83	Y	N	Y	N	60	1
116	SD	Kalina	4	20 MVA 1	9	35372	68	Y	Y	Y	N	30	4
117	SD	MMRDA	4	10 MVA 1	1	18091	Normally OFF	Y	N	N	N	Normally OFF	0
118	SD	MMRDA	4	10 MVA 1	2	18092	22	Y	N	N	N	22	0
119	SD	MMRDA	4	10 MVA 1	3	18093	32	Y	Y	Y	N	0	1
120	SD	MMRDA	4	10 MVA 1	4	18094	44	Y	Y	Y	N	0	0
121	SD	MMRDA	4	10 MVA 1	5	18095	35	Y	N	N	N	35	4
122	SD	MMRDA	4	10 MVA 1	6	18097	Normally OFF	Y	N	N	N	Normally OFF	1
123	SD	MMRDA	4	20 MVA 1	7	18100	29	Y	N	N	N	29	0
124	SD	MMRDA	4	20 MVA 1	8	18101	63	Y	Y	Y	N	33	1
125	SD	MMRDA	4	20 MVA 1	9	18102	60	Y	N	N	N	60	0
126	SD	MMRDA	4	20 MVA 1	10	18103	15	Y	N	N	N	15	0
127	SD	MMRDA	4	20 MVA 1	11	18105	34	Y	N	N	N	34	0
128	SD	MMRDA	4	20 MVA 1	12	18106	16	Y	N	N	N	16	0
129	SD	MMRDA	4	20 MVA 2	13	26715	20	Y	Y	Y	N	0	0
130	SD	MMRDA	4	20 MVA 2	14	26717	52	Y	N	N	N	32	0
131	SD	MMRDA	4	20 MVA 2	15	26719	Normally OFF	Y	N	N	N	Normally OFF	0
132	SD	MMRDA	4	20 MVA 2	16	26720	50	Y	N	N	N	50	0
133	SD	MMRDA	4	20 MVA 2	17	26721	32	Y	N	N	N	32	1
134	SD	MMRDA	4	20 MVA 2	18	26722	Normally OFF	Y	N	N	N	Normally OFF	0
135	SD	MMRDA	4	20 MVA 2	19	35594	Normally OFF	Y	N	N	N	Normally OFF	0
136	SD	MMRDA	4	20 MVA 3	20	35596	24	Y	N	N	N	24	0
137	SD	MMRDA	4	20 MVA 3	22	35597	62	Y	Y	Y	N	0	0
138	SD	MMRDA	4	20 MVA 3	27	35598	63	Y	N	N	N	65	1
139	SCD	Airport	5	10 MVA 1	1	32440	Normally OFF	Y	N	N	N	Normally OFF	0
140	SCD	Airport	5	10 MVA 1	2	32441	41	Y	N	N	N	41	0
141	SCD	Airport	5	10 MVA 1	3	32442	63	Y	Y	Y	N	52	0
142	SCD	Airport	5	10 MVA 1	4	32443	Normally OFF	Y	N	N	N	Normally OFF	0
143	SCD	Airport	5	10 MVA 2	5	32431	66	Y	Y	Y	N	49	2
144	SCD	Airport	5	10 MVA 2	6	32432	Normally OFF	Y	N	N	N	Normally OFF	0
145	SCD	Airport	5	10 MVA 2	7	32433	Normally OFF	Y	N	N	N	Normally OFF	0
146	SCD	Airport	5	10 MVA 2	8	32434	Normally OFF	Y	N	N	N	Normally OFF	0
147	SCD	Airport	5	10 MVA 2	9	32435	15	Y	N	N	N	15	0
148	SCD	Airport	5	20 MVA 1	10	5855	40	Y	N	N	N	40	0
149	SCD	Airport	5	20 MVA 1	11	5856	39	Y	N	N	N	39	0
150	SCD	Airport	5	20 MVA 1	12	5858	Normally OFF	Y	N	N	N	Normally OFF	0
151	SCD	Airport	5	20 MVA 1	13	9310	30	Y	N	N	N	30	0
152	SCD	Airport	5	20 MVA 1	14	14854	42	Y	N	N	N	42	0
153	SCD	Airport	5	20 MVA 1	15	14857	70	Y	N	N	N	70	1
154	SCD	Airport	5	20 MVA 2	16	5860	Normally OFF	Y	N	N	N	Normally OFF	0
155	SCD	Airport	5	20 MVA 2	17	14641	43	Y	N	N	N	41	0
156	SCD	Airport	5	20 MVA 2	18	14642	40	Y	N	N	N	40	1
157	SCD	Airport	5	20 MVA 2	19	14643	50	Y	N	N	N	50	0
158	SCD	Airport	5	20 MVA 2	20	14644	23	Y	N	N	N	23	0
159	SCD	Airport	5	20 MVA 2	21	14856	24	Y	N	N	N	24	0
160	SD	Vile Parle	5	10 MVA 1	1	11419	Normally OFF	Y	N	N	N	Normally OFF	0
161	SD	Vile Parle	5	10 MVA 1	2	11420	Normally OFF	Y	N	N	N	Normally OFF	0
162	SD	Vile Parle	5	10 MVA 1	3	11421	Normally OFF	Y	N	N	N	Normally OFF	0
163	SD	Vile Parle	5	10 MVA 1	4	11423	Normally OFF	Y	N	N	N	Normally OFF	0
164	SD	Vile Parle	5	10 MVA 1	5	11424	56	Y	N	N	N	56	0
165	SD	Vile Parle	5	10 MVA 1	6	11425	34	Y	N	N	N	34	1
166	SD	Vile Parle	5	10 MVA 1	7	32017	43	Y	N	N	N	43	0
167	SD	Vile Parle	5	20 MVA 1	8	11426	Normally OFF	Y	N	N	N	Normally OFF	0
168	SD	Vile Parle	5	20 MVA 1	9	11429	Normally OFF	Y	N	PI	N	Normally OFF	0
169	SD	Vile Parle	5	20 MVA 1	10	11431	Normally OFF	Y	N	N	N	Normally OFF	0
170	SD	Vile Parle	5	20 MVA 1	11	11432	83	Y	Y	Y	N	58	1
171	SD	Vile Parle	5	20 MVA 1	12	11433	65	Y	N	N	N	65	0
172	SD	Vile Parle	5	20 MVA 1	13	11434	68	Y	Y	Y	N	55	0
173	SD	Vile Parle	5	20 MVA 2	14	31093	59	Y	Y	Y	N	38	0
174	SD	Vile Parle	5	20 MVA 2	15	31092	53	Y	N	N	N	53	2
175	SD	Vile Parle	5	20 MVA 2	16	31094	79	Y	Y	Y	N	55	2
176	SD	Vile Parle	5	20 MVA 2	17	31095	45	Y	N	N	N	45	2
177	SCD	Ambivali	6	20 MVA 1	1	30206	45	Y	N	N	N	45	0
178	SCD	Ambivali	6	20 MVA 1	2	30206	34	Y	N	N	N	24	0
179	SCD	Ambivali	6	20 MVA 1	3	30207	58	Y	Y	Y	N	46	1
180	SCD	Ambivali	6	20 MVA 1	4	30209	75	Y	Y	Y	N	60	0
181	SCD	Ambivali	6	20 MVA 1	5	30210	44	Y	N	N	N	44	0
182	SCD	Ambivali	6	20 MVA 1	6	30231	Normally OFF	Y	N	N	N	Normally OFF	0
183	SCD	Ambivali	6	20 MVA 2	7	30234	Normally OFF	Y	N	N	N	Normally OFF	0
184	SCD	Ambivali	6	20 MVA 2	8	30235	66	Y	Y	Y	7	49	3
185	SCD	Ambivali	6	20 MVA 2	9	30237	Normally OFF	Y	N	N	N	Normally OFF	0
186	SCD	Ambivali	6	20 MVA 2	10	30238	61	Y	N	N	N	Normally OFF	0
187	SCD	Ambivali	6	20 MVA 2	11	30219	42	Y	N	N	N	Normally OFF	1
188	SCD	Ambivali	6	20 MVA 2	12	30220	47	Y	Y	Y	7	23	2
189	SCD	Ambivali	6	20 MVA 2	13	30222	26	Y	N	N	N	Normally OFF	2
190	SCD	Ambivali	6	20 MVA 2	14	30223	22	Y	N	N	N	22	0
191	SCD	Ambivali	6	20 MVA 3	15	19552	18	Y	N	N	N	18	2
192	SCD	Ambivali	6	20 MVA 3	16	19553	37	Y	N	N	N	37	0
193	SCD	Ambivali	6	20 MVA 3	17	19555	Normally OFF	Y	N	N	N	Normally OFF	0
194	SCD	Ambivali	6	20 MVA 3	18	19556	69	Y	Y	N	N	54	0

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

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RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) -- Division wise

