

Annex - 21.1

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

Telephone: 080-22210416

Fax : 080-22292204



Office of the
Chief Engineer Electy.,
Planning & Co-ordination,
Kaveri Bhavan, Bangalore-9

No. CEE (P&C)/SEE(Plg)/EE(PSS)KCO-97/16074/2014-15

Date 11th March '2015

14386-341

11.3 MAR 2015

The Member(Power Systems),
Central Electricity Authority
Sewa Bhavan, R.K.Puram,
New Delhi-110066.

Sub: Modifications in proposed transmission scheme to be taken up under Green Energy Corridor for KfW funding

Ref: Your office letter No 54/1/2014-SP&PA/2056-57 dated 7th November, 2014.

This has reference to the letter cited under reference wherein all proposals for establishing 1x500MVA, 400/220kV station at Mugaikodu along with associated lines were approved.

Due to various reasons, few proposals that were earlier approved under Green Energy Corridor scheme are revised. The agenda for the subjects with revised transmission scheme along with the necessary power flow plots is enclosed herewith for placing it before the ensuing Standing Committee Meeting of Power System Planning of Southern Region for discussions and approval.

This is for your kind information and further needful.

Yours faithfully

Chief Engineer Electy.,

(Planning & Co-ordination)

KfW Sure
GEC+
next week

Shri P J
Director
KfW

Copy to:

1. The Director(SP&PA), Central Electricity Authority, Sewa Bhavan, RK Puram, New Delhi-110066.
2. The Chief Engineer (SP&PA), Central Electricity Authority, Sewa Bhavan, RK Puram, New Delhi-110066.
3. C.O.O (CTU), PGCIL, Saudamini, Plot No.2, Sector 29, Gurgaon-122001.
4. E.A to Director (Transmission), KPTCL, Kaveri Bhavan, Bangalore to place it before The Director (Transmission).
5. P.S to The Chairperson, CEA, to place it before The Chairperson, CEA.

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No. CEE (P&C)/SEE(Plg)/EE(PSS)KCO-97/16074/2014-15

Date 11th March '2015

14386-391

13 MAR 2015

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Central Electricity Authority
Sewa Bhavan, R.K.Puram,
New Delhi-110066.

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2

AGENDA

Sub: Modifications in proposed transmission schemes to be taken up under Green Energy Corridor for KfW funding

KPTCL had proposed the following transmission schemes for RE projects to be taken up for KfW funding for DPR cost of Rs10960 Millions.

SI No	DETAILS OF SCHEMES AS FURNISHED IN DPR SENT TO SP&PA DIVISION CEA	Rs in Lakhs
1	Establishing 2 x 500 MVA, 400/ 220 kV Sub station at Gadag(Doni) in Mundaragi Taluk, Gadag District	13249.28
2	Construction of 220 kV DC line from 400/220kV Guttur sub station to 220/66/11kV Chitradurga sub station in Chitradurga Dist in existing corridor	6564.40
3	Construction of 220 kV SC line from 400kV Hiriyur (PGCIL) sub station to 220/66/11kV Hiriyur sub station and Construction of 220kV DC line from 220/66/11kV Chitradurga sub station to 220/66/11kV Hiriyur sub station in existing corridor in Chitradurga District	3272.01
4	Establishing 2x100MVA, 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	9400.91
5	Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District	4849.12

6	Establishing 2 x 500 MVA, 400/220 kV Sub station at Mughalkod in Raibag Taluk, Belgaum District	32961.65
7	Establishing 2 x 500 MVA, 400/220 kV Sub station at Jagalur in Jagalur Taluk, Davanagere District	30290.64
8	Construction of 220kV DC line for a length of 26kms from 220kV Bidnal substation to LILO one of the circuits of 220kV Narendra-Haveri DC line, in Haveri and Dharwad districts	1544.31
9	Establishing 2x100MVA 220/66 kV and 1x12.5MVA 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district.	7467.69
Total project cost		109600.00

The above schemes have undergone certain change as explained hereunder.

The proposal of establishing 2 x 500 MVA, 400/220 kV sub-station at Mughalkod along with associated lines was dropped for the time being since the wind generation in and around Mughalkod which are stepped up at 220 kV or below voltage level can be evacuated and transmitted to load centres in that area in Karnataka on 220 kV level itself. This is as per the communication vide letter 54/1/2014-SP&PA/2056-57 dated 7th November, 2014.

Consequent to the 400/220 kV Mughalkod sub-station being deferred, the transmission scheme for 220 kV Mughalkod sub-station needs to be revised. KPTCL has proposed to LILO the 220 kV DC line between 220/110 kV Chikkodi and Ghataprabha sub-station at proposed 220/110 kV Mughalkod and the 110 kV connectivity from Mughalkod remains unaltered.

Further, due to problems in execution of work in view of RoW issues in case of establishing 220/66 kV sub-station at Hosadurga by constructing 220 kV DC line from 400/220 kV Hiriyur sub-station, the transmission scheme is revised. The incoming lines to 220/66 kV Hosadurga is proposed from 400 kV Chikkanayakanahalli switching station by creating 220 kV reference. It may be noted that 400 kV switching station at Chikkanayakanahalli is already approved in the evacuation scheme of YTPS. Now it is proposed to establish 1 X 500 MVA,

6	Establishing 2 x 500 MVA, 400/220 kV Sub station at Mughalkod in Raibag Taluk, Belgaum District	32961.65
7	Establishing 2 x 500 MVA, 400/220 kV Sub station at Jagalur in Jagalur Taluk, Davanagere District	30290.64
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The proposal of establishing 2 x 500 MVA, 400/220 kV sub-station at Mughalkod along with associated lines was dropped for the time being since the wind generation in and around Mughalkod which are stepped up at 220 kV or below voltage level can be evacuated and transmitted to load centres in that area in Karnataka on 220 kV level itself. This is as per the communication vide letter 54/1/2014-SP&PA/2056-57 dated 7th November, 2014.

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400/220 kV sub-station at Chikkanayakanahalli with 220 kV DC line to proposed 220/66 kV Hosadurga sub-station.

Earlier, 2 X 500 MVA, 400/220 kV Jagalur sub-station was approved with 220 kV DC lines to 220/66 kV Thallak and Kudligi sub-stations. Since 220 kV Chitradurga has a wind potential of about 250 MW connected to the downstream network, it is proposed to link Chitradurga to Jagalur through 220 kV DC line. In view of this additional link from Jagalur to Chitradurga, the approved work of conversion of 220 kV SC to DC line between Guttur and Chitradurga may be dropped. Further the proposed 2 X 500 MVA, 400/220 Kv SUB-STATION AT Jagalur is proposed to be a GIS instead of AIS due to constraints in land acquisition.

Accordingly, KPTCL had requested for review of the transmission projects proposed under Green Energy Corridor to be taken up for KfW funding. The revised proposals are as follows. The power flow result for the above scheme is placed in the annexure.

Sl No	DETAILS OF SCHEMES AS REVISED IN DPR		
		Rs in Lakhs	Remarks
1	Establishing 2 x 500 MVA, 400/ 220 kV Sub station at Gadag(Doni) in Mundaragi Taluk, Gadag District	13249.28	No change
2	Construction of 220 kV DC line from 400/220kV Guttur sub station to 220/66/11kV Chitradurga sub station in Chitradurga Dist in existing corridor	-	Dropped
3	Construction of 220 kV SC line from 400kV Hiriur (PGCIL) sub station to 220/66/11kV Hiriur sub station and Construction of 220kV DC line from 220/66/11kV Chitradurga sub station to 220/66/11kV Hiriur sub station in existing corridor in Chitradurga District	3272.01	No change
4	Establishing 2x100MVA, 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	9400.91	No change
5	Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District	7249.12	With 220 kV DC LILO of Chikkodi – Ghataprabha line

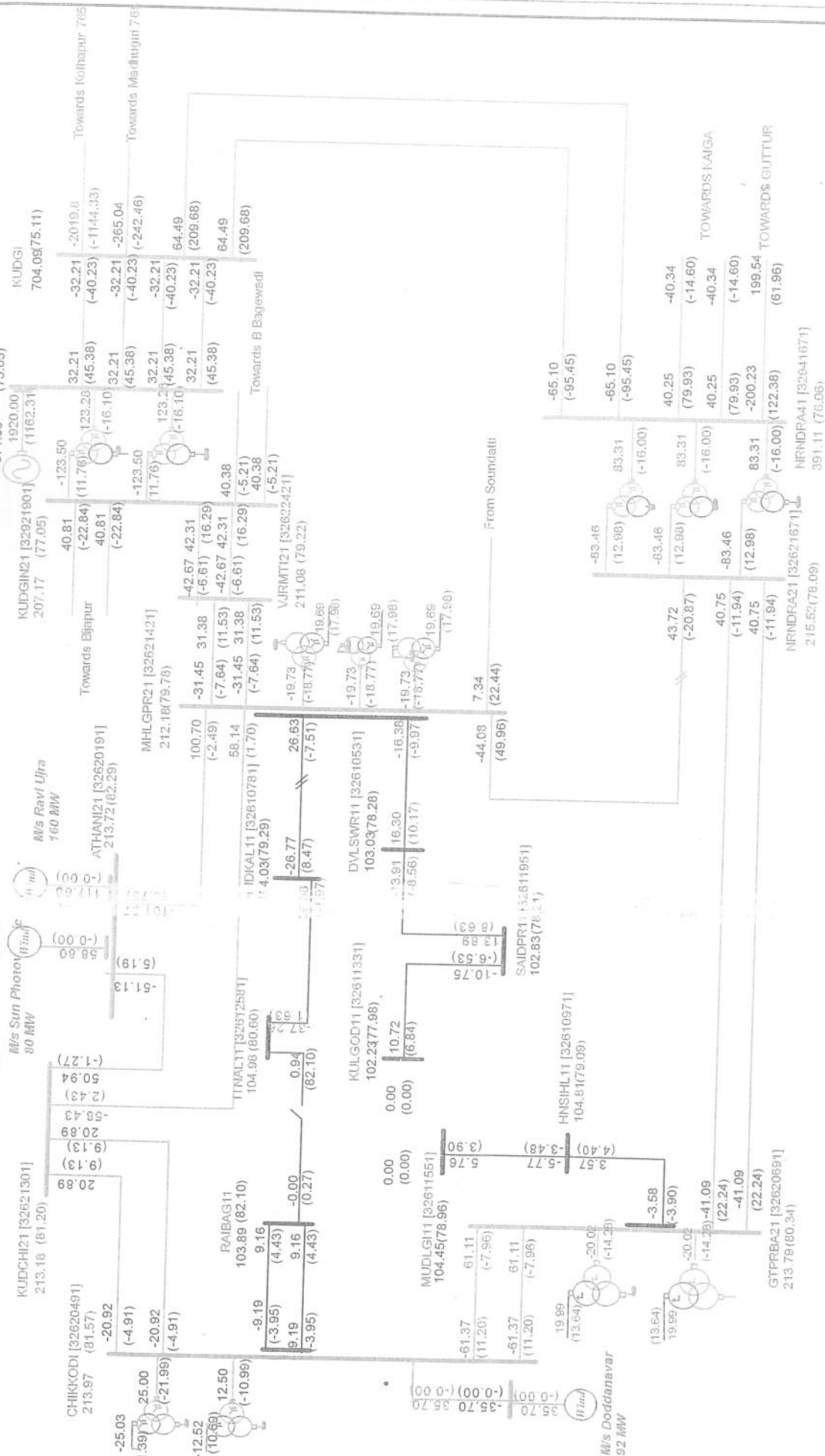
6	Establishing 2 x 500 MVA, 400/220 kV Sub station at Mughalkod in Raibag Taluk, Belgaum District	-	Dropped
7	Establishing 2 x 500 MVA, 400/220 kV Sub station at Jagalur in Jagalur Taluk, Davanagere District	48435.96	With additional 220 kV DC line to Chitradurga and 400/220 kV GIS instead of AIS
8	Construction of 220kV DC line for a length of 26kms from 220kV Bidnal substation to LILO one of the circuits of 220kV Narendra-Haveri DC line, in Haveri and Dharwad districts	1544.31	No change
9	Establishing 2x100MVA 220/66 kV and 1x12.5MVA 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district.	7467.69	With 220 kV DC line from proposed 400/220 kV CN Halli sub-station
	Total project cost	90619.28	

The power flow result for the above scheme is placed in the annexure.

Members may discuss and agree.

ESTABLISHING 220/110 KV SUB-STATION AT MUGHALKOD

Case 1: Without 220/110 KV Mughalkod s/s



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

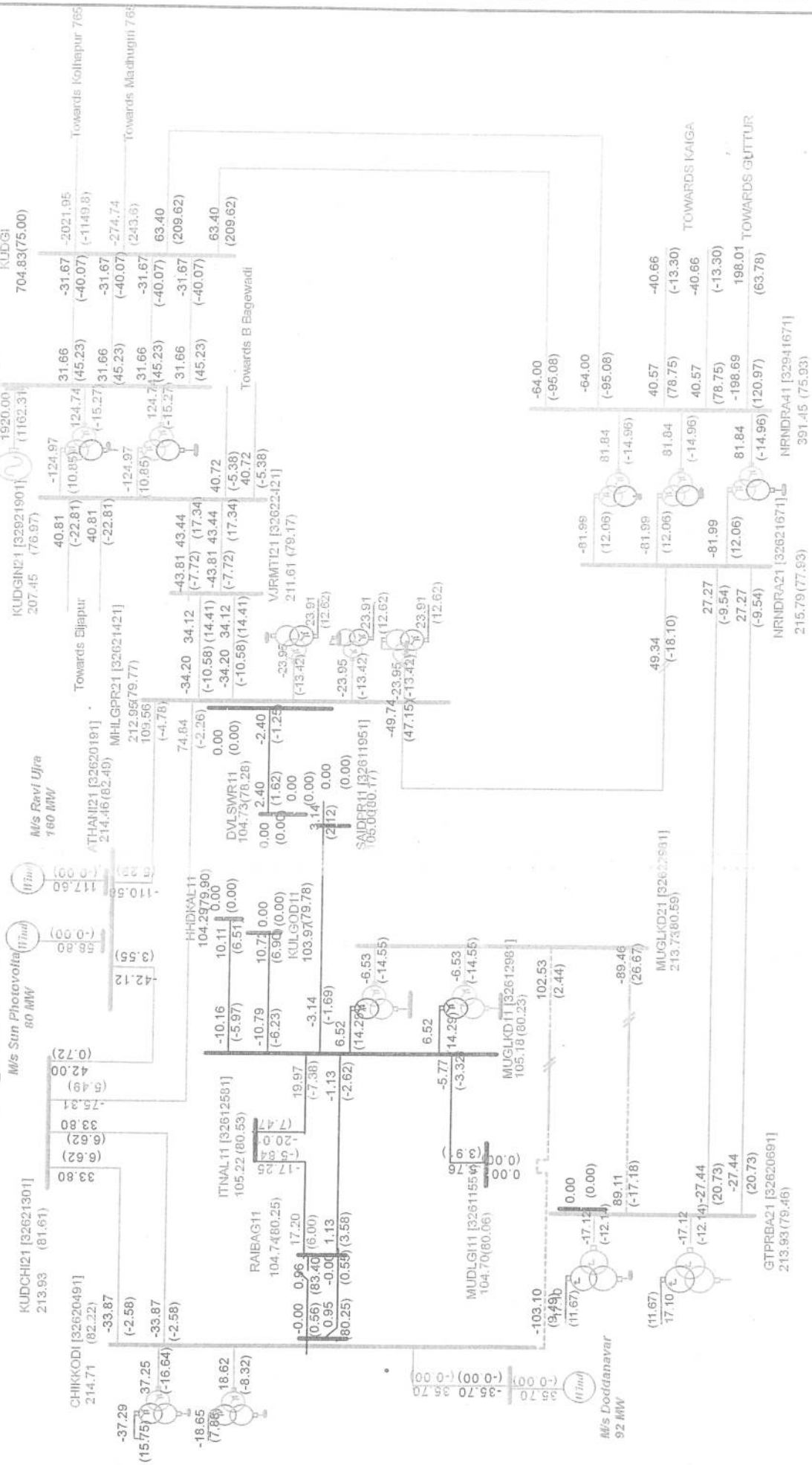
Office of the Chief Engineer, Electy, Planning & Co-ordination, KPTCL, Kaveri Bhavan, Bangalore

