

Central Electricity Authority
प्रणाली योजना एवं परियोजना मूल्यांकन प्रभाग
System Planning & Project Appraisal Division
सेवा भवन, आर. के. पुरम, नई दिल्ली-110066
Sewa Bhawan, R. K. Puram, New Delhi-110066

No.66/5/2013-SP&PA/

dated: 8.7.2013

1. Managing Director, Bihar State Power Transmission Comp. Ltd., Vidyut Bhavan, Baily Road, Patna-800021. Tel. 0612-2504442 Fax No. 0612-2504968	2. Director (System), Damodar Valley Corporation DVC Towers, VIP Road, Kolkata-700054. Tel. 033-23557934 Fax No. 23554841
3. Member Secretary, Eastern Regional Power Committee, 14, Golf Club Road, Tollygange, Kolkata-700033. Tel. No. 033-24235199 Fax No. 033-24171358	4. Director (Commercial), Grid Corporation of Orissa Ltd, Jan path, Bhubaneswar-751022. Tel. No. 0674-2541127 Fax No. 0674-2543452
5. Director (Transmission), Orissa Power Transmission Corporation Ltd, Jan path, Bhubaneswar-751022. Tel. No. 0674-2540098 Fax No. 0674-2541904	6. Director (System Operation), West Bengal State Electricity Transmission Company Ltd, Vidyut Bhavan, 5th Floor, Block-D, Bidhannagar, Sector-II, Kolkata-700091. Tel. No. 033-23370206 Fax No. 033-2337206
7. Principal Chief Engineer cum Secretary, Power Department, Government of Sikkim, Sikkim. Tel. No. 03592-2022440 Fax No. 03592-202927	8. Director (Projects), Power Grid Corporation of India "Saudamini" Plot No. 2, Sector-29, Gurgaon-122001 Tel. No. 0124-2571816 Fax No. 0124-2571979
9. Director (Technical), NTPC Limited, Engineering Office Complex, A-8, Sector 24, Noida. Tel. No. 24362050 Fax No. 24362421	10. Member (Transmission), Jharkhand State Electricity Board, In front of Main Secretariat, Doranda, Ranchi-834002. Tel. No. 0651-2400827 Fax No. 0651-2400799
11. Executive Director (T&RE), NHPC Ltd, NHPC Office complex, Sector 33, Faridabad-121003. Tel. No. 0129-2255805 Fax No. 0129-2256055	12. General Manager, Eastern Regional Load Dispatch Center, 14, Golf Club Road, Tollygange, Kolkata-700033. Tel No. 033-24235867 Fax No. 033-24235809

Sub: 2nd - 2013 meeting of the Standing Committee on Power System Planning of Eastern Region - Agenda for the meeting.

Sir,

The 2nd - 2013 **meeting** of the Standing Committee on Power System Planning of Eastern Region is proposed to be held by end of July, 2013. The agenda is available at **CEA's website (www.cea.nic.in)**. Exact date and venue of the meeting would be conveyed separately. Please make it convenient to attend the meeting.

Yours faithfully,

(Dr. R. Saha)
Director (SP&PA)
(Telephone: 011 26107144, Fax No. 011 26102045)

Copy to: Shri S K Soonee, CEO, POSOCO, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-16

Agenda of the 2nd - 2013 Standing Committee Meeting on Power System Planning in ER

1 Confirmation of the 1st - 2013 Standing Committee Meeting on Power System Planning in ER held at Gurgaon on 05-01-2013

Minutes of the 1st - 2013 Standing Committee Meeting on Power System Planning in ER held at Gurgaon on 05-01-2013 were circulated vide CEA letter No. No.66/5/99-SP&PA/140-156 dated 12-02-2013. No comments have been received. **The minutes may be confirmed.**

2. Establishment of 400kV Sagardighi TPS – Baharampur D/c line as system strengthening

In the meeting of Standing Committee on Power System Planning in Eastern Region held on 28-12-2010, the system strengthening scheme for construction of 400/220 kV S/s at Rajarhat alongwith Rajarhat – Purnea 400 kV D/C line (one circuit to be LILOed at Gokarna and the other circuit at Farakka STPS) was approved for execution on top priority by POWERGRID to remove transmission congestion in the 400kV Farakka-Jeerat section supplying power to the load centers in the southern part of West Bengal and to overcome low voltage problem in and around Jeerat area. However, due to land acquisition/procurement problem at Rajarhat, the implementation of the above scheme has since been held up. The issue has been discussed with WBSETCL several times by CEA and POWERGRID, and a joint site visit of CEA, POWERGRID and WBSETCL officials was also done. POWERGRID is presently in the process of acquisition of land at Rajarhat and it is understood that getting land at Rajarhat will take some more time. In view of above and considering the system requirement, it was decided in the 24th ERPC board meeting that 400kV D/C line (30km long) from Sagardighi (WB) to Baharampur(PG) should be constructed on priority basis to overcome the congestion in the Farakka-Jeerat corridor. Subsequently, POWERGRID has conducted the system studies in this context and results of the studies are enclosed. CEA has agreed to the implementation of the 400kV Sagardighi-Baharampur D/C line on compressed time schedule.

Members may kindly note and concur.

3. Transmission System for immediate evacuation of power from North Karanpura STPP (3x660 MW) to Ranchi & Gaya Pooling Stations

In the meeting of Standing Committee on Power System Planning in Eastern Region held on 05-05-2007 at Puri, the following transmission system for immediate evacuation of power from North Karanpura STPP (3x660 MW) was approved.

- North Karanpura – Ranchi 400kV D/c line with quad moose conductor
- North Karanpura – Gaya 400kV D/c line with quad moose conductor

The above system was to be implemented by POWERGRID. However, the implementation activities could not be taken up due to uncertainty of North Karanpura generation project.