Sr.No.	Division	Name of 33(22)/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP installed Capacity (MVA)	% Loading after WIP	No. of Trippings#
195	SCD	Ambivali	6	20 MVA 3	19	19557	62	Y	N	N	N	62	3
196	SCD	Ambivali	6	20 MVA 3	20	19558	50	Y	N	N	N	50	0
197	SCD	Ambivali	6	20 MVA 4	21	28692	50	Y	N	N	N	50	1
198	SCD	Ambivali	6	20 MVA 4	22	28693	21	Y	N	N	N	21	0
199	SCD	Ambivali	6	20 MVA 4	23	28695	46	Y	N	N	N	46	1
200	SCD	Ambivali	6	20 MVA 4	24	28696	68	Y	Y	N	N	53	0
201	SCD	Ambivali	6	20 MVA 4	25	28697	38	Y	N	N	N	38	1
202	SCD	Versova	6	20 MVA 1	1	12631	Normally OFF	Y	N	N	N	Normally OFF	0
203	SCD	Versova	6	20 MVA 1	2	12632	58	Y	N	N	N	58	0
204	SCD	Versova	6	20 MVA 1	3	12635	76	Y	Y	N	N	57	1
205	SCD	Versova	6	20 MVA 1	4	12636	80	Y	Y	N	N	61	0
206	SCD	Versova	6	20 MVA 3	5	19085	65	Y	N	N	N	65	0
207	SCD	Versova	6	20 MVA 2	6	12641	77	Y	Y	N	N	58	0
208	SCD	Versova	6	20 MVA 2	7	12644	38	Y	N	N	N	38	0
209	SCD	Versova	6	20 MVA 2	8	12645	89	Y	Y	N	N	71	0
210	SCD	Versova	6	20 MVA 2	9	12646	47	Y	N	N	N	47	0
211	SCD	Versova	6	20 MVA 3	10	19087	53	Y	N	N	N	53	0
212	SCD	Versova	6	20 MVA 3	11	19088	45	Y	N	N	N	45	0
213	SCD	Versova	6	20 MVA 3	12	19090	23	Y	N	N	N	23	0
214	SCD	Versova	6	20 MVA 3	13	26204	Normally OFF	Y	N	N	N	Normally OFF	0
215	SCD	Versova	6	20 MVA 3	14	26205	43	Y	N	N	N	43	0
216	SCD	Versova	6	20 MVA 3	15	26206	66	Y	N	N	N	66	1
217	SCD	Versova	6	20 MVA 4	16	32556	43	Y	N	N	N	43	0
218	SCD	Versova	6	20 MVA 4	17	32557	66	Y	Y	N	N	44	1
219	SCD	Versova	6	20 MVA 4	18	32558	38	Y	N	N	N	38	0
220	SCD	Versova	6	20 MVA 4	19	32561	35	Y	N	N	N	35	1
221	SCD	Versova	6	20 MVA 4	20	32562	51	Y	Y	N	N	Normally OFF	2
222	SCD	Andheri	7	20 MVA 1	1	4991	25	Y	N	N	N	25	1
223	SCD	Andheri	7	20 MVA 1	2	4992	48	Y	N	N	N	48	0
224	SCD	Andheri	7	20 MVA 1	3	4994	4	Y	N	N	N	4	0
225	SCD	Andheri	7	20 MVA 1	4	4995	84	Y	Y	N	N	52	1
226	SCD	Andheri	7	20 MVA 1	5	4996	37	Y	Y	Y	Y	42	2
227	SCD	Andheri	7	20 MVA 2	6	4436	Normally OFF	Y	Y	N	N	Normally OFF	0
228	SCD	Andheri	7	20 MVA 2	7	4437	54	Y	N	N	N	54	0
229	SCD	Andheri	7	20 MVA 2	8	4439	48	Y	N	N	N	48	0
230	SCD	Andheri	7	20 MVA 2	9	4440	26	Y	N	N	N	26	0
231	SCD	Andheri	7	20 MVA 2	10	4441	69	Y	Y	N	N	39	0
232	SCD	Andheri	7	20 MVA 2	11	4442	70	Y	Y	Y	Y	40	0
233	SCD	Andheri	7	20 MVA 3	12	4426	57	Y	N	N	7	39	0
234	SCD	Andheri	7	20 MVA 3	13	4427	35	Y	N	N	N	35	0
235	SCD	Andheri	7	20 MVA 3	14	4428	31	Y	N	N	N	31	2
236	SCD	Andheri	7	20 MVA 3	15	4430	68	Y	Y	N	N	51	0
237	SCD	Andheri	7	20 MVA 3	16	4431	Normally OFF	Y	N	N	N	Normally OFF	0
238	SCD	Andheri	7	20 MVA 3	17	4432	56	Y	N	N	N	56	0
239	SCD	Andheri	7	20 MVA 3	18	4433	28	Y	N	N	N	28	0
240	SD	SAMBHAJI NAGAR	7	20 MVA 1	1	34133	78	Y	Y	N	N	36	0
241	SD	SAMBHAJI NAGAR	7	20 MVA 1	2	34135	Normally OFF	Y	N	N	N	Normally OFF	0
242	SD	SAMBHAJI NAGAR	7	20 MVA 1	3	34136	56	Y	N	N	N	56	0
243	SD	SAMBHAJI NAGAR	7	20 MVA 2	4	34142	46	Y	N	N	N	46	0
244	SD	SAMBHAJI NAGAR	7	20 MVA 2	5	34145	77	Y	N	Y	N	58	0
245	SD	SAMBHAJI NAGAR	7	20 MVA 2	6	34147	44	Y	Y	N	N	44	0
246	SCD	Chakala	8	10 MVA 1	1	11914	68	Y	Y	N	N	47	0
247	SCD	Chakala	8	10 MVA 1	2	11915	79	Y	N	N	N	0	0
248	SCD	Chakala	8	10 MVA 1	3	11917	Normally OFF	Y	N	N	N	Normally OFF	0
249	SCD	Chakala	8	10 MVA 1	4	11919	39	Y	N	N	N	39	0
250	SCD	Chakala	8	10 MVA 1	5	11920	Normally OFF	Y	N	N	N	Normally OFF	0
251	SCD	Chakala	8	10 MVA 2	6	11923	Normally OFF	Y	N	N	N	Normally OFF	0
252	SCD	Chakala	8	10 MVA 2	7	11924	26	Y	N	N	N	26	0
253	SCD	Chakala	8	10 MVA 2	8	11926	Normally OFF	Y	N	N	N	Normally OFF	0
254	SCD	Chakala	8	10 MVA 2	9	29653	Normally OFF	Y	N	N	N	Normally OFF	1
255	SCD	Chakala	8	10 MVA 2	10	29655	24	Y	N	N	N	24	0
256	SCZ	Chakala	8	10 MVA 2	11	29656	36	Y	N	N	N	36	0
257	SCD	Chakala	8	10 MVA 2	12	29657	Normally OFF	Y	N	N	N	Normally OFF	0
258	SCD	HUL	8	25 MVA 1	1	35555	22	Y	N	N	N	22	0
259	SCD	HUL	8	25 MVA 1	2	35556	32	Y	N	N	N	32	0
260	SCD	HUL	8	25 MVA 1	3	35557	20	Y	N	N	N	20	0
261	SCD	HUL	8	25 MVA 1	4	35558	Normally OFF	Y	N	N	N	Normally OFF	0
262	SCD	HUL	8	25 MVA 2	5	35564	45	Y	N	N	N	45	0
263	SCD	HUL	8	25 MVA 2	6	35565	62	Y	N	N	N	62	0
264	SCD	HUL	8	25 MVA 2	7	35566	Normally OFF	Y	N	N	N	Normally OFF	0
265	SCD	HUL	8	25 MVA 2	8	35567	58	Y	N	N	N	58	0
266	SCD	Meghawadi	8	20 MVA 1	1	12706	53	Y	N	N	N	53	0
267	SCD	Meghawadi	8	20 MVA 1	2	12707	51	Y	Y	N	N	51	0
268	SCD	Meghawadi	8	20 MVA 1	3	12709	59	Y	Y	N	N	37	0
269	SCD	Meghawadi	8	20 MVA 1	4	12710	54	Y	Y	N	N	54	0
270	SCD	Meghawadi	8	20 MVA 1	5	12711	69	Y	Y	N	N	39	1
271	SCD	Meghawadi	8	20 MVA 1	6	12712	45	Y	Y	N	N	45	0
272	SCD	Meghawadi	8	20 MVA 2	7	12715	33	Y	Y	N	N	0	1
273	SCD	Meghawadi	8	20 MVA 2	8	12716	48	Y	N	N	N	48	0
274	SCD	Meghawadi	8	20 MVA 2	9	12718	55	Y	N	N	N	55	0
275	SCD	Meghawadi	8	20 MVA 2	10	12719	23	Y	N	N	N	23	0
276	SCD	Meghawadi	8	20 MVA 2	11	12720	80	Y	Y	N	N	42	0
277	SCD	Meghawadi	8	20 MVA 2	12	12723	39	Y	N	N	N	39	0
278	SCD	MIDC	9	10 MVA 1	1	28744	39	Y	N	N	N	39	0
279	SCD	MIDC	9	10 MVA 1	2	28745	47	Y	Y	N	N	17	0
280	SCD	MIDC	9	10 MVA 1	3	28747	17	Y	Y	N	N	0	1
281	SCD	MIDC	9	10 MVA 1	4	28748	Normally OFF	Y	N	N	N	Normally OFF	1
282	SCD	MIDC	9	10 MVA 1	5	28749	35	Y	N	N	N	39	0
283	SCD	MIDC	9	10 MVA 2	6	17802	21	Y	N	N	N	21	1
284	SCD	MIDC	9	10 MVA 2	7	17803	20	Y	Y	N	N	0	0
285	SCD	MIDC	9	10 MVA 2	8	17805	19	Y	N	N	N	19	0
286	SCD	MIDC	9	10 MVA 2	9	17806	Normally OFF	Y	N	N	N	Normally OFF	0
287	SCD	MIDC	9	10 MVA 2	10	17808	61	Y	N	N	N	61	0
288	SCD	MIDC	9	10 MVA 3	11	17820	28	Y	N	N	N	28	0
289	SCD	MIDC	9	10 MVA 3	12	17821	Normally OFF	Y	N	N	N	Normally OFF	0
290	SCD	MIDC	9	10 MVA 3	13	17823	12	Y	N	N	N	12	0
291	SCD	MIDC	9	10 MVA 3	14	17824	Normally OFF	Y	N	N	N	Normally OFF	0

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

RELIANCE

Sr.No.	Division	Name of 33(22)/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/Feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP installed Capacity (MVA)	% Loading after WIP	No. of Tripping#
293	SCD	MIDC	9	10 MVA 3	15	17825	Normally OFF	Y	N	N	N	Normally OFF	0
293	SCD	MIDC	9	10 MVA 3	16	17826	Normally OFF	Y	N	N	N	Normally OFF	0
294	SCD	MIDC	9	20 MVA 1	17	17811	Normally OFF	Y	N	N	N	Normally OFF	0
295	SCD	MIDC	9	20 MVA 1	18	17812	12	Y	N	N	N	12	0
296	SCD	MIDC	9	20 MVA 1	19	17814	58	Y	Y	N	N	30	1
297	SCD	MIDC	9	20 MVA 1	20	17815	Normally OFF	Y	N	N	N	Normally OFF	0
298	SCD	MIDC	9	20 MVA 1	21	17816	68	Y	N	N	N	68	2
299	SCD	MIDC	9	20 MVA 1	22	17817	Normally OFF	Y	N	N	N	Normally OFF	0
300	SCD	Sahar Plaza	9	20 MVA 1	1	36235	42	Y	N	N	N	42	0
301	SCD	Sahar Plaza	9	20 MVA 1	2	36236	15	Y	N	N	N	15	0
302	SCD	Sahar Plaza	9	20 MVA 1	3	36237	61	Y	N	N	N	61	1
303	SCD	Sahar Plaza	9	20 MVA 1	4	36238	Normally OFF	Y	N	N	N	Normally OFF	0
304	SCD	Sahar Plaza	9	20 MVA 2	5	36247	Normally OFF	Y	N	N	N	Normally OFF	0
305	SCD	Sahar Plaza	9	20 MVA 2	6	36248	13	Y	N	N	N	13	0
306	SCD	Sahar Plaza	9	20 MVA 2	7	36250	Normally OFF	Y	N	N	N	Normally OFF	0
307	SCD	Sahar Plaza	9	20 MVA 2	8	36251	32	Y	N	N	N	32	0
308	SCD	220kV Aarey	10	20 MVA 1	1	14374	56	Y	Y	Y	Y	28	5
309	SCD	220kV Aarey	10	20 MVA 1	2	14325	82	Y	Y	N	N	0	0
310	SCD	220kV Aarey	10	20 MVA 1	3	14328	46	Y	N	N	N	48	1
311	SCD	220kV Aarey	10	20 MVA 1	4	14329	32	Y	N	N	N	32	0
312	SCD	220kV Aarey	10	20 MVA 1	5	14331	Normally OFF	Y	N	N	N	Normally OFF	0
313	SCD	220kV Aarey	10	20 MVA 2	6	14676	31	Y	N	N	N	31	2
314	SCD	220kV Aarey	10	20 MVA 2	7	14031	43	Y	N	N	N	43	2
315	SCD	220kV Aarey	10	20 MVA 2	8	14032	64	Y	N	N	N	64	1
316	SCD	220kV Aarey	10	20 MVA 2	9	14033	27	Y	N	N	N	27	0
317	SCD	220kV Aarey	10	20 MVA 3	10	26553	Normally OFF	Y	N	N	N	Normally OFF	0
318	SCD	220kV Aarey	10	20 MVA 3	11	26653	38	Y	Y	N	N	19	0
319	SCD	220kV Aarey	10	20 MVA 3	12	26654	46	Y	N	N	N	46	0
320	SCD	220kV Aarey	10	20 MVA 3	13	26656	33	Y	N	N	N	33	0
321	SCD	220kV Aarey	10	20 MVA 3	14	26658	53	Y	N	N	N	53	0
322	SCD	Borosil	10	10 MVA	1	5187	24	Y	Y	N	N	24	0
323	SCD	Borosil	10	10 MVA	2	5188	Normally OFF	Y	Y	Y	?	54	0
324	SCD	Borosil	10	10 MVA	3	5189	24	Y	Y	Y	?	37	0
325	SCD	Borosil	10	10 MVA	4	11773	48	Y	Y	Y	?	36	0
326	SCD	Borosil	10	10 MVA	5	12905	30	Y	Y	Y	?	15	0
327	SCD	SEEPZ	10	20 MVA 1	1	7148	38	Y	N	N	N	38	0
328	SCD	SEEPZ	10	20 MVA 1	2	7149	33	Y	N	N	N	33	0
329	SCD	SEEPZ	10	20 MVA 1	3	7151	18	Y	Y	N	N	0	1
330	SCD	SEEPZ	10	20 MVA 1	4	7152	33	Y	N	N	N	33	0
331	SCD	SEEPZ	10	20 MVA 1	5	11473	13	Y	N	N	N	13	0
332	SCD	SEEPZ	10	20 MVA 1	6	13137	48	Y	N	N	N	48	0
333	SCD	SEEPZ	10	20 MVA 1	7	16080	42	Y	N	N	N	42	1
334	SCD	SEEPZ	10	20 MVA 2	8	9089	Normally OFF	Y	N	N	N	Normally OFF	1
335	SCD	SEEPZ	10	20 MVA 2	9	9092	69	Y	Y	N	N	0	1
336	SCD	SEEPZ	10	20 MVA 2	10	9093	59	Y	Y	N	N	32	2
337	SCD	SEEPZ	10	20 MVA 2	11	9094	51	Y	N	N	N	51	2
338	SCD	SEEPZ	10	20 MVA 2	12	11315	Normally OFF	Y	N	N	N	Normally OFF	0
339	SCD	SEEPZ	10	20 MVA 2	13	12526	82	Y	N	N	N	65	1
340	SCD	SEEPZ	10	20 MVA 2	14	13527	34	Y	Y	N	N	0	0
341	SCD	SEEPZ	10	20 MVA 2	15	13093	59	Y	N	N	N	59	0
342	SCD	SEEPZ	10	20 MVA 3	16	25354	64	Y	N	N	N	64	0
343	SCD	SEEPZ	10	20 MVA 3	17	25355	59	Y	Y	N	N	30	1
344	SCD	SEEPZ	10	20 MVA 3	18	25356	52	Y	N	N	N	52	1
345	SCD	SEEPZ	10	20 MVA 3	19	25357	39	Y	N	N	N	19	0
346	SCD	SEEPZ	10	20 MVA 3	20	25358	6	Y	N	N	N	6	0
347	CD	Cama	11	20 MVA 1	1	28223	48	Y	N	N	N	57	1
348	CD	Cama	11	20 MVA 1	2	28224	51	Y	N	N	N	51	0
349	CD	Cama	11	20 MVA 1	3	28226	76	Y	Y	N	N	50	1
350	CD	Cama	11	20 MVA 1	4	28227	51	Y	N	N	N	51	1
351	CD	Cama	11	20 MVA 1	5	28228	Normally OFF	Y	N	N	N	Normally OFF	0
352	CD	Cama	11	20 MVA 1	6	28229	26	Y	N	N	N	26	1
353	CD	Mahananda	11	20 MVA 1	1	7828	79	Y	N	N	N	60	1
354	CD	Mahananda	11	20 MVA 1	2	7830	34	Y	N	N	N	34	0
355	CD	Mahananda	11	20 MVA 1	3	9256	57	Y	N	N	N	57	0
356	CD	Mahananda	11	20 MVA 1	4	9257	Normally OFF	Y	N	N	N	Normally OFF	0
357	CD	Mahananda	11	20 MVA 1	5	12078	Normally OFF	Y	N	N	N	Normally OFF	0
358	CD	Mahananda	11	20 MVA 1	6	26032	28	Y	N	N	N	28	2
359	CD	Mahananda	11	20 MVA 1	7	26033	86	Y	N	N	N	26	1
360	CD	Mahananda	11	20 MVA 1	8	26035	Normally OFF	Y	N	N	N	Normally OFF	0
361	CD	Mahananda	11	20 MVA 1	9	26037	38	Y	N	N	N	38	0
362	CD	Mahananda	11	20 MVA 2	10	7818	18	Y	N	N	N	18	0
363	CD	Mahananda	11	20 MVA 2	11	7819	Normally OFF	Y	N	N	N	Normally OFF	0
364	CD	Mahananda	11	20 MVA 2	12	7821	26	Y	N	N	N	26	0
365	CD	Mahananda	11	20 MVA 2	13	7822	37	Y	N	N	N	37	0
366	CD	Mahananda	11	20 MVA 2	14	7823	83	Y	Y	N	N	63	2
367	CD	Mahananda	11	20 MVA 2	15	7824	39	Y	N	N	N	39	2
368	CD	Mirlon	11	20 MVA 3	1	26326	9	Y	N	N	N	9	0
369	CD	Mirlon	11	20 MVA 3	2	26327	57	Y	N	N	N	57	0
370	CD	Mirlon	11	20 MVA 3	3	26328	6	Y	N	N	N	6	0
371	CD	Mirlon	11	20 MVA 3	4	26330	48	Y	N	N	N	48	0
372	CD	Mirlon	11	20 MVA 3	5	26331	68	Y	Y	N	N	40	0
373	CD	Mirlon	11	20 MVA 3	6	26332	39	Y	N	N	N	39	0
374	CD	Mirlon	11	20 MVA 2	7	32525	14	Y	N	N	N	14	0
375	CD	Mirlon	11	20 MVA 2	8	32526	39	Y	N	N	N	33	3
376	CD	Mirlon	11	20 MVA 2	9	32527	50	Y	N	N	N	50	0
377	CD	Mirlon	11	20 MVA 2	10	32528	24	Y	N	N	N	24	0
378	CD	Mirlon	11	20 MVA 2	11	32530	60	Y	N	N	N	60	0
379	CD	Mirlon	11	20 MVA 2	12	32531	29	Y	N	N	N	29	0
380	CD	Mirlon	11	20 MVA 3	13	26317	31	Y	N	N	N	31	0
381	CD	Mirlon	11	20 MVA 3	14	26318	6	Y	N	N	N	6	0
382	CD	Mirlon	11	20 MVA 3	15	26320	Normally OFF	Y	N	N	N	Normally OFF	1
383	CD	Mirlon	11	20 MVA 3	16	26321	55	Y	N	N	N	55	1
384	CD	Mirlon	11	20 MVA 3	17	26322	28	Y	N	N	N	28	0
385	CD	Mirlon	11	20 MVA 3	18	26323	5	Y	N	N	N	5	0
386	CD	Erangle	12	20 MVA 1	1	25587	37	Y	N	N	N	37	2
387	CD	Erangle	12	20 MVA 1	2	25590	64	Y	Y	N	N	38	3
388	CD	Erangle	12	20 MVA 1	3	25591	64	Y	Y	N	N	47	3

* Rlnfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rlnfra submissions dated 21/08/2015 in Case No. 182 of 2014)
# excluding special events cable damaged cases

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

RELIANCE

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Sr.No.	Division	Name of 33/22/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replace ment of old/smaller cable proposed	Capacity Addition WIP	Total port WIP installed Capacity (MVA)	% Loading after WIP	No. of Tripping#
389	CD	Evergle	12	20 MVA 1	4	33074	35	Y	N	N	N	35	1
390	CD	Dindoshi	13	10 MVA 2	1	31926	Normally OFF	Y	N	N	N	Normally OFF	0
391	CD	Dindoshi	13	10 MVA 2	2	31927	21	Y	N	N	N	21	1
392	CD	Dindoshi	13	10 MVA 2	3	31928	15	Y	N	N	N	15	0
393	CD	Dindoshi	13	10 MVA 2	4	31930	Normally OFF	Y	N	N	N	Normally OFF	0
394	CD	Dindoshi	13	10 MVA 2	5	31931	38	Y	N	N	N	38	0
395	CD	Dindoshi	13	10 MVA 2	6	31933	52	Y	Y	N	N	73	2
396	CD	Dindoshi	13	20 MVA 1	7	6416	36	Y	N	N	N	56	0
397	CD	Dindoshi	13	20 MVA 1	8	6417	48	Y	N	N	N	48	1
398	CD	Dindoshi	13	20 MVA 1	9	6419	73	Y	Y	N	N	48	1
399	CD	Dindoshi	13	20 MVA 1	10	6420	Normally OFF	Y	N	N	N	Normally OFF	0
400	CD	Dindoshi	13	20 MVA 1	11	6537	86	Y	Y	N	N	52	0
401	CD	Dindoshi	13	20 MVA 1	12	6775	Normally OFF	Y	N	N	N	Normally OFF	0
402	CD	Dindoshi	13	20 MVA 2	13	6778	39	Y	N	N	N	59	2
403	CD	Dindoshi	13	20 MVA 2	14	6779	Normally OFF	Y	N	N	N	Normally OFF	0
404	CD	Dindoshi	13	20 MVA 2	15	9690	52	Y	Y	N	N	40	2
405	CD	Dindoshi	13	20 MVA 2	16	9729	65	Y	N	N	N	46	0
406	CD	Dindoshi	13	20 MVA 2	17	9730	Normally OFF	Y	N	N	N	Normally OFF	0
407	CD	Dindoshi	13	20 MVA 2	18	9731	76	Y	N	N	N	54	0
408	CD	Dindoshi	13	20 MVA 3	19	25790	52	Y	N	N	N	52	0
409	CD	Dindoshi	13	20 MVA 3	20	25793	Normally OFF	Y	N	N	N	Normally OFF	0
410	CD	Dindoshi	13	20 MVA 3	21	25793	28	Y	N	N	N	28	0
411	CD	Dindoshi	13	20 MVA 3	22	25794	Normally OFF	Y	N	N	N	Normally OFF	0
412	CD	Dindoshi	13	20 MVA 3	23	25795	68	Y	Y	N	N	20	1
413	CD	Dindoshi	13	20 MVA 3	24	25796	58	Y	N	N	N	58	1
414	CD	Raheja IT	14	20 MVA 1	1	31053	20	Y	Y	N	N	48	1
415	CD	Raheja IT	14	20 MVA 1	2	31054	Normally OFF	Y	N	N	N	Normally OFF	0
416	CD	Raheja IT	14	20 MVA 1	3	31056	43	Y	Y	N	N	20	0
417	CD	Raheja IT	14	20 MVA 1	4	31057	28	Y	N	N	N	38	0
418	CD	Raheja IT	14	20 MVA 1	5	31058	Normally OFF	Y	N	N	N	Normally OFF	0
419	CD	Raheja IT	14	20 MVA 2	6	31061	33	Y	N	N	N	32	1
420	CD	Raheja IT	14	20 MVA 2	7	31062	Normally OFF	Y	N	N	N	Normally OFF	0
421	CD	Raheja IT	14	20 MVA 2	8	31063	17	Y	N	N	N	22	0
422	CD	Raheja IT	14	20 MVA 2	9	31066	23	Y	N	N	N	75	0
423	CD	Raheja IT	14	20 MVA 2	10	31067	12	Y	N	N	N	22	0
424	CD	Raheja IT	14	20 MVA 2	11	31068	22	Y	N	N	N	22	0
425	CD	Raheja IT	14	20 MVA 2	12	31155	58	Y	N	N	N	58	0
426	CD	Raheja IT	14	20 MVA 2	13	32196	Normally OFF	Y	N	N	N	Normally OFF	0
427	CD	Raheja IT	14	20 MVA 2	14	32557	23	Y	N	N	N	23	0
428	CD	Lokhandwala	15	10 MVA 1	1	29986	43	Y	N	N	N	43	0
429	CD	Lokhandwala	15	10 MVA 1	2	29990	31	Y	N	N	N	31	1
430	CD	Lokhandwala	15	20 MVA 1	3	29977	34	Y	N	N	N	34	0
431	CD	Lokhandwala	15	20 MVA 1	4	29978	44	Y	N	N	N	44	0
432	CD	Lokhandwala	15	20 MVA 1	5	29980	69	Y	N	N	N	55	2
433	CD	Lokhandwala	15	20 MVA 1	6	29983	34	Y	N	N	N	34	1
434	CD	Poisar	15	10 MVA 1	1	31908	Normally OFF	Y	N	N	N	Normally OFF	0
435	CD	Poisar	15	10 MVA 2	2	31910	Normally OFF	Y	N	N	N	Normally OFF	0
436	CD	Poisar	15	10 MVA 2	3	31911	Normally OFF	Y	N	N	N	Normally OFF	1
437	CD	Poisar	15	10 MVA 1	4	31912	38	Y	N	N	N	38	0
438	CD	Poisar	15	10 MVA 1	5	31913	56	Y	N	N	N	56	0
439	CD	Poisar	15	10 MVA 1	6	31812	49	Y	N	N	N	49	0
440	CD	Poisar	15	20 MVA 1	7	34414	Normally OFF	Y	N	N	N	Normally OFF	0
441	CD	Poisar	15	20 MVA 1	8	34415	38	Y	N	N	N	38	1
442	CD	Poisar	15	20 MVA 1	9	34417	20	Y	N	N	N	20	1
443	CD	Poisar	15	20 MVA 1	10	34418	63	Y	Y	N	N	32	1
444	CD	Poisar	15	20 MVA 1	11	34419	60	Y	N	N	N	60	0
445	CD	Poisar	15	20 MVA 1	12	34420	Normally OFF	Y	N	N	N	Normally OFF	0
446	CD	Poisar	15	20 MVA 2	13	34423	Normally OFF	Y	N	N	N	Normally OFF	0
447	CD	Poisar	15	20 MVA 2	14	34424	64	Y	N	N	N	62	2
448	CD	Poisar	15	20 MVA 2	15	34426	46	Y	N	N	N	46	2
449	CD	Poisar	15	20 MVA 2	16	34427	Normally OFF	Y	N	N	N	Normally OFF	0
450	CD	Poisar	15	20 MVA 2	17	34428	53	Y	N	N	N	53	1
451	CD	Poisar	15	20 MVA 2	18	34429	80	Y	Y	N	N	37	0
452	CD	Times of India	15	20 MVA 1	1	30876	20	Y	N	N	N	20	0
453	CD	Times of India	15	20 MVA 1	2	30877	37	Y	N	N	N	37	1
454	CD	Times of India	15	20 MVA 1	3	30879	56	Y	N	N	N	56	0
455	CD	Times of India	15	20 MVA 1	4	30881	80	Y	N	N	N	63	3
456	CD	Times of India	15	20 MVA 1	5	30883	60	Y	Y	N	N	23	0
457	CD	Times of India	15	20 MVA 2	6	30885	Normally OFF	Y	N	N	N	Normally OFF	0
458	CD	Times of India	15	20 MVA 2	7	30886	36	Y	N	N	N	36	0
459	CD	Times of India	15	20 MVA 2	8	30888	48	Y	N	N	N	48	0
460	CD	Times of India	15	20 MVA 2	9	30889	20	Y	N	N	N	20	0
461	CD	Times of India	15	20 MVA 2	10	30890	60	Y	Y	N	N	29	1
462	CD	Times of India	15	20 MVA 2	11	30891	56	Y	N	N	N	56	1
463	CD	Chinchavli	16	20 MVA 1	1	18635	76	Y	Y	2.6	6.8	42	1
464	CD	Chinchavli	16	20 MVA 1	2	18636	32	Y	N	N	N	37	0
465	CD	Chinchavli	16	20 MVA 1	3	18617	59	Y	N	N	N	59	0
466	CD	Chinchavli	16	20 MVA 1	4	18619	49	Y	N	N	N	49	0
467	CD	Chinchavli	16	20 MVA 1	5	18620	38	Y	Y	3.3	6.8	9	0
468	CD	Chinchavli	16	20 MVA 2	6	18623	63	Y	Y	1.7	6.8	47	0
469	CD	Chinchavli	16	20 MVA 2	7	18624	45	Y	N	N	N	45	1
470	CD	Chinchavli	16	20 MVA 2	8	18626	21	Y	N	N	N	21	1
471	CD	Chinchavli	16	20 MVA 2	9	18627	56	Y	N	N	N	56	0
472	CD	Chinchavli	16	20 MVA 2	10	18628	Normally OFF	Y	N	N	N	Normally OFF	1
473	CD	Chinchavli	16	20 MVA 2	11	18629	41	Y	N	N	N	43	1
474	CD	Chinchbunder	16	20 MVA 1	1	25351	Normally OFF	Y				Normally OFF	0
475	CD	Chinchbunder	16	20 MVA 1	2	25353	63	Y	N	N	N	49	1
476	CD	Chinchbunder	16	20 MVA 1	3	25354	2	Y	N	N	N	2	0
477	CD	Chinchbunder	16	20 MVA 1	4	25356	35	Y	N	N	N	35	0
478	CD	Chinchbunder	16	20 MVA 1	5	25357	53	Y	N	N	N	51	1
479	CD	Chinchbunder	16	20 MVA 1	6	25358	88	Y	Y	N	N	54	0
480	CD	Mindspace	16	20 MVA 1	1	26479	31	Y	N	N	N	33	2
481	CD	Mindspace	16	20 MVA 1	2	26980	24	Y	N	N	N	28	0
482	CD	Mindspace	16	20 MVA 1	3	26981	14	Y	N	N	N	14	0
483	CD	Mindspace	16	20 MVA 1	4	26982	34	Y	N	N	N	34	1
484	CD	Mindspace	16	20 MVA 1	5	26984	26	Y	N	N	N	26	0
485	CD	Mindspace	16	20 MVA 1	6	26985	68	Y	Y	N	N	48	2