DESCRIPTION

Without 400/220/110KV Mughalkod with system light load for 2016-17

ESTABLISHING 220/110 KV SUB-STATION AT MUGHALKOD

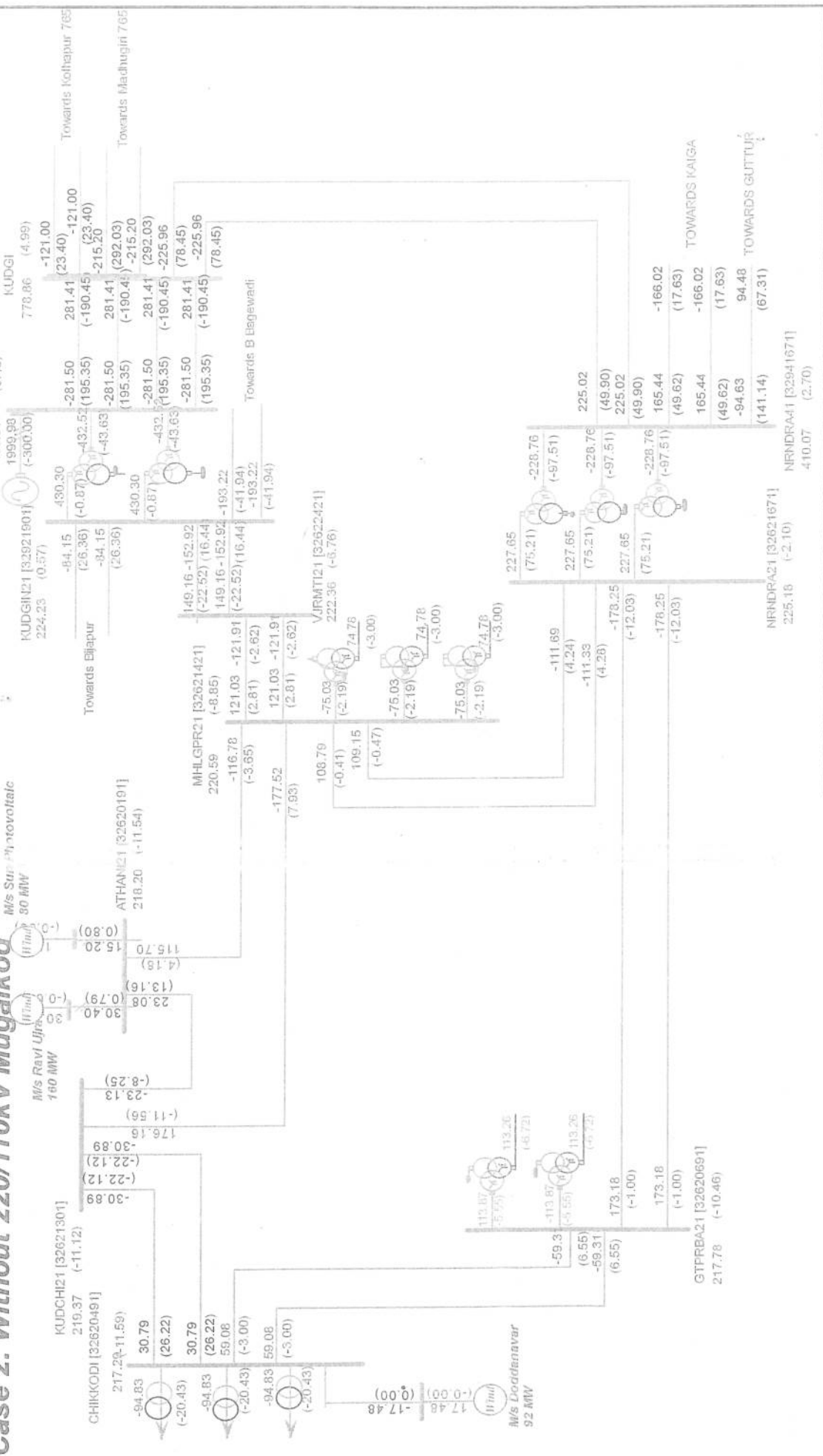
Case 1(A): With 220/110 kv Mughalkod s/s



DESCRIPTION	KARNATAKA POWER TRANSMISSION CORPORATION LIMITED
With 220/110KV Mughalkod with system light load for 2016-17	Office of the Chief Engineer, Electy, Planning & Co-ordination, KPTCL, Kaveri Bhavan, Bangalore

ESTABLISHING 220/110 kV SUB-STATION AT MUGHALKOD

Case 2: Without 220/110kV Mugalkod



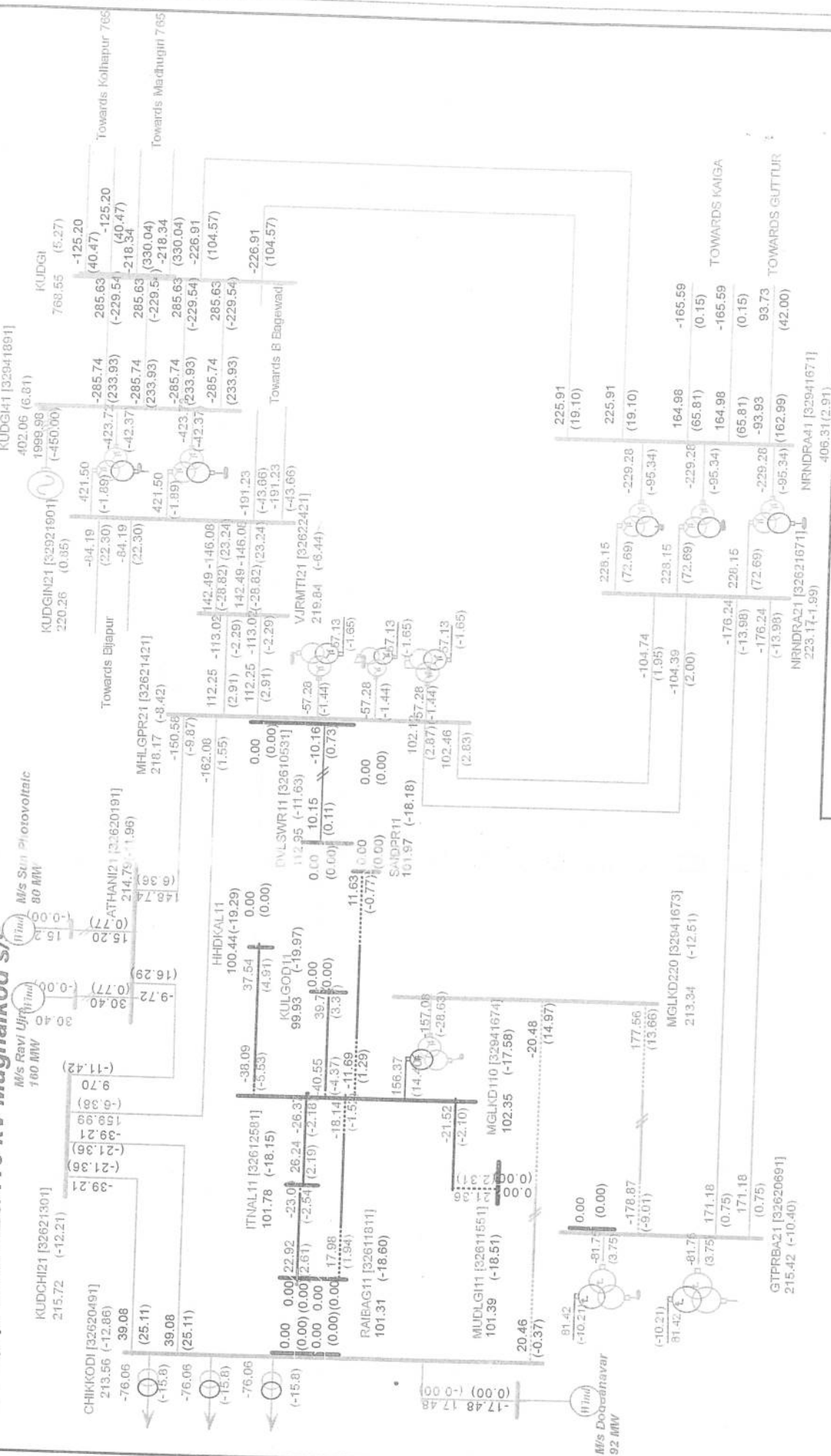


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Office of the Chief Engineer, Electy,
Planning & Co-ordination,
KPTCL, Kaveri Bhavan, Bangalore

ESTABLISHING 220/110 kV SUB-STATION AT MUGHALKOD

Case 2(A): With 220/110 kV Mughalkod s/s



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

Office of the Chief Engineer, Electy, Planning & Co-ordination, KPTCL, Kaveri Bhavan, Bangalore

DESCRIPTION

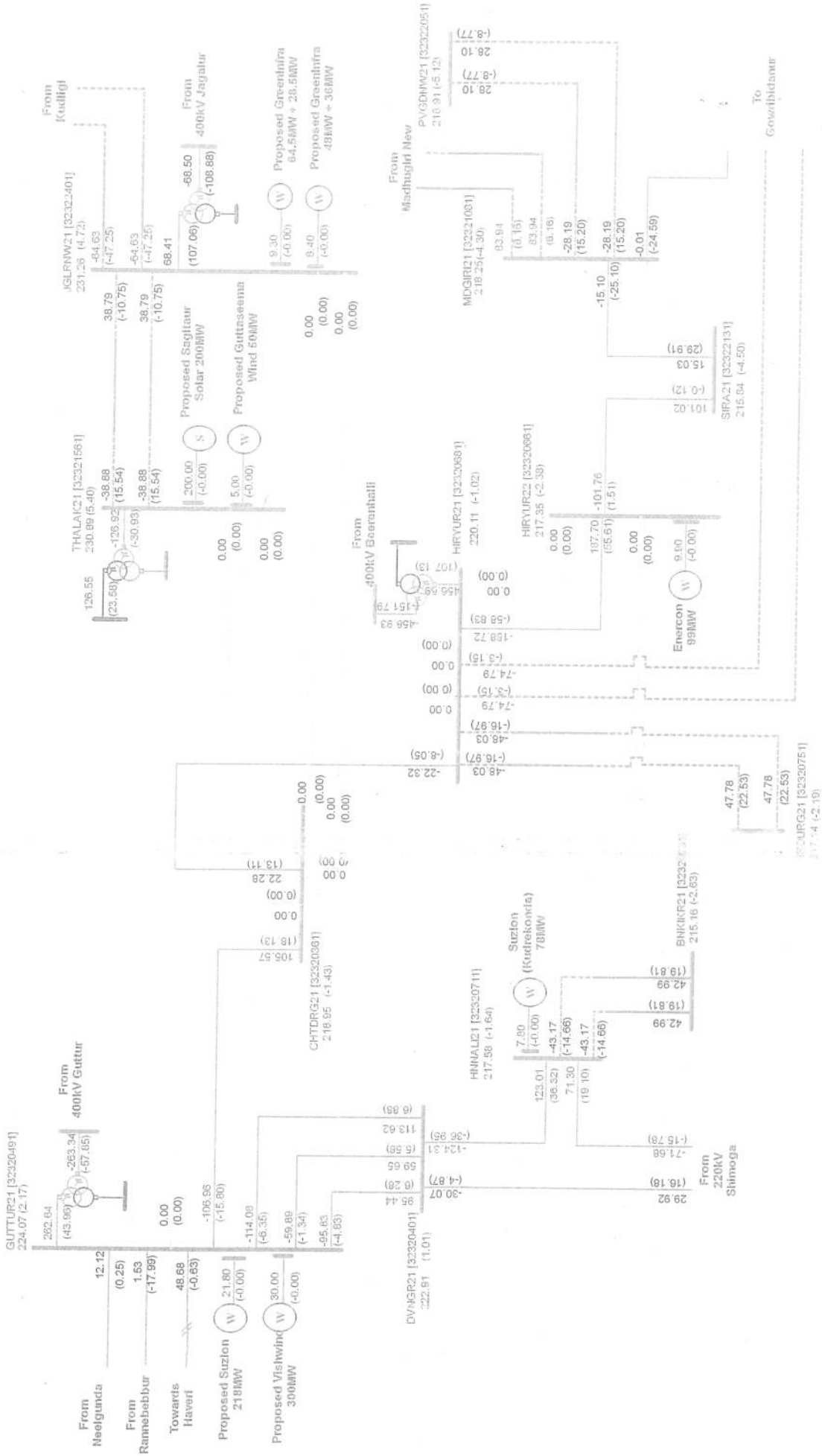
With 220/110 kV Mughalkod sub-station with System Peak Load for 2016-17

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

Office of the Chief Engineer, Electy, Planning & Co-ordination, KPTCL, Kaveri Bhavan, Bangalore

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

Case 1(A): Without proposed conversion of 220kV Guttur - Chitradurga - Hiriyur, with Chitradurga on Hiriyur.