NTPC vide letter dated 25-06-2013 has informed that Govt. of India has cleared implementation of North Karanpura STPP (3x660MW) generation project and requested to initiate the implementation of the above transmission system. Accordingly, POWERGRID is taking up the implementation of the subject scheme with following scope :

- North Karanpura – Ranchi 400kV D/c line with quad moose conductor
- North Karanpura – Gaya 400kV D/c line with quad moose conductor

Further, keeping in view the high voltage condition in ER grid, NTPC is requested to install 2 nos. 125 MVAR bus reactors at North Karanpura generation switchyard.

Members may kindly note.

4. Long Term Access for 750 MW from Essar Power(1200 MW) in Jharkhand and 260 MW from GMR Kamalanga(1050MW) in Odisha to Bihar

Essar Power (Jharkhand) Ltd. has informed that BSPHCL, Bihar has signed Power Purchase Agreements with them for supplying 750 MW from their generation project in Latehar district of Jharkhand. Accordingly, the revised beneficiaries for Essar Power would be as given below :

Essar Power (Jharkhand) Ltd : IC – 1200 MW, LTOA Quantum – 1100 MW
Beneficiaries : BSEB-750 MW, NPCL-240 MW, WR-110 MW

Similarly, GMR Kamalanga Energy Ltd. has informed that Bihar has signed Power Purchase Agreements with them for supplying 260 MW from their generation project in Angul district of Odisha. Accordingly, the revised beneficiaries for GMR Kamalanga power would be as given below :

GMR Kamalanga Energy Ltd.: IC – 1050 MW, LTOA Quantum – 800 MW
Beneficiaries : BSEB-260 MW, Haryana-300 MW, NR-40 MW, SR-200 MW

BSPHCL may kindly confirm for signing the requisite commercial agreements with POWERGRID for payment of transmission charges for the above mentioned quantum of power.

Members may kindly note.

5. Addition of 1x125MVAR Bus Reactor each at Baripada & Maithon 400 kV sub-stations (PG)

Addition of 125 MVAR bus reactor at Baripada was discussed in the previous meeting of Standing Committee held on 05-01-2013 however the proposal was dropped due to space constraint at Baripada. Subsequently, space availability at Baripada was explored again and it has emerged that 1 no. 125

MVAR bus reactor may be installed with GIS bays. The matter was agreed in the 24th TCC / ERPC meeting held on 26-27 April, 2013 at Bhubaneswar.

Presently, there is a 1x50MVAR bus reactor at Maithon sub-station and 1 no. 125 MVAR bus reactor was approved in the standing committee meeting held on 05.01.2013. Keeping in view the bus splitting scheme to be implemented in Maithon, it is proposed to install additional 1 no. 125 MVAR bus reactor (2nd) at Maithon with GIS bays.

Members may kindly note and concur.

6. Eastern Region Strengthening Scheme-IX

In the previous meeting of the Standing Committee for Power System Planning in Eastern Region held on 05-01-2013 at POWERGRID Office, Gurgaon, reactive compensation works were agreed to be implemented by POWERGRID as a regional project of Eastern Region. These works are being implemented by POWERGRID as a part of ERSS-IX.

- 1. Installation of 1X125 MVAR Bus Reactor at Gazuwaka 400 kV (East) bus.**
2. Installation of 2X125 MVAR Bus Reactor at Rengali.
3. Installation of 1X125 MVAR Bus Reactor at Maithon.
4. Installation of 1X125 MVAR Bus Reactor in parallel with existing 50 MVAR (3X16.67) Bus Reactor at Biharsharif, using existing Reactor bay.
5. Installation of 2X125 MVAR Bus Reactor in parallel with existing 2X50 MVAR Bus Reactor at Jamshedpur.
6. Installation of 1X125 MVAR Bus Reactor in parallel with existing 1X50 MVAR Bus Reactor at Rourkela.
7. Installation of 2X125 MVAR Bus Reactor at Durgapur (Parulia). Out of 2x125 MVAR Bus Reactor, 1X125 MVAR Bus Reactor would be in parallel with existing 1X50 MVAR Bus Reactor, using existing Reactor bay.
- 8. Converting 2X80 MVAR Line Reactors at Gorakhpur end of Barh-II – Gorakhpur 400 kV Quad D/c line to 2X80 MVAR (Switchable) Line Reactors.**

However in the 24th TCC / ERPC meeting held on 26-27 April, 2013, Bihar had some reservation in regard to item 1 & 8 above. Keeping in view the system requirement, the same may be agreed by Bihar.

Members may kindly note.

- 7. Requirement of additional single phase spare converter transformer of 2x234MVA at 2x500 MW Gazuwaka (one for each pole : One AREVA make, other ABB make) and 1x234MVA at 500 MW Sasaram (AREVA make) HVDC back-to-back (B-t-B) stations.**