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2014)
# excluding special events cable damaged cases

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Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

RELIANCE

Sr.No.	Division	Name of 33/22/11kV Sub Station	Cluster No.*	Power Xmer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP installed Capacity (MVA)	% Loading after WIP	No. of Tripping#
486	CD	Mindspace	16	20 MVA 2	7	26970	52	Y	N	N	N	52	2
487	CD	Mindspace	16	20 MVA 2	8	26971	34	Y	N	N	N	34	1
488	CD	Mindspace	16	20 MVA 2	9	26972	33	Y	N	N	N	33	0
489	CD	Mindspace	16	20 MVA 2	10	26974	22	Y	N	N	N	22	0
490	CD	Mindspace	16	20 MVA 2	11	26975	29	Y	N	N	N	29	0
491	CD	Mindspace	16	20 MVA 2	12	26976	37	Y	N	N	N	37	2
492	CD	Palm Court	17	20 MVA 1	1	23077	58	Y	N	N	N	58	0
493	CD	Palm Court	17	20 MVA 1	2	23078	39	Y	N	N	N	39	0
494	CD	Palm Court	17	20 MVA 1	3	23080	37	Y	N	N	N	37	0
495	CD	Palm Court	17	20 MVA 1	4	23081	58	Y	Y	N	N	44	0
496	CD	Palm Court	17	20 MVA 1	5	23082	69	Y	Y	N	N	29	1
497	CD	Palm Court	17	20 MVA 1	6	23083	Normally OFF	Y	N	N	N	Normally OFF	0
498	CD	Palm Court	17	20 MVA 2	7	30032	56	Y	N	N	N	56	0
499	CD	Palm Court	17	20 MVA 2	8	30033	60	Y	Y	N	N	32	1
500	CD	Palm Court	17	20 MVA 2	9	30034	72	Y	Y	N	N	57	0
501	CD	Palm Court	17	20 MVA 2	10	30036	54	Y	N	N	N	54	2
502	CD	KIE	18	20 MVA 1	1	35869	77	Y	Y	N	N	51	0
503	CD	KIE	18	20 MVA 1	2	35870	69	Y	Y	N	N	54	5
504	CD	KIE	18	20 MVA 1	3	35872	78	Y	Y	N	N	56	1
505	CD	KIE	18	20 MVA 1	4	35873	43	Y	N	N	N	43	3
506	CD	KIE	18	20 MVA 1	5	35875	28	Y	N	N	N	28	0
507	CD	KIE	18	20 MVA 2	6	35878	68	Y	Y	N	N	33	2
508	CD	KIE	18	20 MVA 2	7	35881	Normally OFF	Y	N	N	N	Normally OFF	1
509	CD	KIE	18	20 MVA 2	8	35882	34	Y	N	N	N	34	0
510	CD	KIE	18	20 MVA 2	9	35883	45	Y	N	N	N	45	1
511	CD	KIE	18	20 MVA 2	10	35884	65	Y	N	N	N	65	0
512	CD	KIE	18	20 MVA 2	11	35885	97	Y	Y	N	N	67	2
513	CD	KIE	18	20 MVA 3	12	76308	Normally OFF	Y	N	N	N	Normally OFF	0
514	CD	KIE	18	20 MVA 3	13	26309	65	Y	N	N	N	51	0
515	CD	KIE	18	20 MVA 3	14	26311	70	Y	N	N	N	48	1
516	CD	KIE	18	20 MVA 3	15	76312	28	Y	N	N	N	18	0
517	CD	KIE	18	20 MVA 3	16	26313	Normally OFF	Y	N	N	N	Normally OFF	0
518	CD	KIE	18	20 MVA 4	17	30895	53	Y	N	N	N	51	0
519	CD	KIE	18	20 MVA 4	18	30896	66	Y	Y	N	N	30	0
520	CD	KIE	18	20 MVA 4	19	30898	66	Y	Y	N	N	55	1
521	CD	KIE	18	20 MVA 4	20	30899	17	Y	N	N	N	17	3
522	CD	KIE	18	20 MVA 4	21	30900	23	Y	N	N	N	23	0
523	CD	KIE	18	20 MVA 4	22	30901	64	Y	N	N	N	49	1
524	CD	RNA Royal Park	18	20 MVA 1	1	34721	70	Y	Y	N	N	30	1
525	CD	RNA Royal Park	18	20 MVA 1	2	34724	58	Y	N	N	N	58	7
526	CD	RNA Royal Park	18	20 MVA 1	3	34725	Normally OFF	Y	N	N	N	Normally OFF	0
527	CD	RNA Royal Park	18	20 MVA 1	4	34726	38	Y	N	N	N	38	2
528	CD	RNA Royal Park	18	20 MVA 1	5	34728	55	Y	N	N	N	55	1
529	CD	RNA Royal Park	18	20 MVA 1	6	34729	Normally OFF	Y	N	N	N	Normally OFF	0
530	CD	RNA Royal Park	18	20 MVA 2	7	34732	65	Y	Y	N	N	48	0
531	CD	RNA Royal Park	18	20 MVA 2	8	34733	54	Y	N	N	N	54	1
532	CD	RNA Royal Park	18	20 MVA 2	9	34734	70	Y	Y	N	N	55	0
533	CD	RNA Royal Park	18	20 MVA 2	10	34735	Normally OFF	Y	N	N	N	Normally OFF	0
534	CD	RNA Royal Park	18	20 MVA 2	11	34737	63	Y	Y	N	N	15	1
535	CD	Kandivali	19	10 MVA 1	1	16781	Normally OFF	Y	N	N	N	Normally OFF	0
536	CD	Kandivali	19	10 MVA 1	2	16782	9	Y	N	N	N	9	0
537	CD	Kandivali	19	10 MVA 1	3	16784	33	Y	N	N	N	33	0
538	CD	Kandivali	19	10 MVA 1	4	16787	20	Y	N	N	N	20	0
539	CD	Kandivali	19	10 MVA 1	5	16788	73	Y	Y	N	N	77	0
540	CD	Kandivali	19	10 MVA 2	6	16772	Normally OFF	Y	N	N	N	Normally OFF	0
541	CD	Kandivali	19	10 MVA 2	7	16773	33	Y	N	N	N	33	0
542	CD	Kandivali	19	10 MVA 2	8	16775	Normally OFF	Y	N	N	N	Normally OFF	0
543	CD	Kandivali	19	10 MVA 2	9	16776	Normally OFF	Y	N	N	N	Normally OFF	0
544	CD	Kandivali	19	10 MVA 2	10	16777	77	Y	Y	N	N	62	0
545	CD	Kandivali	19	10 MVA 2	11	16778	29	Y	N	N	N	29	0
546	CD	Malad	19	10 MVA 1	1	29555	Normally OFF	Y	N	N	N	Normally OFF	0
547	CD	Malad	19	10 MVA 1	2	29556	Normally OFF	Y	N	N	N	Normally OFF	0
548	CD	Malad	19	10 MVA 1	3	29558	30	Y	N	N	N	30	0
549	CD	Malad	19	10 MVA 1	4	29559	70	Y	Y	N	N	20	0
550	CD	Malad	19	10 MVA 1	5	29560	83	Y	Y	N	N	58	1
551	CD	Malad	19	10 MVA 2	6	29562	34	Y	N	N	N	34	1
552	CD	Malad	19	10 MVA 2	7	29563	48	Y	N	N	N	48	0
553	CD	Malad	19	10 MVA 2	8	29565	Normally OFF	Y	N	N	N	Normally OFF	0
554	CD	Malad	19	10 MVA 2	9	29567	Normally OFF	Y	N	N	N	Normally OFF	1
555	CD	Malad	19	10 MVA 2	10	29568	63	Y	Y	N	N	8	0
556	CD	Malad	19	10 MVA 2	11	29569	Normally OFF	Y	N	N	N	Normally OFF	0
557	CD	Malad	19	20 MVA 1	12	18444	58	Y	N	N	N	58	1
558	CD	Malad	19	20 MVA 1	13	18445	84	Y	Y	5.3	6.8	46	0
559	CD	Malad	19	20 MVA 1	14	18447	55	Y	N	N	N	55	4
560	CD	Malad	19	20 MVA 1	15	18448	65	Y	N	N	N	53	1
561	CD	Malad	19	20 MVA 1	16	18449	84	Y	Y	N	N	51	3
562	CD	Malad	19	20 MVA 1	17	18450	35	Y	N	N	N	35	0
563	CD	Goregaon	20	35 MVA 1	1	1531	69	Y	Y	N	N	0	0
564	CD	Goregaon	20	35 MVA 1	2	1532	69	Y	N	N	N	57	0
565	CD	Goregaon	20	35 MVA 1	3	1533	48	Y	N	N	N	48	1
566	CD	Goregaon	20	35 MVA 1	4	1534	66	Y	Y	N	N	34	4
567	CD	Goregaon	20	35 MVA 1	5	1535	38	Y	N	N	N	38	0
568	CD	Goregaon	20	35 MVA 1	6	1537	64	Y	N	N	N	55	3
569	CD	Goregaon	20	35 MVA 1	7	1538	3	Y	N	N	N	3	1
570	CD	Goregaon	20	35 MVA 2	8	1502	34	Y	N	N	N	34	3
571	CD	Goregaon	20	35 MVA 2	9	1503	57	Y	N	N	N	57	2
572	CD	Goregaon	20	35 MVA 2	10	1504	65	Y	Y	N	N	0	0
573	CD	Goregaon	20	35 MVA 2	11	1506	24	Y	N	N	N	24	0
574	CD	Goregaon	20	35 MVA 2	12	1515	43	Y	N	N	N	45	4
575	CD	Goregaon	20	35 MVA 2	13	1517	64	Y	N	N	N	52	1
576	CD	Goregaon	20	35 MVA 2	14	1519	66	Y	N	N	N	55	0
577	CD	Goregaon	20	35 MVA 3	15	1508	61	Y	N	N	N	61	0
578	CD	Goregaon	20	35 MVA 3	16	1509	56	Y	N	N	N	56	0
579	CD	Goregaon	20	35 MVA 3	17	1512	24	Y	N	N	N	24	0
580	CD	Goregaon	20	35 MVA 3	18	1528	66	Y	N	N	N	53	0
581	CD	Goregaon	20	35 MVA 3	19	1529	Normally OFF	Y	N	N	N	Normally OFF	0
582	CD	Goregaon	20	35 MVA 3	20	1531	54	Y	N	N	N	54	0

* Reliance Network Planning Clusters (Philosophy already submitted as Annexure-2 to Reliance submissions dated 11/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