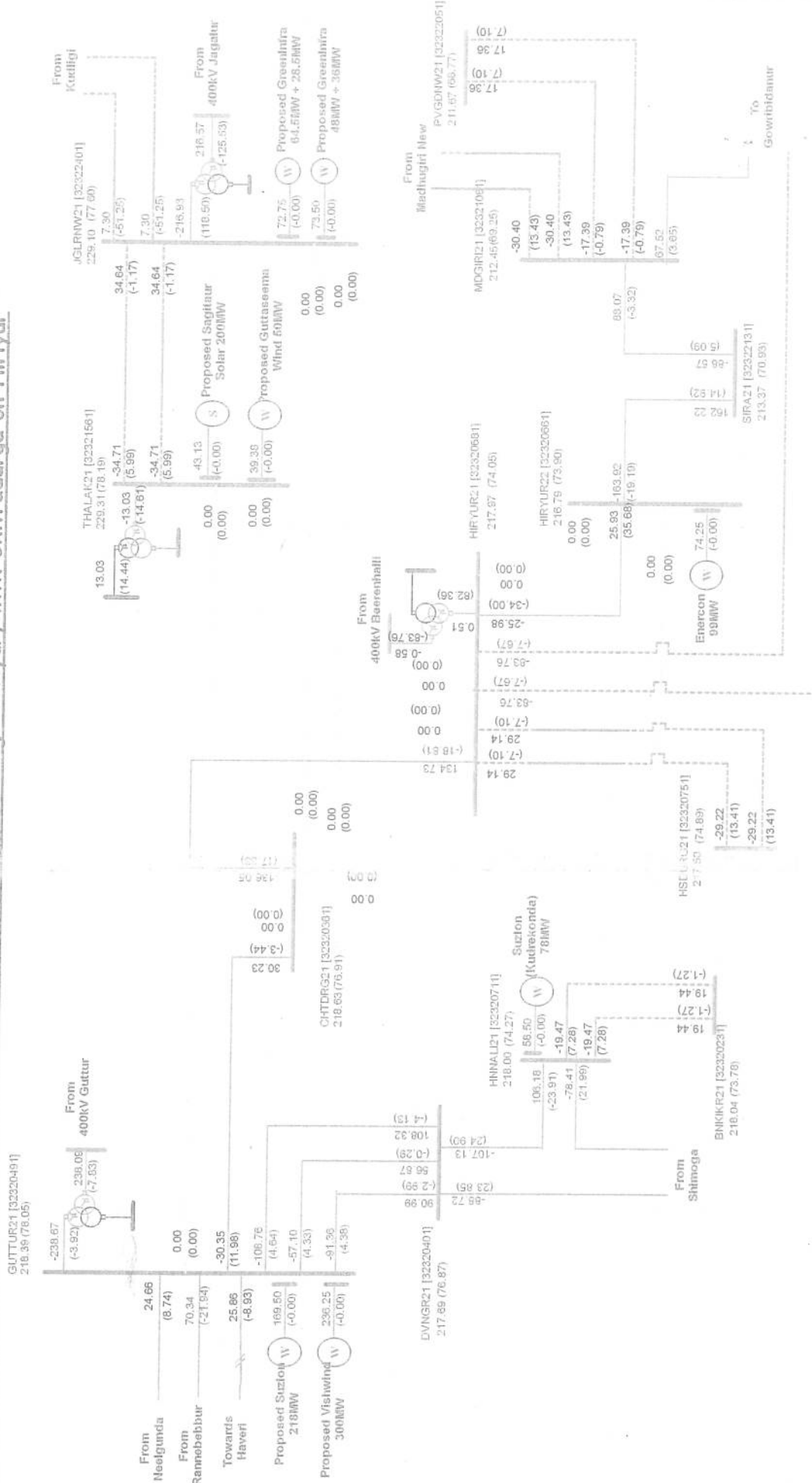
DESCRIPTION	Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur with system peak load for 2016-17


KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE

OFFICE OF THE CHIEF ENGINEER (ELECTRIC) PLANNING & CO-ORDINATION
KPTCL, KAVERI SHAVAN, BANGALORE-09.

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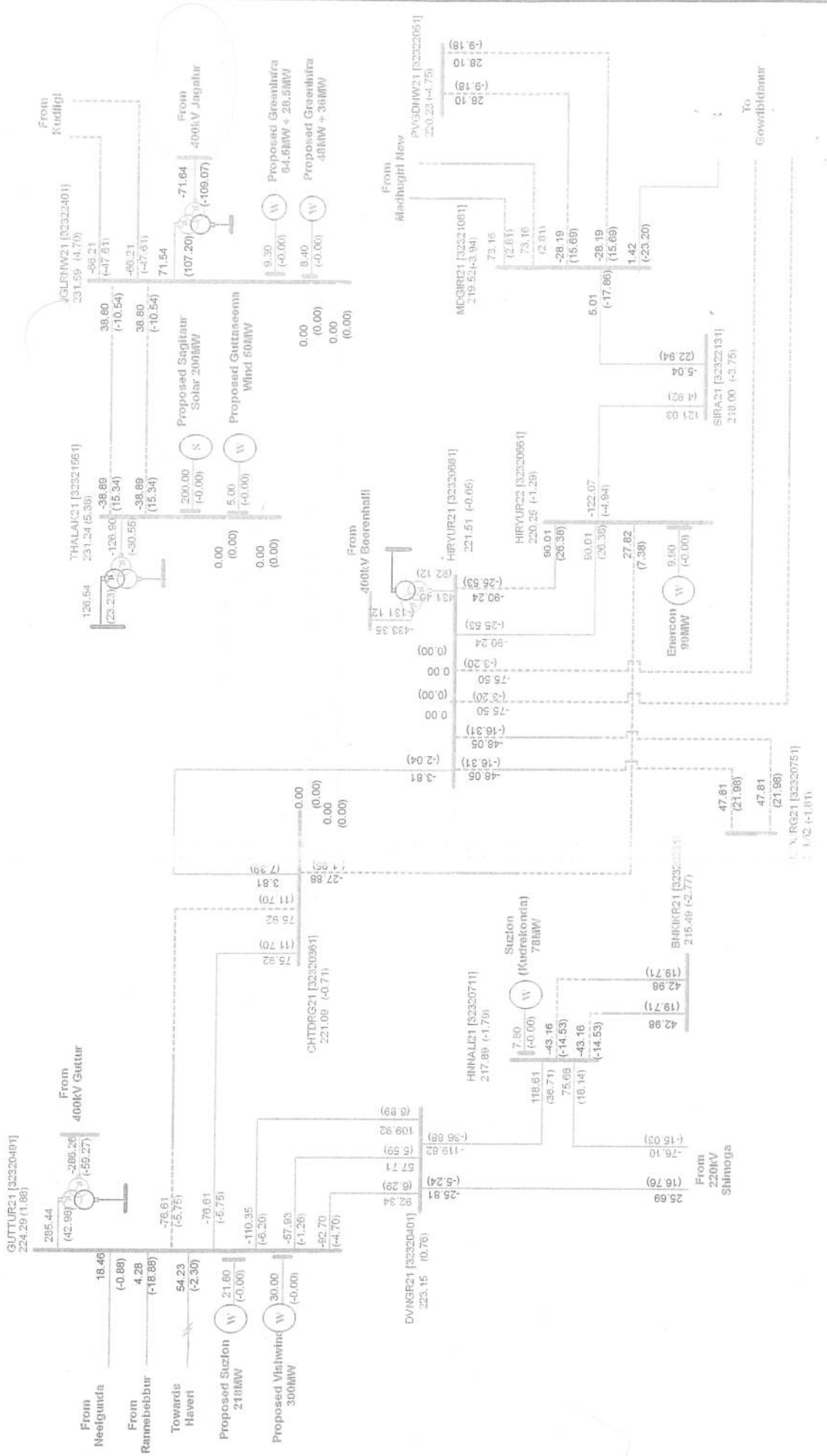
Case 1(B): Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Hiriyur



 <p>KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE</p>	<p>DESCRIPTION</p>
<p>OFFICE OF THE CHIEF ENGINEER (ELECTRICITY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.</p>	<p>Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system light load for 2016-17</p>

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

Case 2(A): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Hiriyur.



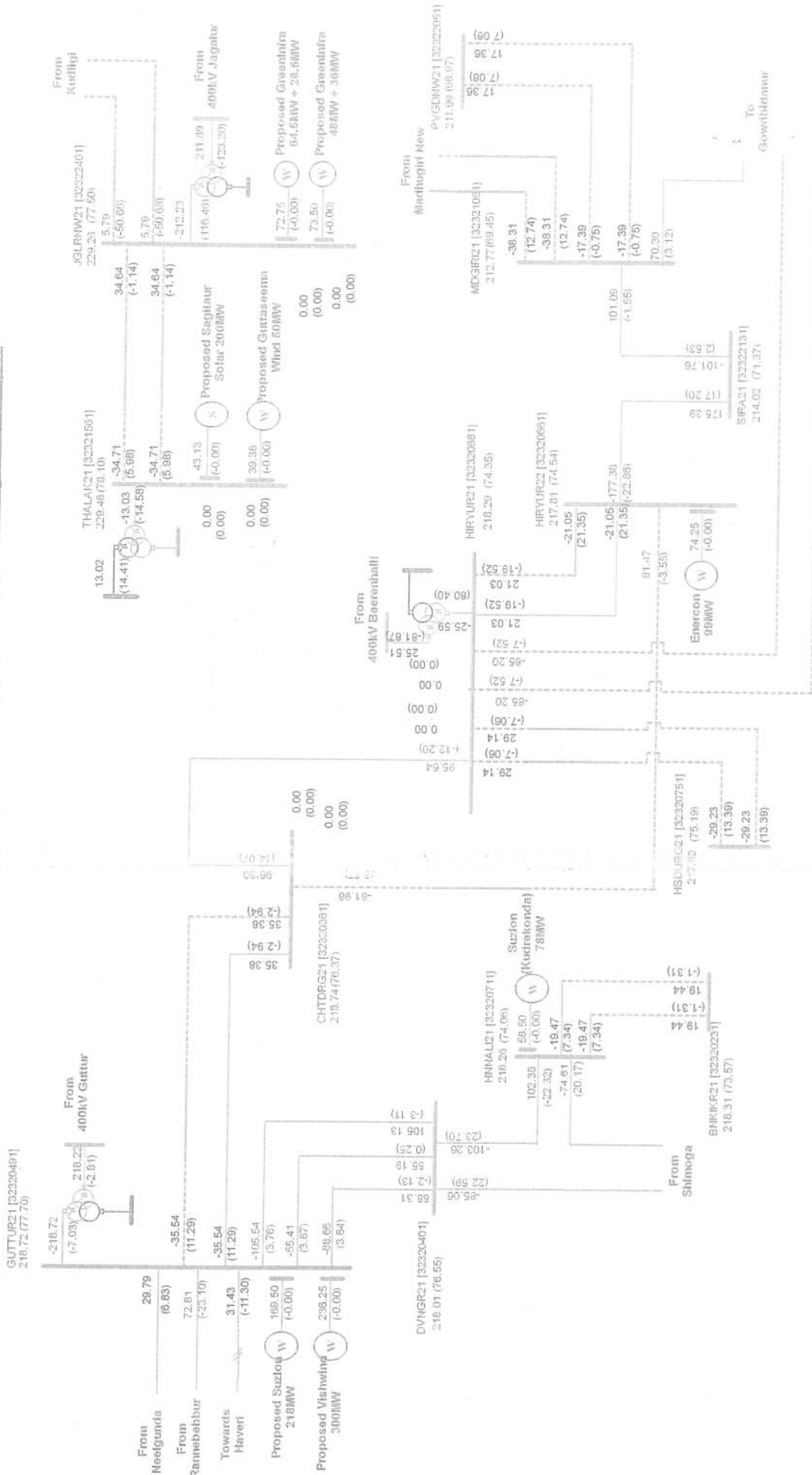
DESCRIPTION
With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system peak load for 2016-17

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Case 2(B): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Hiriyur



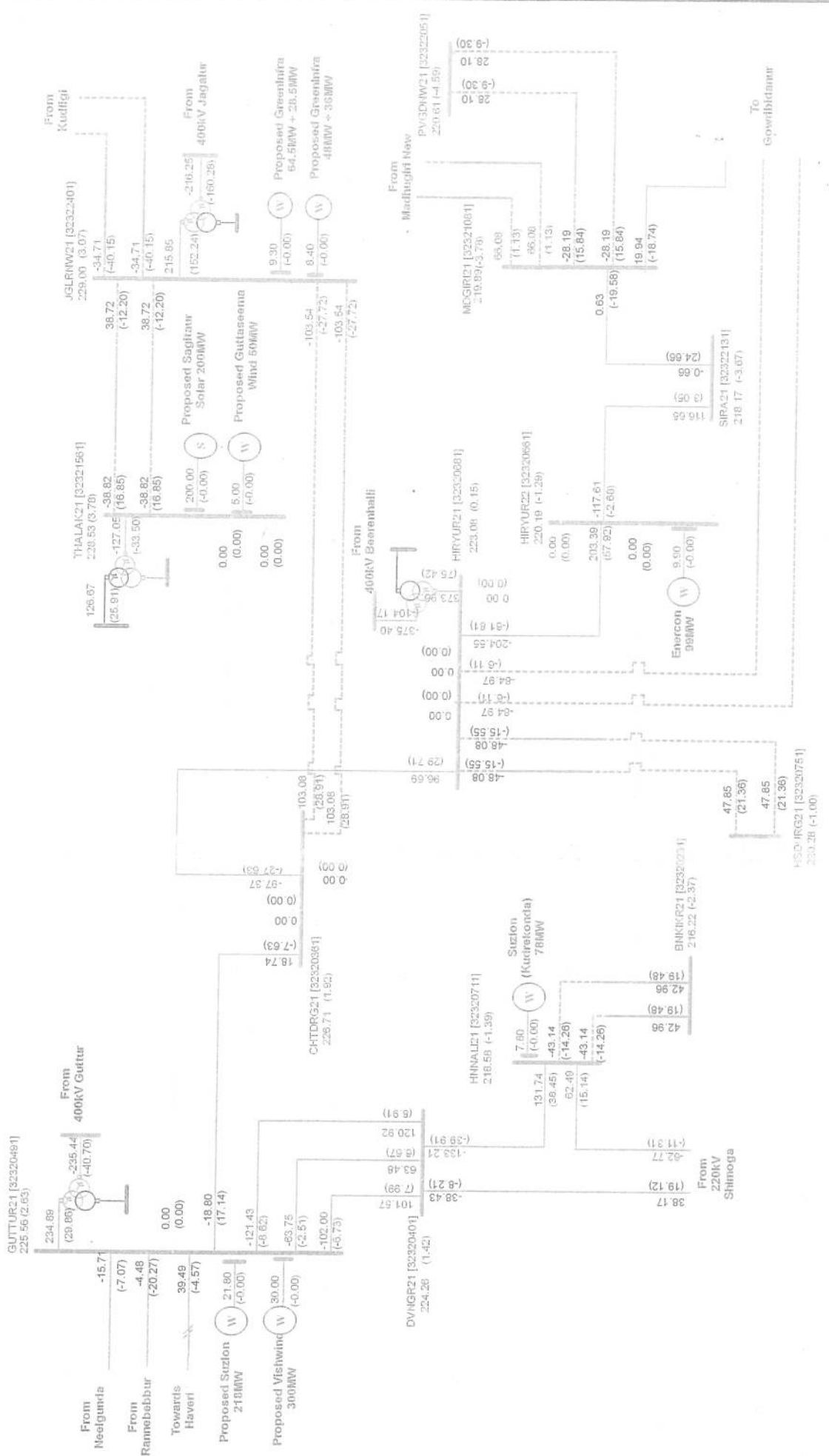
DESCRIPTION
With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system light load for 2016-17

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OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVARI BHAVAN, BANGALORE-09.