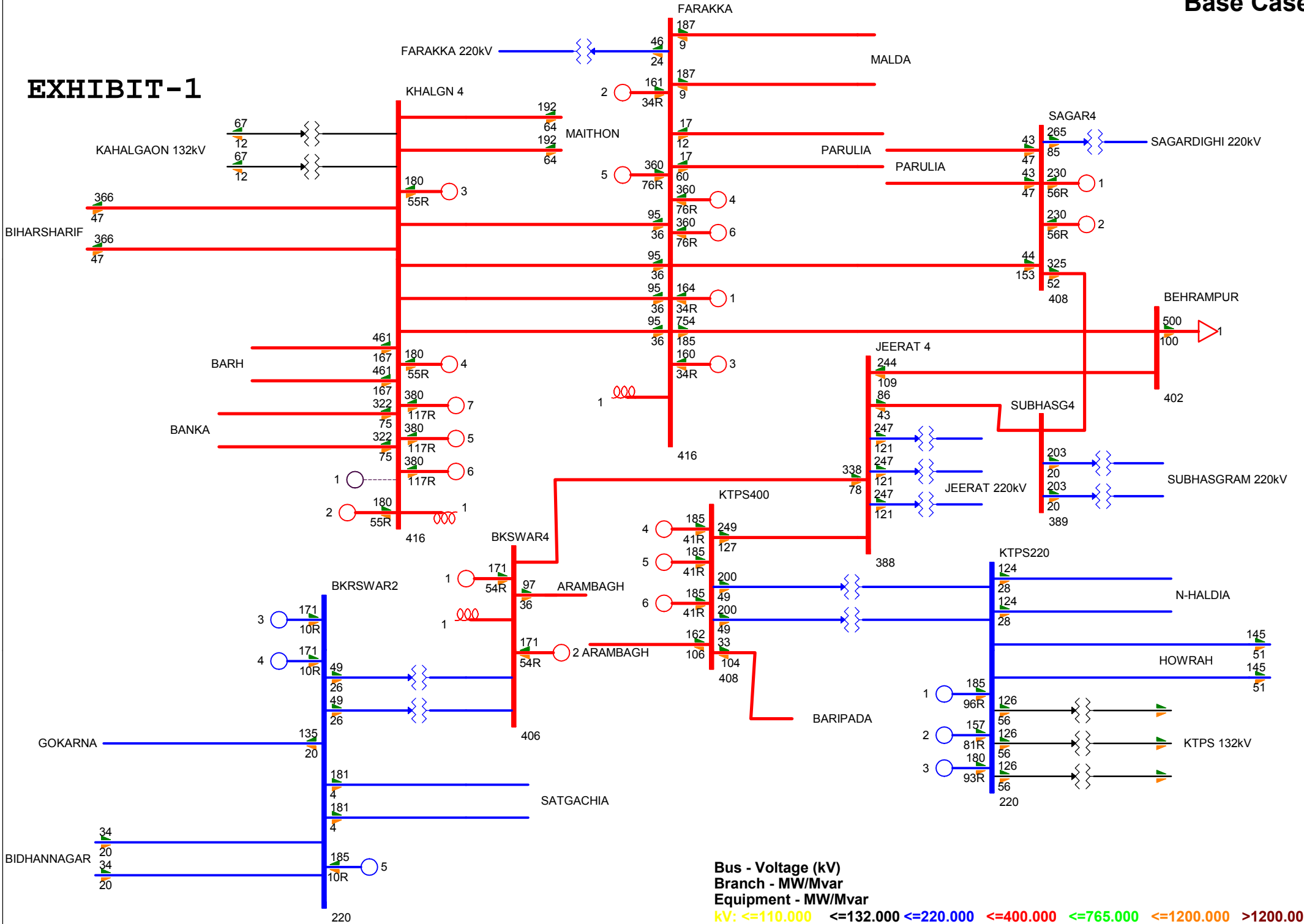
In the Standing Committee for Power System Planning in Eastern Region held on 05-01-2013 at POWERGRID Office, Gurgaon, the above requirement of spare converter transformers were agreed by Members. However, in the 24th TCC / ERPC meeting held on 26-27 April, 2013 at Bhubaneswar, Bihar has some reservation to the proposal. Keeping in view the system requirement, the same may be agreed by Bihar.

Members may kindly note.

Summary of Case Studies for Sagardighi-Bahrampur 400 kV D/c line

Sr. No.	Case	Base Case	Loading on Farakka-Behrampur 400kV S/c line (in MW)			
			Outage of Farakka-Sagardighi 400kV S/c	Outage of Sagardighi-Subhasgram 400kV S/c	Outage of Subhasgram-Jeerat 400kV S/c	Outage of Behrampur-Jeerat 400kV S/c
1	Base Case	754	760	842	740	503
		Exhibit - 1	Exhibit - 1a	Exhibit - 1b	Exhibit - 1c	Exhibit - 1d
2	Addition of Sagardighi-Behrampur 400kV D/c line	418	544	408	417	303
		Exhibit - 2	Exhibit - 2a	Exhibit - 2b	Exhibit - 2c	Exhibit - 2d