Sr.No	Division	Name of 33/22/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (N-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP Installed Capacity (MVA)	% Loading after WIP	No. of Tripings#
583	CD	Goregaon	28	35 MVA 3	21	1532	35	Y	N	N	N	33	0
584	NZ	Eanakia	21	10 MVA 1	1	3805	37	Y	N	N	N	37	2
585	NZ	Eanakia	21	10 MVA 1	2	3805	77	Y	N	N	N	77	2
586	NZ	Eanakia	21	10 MVA 1	3	3808	Normally Off	Y	N	N	N	Normally OFF	0
587	NZ	Eanakia	21	10 MVA 2	4	3816	55	Y	N	N	N	55	0
588	NZ	Eanakia	21	10 MVA 2	5	3812	46	Y	N	N	N	46	0
589	NZ	NEW BORIVALI	21	10 MVA-1	1	1322	73	Y	Y	N	N	0	0
590	NZ	NEW BORIVALI	21	10 MVA-1	2	1324	68	Y	N	N	N	50	0
591	NZ	NEW BORIVALI	21	10 MVA-1	3	1326	Normally Off	Y	N	N	N	Normally OFF	0
592	NZ	NEW BORIVALI	21	20 MVA-1	4	1302	59	Y	N	N	N	59	1
593	NZ	NEW BORIVALI	21	20 MVA-1	5	1303	47	Y	N	N	N	47	1
594	NZ	NEW BORIVALI	21	20 MVA-1	6	1305	48	Y	N	N	N	48	2
595	NZ	NEW BORIVALI	21	20 MVA-1	7	1315	46	Y	N	N	N	46	0
596	NZ	NEW BORIVALI	21	20 MVA-1	8	1336	28	Y	N	N	N	28	4
597	NZ	NEW BORIVALI	21	20 MVA-1	9	1339	14	Y	N	N	N	14	1
598	NZ	NEW BORIVALI	21	35 MVA-1	10	1306	53	Y	Y	N	N	0	3
599	NZ	NEW BORIVALI	21	35 MVA-1	11	1334	68	Y	Y	N	N	37	2
600	NZ	NEW BORIVALI	21	35 MVA-1	12	1328	50	Y	N	N	N	50	0
601	NZ	NEW BORIVALI	21	35 MVA-1	13	1332	45	Y	N	N	N	45	0
602	NZ	NEW BORIVALI	21	35 MVA-1	14	1329	55	Y	N	N	N	53	0
603	NZ	NEW BORIVALI	21	35 MVA-1	15	1312	45	Y	N	N	N	45	0
604	NZ	NEW BORIVALI	21	35 MVA-1	16	1309	19	Y	N	N	N	19	1
605	NZ	NEW BORIVALI	21	35 MVA-1	17	1331	33	Y	N	N	N	33	0
606	NZ	NEW BORIVALI	21	35 MVA-1	18	1311	16	Y	N	N	N	16	0
607	NZ	Goral	22	25 MVA 1	1	13521	73	Y	Y	N	N	3	3
608	NZ	Goral	22	25 MVA 1	2	13868	82	Y	Y	N	N	60	0
609	NZ	Goral	22	25 MVA 1	3	13568	75	Y	Y	N	N	34	3
610	NZ	Goral	22	25 MVA 1	4	13520	58	Y	N	N	N	59	0
611	NZ	Goral	22	25 MVA 1	5	37058	29	Y	N	N	N	29	0
612	NZ	Goral	22	25 MVA 1	6	37057	79	Y	N	N	N	79	0
613	NZ	Goral	22	25 MVA 1	7	11871	30	Y	N	N	N	20	0
614	NZ	Goral	22	25 MVA 1	8	11869	Normally Off	Y	N	N	N	Normally OFF	0
615	NZ	Goral	22	25 MVA 2	9	35157	53	Y	Y	N	N	19	1
616	NZ	Goral	22	25 MVA 2	10	35156	88	Y	Y	N	N	56	1
617	NZ	Goral	22	25 MVA 2	11	35163	58	Y	N	N	N	58	0
618	NZ	Goral	22	25 MVA 2	12	35159	78	Y	Y	N	N	55	1
619	NZ	Goral	22	25 MVA 2	13	35158	34	Y	N	N	N	34	0
620	NZ	Goral	22	25 MVA 2	14	35162	30	Y	N	N	N	30	1
621	NZ	Shimpoli	22	10 MVA 1	1	34661	52	Y	Y	N	N	35	0
622	NZ	Shimpoli	22	10 MVA 1	2	34671	41	Y	N	N	N	41	1
623	NZ	Shimpoli	22	10 MVA 1	3	34668	18	Y	N	N	N	18	0
624	NZ	Shimpoli	22	10 MVA 1	4	34666	20	Y	N	N	N	20	0
625	NZ	Shimpoli	22	10 MVA 1	5	34665	Normally Off	Y	N	N	N	Normally OFF	0
626	NZ	Shimpoli	22	10 MVA 1	6	34669	Normally Off	Y	N	N	N	Normally OFF	0
627	NZ	Shimpoli	22	10 MVA 2	7	34674	49	Y	Y	N	N	38	0
628	NZ	Shimpoli	22	10 MVA 2	8	34673	46	Y	Y	N	N	25	0
629	NZ	Shimpoli	22	10 MVA 2	9	34672	50	Y	N	N	N	50	3
630	NZ	Shimpoli	22	10 MVA 2	10	34675	Normally OFF	Y	N	N	N	Normally OFF	0
631	NZ	Shimpoli	22	10 MVA 2	11	34678	Normally OFF	Y	N	N	N	Normally OFF	1
632	NZ	Dahisar	23	10 MVA 1	1	11762	60	Y	Y	N	N	23	3
633	NZ	Dahisar	23	10 MVA 1	2	11763	52	Y	N	N	N	52	1
634	NZ	Dahisar	23	10 MVA 1	3	11761	41	Y	N	N	N	41	0
635	NZ	Dahisar	23	10 MVA 1	4	11759	15	Y	N	N	N	15	0
636	NZ	Dahisar	23	10 MVA 1	5	11764	Normally OFF	Y	N	N	N	Normally OFF	1
637	NZ	Dahisar	23	20 MVA 1	6	15504	53	Y	N	N	N	51	2
638	NZ	Dahisar	23	20 MVA 1	7	15509	57	Y	N	N	N	57	2
639	NZ	Dahisar	23	20 MVA 1	8	15507	54	Y	N	N	N	54	0
640	NZ	Dahisar	23	20 MVA 1	9	15510	49	Y	N	N	N	49	2
641	NZ	Dahisar	23	20 MVA 1	10	15505	33	Y	N	N	N	33	1
642	NZ	Dahisar	23	20 MVA 1	11	11765	Normally OFF	Y	N	N	N	Normally OFF	0
643	NZ	Dahisar	23	20 MVA 1	12	15506	Normally OFF	Y	N	N	N	Normally OFF	0
644	NZ	Dahisar	23	20 MVA 2	13	11770	74	Y	Y	N	N	59	0
645	NZ	Dahisar	23	20 MVA 2	14	11773	73	Y	N	N	N	35	1
646	NZ	Dahisar	23	20 MVA 2	15	11772	46	Y	N	N	N	46	0
647	NZ	Dahisar	23	20 MVA 2	16	11768	53	Y	N	N	N	53	0
648	NZ	Dahisar	23	20 MVA 2	17	11767	34	Y	N	N	N	34	0
649	NZ	Dahisar	23	20 MVA 2	18	11771	33	Y	N	N	N	33	1
650	NZ	Devidas Lane	23	20 MVA 1	1	26447	81	Y	Y	N	N	47	1
651	NZ	Devidas Lane	23	20 MVA 1	2	26445	82	Y	N	N	N	65	1
652	NZ	Devidas Lane	23	20 MVA 1	3	26443	74	Y	N	N	N	59	0
653	NZ	Devidas Lane	23	20 MVA 1	4	26445	41	Y	N	N	N	41	0
654	NZ	Devidas Lane	23	20 MVA 1	5	26448	10	Y	N	N	N	10	0
655	NZ	Devidas Lane	23	20 MVA 2	6	26457	72	Y	N	N	N	64	0
656	NZ	Devidas Lane	23	20 MVA 2	7	26458	73	Y	N	N	N	59	1
657	NZ	Devidas Lane	23	20 MVA 2	8	26456	57	Y	N	N	N	57	0
658	NZ	Devidas Lane	23	20 MVA 2	9	26454	52	Y	N	N	N	52	0
659	NZ	Devidas Lane	23	20 MVA 2	10	26453	Normally Off	Y	N	N	N	Normally OFF	0
660	NZ	Devidas Lane	23	20 MVA 3	11	35413	71	Y	Y	N	N	53	1
661	NZ	Devidas Lane	23	20 MVA 3	12	35417	40	Y	N	N	N	40	0
662	NZ	Devidas Lane	23	20 MVA 3	13	35414	45	Y	N	N	N	45	1
663	NZ	Devidas Lane	23	20 MVA 3	14	35416	55	Y	N	N	N	55	0
664	NZ	Devidas Lane	23	20 MVA 3	15	35415	24	Y	N	N	N	24	0
665	NZ	Mira	24	10 MVA 4	1	26111	71	Y	Y	N	N	45	1
666	NZ	Mira	24	10 MVA 4	2	26110	30	Y	Y	N	N	9	0
667	NZ	Mira	24	10 MVA 4	3	26109	47	Y	N	N	N	47	0
668	NZ	Mira	24	10 MVA 4	4	26106	Normally Off	Y	N	N	N	Normally OFF	0
669	NZ	Mira	24	10 MVA 4	5	26107	Normally Off	Y	N	N	N	Normally OFF	0
670	NZ	Mira	24	20 MVA 1	6	18636	66	Y	N	N	N	58	1
671	NZ	Mira	24	20 MVA 1	7	18637	60	Y	N	N	N	60	5
672	NZ	Mira	24	20 MVA 1	8	18632	65	Y	Y	N	N	37	0
673	NZ	Mira	24	20 MVA 1	9	18638	84	Y	Y	N	N	53	0
674	NZ	Mira	24	20 MVA 1	10	18635	33	Y	N	N	N	33	0
675	NZ	Mira	24	20 MVA 1	11	18633	5	Y	N	N	N	5	0
676	NZ	Mira	24	20 MVA 2	12	18642	54	Y	Y	N	N	28	0
677	NZ	Mira	24	20 MVA 2	13	18641	50	Y	N	N	N	50	0
678	NZ	Mira	24	20 MVA 2	14	18645	72	Y	N	N	N	53	2
679	NZ	Mira	24	20 MVA 2	15	18644	61	Y	N	N	N	46	0

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/04/2015 in Case No. 182 of 2014)
# excluding special events cable damaged cases

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RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