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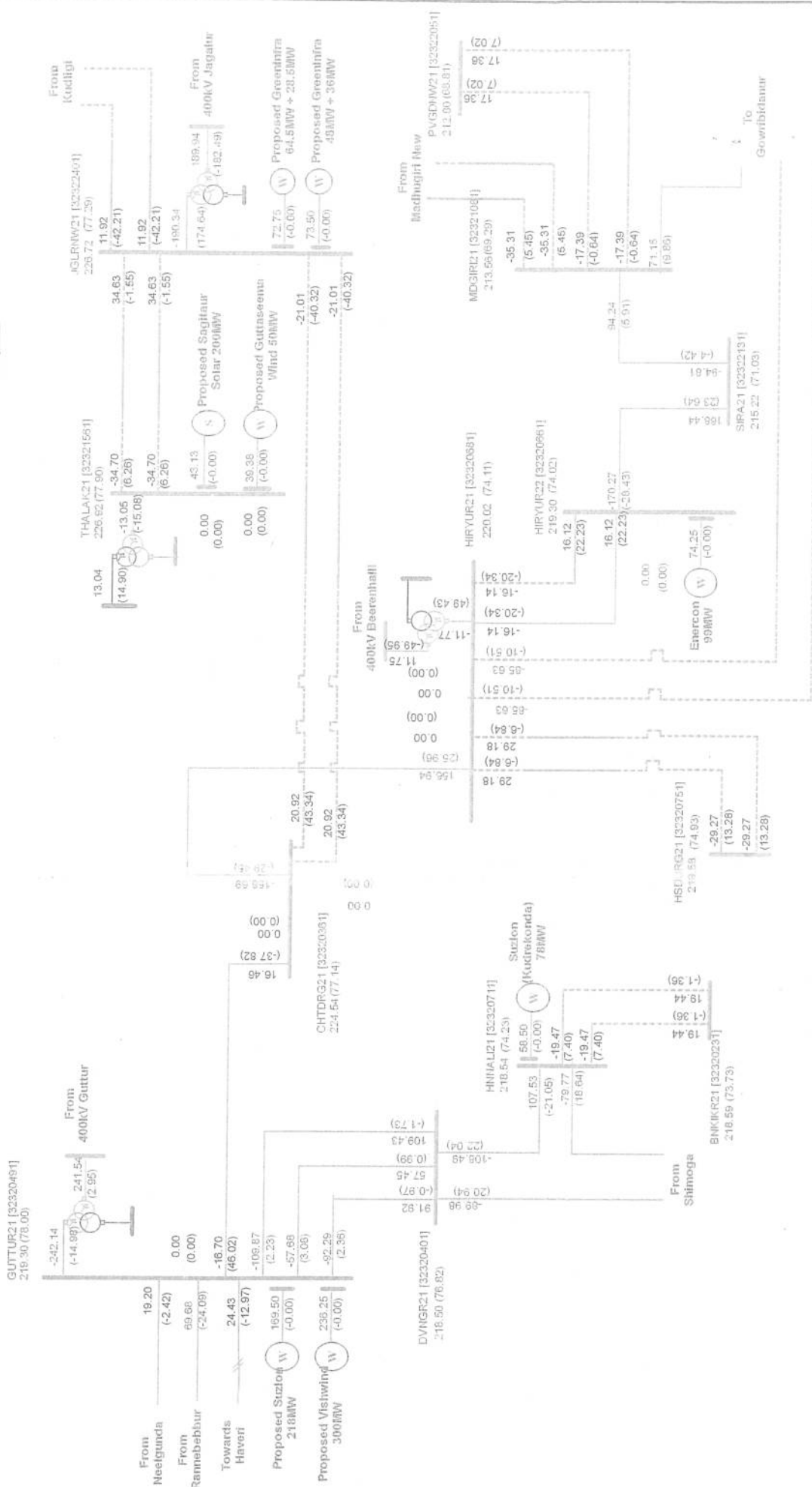
Case 3(A): Without proposed conversion of 220kV Guttur - Chitradurga - Hiriyur, with Chitradurga on Jagalur.



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE	DESCRIPTION
OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-08.	Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system peak load for 2016-17

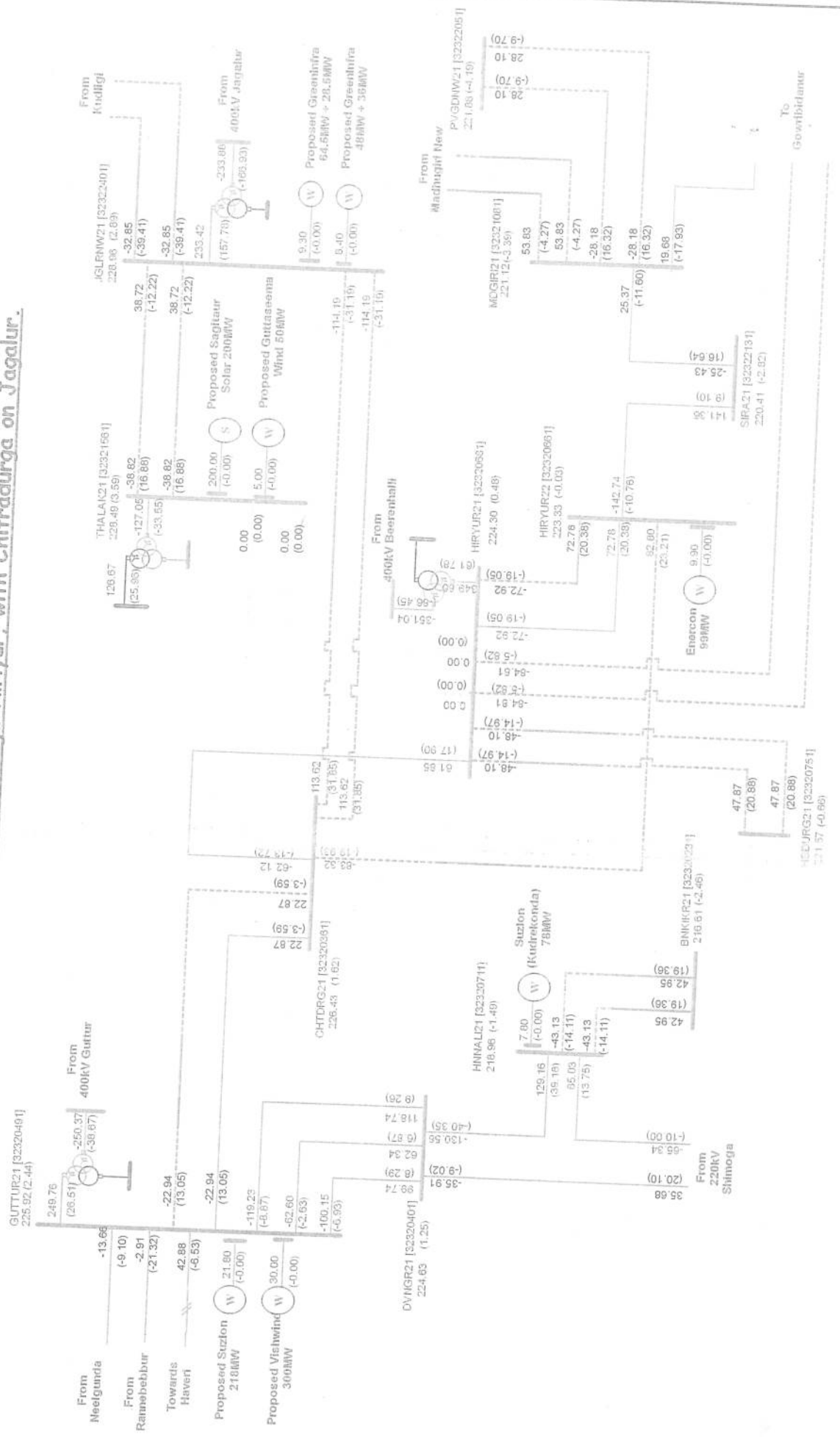
Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

Case 3(B): Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Hiriyur



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Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system light load for 2016-17	OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-06.

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.
Case 4(A): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Jagalur.



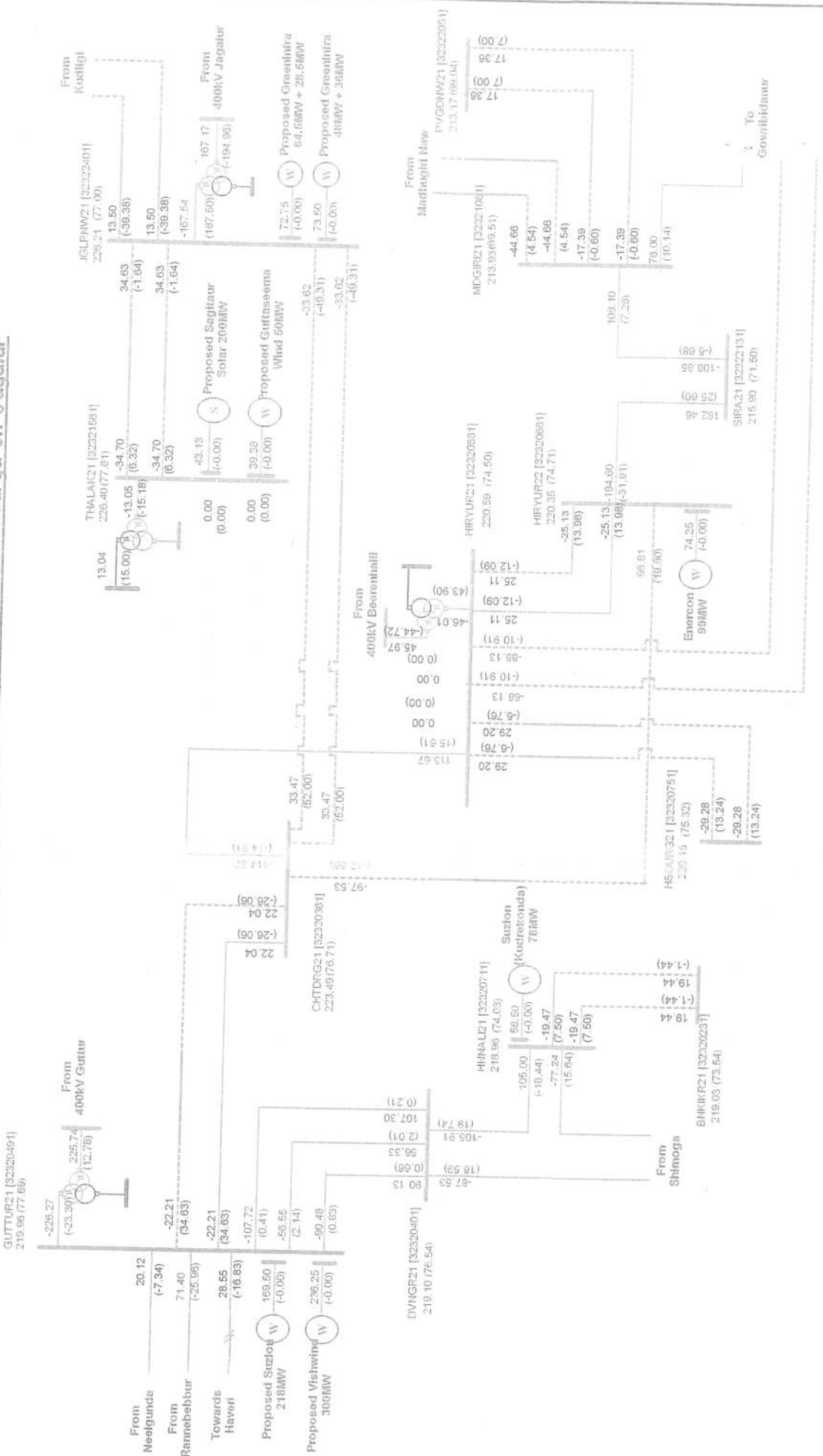
DESCRIPTION
Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system peak load for 2016-17

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OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.

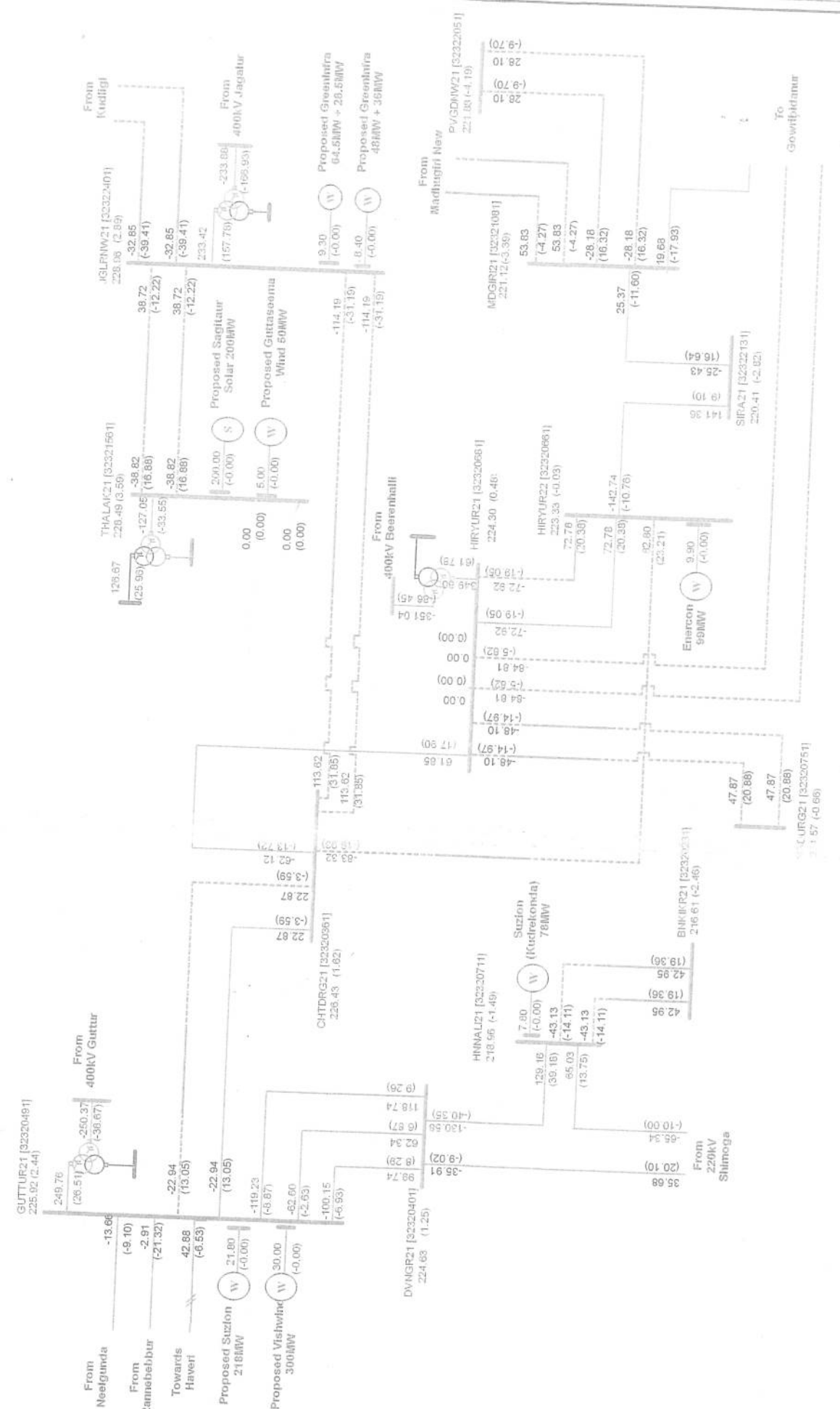
Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation

Case 4(B): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Jagalur



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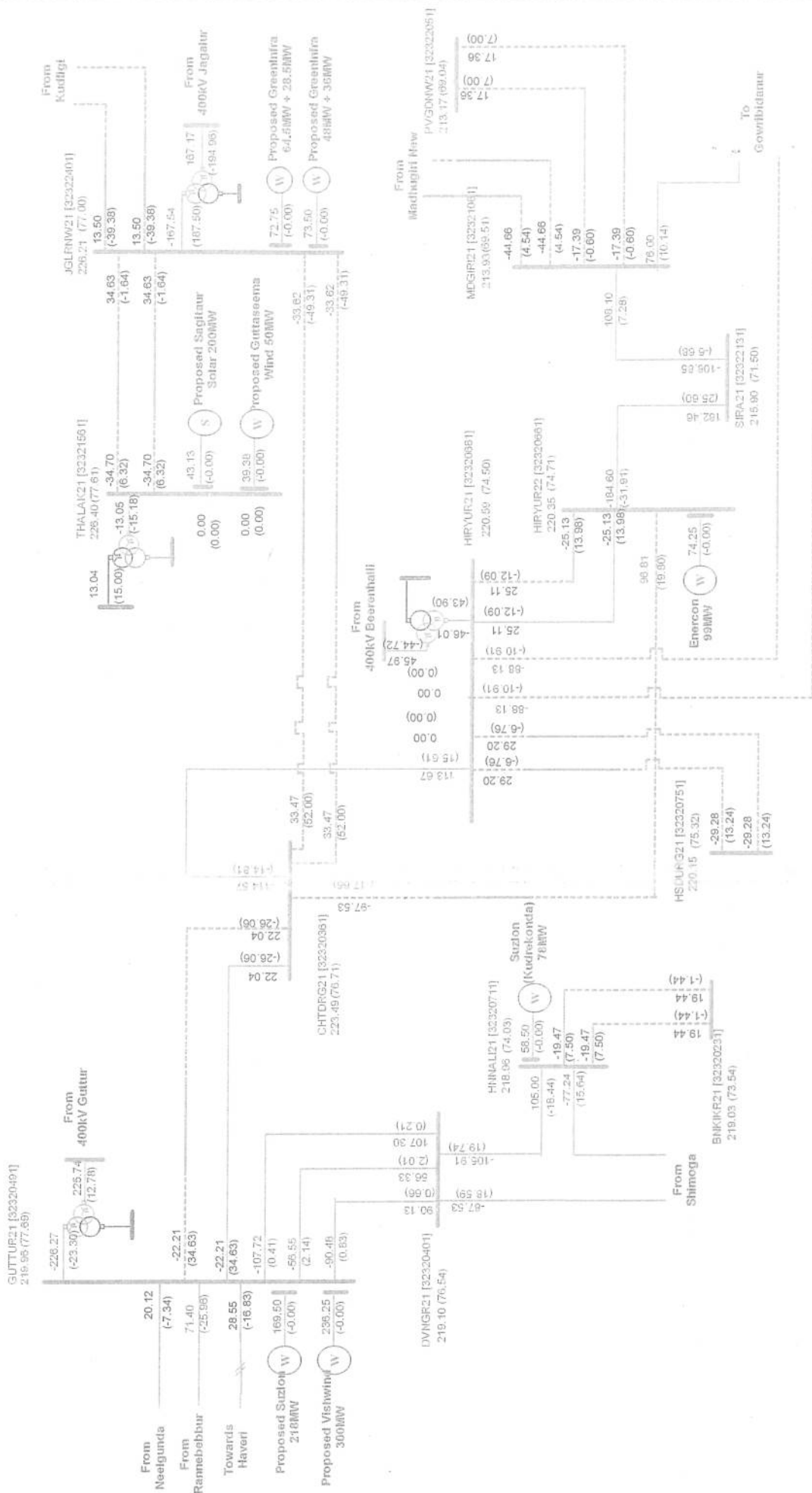
Power flow study results: Establishing 2X100 MVA, 220/66 kV substation at Hosadurga
Case 1: With 220/66kV Hosadurga substation fed radially from Hiriyur(PGCIL)



DESCRIPTION	KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE
With proposed 220kV lines with system peak load for 2016-17	OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVERIBHAVAN, BANGALORE-09.

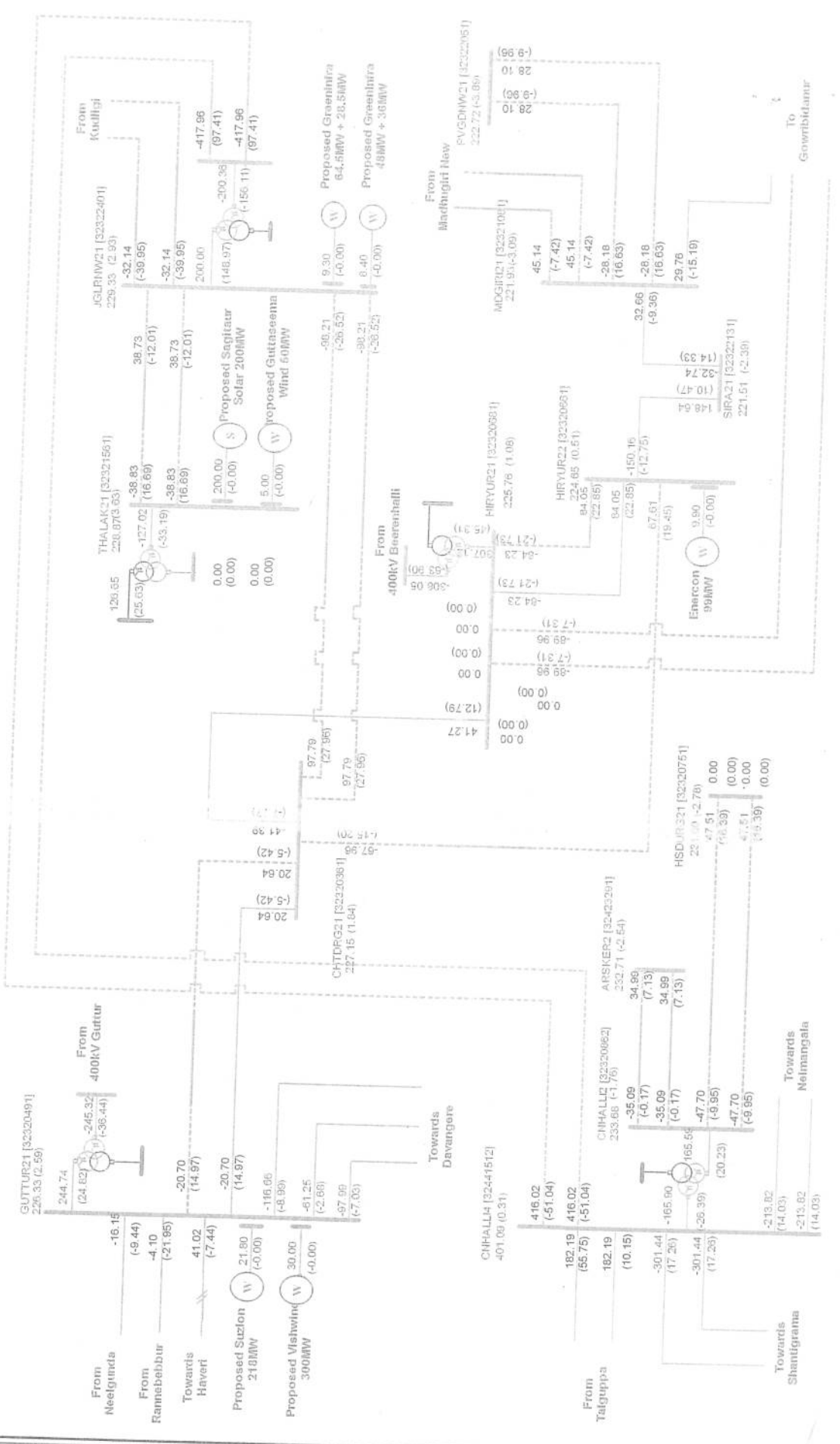
(17.25) (165.39) (0.00) (47.70) (74.95)

Power flow study results: Establishing 2X100MVA, 220/66kV substation at Hosadurga
Case 1(A): With 220/66kV Hosadurga fed radially from 400kV Hiriyur(PGCIL).



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With 220kV Hosadurga fed from 400kV Hiriyur with system light load for 2016-17	OFFICE OF THE CHIEF ENGINEER (ELECTRIC) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.

Power flow study results: Establishing 2X100 MVA, 220/66 kV substation at Hosodurga
Case 2: With 220kV DC line with Drake conductor from CN Halli to Hosodurga.



	KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE
With proposed 220/66kV Hosodurga with system peak load for 2016-17	OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-08.
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Date 11th March '2015

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11 3 MAR 2015

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Chief Engineer Electy.,

(Planning & Co-ordination)

Copy to:

1. The Director(SP&PA), Central Electricity Authority, Sewa Bhavan, RK Puram, New Delhi-110066.
2. The Chief Engineer (SP&PA), Central Electricity Authority, Sewa Bhavan, RK Puram, New Delhi-110066.
3. C.O.O (CTU), PGCIL, Saudamini, Plot No.2, Sector 29, Gurgaon-122001.
4. E.A to Director (Transmission), KPTCL, Kaveri Bhavan, Bangalore to place it before The Director (Transmission).
5. P.S to The Chairperson, CEA, to place it before The Chairperson, CEA.

12/08/2014
A.P.P.

2

AGENDA

Sub: Modifications in proposed transmission schemes to be taken up under Green Energy Corridor for KfW funding

KPTCL had proposed the following transmission schemes for RE projects to be taken up for KfW funding for DPR cost of Rs10960 Millions.

SI No	DETAILS OF SCHEMES AS FURNISHED IN DPR SENT TO SP&PA DIVISION CEA	Rs in Lakhs
1	Establishing 2 x 500 MVA, 400/ 220 kV Sub station at Gadag(Doni) in Mundaragi Taluk, Gadag District	13249.28
2	Construction of 220 kV DC line from 400/220kV Guttur sub station to 220/66/11kV Chitradurga sub station in Chitradurga Dist in existing corridor	6564.40
3	Construction of 220 kV SC line from 400kV Hiriyyur (PGCIL) sub station to 220/66/11kV Hiriyyur sub station and Construction of 220kV DC line from 220/66/11kV Chitradurga sub station to 220/66/11kV Hiriyyur sub station in existing corridor in Chitradurga District	3272.01
4	Establishing 2x100MVA, 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	9400.91
5	Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District	4849.12

2

AGENDA

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3	Construction of 220 kV SC line from 400kV Hiriyur (PGCIL) sub station to 220/66/11kV Hiriyur sub station and Construction of 220kV DC line from 220/66/11kV Chitradurga sub station to 220/66/11kV Hiriyur sub station in existing corridor in Chitradurga District	3272.01
4	Establishing 2x100MVA, 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	9400.91
5	Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District	4849.12

6	Establishing 2 x 500 MVA, 400/220 kV Sub station at Mughalkod in Raibag Taluk, Belgaum District	32961.65
7	Establishing 2 x 500 MVA, 400/220 kV Sub station at Jagalur in Jagalur Taluk, Davanagere District	30290.64
8	Construction of 220kV DC line for a length of 26kms from 220kV Bidnal substation to LILO one of the circuits of 220kV Narendra-Haveri DC line, in Haveri and Dharwad districts	1544.31
9	Establishing 2x100MVA 220/66 kV and 1x12.5MVA 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district.	7467.69
	Total project cost	109600.00

The above schemes have undergone certain change as explained hereunder.

The proposal of establishing 2 x 500 MVA, 400/220 kV sub-station at Mughalkod along with associated lines was dropped for the time being since the wind generation in and around Mughalkod which are stepped up at 220 kV or below voltage level can be evacuated and transmitted to load centres in that area in Karnataka on 220 kV level itself. This is as per the communication vide letter 54/1/2014-SP&PA/2056-57 dated 7th November, 2014.

Consequent to the 400/220 kV Mughalkod sub-station being deferred, the transmission scheme for 220 kV Mughalkod sub-station needs to be revised. KPTCL has proposed to LILO the 220 kV DC line between 220/110 kV Chikkodi and Ghataprabha sub-station at proposed 220/110 kV Mughalkod and the 110 kV connectivity from Mughalkod remains unaltered.

Further, due to problems in execution of work in view of RoW issues in case of establishing 220/66 kV sub-station at Hosadurga by constructing 220 kV DC line from 400/220 kV Hiriyur sub-station, the transmission scheme is revised. The incoming lines to 220/66 kV Hosadurga is proposed from 400 kV Chikkanayakanahalli switching station by creating 220 kV reference. It may be noted that 400 kV switching station at Chikkanayakanahalli is already approved in the evacuation scheme of YTPS. Now it is proposed to establish 1 X 500 MVA,

400/220 kV sub-station at Chikkanayakanahalli with 220 kV DC line to proposed 220/66 kV Hosadurga sub-station.

Earlier, 2 X 500 MVA,400/220 kV Jagalur sub-station was approved with 220 kV DC lines to 220/66 kV Thallak and Kudligi sub-stations. Since 220 kV Chitradurga has a wind potential of about 250 MW connected to the downstream network, it is proposed to link Chitradurga to Jagalur through 220 kV DC line . In view of this additional link from Jagalur to Chitradurga, the approved work of conversion of 220 kV SC to DC line between Guttur and Chitradurga may be dropped. Further the proposed 2 X 500 MVA, 400/220 Kv SUB-STATION AT Jagalur is proposed to be a GIS instead of AIS due to constraints in land acquisition.

Accordingly, KPTCL had requested for review of the transmission projects proposed under Green Energy Corridor to be taken up for KfW funding. The revised proposals are as follows. The power flow result for the above scheme is placed in the annexure.