EXHIBIT-1



Outage of Farakka-Sagardighi

EXHIBIT-1A

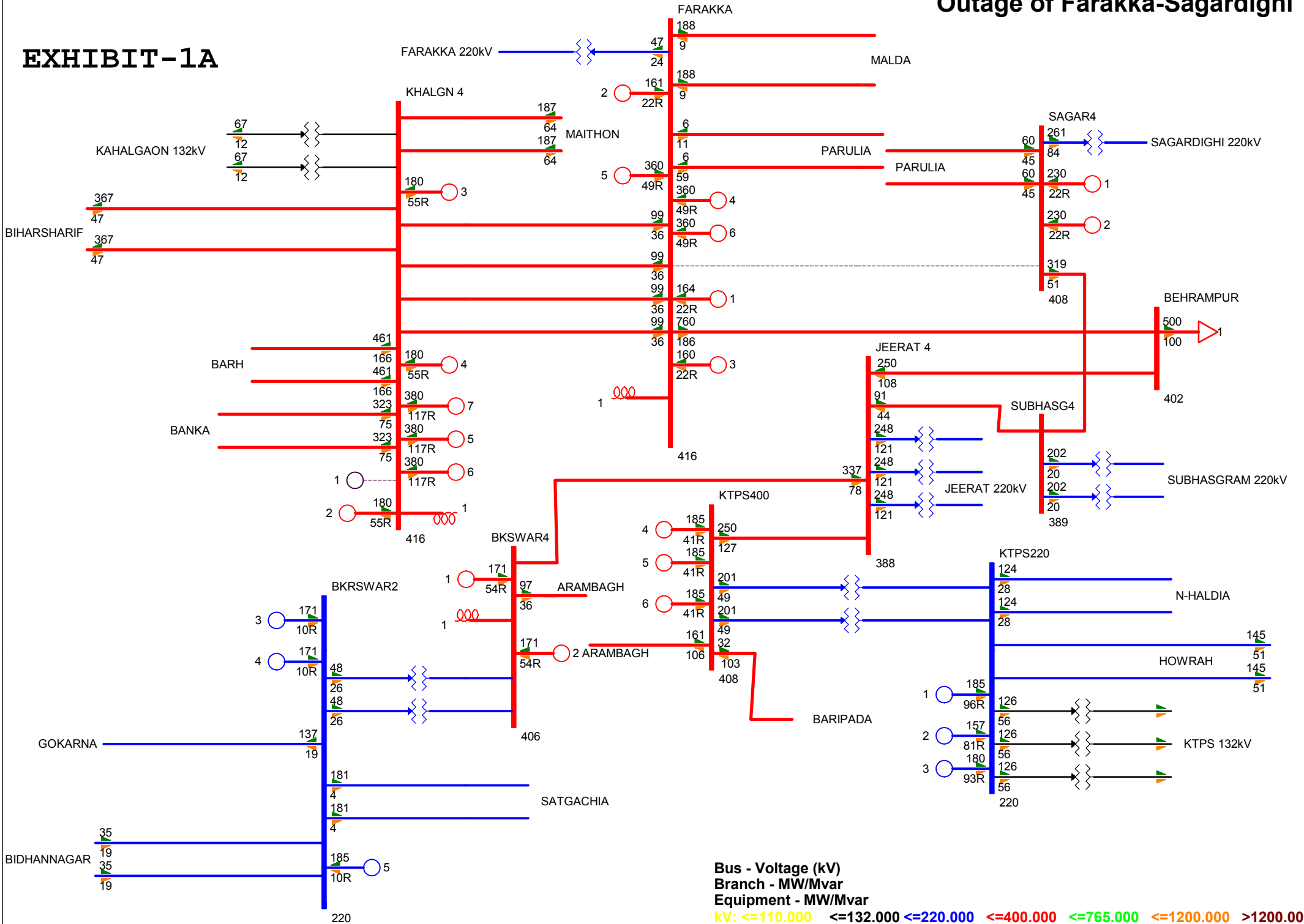


EXHIBIT-1B