Sr.No.	Division	Name of 33/22/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP installed Capacity (MVA)	% Loading after WIP	No. of Tripping#
680	NZ	Mira	24	20 MVA 2	16	35646	23	Y	N	N	N	23	0
681	NZ	Shanti Star Mira	24	20 MVA-1	1	35037	78	Y	N	N	N	63	2
682	NZ	Shanti Star Mira	24	20 MVA-1	2	35039	55	Y	N	N	N	55	0
683	NZ	Shanti Star Mira	24	20 MVA-1	3	35036	61	Y	Y	N	N	30	0
684	NZ	Shanti Star Mira	24	20 MVA-1	4	35041	50	Y	Y	N	N	19	5
685	NZ	Shanti Star Mira	24	20 MVA-1	5	35038	46	Y	Y	N	N	37	0
686	NZ	Shanti Star Mira	24	25 MVA-1	6	35028	75	Y	Y	N	N	0	1
687	NZ	Shanti Star Mira	24	25 MVA-1	7	35027	62	Y	Y	N	N	44	0
688	NZ	Shanti Star Mira	24	25 MVA-1	8	35030	70	Y	Y	N	N	59	1
689	NZ	Shanti Star Mira	24	25 MVA-1	9	35029	31	Y	N	N	N	31	0
690	NZ	Bhayander	25	20 MVA 1	1	33338	10	Y	N	N	N	10	0
691	NZ	Bhayander	25	20 MVA 1	2	32230	99	Y	Y	N	N	69	0
692	NZ	Bhayander	25	20 MVA 1	3	32225	54	Y	N	N	N	54	1
693	NZ	Bhayander	25	20 MVA 1	4	32227	53	Y	N	N	N	53	0
694	NZ	Bhayander	25	20 MVA 2	5	32229	57	Y	N	N	N	57	0
695	NZ	Bhayander	25	30 MVA 1	6	32224	54	Y	N	N	N	54	0
696	NZ	Bhayander	25	20 MVA 2	7	32219	72	Y	Y	N	N	43	1
697	NZ	Bhayander	25	20 MVA 2	8	32221	65	Y	N	N	N	38	0
698	NZ	Bhayander	25	20 MVA 2	9	32216	64	Y	Y	N	N	49	1
699	NZ	Bhayander	25	20 MVA 2	10	32215	38	Y	Y	N	N	35	3
700	NZ	Bhayander	25	20 MVA 2	11	32220	33	Y	N	N	N	28	1
701	NZ	Bhayander	25	20 MVA 2	12	32218	Normally OFF	Y	N	N	N	Normally OFF	1
707	NZ	Bhayander	25	20 MVA 3	13	15780	57	Y	Y	N	N	45	3
703	NZ	Bhayander	25	20 MVA 3	14	35783	59	Y	Y	N	N	39	2
704	NZ	Bhayander	25	20 MVA 3	15	35784	44	Y	Y	N	N	28	1
705	NZ	Bhayander	25	20 MVA 3	16	35781	49	Y	N	N	N	49	1
706	NZ	Bhayander	25	30 MVA 3	17	35785	25	Y	N	N	N	25	1
707	NZ	Bhayander (W)	25	20 MVA 1	1	25321	82	Y	Y	N	N	54	2
708	NZ	Bhayander (W)	25	20 MVA 1	2	25325	63	Y	N	N	N	54	0
709	NZ	Bhayander (W)	25	20 MVA 1	3	35323	53	Y	N	N	N	53	1
710	NZ	Bhayander (W)	25	20 MVA 1	4	25320	10	Y	N	N	N	10	0
711	NZ	Bhayander (W)	25	20 MVA 2	5	34523	67	Y	Y	N	N	5	1
712	NZ	Bhayander (W)	25	20 MVA 2	6	34518	63	Y	Y	N	N	49	0
713	NZ	Bhayander (W)	25	20 MVA 2	7	34520	49	Y	N	N	N	49	0
714	NZ	Bhayander (W)	25	20 MVA 2	8	34522	45	Y	Y	N	N	37	1
715	NZ	Bhayander (W)	25	20 MVA 2	9	34517	23	Y	N	N	N	27	3
716	NZ	Ghodbunder	26	20 MVA 1	1	32773	79	Y	Y	N	N	11	4
717	NZ	Ghodbunder	26	30 MVA 1	2	32769	75	Y	Y	N	N	56	5
718	NZ	Ghodbunder	26	20 MVA 1	3	32775	39	Y	Y	N	N	24	0
719	NZ	Ghodbunder	26	20 MVA 1	4	32770	86	Y	N	N	N	56	2
720	NZ	Ghodbunder	26	20 MVA 1	5	32782	28	Y	N	N	N	28	3
721	NZ	Ghodbunder	26	20 MVA 2	6	32783	46	Y	Y	N	N	0	1
722	NZ	Ghodbunder	26	20 MVA 2	7	32778	59	Y	Y	N	N	21	2
723	NZ	Ghodbunder	26	20 MVA 2	8	32779	58	Y	Y	N	N	15	2
724	NZ	Ghodbunder	26	30 MVA 3	9	3143	30	Y	Y	N	N	30	3
725	NZ	Ghodbunder	26	20 MVA 3	10	3141	80	Y	Y	N	N	63	1
726	NZ	Ghodbunder	26	20 MVA 3	11	3144	64	Y	N	N	N	52	1
727	NZ	Ghodbunder	26	20 MVA 3	12	3140	31	Y	N	N	N	31	0
728	NZ	Ghodbunder	26	20 MVA 3	13	3108	19	Y	N	N	N	19	0
729	EZ	SAKI	27	20 MVA-3	1	3130	29	Y	Y	N	N	11	1
730	EZ	SAKI	27	20 MVA-3	2	3128	Normally OFF	Y	N	N	N	Normally OFF	0
731	EZ	SAKI	27	20 MVA-3	3	3129	53	Y	N	N	N	53	1
732	EZ	SAKI	27	20 MVA-3	4	3109	30	Y	N	N	N	30	0
733	EZ	SAKI	27	20 MVA-3	5	3112	19	Y	N	N	N	19	0
734	EZ	SAKI	27	20 MVA-3	6	3132	53	Y	N	N	N	53	0
735	EZ	SAKI	27	20 MVA-3	7	3110	83	Y	Y	N	N	37	0
736	EZ	SAKI	27	20 MVA-3	8	3131	38	Y	Y	N	N	23	2
737	EZ	SAKI	27	35 MVA 1	9	3102	55	Y	N	N	N	35	0
738	EZ	SAKI	27	35 MVA 1	10	3117	54	Y	N	N	N	54	0
739	EZ	SAKI	27	35 MVA 1	11	3106	57	Y	N	N	N	57	0
740	EZ	SAKI	27	35 MVA 1	12	3115	20	Y	N	N	N	20	2
741	EZ	SAKI	27	35 MVA 1	13	3116	63	Y	N	N	N	63	1
742	EZ	SAKI	27	35 MVA 1	14	3103	35	Y	N	N	N	35	0
743	EZ	SAKI	27	35 MVA 1	15	3119	57	Y	Y	N	N	43	0
744	EZ	SAKI	27	35 MVA 1	16	3104	48	Y	N	N	N	48	0
745	EZ	SAKI	27	35 MVA-2	17	3135	56	Y	Y	N	N	18	0
746	EZ	SAKI	27	35 MVA-2	18	3134	67	Y	Y	N	N	38	0
747	EZ	SAKI	27	35 MVA-2	19	3126	88	Y	Y	N	N	67	1
748	EZ	SAKI	27	35 MVA-2	20	3124	66	Y	N	N	N	66	1
749	EZ	SAKI	27	35 MVA-2	21	3121	57	Y	N	N	N	57	0
750	EZ	SAKI	27	35 MVA-2	22	3123	48	Y	Y	N	N	34	0
751	EZ	SAKI	27	35 MVA-2	23	3138	33	Y	N	N	N	31	0
752	EZ	Vihar Rd	27	20 MVA 3	1	29280	89	Y	Y	N	N	51	1
753	EZ	Vihar Rd	27	20 MVA 3	2	29272	Normally OFF	Y	N	N	N	Normally OFF	0
754	EZ	Vihar Rd	27	20 MVA 3	3	29275	60	Y	N	N	N	60	0
755	EZ	Vihar Rd	27	20 MVA 3	4	29281	53	Y	N	N	N	51	0
756	EZ	Vihar Rd	27	20 MVA 3	5	29276	Normally OFF	Y	N	N	N	Normally OFF	0
757	EZ	Vihar Rd	27	20 MVA 1	6	29273	28	Y	N	N	N	28	0
758	EZ	Vihar Rd	27	20 MVA 1	7	29279	Normally OFF	Y	N	N	N	Normally OFF	0
759	EZ	Vihar Rd	27	20 MVA 1	8	29274	Normally OFF	Y	N	N	N	Normally OFF	0
760	EZ	Vihar Rd	27	20 MVA 2	9	29287	49	Y	N	N	N	49	0
761	EZ	Vihar Rd	27	20 MVA 2	10	29284	88	Y	Y	N	?	55	0
762	EZ	Vihar Rd	27	20 MVA 2	11	29285	39	Y	Y	N	N	28	1
763	EZ	Vihar Rd	27	20 MVA 2	12	29282	40	Y	N	N	N	40	0
764	EZ	Chandivali SRA	28	30 MVA 1	1	31000	Normally OFF	Y	N	N	N	Normally OFF	0
765	EZ	Chandivali SRA	28	30 MVA 1	2	30997	Normally OFF	Y	N	N	N	Normally OFF	0
766	EZ	Chandivali SRA	28	30 MVA 1	3	30999	28	Y	N	N	N	28	0
767	EZ	Chandivali SRA	28	30 MVA 1	4	31001	54	Y	Y	N	N	43	1
768	EZ	Chandivali SRA	28	30 MVA 1	5	30996	45	Y	Y	N	N	34	0
769	EZ	Chandivali SRA	28	30 MVA 2	6	31002	71	Y	Y	N	N	56	1
770	EZ	Chandivali SRA	28	30 MVA 2	7	31007	26	Y	N	N	N	26	1
771	EZ	Chandivali SRA	28	30 MVA 2	8	31010	29	Y	N	N	N	29	0
772	EZ	Hiranandani	28	20 MVA 1	1	26372	33	Y	N	N	N	33	0
773	EZ	Hiranandani	28	20 MVA 1	2	26367	36	Y	N	N	N	16	0
774	EZ	Hiranandani	28	20 MVA 1	3	26371	23	Y	Y	N	N	0	0
775	EZ	Hiranandani	28	20 MVA 1	4	26370	43	Y	Y	N	N	28	0

* Kinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Kinfra submissions dated 12/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