Sl No	DETAILS OF SCHEMES AS REVISED IN DPR		
		Rs in Lakhs	Remarks
1	Establishing 2 x 500 MVA, 400/ 220 kV Sub station at Gadag(Doni) in Mundaragi Taluk, Gadag District	13249.28	No change
2	Construction of 220 kV DC line from 400/220kV Guttur sub station to 220/66/11kV Chitradurga sub station in Chitradurga Dist in existing corridor	-	Dropped
3	Construction of 220 kV SC line from 400kV Hiriyur (PGCIL) sub station to 220/66/11kV Hiriyur sub station and Construction of 220kV DC line from 220/66/11kV Chitradurga sub station to 220/66/11kV Hiriyur sub station in existing corridor in Chitradurga District	3272.01	No change
4	Establishing 2x100MVA, 220/66 kV and 1x8MVA 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	9400.91	No change
5	Establishing 2 x 100 MVA, 220/110 KV & 1x10 MVA, 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District	7249.12	With 220 kV DC LILO of Chikkodi – Ghataprabha line

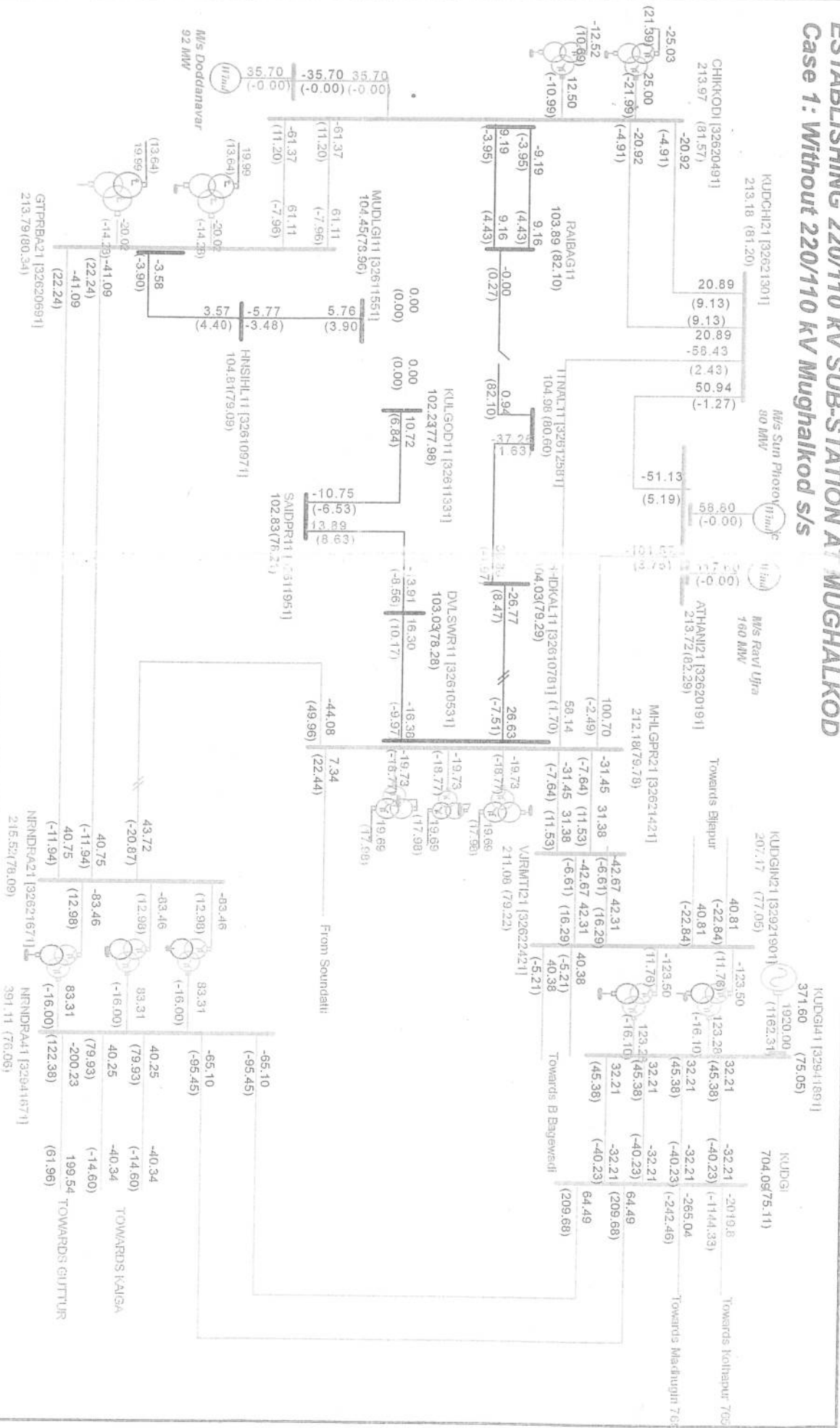
6	Establishing 2 x 500 MVA, 400/220 kV Sub station at Mughalkod in Raibag Taluk, Belgaum District	-	Dropped
7	Establishing 2 x 500 MVA, 400/220 kV Sub station at Jagalur in Jagalur Taluk, Davanagere District	48435.96	With additional 220 kV DC line to Chitradurga and 400/220 kV GIS instead of AIS
8	Construction of 220kV DC line for a length of 26kms from 220kV Bidnal substation to LILO one of the circuits of 220kV Narendra-Haveri DC line, in Haveri and Dharwad districts	1544.31	No change
9	Establishing 2x100MVA 220/66 kV and 1x12.5MVA 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district.	7467.69	With 220 kV DC line from proposed 400/220 kV CN Halli sub-station
Total project cost		90619.28	

The power flow result for the above scheme is placed in the annexure.

Members may discuss and agree.

ESTABLISHING 220/110 KV SUB-STATION AT MUGHALKOD

Case 1: Without 220/110 kv Mughalkod s/s



DESCRIPTION

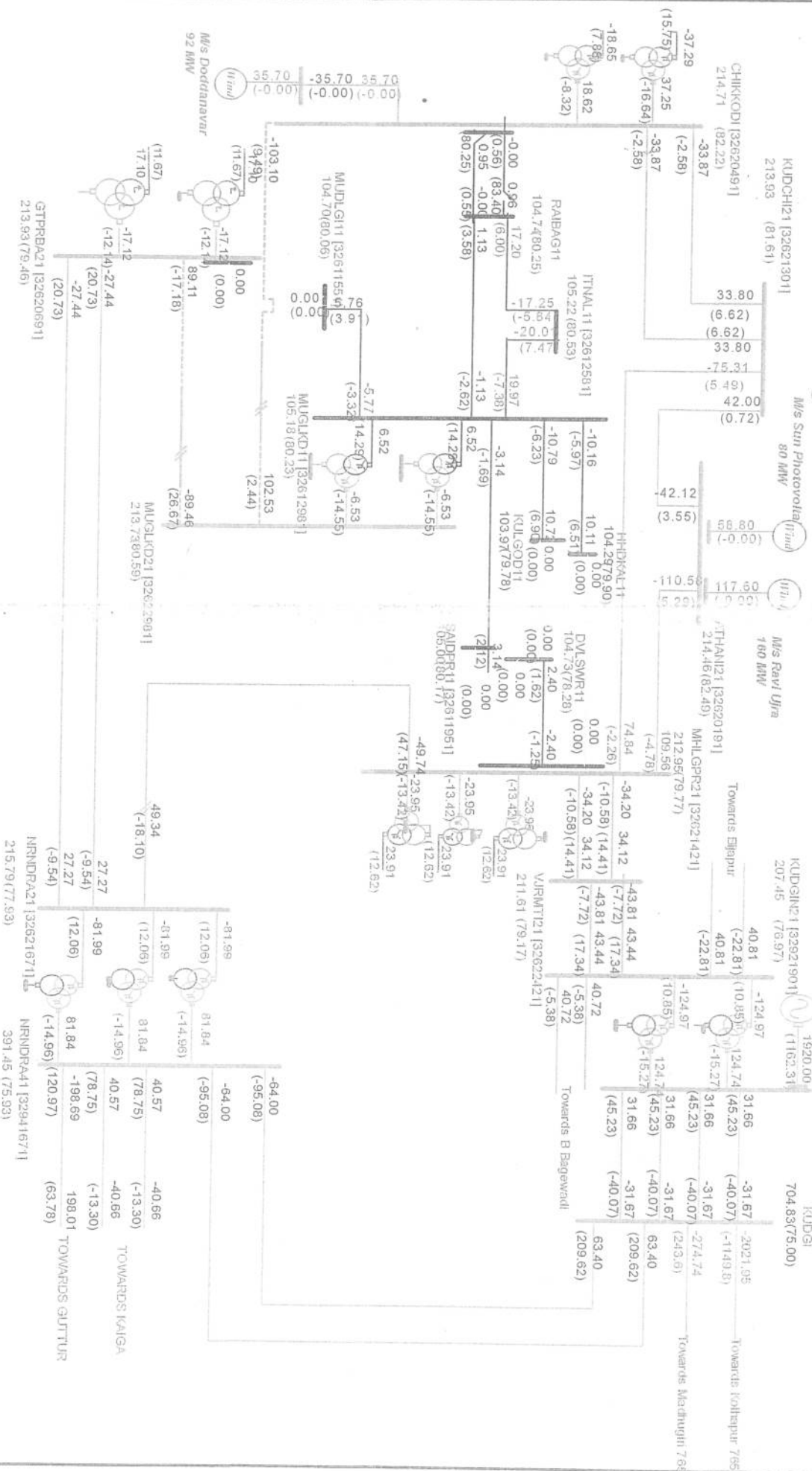
Without 400/220/110KV Mughalkod with system light load for 2016-17



Office of the Chief Engineer, Electy, Planning & Co-ordination, KPTCL, Kaveri Bhavan, Bangalore

ESTABLISHING 220/110 KV SUB-STATION AT MUGHALKOD

Case 1(A): With 220/110 KV Mughalkod s/s



With 220/110KV Mughalkod
with system light load for 2016-17

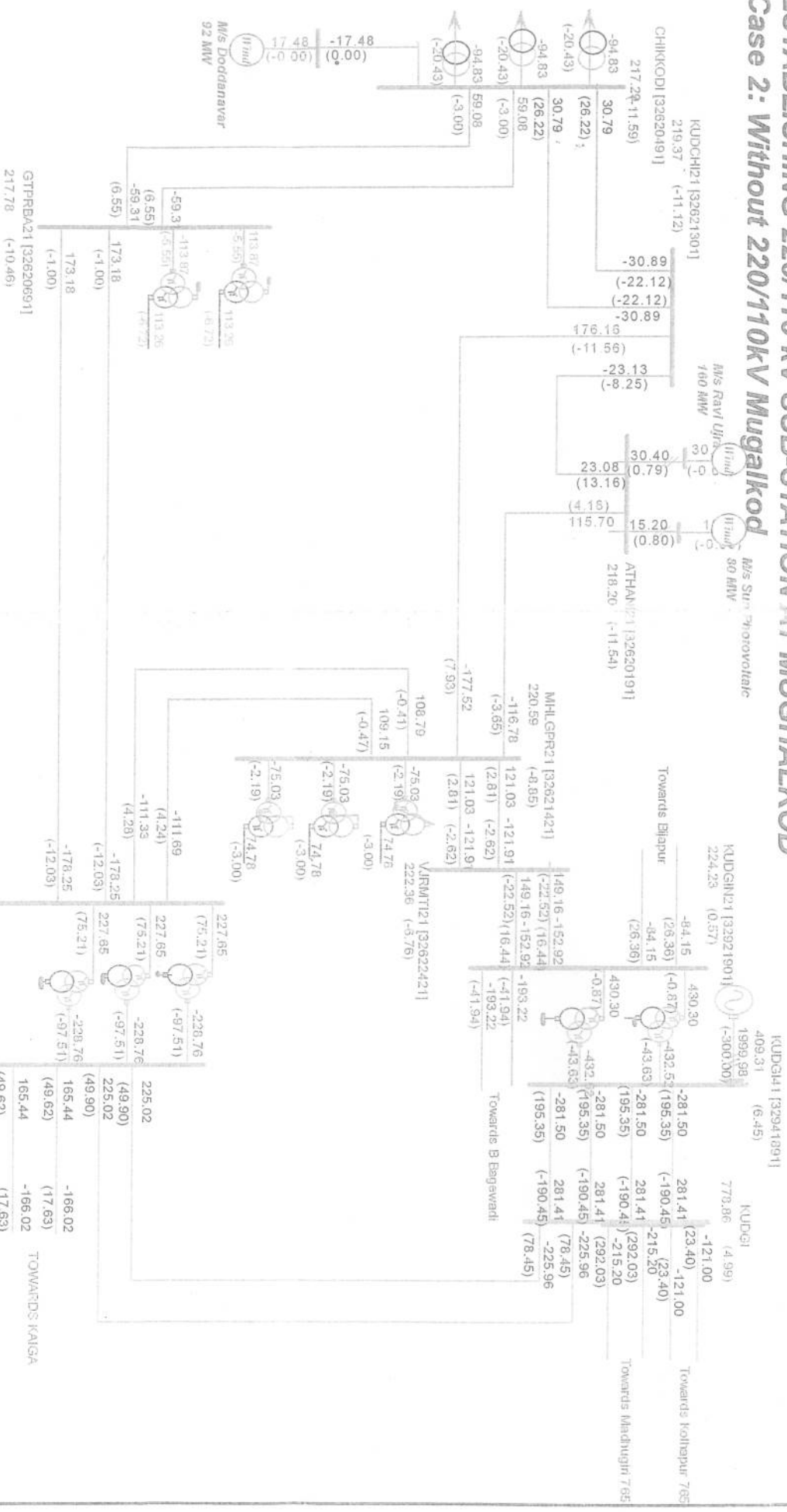


KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

Office of the Chief Engineer, Electy,
Planning & Co-ordination,
KPTCL, Kaveri Bhavan, Bangalore

ESTABLISHING 220/110 KV SUB-STATION AT MUGHALKOD

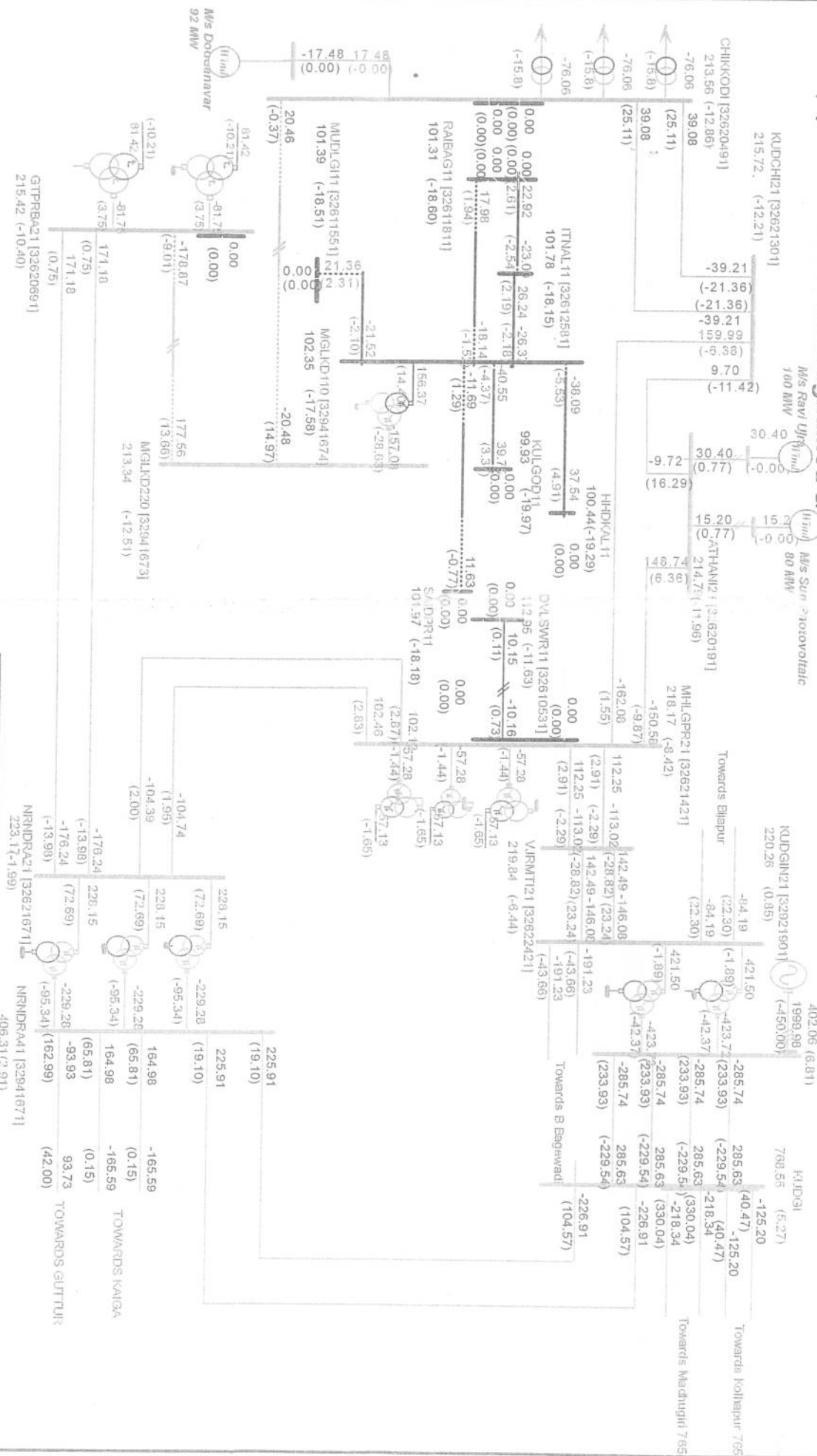
Case 2: Without 220/110KV Mugaikod



DESCRIPTION	 KARNATAKA POWER TRANSMISSION CORPORATION LIMITED
Without 400/220/110KV Mugaikod with System Peak Load for 2016-17	Office of the Chief Engineer, Electy, Planning & Co-ordination, KPTEL, Kaveri Bhavan, Bangalore