Outage of Sagardighi-Subhasgram

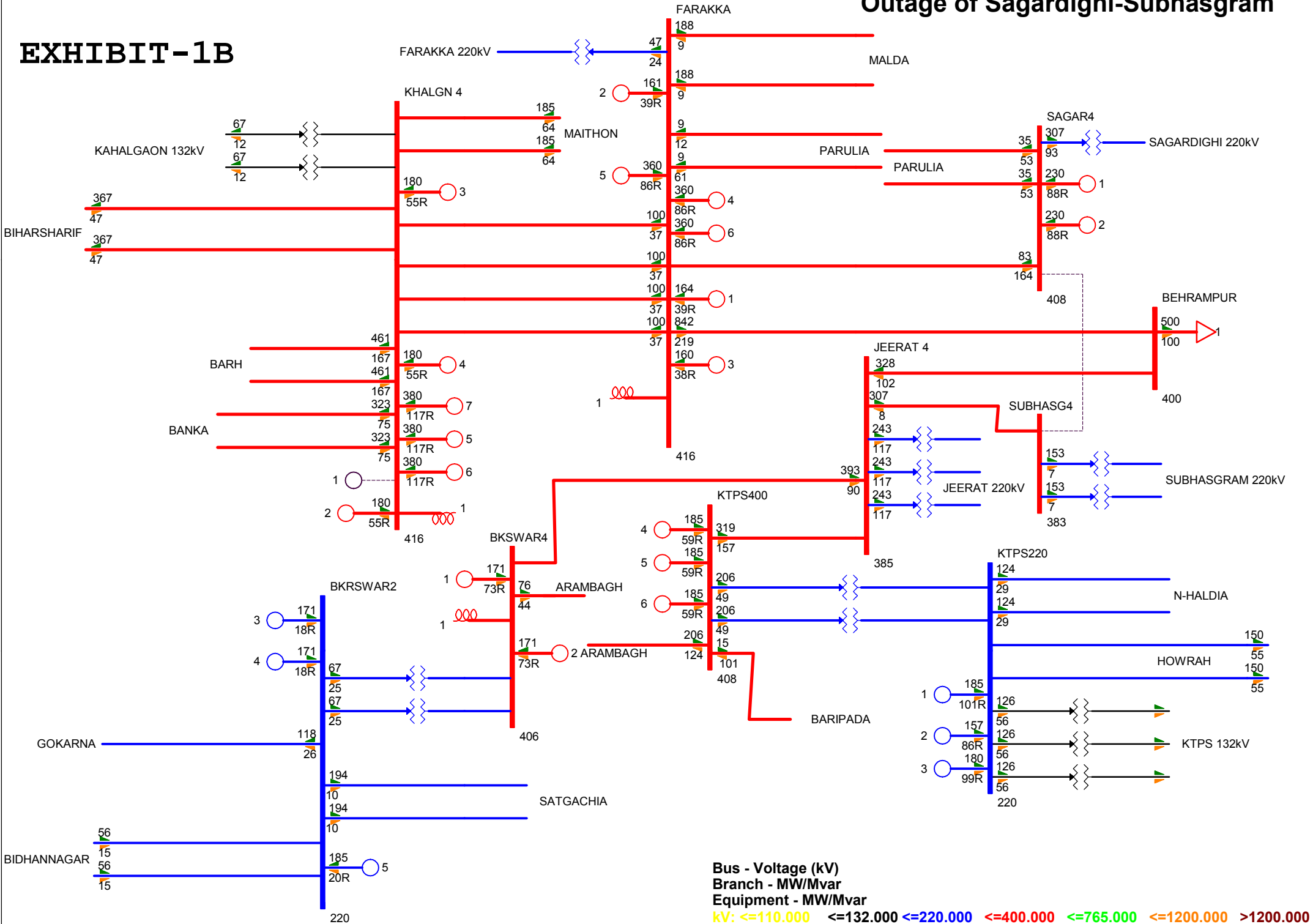
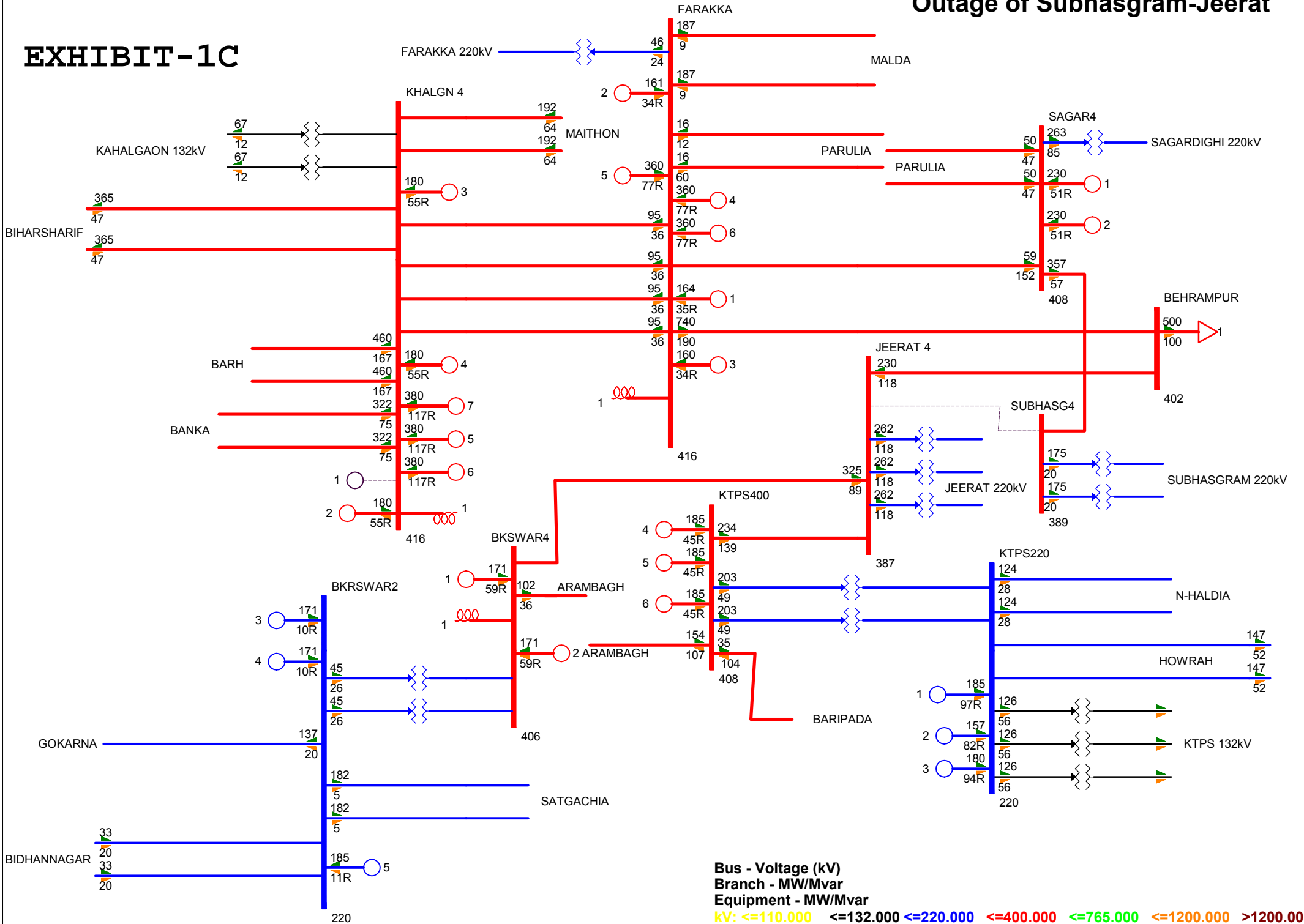