Sr.No.	Division	Name of 33[22]/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 25)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP Installed Capacity (MVA)	% Loading after WIP	No. of Tripping#
776	EZ	Hiranandani	28	20 MVA 3	5	26368	34	Y	N	N	N	34	0
777	EZ	Hiranandani	28	20 MVA 2	6	26376	41	Y	N	N	N	41	0
778	EZ	Hiranandani	28	20 MVA 2	7	26382	Normally OFF	Y	N	N	N	Normally OFF	0
779	EZ	Hiranandani	28	20 MVA 2	8	26380	27	Y	N	N	N	27	5
780	EZ	Hiranandani	28	20 MVA 2	9	26381	39	Y	Y	N	N	0	0
781	EZ	Hiranandani	28	20 MVA 2	10	26385	46	Y	Y	N	N	0	1
782	EZ	Hiranandani	28	20 MVA 2	11	26377	48	Y	Y	N	N	34	2
783	EZ	Hiranandani	28	20 MVA 2	12	26390	54	Y	N	N	N	54	0
784	EZ	Hiranandani	28	20 MVA 2	13	26389	Normally OFF	Y	N	N	N	Normally OFF	0
785	ED	NAHAR SHAKTI	28	10 MVA 1	1	36352	31	Y	N	N	N	31	0
786	EZ	NAHAR SHAKTI	28	10 MVA 1	2	36350	Normally OFF	Y	N	N	N	Normally OFF	0
787	EZ	NAHAR SHAKTI	28	10 MVA 1	3	36349	10	Y	N	N	N	10	0
788	EZ	Swan Mill	29	20 MVA 1	1	34547	48	Y	N	N	N	48	0
789	EZ	Swan Mill	29	20 MVA 1	2	34548	62	Y	N	N	N	62	1
790	EZ	Swan Mill	29	20 MVA 1	3	34549	56	Y	N	N	N	56	0
791	ED	Swan Mill	29	20 MVA 2	4	34555	Normally OFF	Y	N	N	N	Normally OFF	0
792	EZ	Swan Mill	29	20 MVA 2	5	34560	10	Y	N	N	N	10	0
793	EZ	Swan Mill	29	20 MVA 2	6	34557	15	Y	N	N	N	15	2
794	EZ	Swan Mill	29	20 MVA 2	7	34556	51	Y	N	N	N	51	2
795	EZ	Swan Mill	29	20 MVA 2	8	34558	Normally OFF	Y	N	N	N	Normally OFF	0
796	ED	Kohinoor	30	20 MVA 1	1	31443	Normally OFF	Y	N	N	N	Normally OFF	0
797	EZ	Kohinoor	30	20 MVA 1	2	31439	24	Y	N	N	N	24	1
798	EZ	Kohinoor	30	20 MVA 1	3	31441	65	Y	N	N	N	65	2
799	EZ	Kohinoor	30	20 MVA 1	4	31438	18	Y	N	N	N	18	0
800	EZ	Kohinoor	30	20 MVA 1	5	31442	Normally OFF	Y	N	N	N	Normally OFF	0
801	EZ	Kohinoor	30	20 MVA 2	6	31452	29	Y	N	N	N	29	0
802	EZ	Kohinoor	30	20 MVA 2	7	31448	20	Y	N	N	N	20	0
803	EZ	Kohinoor	30	20 MVA 2	8	31447	19	Y	N	N	N	19	0
804	EZ	Kohinoor	30	20 MVA 2	9	31450	6	Y	N	N	N	6	0
805	EZ	Kohinoor	30	20 MVA 2	10	31451	14	Y	N	N	N	14	0
806	EZ	Kurla	30	10 MVA 3	1	28195	6	Y	N	N	N	6	0
807	EZ	Kurla	30	10 MVA 3	2	28198	47	Y	N	N	N	47	0
808	EZ	Kurla	30	10 MVA 3	3	28193	20	Y	N	N	N	20	1
809	EZ	Kurla	30	10 MVA 3	4	28197	Normally OFF	Y	N	N	N	Normally OFF	0
810	EZ	Kurla	30	10 MVA 3	5	28196	Normally OFF	Y	N	N	N	Normally OFF	0
811	EZ	Kurla	30	10 MVA 3	6	28197	Normally OFF	Y	N	N	N	Normally OFF	0
812	ED	Kurla	30	20 MVA 1	7	14627	45	Y	N	N	N	45	1
813	EZ	Kurla	30	20 MVA 1	8	110	52	Y	N	N	N	52	3
814	EZ	Kurla	30	20 MVA 1	9	106	38	Y	N	N	N	38	0
815	EZ	Kurla	30	20 MVA 1	10	105	54	Y	N	N	N	54	1
816	EZ	Kurla	30	20 MVA 1	11	235	20	Y	N	N	N	20	1
817	EZ	Kurla	30	20 MVA 1	12	104	60	Y	N	N	N	60	1
818	EZ	Kurla	30	20 MVA 2	13	231	26	Y	N	N	N	26	1
819	EZ	Kurla	30	20 MVA 2	14	14628	50	Y	N	N	N	50	2
820	EZ	Kurla	30	20 MVA 2	15	738	53	Y	N	N	N	53	1
821	EZ	Kurla	30	20 MVA 2	16	14629	61	Y	N	N	N	61	1
822	EZ	Kurla	30	20 MVA 2	17	109	55	Y	N	N	N	55	0
823	EZ	Kurla	30	20 MVA 2	18	108	Normally OFF	Y	N	N	N	Normally OFF	0
824	EZ	HCC	31	20 MVA 1	1	31266	36	Y	Y	N	N	11	0
825	EZ	HCC	31	20 MVA 1	2	31262	17	Y	N	N	N	17	0
826	EZ	HCC	31	20 MVA 1	3	31265	16	Y	N	N	N	16	0
827	EZ	HCC	31	20 MVA 1	4	31267	Normally OFF	Y	N	N	N	Normally OFF	0
828	EZ	HCC	31	20 MVA 1	5	31263	10	Y	N	N	N	10	0
829	ED	HCC	31	20 MVA 2	6	31276	34	Y	N	N	N	34	0
830	EZ	HCC	31	20 MVA 2	7	31274	42	Y	N	N	N	42	0
831	EZ	HCC	31	20 MVA 2	8	31275	62	Y	N	N	N	62	1
832	EZ	HCC	31	20 MVA 2	9	31272	48	Y	Y	N	N	0	3
833	EZ	HCC	31	20 MVA 2	10	31277	36	Y	N	N	N	36	0
834	EZ	HCC	31	20 MVA 2	11	31271	8	Y	N	N	N	8	0
835	EZ	Tagore Nagar	31	10 MVA 1	1	10560	67	Y	N	N	N	67	1
836	EZ	Tagore Nagar	31	10 MVA 1	2	10558	11	Y	N	N	N	11	0
837	EZ	Tagore Nagar	31	10 MVA 1	3	10567	49	Y	N	N	N	49	1
838	EZ	Tagore Nagar	31	10 MVA 1	4	10563	Normally OFF	Y	N	N	N	Normally OFF	0
839	EZ	Tagore Nagar	31	10 MVA 2	5	10521	13	Y	N	N	N	13	1
840	EZ	Tagore Nagar	31	10 MVA 2	6	10567	45	Y	N	N	N	45	0
841	EZ	Tagore Nagar	31	10 MVA 2	7	10568	Normally OFF	Y	N	N	N	Normally OFF	0
842	EZ	Tagore Nagar	31	10 MVA 2	8	10570	Normally OFF	Y	N	N	N	Normally OFF	0
843	EZ	Tagore Nagar	31	10 MVA 2	9	10566	43	Y	N	N	N	41	1
844	ED	Tagore Nagar	31	10 MVA 3	10	26412	20	Y	N	N	N	20	0
845	EZ	Tagore Nagar	31	10 MVA 3	11	26413	Normally OFF	Y	N	N	N	Normally OFF	0
846	EZ	Tagore Nagar	31	10 MVA 3	12	26414	42	Y	N	N	N	42	5
847	EZ	Tagore Nagar	31	10 MVA 3	13	26416	29	Y	N	N	N	29	1
848	EZ	Tagore Nagar	31	10 MVA 3	14	26418	Normally OFF	Y	N	N	N	Normally OFF	0
849	ED	Runwal Park	32	20 MVA 1	1	30671	54	Y	N	N	N	54	0
850	EZ	Runwal Park	32	20 MVA 1	2	30667	23	Y	N	N	N	23	0
851	EZ	Runwal Park	32	20 MVA 1	3	30668	31	Y	N	N	N	31	0
852	EZ	Runwal Park	32	20 MVA 1	4	30670	12	Y	N	N	N	12	0
853	EZ	Runwal Park	32	20 MVA 1	5	30673	11	Y	N	N	N	11	0
854	EZ	Runwal Park	32	20 MVA 1	6	30672	Normally OFF	Y	Y	N	N	Normally OFF	0
855	EZ	Runwal Park	32	20 MVA 2	7	30682	29	Y	N	N	N	29	0
856	EZ	Runwal Park	32	20 MVA 2	8	30681	20	Y	N	N	N	20	1
857	EZ	Runwal Park	32	20 MVA 2	9	30677	46	Y	N	N	N	46	1
858	EZ	Runwal Park	32	20 MVA 2	10	30680	46	Y	N	N	N	46	0
859	EZ	Runwal Park	32	20 MVA 2	11	30679	49	Y	N	N	N	49	2
860	EZ	Runwal Park	32	20 MVA 2	12	30676	13	Y	Y	N	N	0	0
861	EZ	Vikhroli	32	10 MVA 1	1	30954	88	Y	N	N	N	65	0
862	EZ	Vikhroli	32	10 MVA 1	2	30952	22	Y	N	N	N	0	0
863	EZ	Vikhroli	32	10 MVA 3	3	30956	36	Y	N	N	N	36	0

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 11/08/2015 in Case No. 182 of 2024)

excluding special events cable damaged cases

RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

Sr.No	Division	Name of 33(22)/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP Installed Capacity (MVA)	% Loading after WIP	No. of Tripping#
864	EZ	Vikhroli	32	10 MVA 1	4	30957	14	Y	N	N	N	14	0
865	EZ	Vikhroli	32	10 MVA 1	5	30953	66	Y	N	N	N	66	0
866	EZ	Vikhroli	32	10 MVA 3	6	30654	11	Y	N	N	N	11	0
867	EZ	Vikhroli	32	10 MVA 3	7	30658	Normally OFF	Y	N	N	N	Normally OFF	0
868	EZ	Vikhroli	32	10 MVA 3	8	30659	54	Y	N	N	N	54	0
869	EZ	Vikhroli	32	10 MVA 3	9	30653	Normally OFF	Y	N	N	N	Normally OFF	2
870	EZ	Vikhroli	32	10 MVA 3	10	30656	75	Y	N	N	N	45	1
871	EZ	Vikhroli	32	10 MVA 3	11	30657	Normally OFF	Y	N	N	N	Normally OFF	0
872	EZ	Vikhroli	32	20 MVA 3	12	7835	60	Y	N	N	N	60	0
873	EZ	Vikhroli	32	20 MVA 1	13	7832	11	Y	N	N	N	11	0
874	EZ	Vikhroli	32	20 MVA 1	14	9320	54	Y	N	N	N	54	3
875	EZ	Vikhroli	32	20 MVA 1	15	6573	24	Y	N	N	N	24	0
876	EZ	Vikhroli	32	20 MVA 1	16	7834	Normally OFF	Y	N	N	N	Normally OFF	0
877	EZ	Vikhroli	32	20 MVA 2	17	6572	26	Y	N	N	N	26	2
878	EZ	Vikhroli	32	20 MVA 2	18	15367	26	Y	N	N	N	26	2
879	EZ	Vikhroli	32	20 MVA 2	19	6571	52	Y	N	N	N	52	0
880	EZ	Vikhroli	32	20 MVA 2	20	15361	64	Y	N	N	N	64	1
881	EZ	Vikhroli	32	20 MVA 2	21	6568	Normally OFF	Y	N	N	N	Normally OFF	0
882	EZ	Vikhroli	32	20 MVA 2	22	6570	Normally OFF	Y	N	N	N	Normally OFF	0
883	EZ	Cheda Nagar	33	10 MVA 1	1	18823	12	Y	N	N	N	12	0
884	EZ	Cheda Nagar	33	10 MVA 1	2	18824	25	Y	N	N	N	25	2
885	EZ	Cheda Nagar	33	10 MVA 1	3	18828	19	Y	N	N	N	19	1
886	EZ	Cheda Nagar	33	10 MVA 1	4	18825	Normally OFF	Y	N	N	N	Normally OFF	3
887	EZ	Cheda Nagar	33	10 MVA 1	5	18826	Normally OFF	Y	N	N	N	Normally OFF	1
888	EZ	Cheda Nagar	33	20 MVA 3	6	18832	16	Y	N	N	N	16	1
889	EZ	Cheda Nagar	33	20 MVA 1	7	18838	25	Y	N	N	N	25	1
890	EZ	Cheda Nagar	33	20 MVA 3	8	18837	50	Y	N	N	N	50	0
891	EZ	Cheda Nagar	33	20 MVA 1	9	18833	5	Y	N	N	N	5	1
892	EZ	Cheda Nagar	33	20 MVA 1	10	18834	64	Y	Y	N	N	0	3
893	EZ	Cheda Nagar	33	20 MVA 1	11	18835	60	Y	N	N	N	60	7
894	ED	NATWAR PAREKH	33	20 MVA 1	1	37018	Normally OFF	Y	N	N	N	Normally OFF	0
895	EZ	NATWAR PAREKH	33	20 MVA 1	2	37014	23	Y	N	N	N	23	0
896	EZ	NATWAR PAREKH	33	20 MVA 1	3	37023	55	Y	N	N	N	55	0
897	EZ	NATWAR PAREKH	33	20 MVA 1	4	37024	28	Y	N	N	N	28	0
898	EZ	NATWAR PAREKH	33	20 MVA 1	5	37009	46	Y	N	N	N	46	1
899	EZ	NATWAR PAREKH	33	20 MVA 1	6	37035	33	Y	N	N	N	33	0
900	EZ	Shivaji Nagar	33	10 MVA 2	1	26760	66	Y	Y	N	N	48	1
901	EZ	Shivaji Nagar	33	10 MVA 2	2	26761	58	Y	N	N	N	54	1
902	EZ	Shivaji Nagar	33	10 MVA 2	3	26762	21	Y	N	N	N	31	0
903	ED	Shivaji Nagar	33	20 MVA 3	4	26772	38	Y	N	N	N	38	2
904	EZ	Shivaji Nagar	33	20 MVA 1	5	26721	62	Y	Y	N	N	29	3
905	EZ	Shivaji Nagar	33	20 MVA 1	6	26770	33	Y	N	N	N	31	2
906	EZ	Shivaji Nagar	33	20 MVA 1	7	26767	48	Y	N	N	N	48	0
907	EZ	Shivaji Nagar	33	20 MVA 1	8	26766	48	Y	Y	N	N	40	2
908	EZ	Shivaji Nagar	33	20 MVA 1	9	26769	33	Y	N	N	N	33	0
909	EZ	Shivaji Nagar	33	20 MVA 2	10	25889	38	Y	Y	N	N	28	1
910	EZ	Shivaji Nagar	33	20 MVA 2	11	25890	74	Y	Y	N	N	55	4
911	EZ	Shivaji Nagar	33	20 MVA 2	12	25891	Normally OFF	Y	N	N	N	Normally OFF	3
912	EZ	Shivaji Nagar	33	20 MVA 2	13	25886	60	Y	Y	N	N	53	0
913	EZ	Shivaji Nagar	33	20 MVA 2	14	25887	34	Y	Y	Y	?	17	0
914	ED	Acropolis	34	10 MVA 1	1	29207	12	Y	N	N	N	12	0
915	EZ	Acropolis	34	10 MVA 3	2	29209	54	Y	Y	N	N	19	3
916	EZ	Acropolis	34	10 MVA 1	3	29212	34	Y	N	N	N	34	4
917	EZ	Acropolis	34	20 MVA 1	4	29198	46	Y	N	N	N	46	0
918	EZ	Acropolis	34	20 MVA 1	5	29201	56	Y	Y	N	N	48	0
919	EZ	Acropolis	34	20 MVA 1	6	29202	35	Y	Y	N	N	32	2
920	EZ	Acropolis	34	20 MVA 1	7	29199	9	Y	N	N	N	9	0
921	EZ	Acropolis	34	20 MVA 3	8	29203	Normally OFF	Y	N	N	N	Normally OFF	0
922	EZ	Chembur	34	10 MVA 1	1	25278	42	Y	N	N	N	42	2
923	EZ	Chembur	34	10 MVA 1	2	25276	50	Y	N	N	N	50	1
924	EZ	Chembur	34	10 MVA 1	3	25275	42	Y	N	N	N	42	2
925	EZ	Chembur	34	10 MVA 1	4	25279	Normally OFF	Y	N	N	N	Normally OFF	0
926	EZ	Chembur	34	20 MVA 1	5	25281	Normally OFF	Y	N	N	N	Normally OFF	0
927	ED	Chembur	34	20 MVA 1	6	25266	37	Y	N	N	N	37	0
928	EZ	Chembur	34	20 MVA 1	7	19775	48	Y	N	N	N	48	3
929	EZ	Chembur	34	20 MVA 1	8	25270	52	Y	Y	N	N	0	2
930	EZ	Chembur	34	20 MVA 1	9	25269	34	Y	Y	N	N	25	0
931	EZ	Chembur	34	20 MVA 1	10	19777	Normally OFF	Y	N	N	N	Normally OFF	0
932	EZ	Chembur	34	20 MVA 1	11	19776	69	Y	Y	N	N	32	4
933	EZ	Chembur	34	20 MVA 1	12	25273	23	Y	N	N	N	23	0
934	EZ	Chembur	34	20 MVA 1	13	19773	Normally OFF	Y	N	N	N	Normally OFF	0
935	EZ	Chembur	34	20 MVA 2	14	25268	Normally OFF	Y	N	N	N	Normally OFF	0
936	EZ	Chembur	34	20 MVA 2	15	19583	38	Y	N	N	N	38	0
937	EZ	Chembur	34	20 MVA 2	16	19578	73	Y	Y	N	N	20	2
938	EZ	Chembur	34	20 MVA 2	17	19582	34	Y	N	N	N	34	1
939	EZ	Chembur	34	20 MVA 2	18	19581	40	Y	N	N	N	40	1
940	EZ	Chembur	34	20 MVA 2	19	19584	Normally OFF	Y	N	N	N	Normally OFF	0
941	EZ	Chembur	34	20 MVA 2	20	19579	62	Y	N	N	N	62	0
942	ED	Anik	35	10 MVA 1	1	32864	50	Y	N	N	N	50	2
943	EZ	Anik	35	10 MVA 1	2	32867	Normally OFF	Y	N	N	N	Normally OFF	0
944	EZ	Anik	35	10 MVA 1	3	32865	23	Y	N	N	N	23	2
945	EZ	Anik	35	10 MVA 2	4	32863	Normally OFF	Y	N	N	N	Normally OFF	1
946	EZ	Anik	35	10 MVA 2	5	32860	51	Y	N	N	N	51	0
947	EZ	Anik	35	10 MVA 2	6	32858	10	Y	N	N	N	10	0
948	EZ	Anik	35	10 MVA 2	7	32856	61	Y	Y	N	N	61	0
949	EZ	Anik	35	10 MVA 3	8	32857	16	Y	Y	N	N	13	1
950	EZ	Anik	35	10 MVA 3	9	28968	Normally OFF	Y	N	N	N	Normally OFF	0
951	EZ	Anik	35	10 MVA 3	10	28967	50	Y	N	N	N	50	0
952	EZ	Anik	35	10 MVA 3	11	28963	75	Y	Y	N	N	46	0
953	EZ	Anik	35	10 MVA 3	12	28966	23	Y	N	N	N	23	0
954	EZ	MAHUL SRA	35	10 MVA 1	1	3614	4	Y	N	N	N	4	0
955	EZ	MAHUL SRA	35	10 MVA 1	2	3615	30	Y	N	N	N	30	2
956	ED	MAHUL SRA	35	10 MVA 2	3	3608	19	Y	N	N	N	19	1