ESTABLISHING 220/110 KV SUB-STATION AT MUGHALKOD

Case 2(A): With 220/110 KV Mughalkod s/s



DESCRIPTION

With 220/110 KV Mughalkod sub-station
with System Peak Load for 2016-17

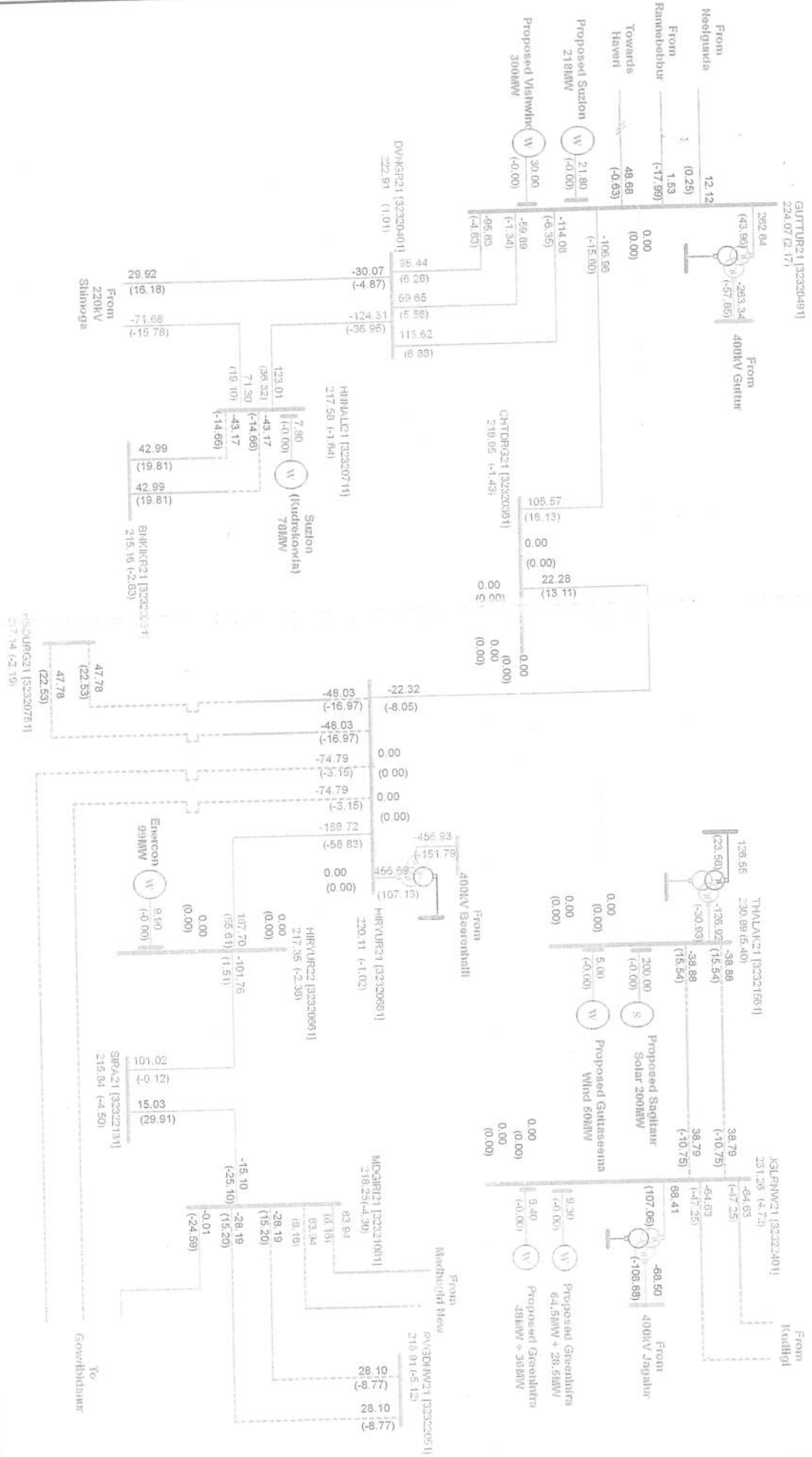
KARNATAKA POWER TRANSMISSION CORPORATION LIMITED



Office of the Chief Engineer, Electy,
Planning & Co-ordination,
KPTCL, Kaveri Bhavan, Bangalore

Load flow study results: Construction of 220KV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220KV Jagalur substation.

Case 1(A): Without proposed conversion of 220KV Guttur - Chitradurga-Hiriyur, with Chitradurga on Hiriyur.



DESCRIPTION

Without proposed conversion of 220KV Guttur-Chitradurga-Hiriyur, with system peak load for 2016-17

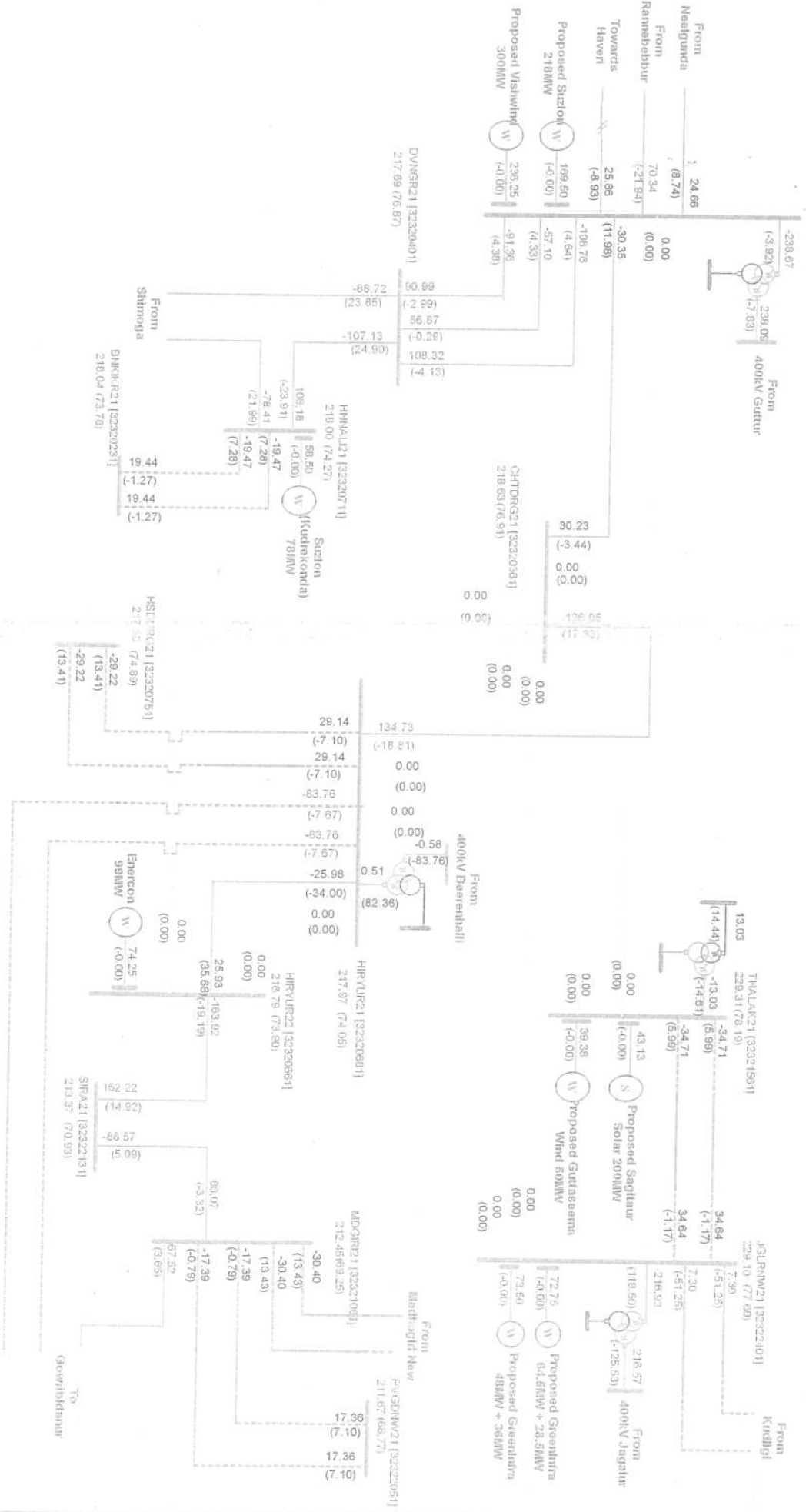


KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE

OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

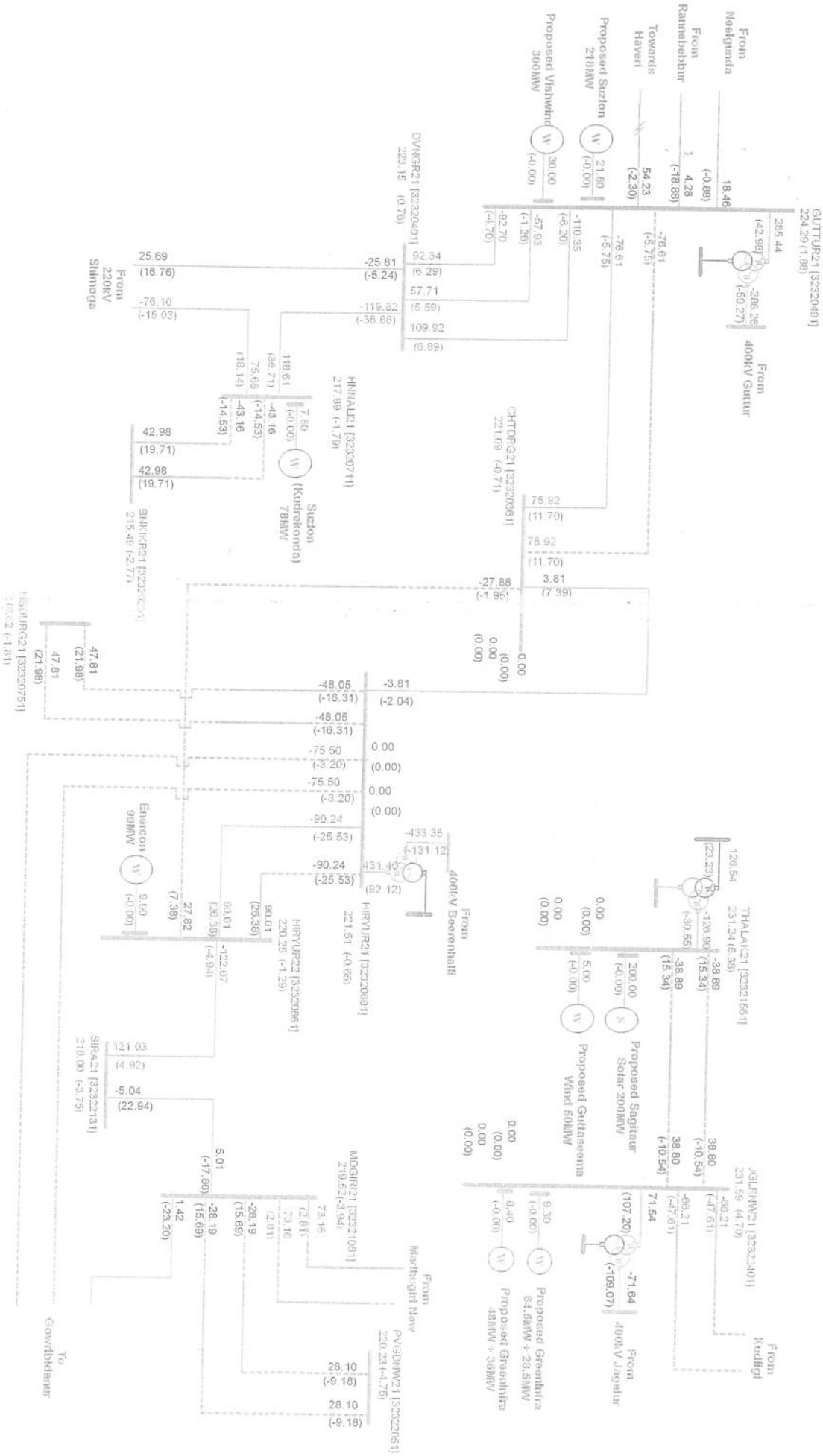
Case 1(B): Without proposed conversion of 220kV Gutter - Chitradurga-Hiriyur, with Chitradurga on Hiriyur



DESCRIPTION	
Without proposed conversion of 220kV Gutter-Chitradurga-Hiriyur, with system light load for 2016-17	
KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE	
OFFICE OF THE CHIEF ENGINEER (ELECTRICITY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.	

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

Case 2(A): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Hiriyur.