EXHIBIT-1C

Outage of Subhasgram-Jeerat



Outage of Behrampur-Jeerat

EXHIBIT-1D

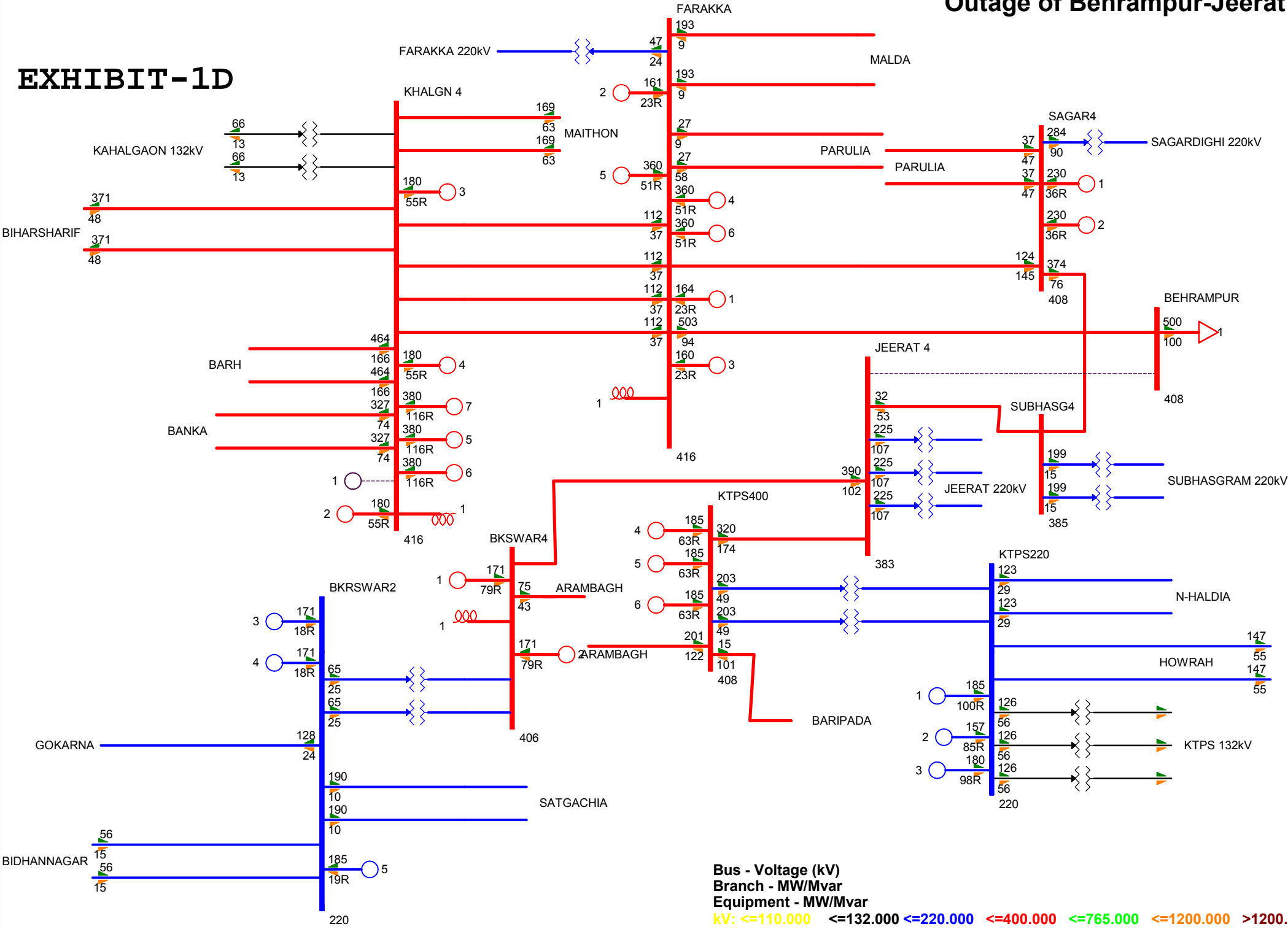