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 21/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

RELIANCE

Format 2: Information of HT Network Strengthening (Preceding 12 months) – Division wise

Sr.No.	Division	Name of 33(22)/11kV Sub Station	Cluster No.*	Power X'mer No.	Feeder Nos.	Fdr Name	% Peak Load (May 15)	Feeder (n-1) at Peak (Y/N)	Any new/feeder bifurcation/replacement of old/smaller cable proposed	Capacity Addition WIP	Total post WIP Installed Capacity (MVA)	N Loading after WIP	No. of Tripping#
957	EE	MAHUL SRA	35	10 MVA 2	4	3605	3	Y	N	N	N	3	0
958	EO	Chunabhatti	36	20 MVA 1	1	29319	23	Y	N	N	N	23	1
959	EE	Chunabhatti	36	20 MVA 3	2	29323	31	Y	N	N	N	31	1
960	EE	Chunabhatti	36	20 MVA 1	3	29318	53	Y	N	N	N	53	1
961	EE	Chunabhatti	36	20 MVA 1	4	29322	71	Y	N	N	N	56	4
962	EE	Chunabhatti	36	20 MVA 1	5	29324	35	Y	N	N	N	35	1
963	EE	Chunabhatti	36	20 MVA 1	6	29321	58	Y	N	N	N	58	0
964	EE	Chunabhatti	36	20 MVA 2	7	29330	66	Y	Y	Y	Y	33	2
965	EE	Chunabhatti	36	20 MVA 2	8	29332	66	Y	N	N	N	66	6
966	EE	Chunabhatti	36	20 MVA 3	9	29331	68	Y	N	N	N	68	1
967	EE	Chunabhatti	36	20 MVA 2	10	29333	Normally OFF	Y	N	N	N	Normally OFF	0
968	EE	Chunabhatti	36	20 MVA 2	11	29327	65	Y	N	N	N	65	1
969	EE	Chunabhatti	36	20 MVA 2	12	35860	68	Y	N	N	N	68	2
970	EO	Siddharth Nagar	36	10 MVA 1	1	25024	10	Y	N	N	N	10	0
971	EE	Siddharth Nagar	36	10 MVA 1	2	25019	21	Y	Y	N	N	0	0
972	EE	Siddharth Nagar	36	10 MVA 1	3	25018	60	Y	Y	N	N	0	0
973	EE	Siddharth Nagar	36	10 MVA 1	4	25023	19	Y	N	N	N	19	2
974	EE	Siddharth Nagar	36	10 MVA 1	5	25021	59	Y	N	N	N	59	0
975	EE	Siddharth Nagar	36	10 MVA 1	6	25025	10	Y	N	N	N	10	0
976	EO	Hingwala Lane	37	10 MVA 1	1	34308	35	Y	N	N	N	35	0
977	EE	Hingwala Lane	37	10 MVA 1	2	34305	51	Y	N	N	N	51	0
978	EE	Hingwala Lane	37	10 MVA 1	3	34311	18	Y	N	N	N	18	0
979	EE	Hingwala Lane	37	10 MVA 1	4	34310	22	Y	N	N	N	22	1
980	EE	Hingwala Lane	37	10 MVA 1	5	34306	33	Y	N	N	N	33	0
981	EE	Hingwala Lane	37	10 MVA 1	6	34307	32	Y	N	N	N	32	0
982	EE	Hingwala Lane	37	10 MVA 2	7	34296	16	Y	N	N	N	16	0
983	EE	Hingwala Lane	37	10 MVA 2	8	34299	11	Y	N	N	N	11	0
984	EE	Hingwala Lane	37	10 MVA 2	9	34297	41	Y	N	N	N	41	2
985	EE	Hingwala Lane	37	10 MVA 2	10	34302	20	Y	N	N	N	20	0
986	EE	Tilak Nagar	37	10 MVA 1	1	34377	80	Y	Y	N	N	53	2
987	EE	Tilak Nagar	37	10 MVA 1	2	34379	57	Y	N	N	N	57	1
988	EE	Tilak Nagar	37	10 MVA 1	3	34376	Normally OFF	Y	N	N	N	Normally OFF	0
989	EE	Tilak Nagar	37	10 MVA 2	4	34367	60	Y	N	N	N	60	1
990	EE	Tilak Nagar	37	10 MVA 2	5	34366	Normally OFF	Y	N	N	N	Normally OFF	0
991	EE	Tilak Nagar	37	10 MVA 3	6	34365	62	Y	N	N	N	62	2
992	EE	Tilak Nagar	37	10 MVA 2	7	34360	Normally OFF	Y	N	N	N	Normally OFF	1
993	EE	Tilak Nagar	37	10 MVA 2	8	34371	25	Y	N	N	N	35	0
994	EO	Tilak Nagar	37	20 MVA 3	9	31988	Normally OFF	Y	N	N	N	Normally OFF	0
995	EE	Tilak Nagar	37	10 MVA 3	10	31987	Normally OFF	Y	N	N	N	Normally OFF	0
996	EE	Tilak Nagar	37	10 MVA 3	11	31967	76	Y	N	N	N	48	2
997	EE	Tilak Nagar	37	10 MVA 3	12	31984	85	Y	Y	N	N	42	1
998	EE	Tilak Nagar	37	20 MVA 1	13	19820	75	Y	Y	N	N	0	0
999	EE	Tilak Nagar	37	20 MVA 1	14	19822	54	Y	N	N	N	54	1
1000	EE	Tilak Nagar	37	20 MVA 1	15	19824	75	Y	Y	N	N	60	1
1001	EE	Tilak Nagar	37	20 MVA 1	16	19821	54	Y	N	N	N	54	2

* Rinfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to Rinfra submissions dated 31/08/2015 in Case No. 182 of 2014)

excluding special events cable damaged cases

EXHIBIT- '4'

RELIANCE

Format 3: Information of DT Up gradation and Augmentation (Preceding 12 months) – Division wise

Central Division

KVA Rating	<=50%	50%<=80%	80%<=100%	>100%	Grand Total	DT Failures*
250	4	4	1		9	
315	7	4			11	
400	122	164	20		306	
500	11	8	1		20	
630	176	316	20	1	513	
750	1	3			4	
990	106	233	13	1	353	
1000	19	24	3		46	
1500	25	34	4	1	64	
2000	17	6			23	
2500	6				6	
Grand Total	494	796	62	3	1355	0

East Division

KVA Rating	<=50%	50%<=80%	80%<=100%	>100%	Grand Total	DT Failures*
250	7	1			8	
315	5	1			6	
400	140	111	7	5	263	
500	3	1			4	
630	223	222	19	2	466	
750	1				1	
990	170	197	31	5	403	
1000	44	34	6		84	
1500	35	31	12	4	82	
2000	14	9	6	2	31	
2500	3	2			5	
Grand Total	645	609	81	18	1353	0

North Division

KVA Rating	<=50%	50%<=80%	80%<=100%	>100%	Grand Total	DT Failures*
25		1	1		2	
250	17	6			23	
315	19	19	2	1	41	
400	177	210	50	4	441	
500	11	17	1		29	
630	89	276	20	2	387	
750		1			1	
990	90	204	8		302	
1000	17	21			38	
1500	9	25			34	
2000	3	1			4	
Grand Total	432	781	82	7	1302	0

** DT Failure refers to DT's burnt irrepairable during the said period*

RELIANCE 32

Format 3: Information of DT Up gradation and Augmentation (Preceding 12 months) – Division wise

South Central Division

KVA Rating	<=50%	50%<=80%	80%<=100%	>100%	Grand Total	DT Failures*
250		1			1	
315	1	1			2	
400	157	117	1		275	
500	10	10			20	
630	256	238	6		500	
750	2	3			5	
990	155	174	3		332	
1000	34	33			67	
1500	33	27			60	
1600		1			1	
2000	22	4			26	
2500	3	1			4	
Grand Total	673	610	10	0	1293	0

South Division

KVA Rating	<=50%	50%<=80%	80%<=100%	>100%	Grand Total	DT Failures*
200		1			1	
250	2				2	
315	2				2	
400	43	54	3		100	
500	4	8			12	
630	174	269	8	2	453	
750	2	3			5	
990	108	161	8	1	278	
1000	20	24			44	
1500	16	11	2		29	
1600	1	1			2	
2000	16				16	
2500	10	7			17	
Grand Total	398	539	21	3	961	0

** DT Failure refers to DT's burnt irrepairable during the said period*

EXHIBIT- '5'

RELIANCE

Format 4: Reliability Data* (Preceding 12 months) – RInfra Planning Clusterwise**

Cluster No**	SAIDI (mins)	SAIFI (nos.)	CAIDI (mins)
1	37.49	1.48	25.39
2	19.04	1.02	18.61
3	29.75	1.29	23.04
4	24.09	1.01	23.87
5	10.09	0.82	12.28
6	7.72	0.35	22.35
7	3.84	0.20	18.86
8	5.99	0.20	29.91
9	16.44	0.61	26.93
10	21.43	0.96	22.29
11	22.69	0.89	25.49
12	51.48	1.51	34.15
13	12.51	0.54	22.96
14	8.31	0.34	24.68
15	12.82	0.56	22.92
16	19.02	0.75	25.23
17	5.98	0.37	15.97
18	20.53	0.85	24.30
19	12.95	0.86	15.02
20	10.45	0.38	27.64
21	15.24	0.79	19.38
22	15.03	0.75	20.10
23	9.48	0.47	20.24
24	15.66	0.91	17.29
25	19.41	0.97	19.94
26	29.21	1.47	19.85
27	21.68	0.71	30.40
28	19.30	0.95	20.28
29	27.52	0.93	29.53
30	25.24	0.92	27.49
31	19.91	0.73	27.17
32	17.45	0.61	28.82
33	40.08	1.81	22.20
34	32.08	1.45	22.10
35	19.90	0.93	21.35
36	39.84	1.82	21.84
37	30.02	1.27	23.56
RInfra System	**19.23**	**0.86**	**22.37**

* excluding special events & Cable damaged cases

** RInfra Network Planning Clusters (Philosophy already submitted as Annexure-2 to RInfra submissions dated 11/08/2015 in Case No. 182 of 2014)