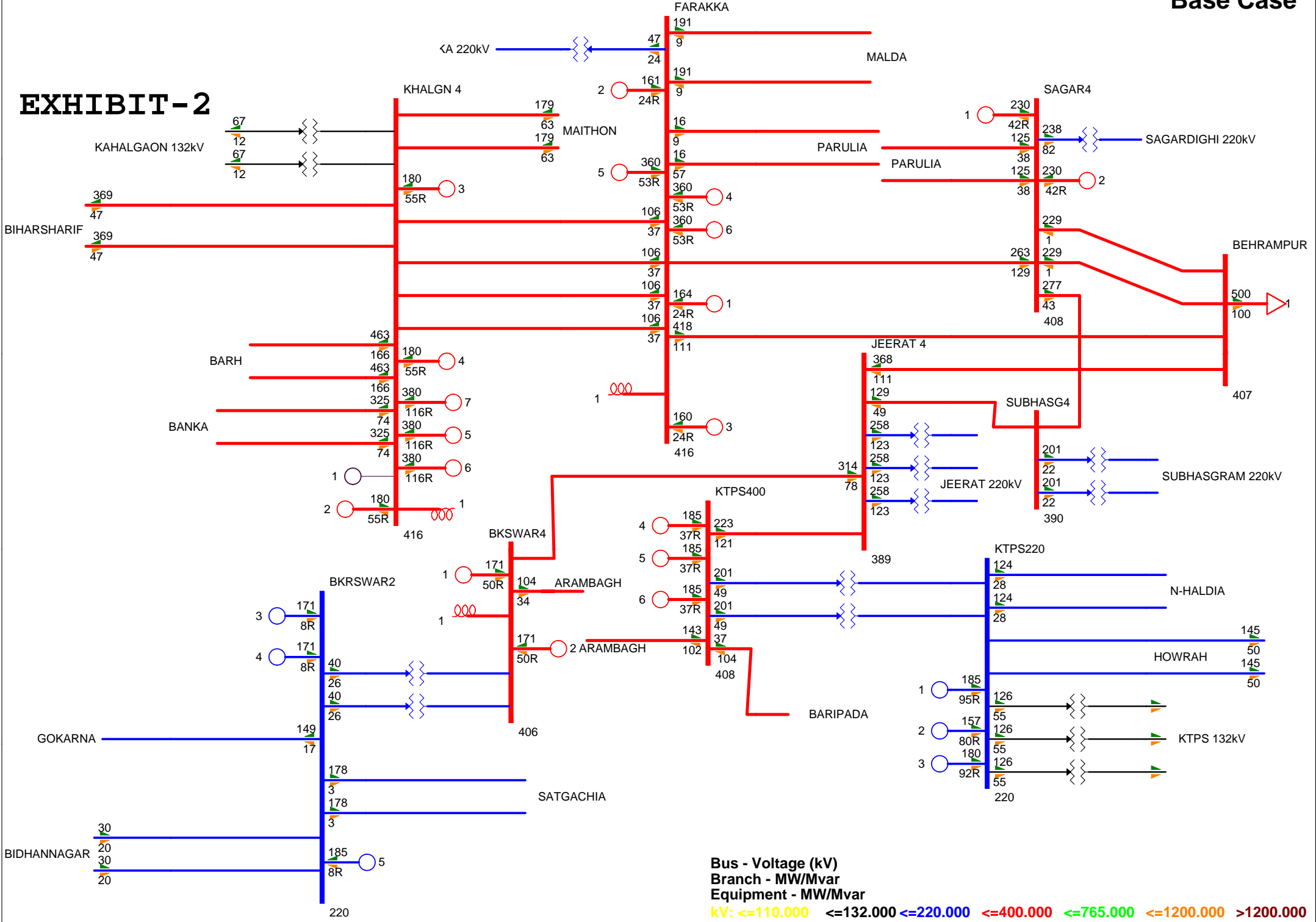
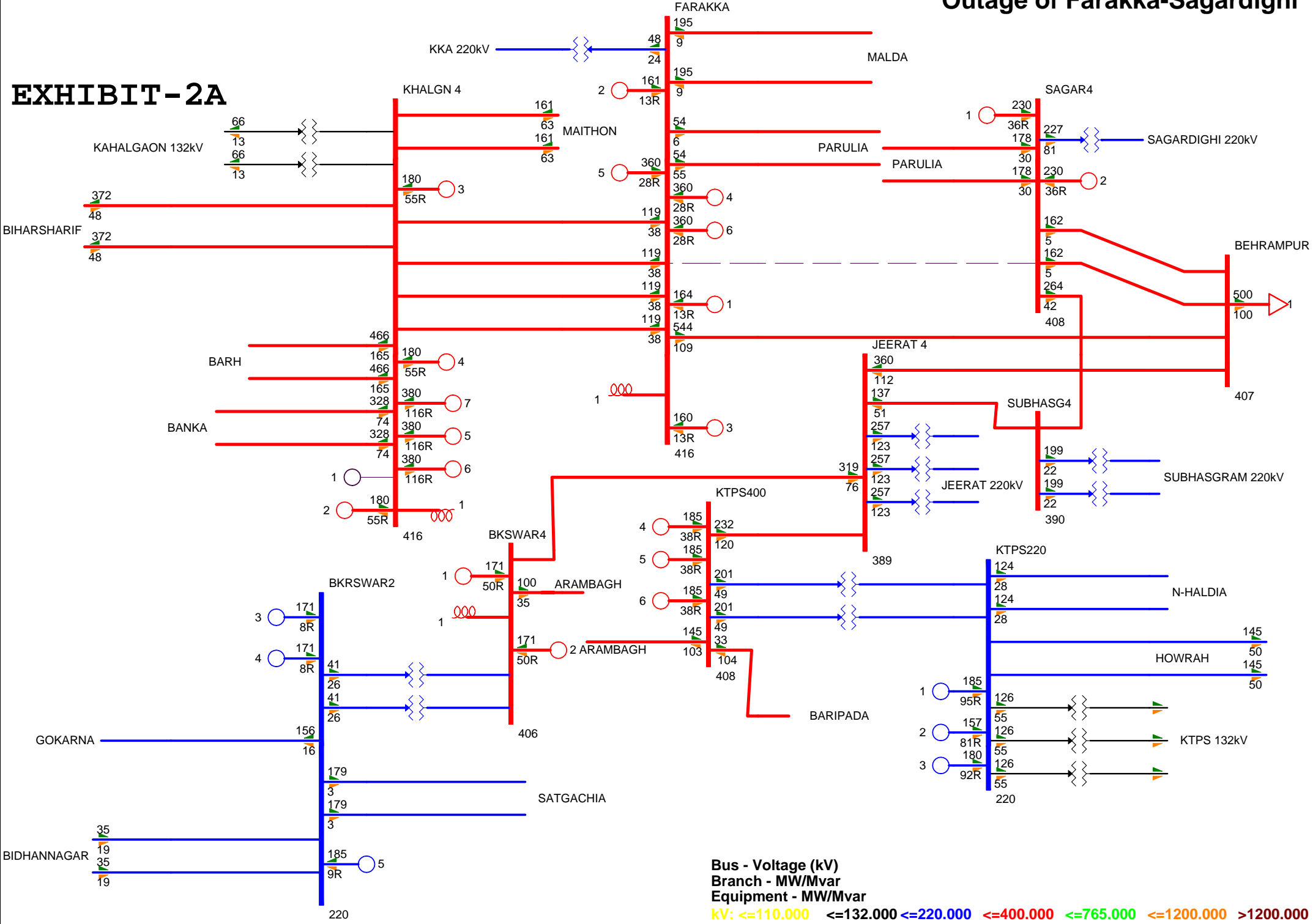


EXHIBIT-2



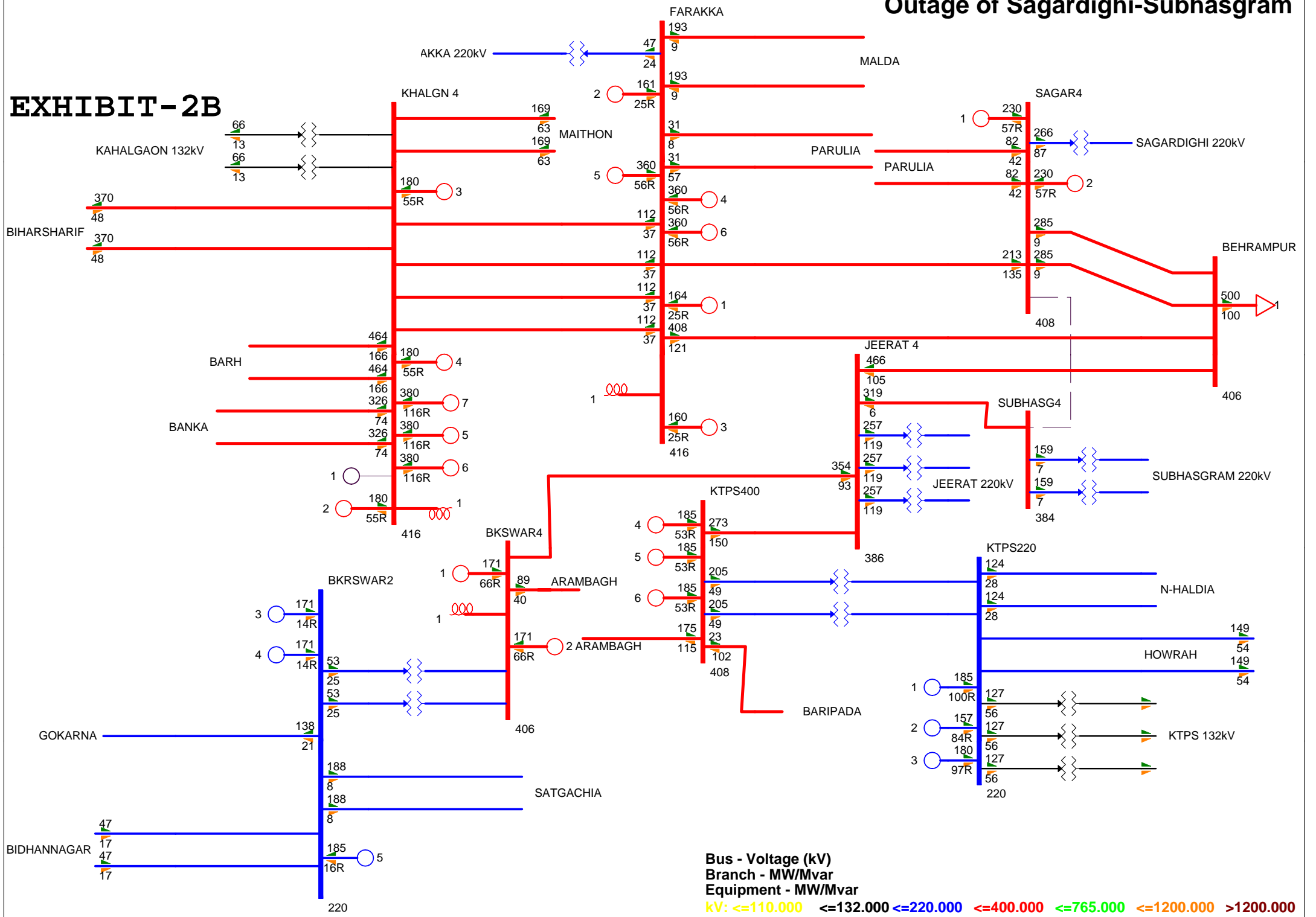
Outage of Farakka-Sagardighi

EXHIBIT-2A



Outage of Sagardighi-Subhasgram

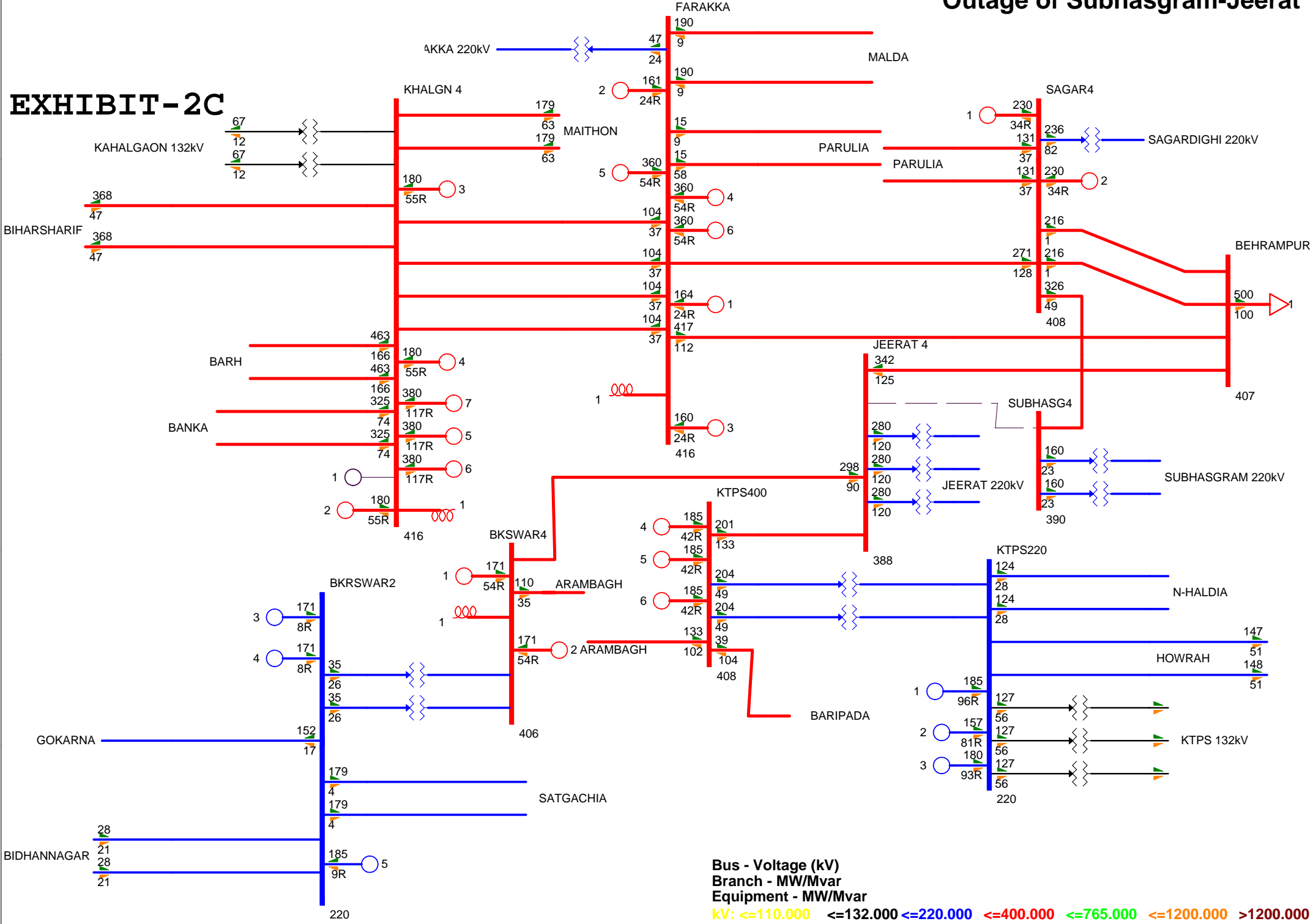
EXHIBIT-2B



Bus - Voltage (kV)
Branch - MW/Mvar
Equipment - MW/Mvar
 kV: <=110.000 <=132.000 <=220.000 <=400.000 <=765.000 <=1200.000 >1200.000

Outage of Subhasgram-Jeerat

EXHIBIT-2C



Outage of Behrampur-Jeerat

EXHIBIT-2D