DESCRIPTION

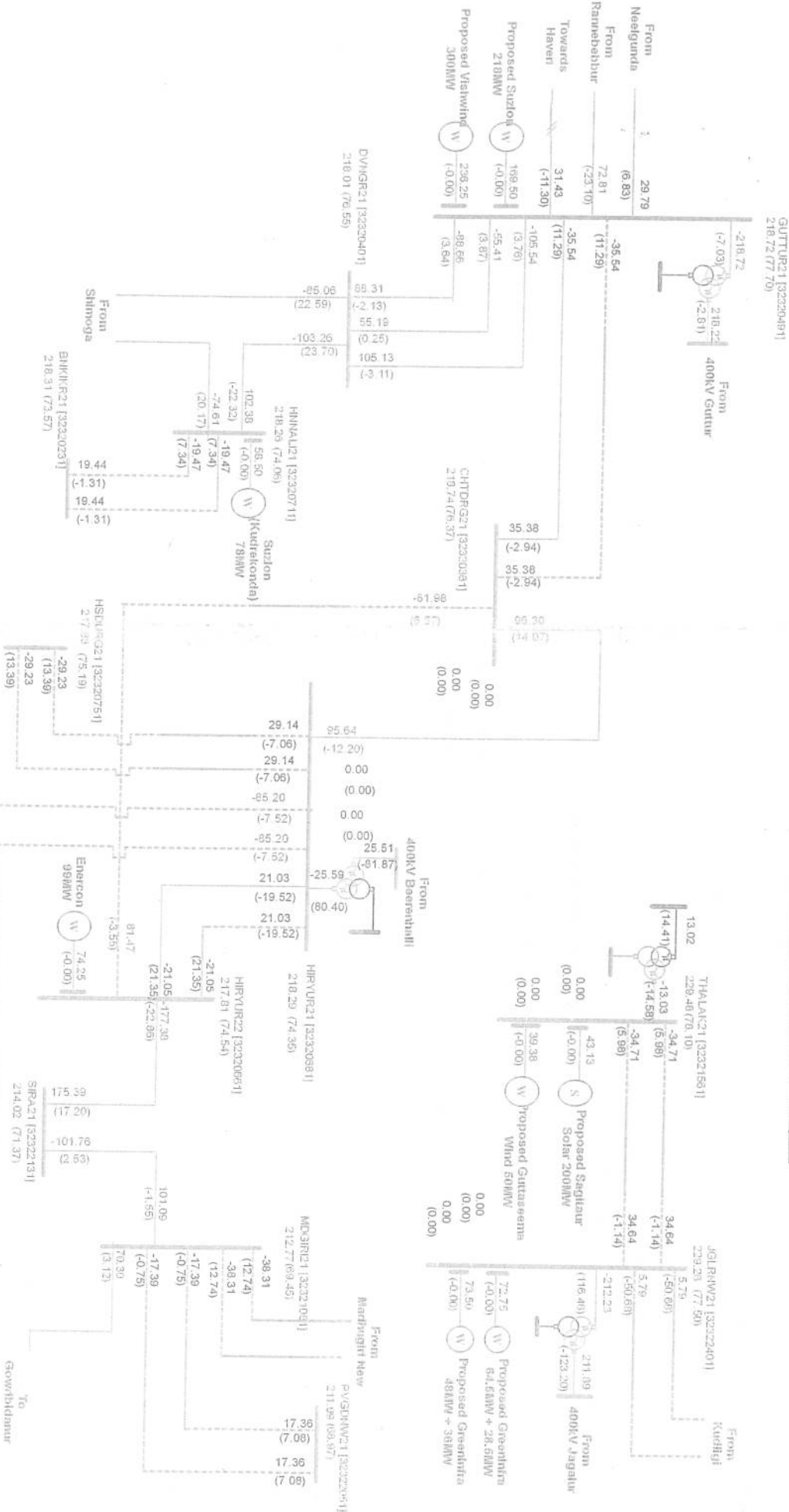
With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system peak load for 2076-17


KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE

OFFICE OF THE CHIEF ENGINEER (ELECTRIC) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

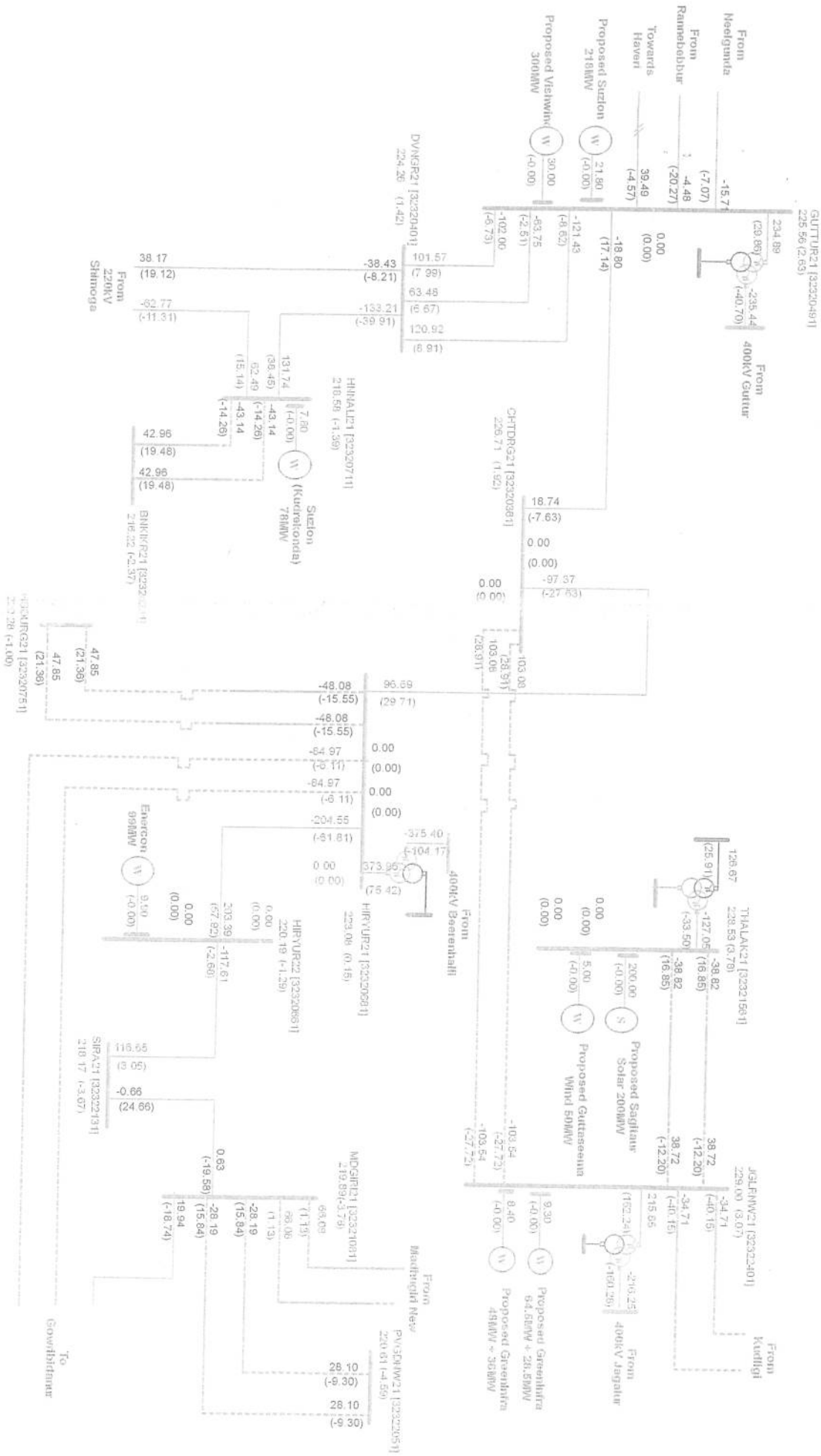
Case 2(B): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Hiriyur




DESCRIPTION	
With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system light load for 2016-17	
	
OFFICE OF THE CHIEF ENGINEER (ELECTRICITY) PLANNING & CO-ORDINATION	KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE
KPTCL, KAVERI BHAVAN, BANGALORE-99.	

Load flow study results: Construction of 220KV DC line with Drake conductor to link 220/66KV Chitradurga substation to proposed 400/220KV Jagalur substation.

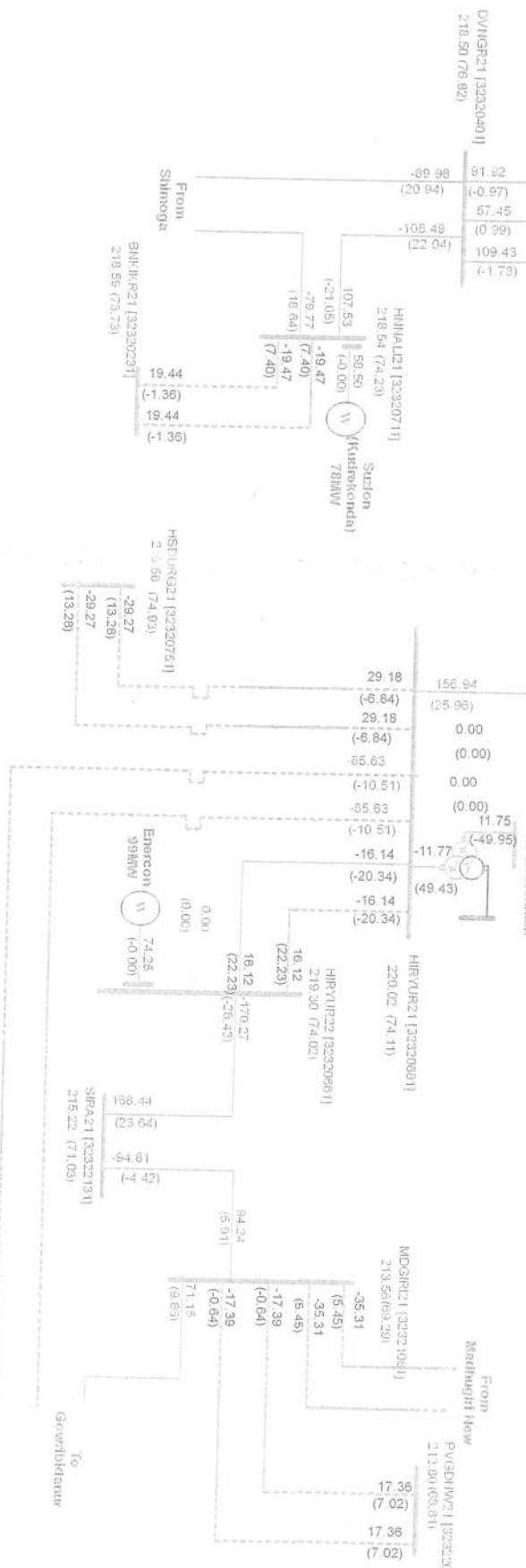
Case 3(A): Without proposed conversion of 220KV Guttur -Chitradurga-Hiriyur, with Chitradurga on Jagalur.



<p>DESCRIPTION</p> <p>Without proposed conversion of 220KV Guttur-Chitradurga-Hiriyur, with system peak load for 2016-17</p>	 <p>KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE</p> <p>OFFICE OF THE CHIEF ENGINEER (ELECTRIC) PLANNING & CO-ORDINATION KPTCL, KAMERI BHAVAN, BANGALORE-09.</p>
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Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

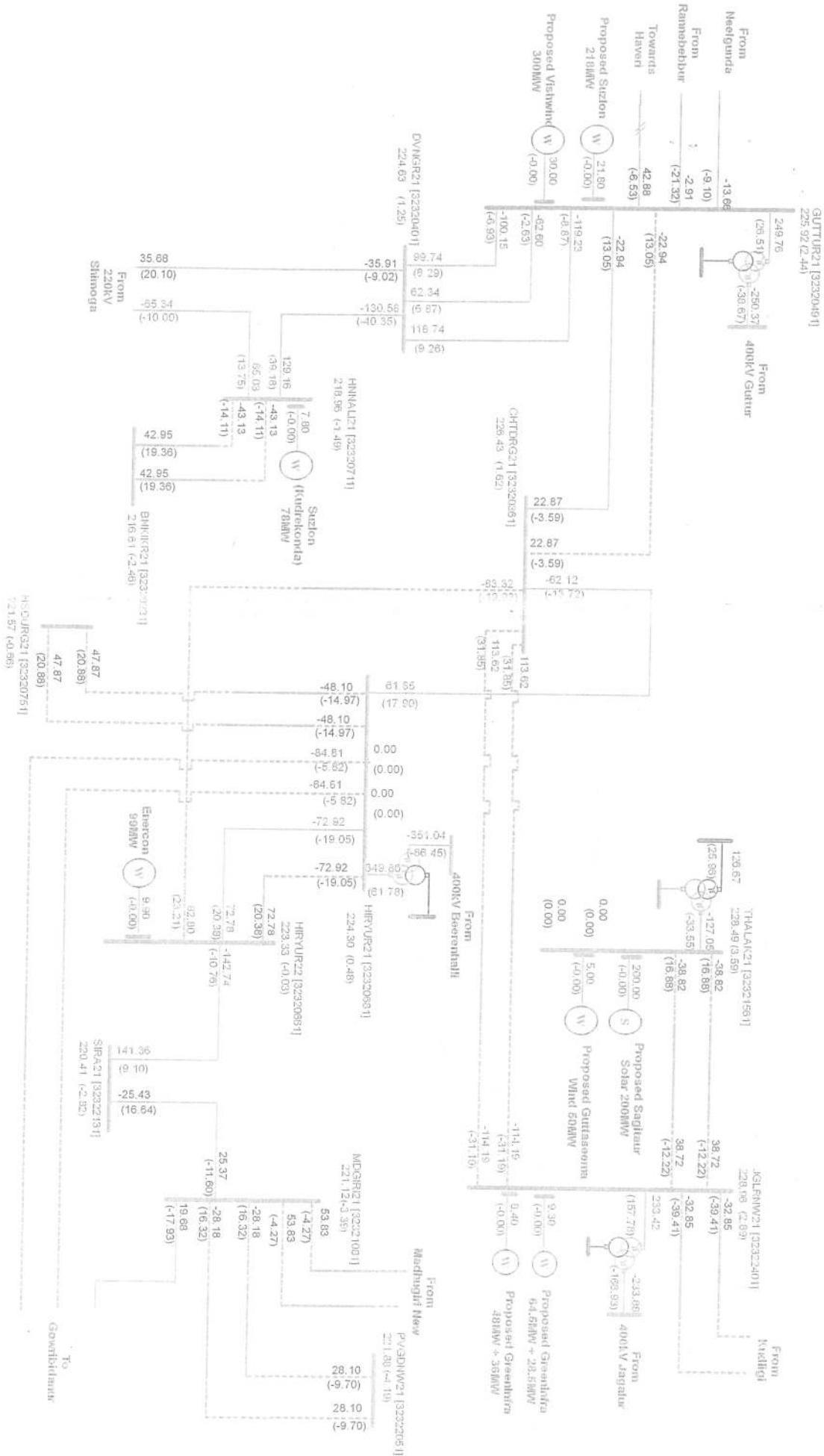
GUTTUR21 (323204911)
218.50 (78.82)



DESCRIPTION		KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE
Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system light load for 2016-17		OFFICE OF THE CHIEF ENGINEER (ELECTRICITY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09

Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

Case 4(A): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Jagalur.



DESCRIPTION

Without proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system peak load for 2016-17

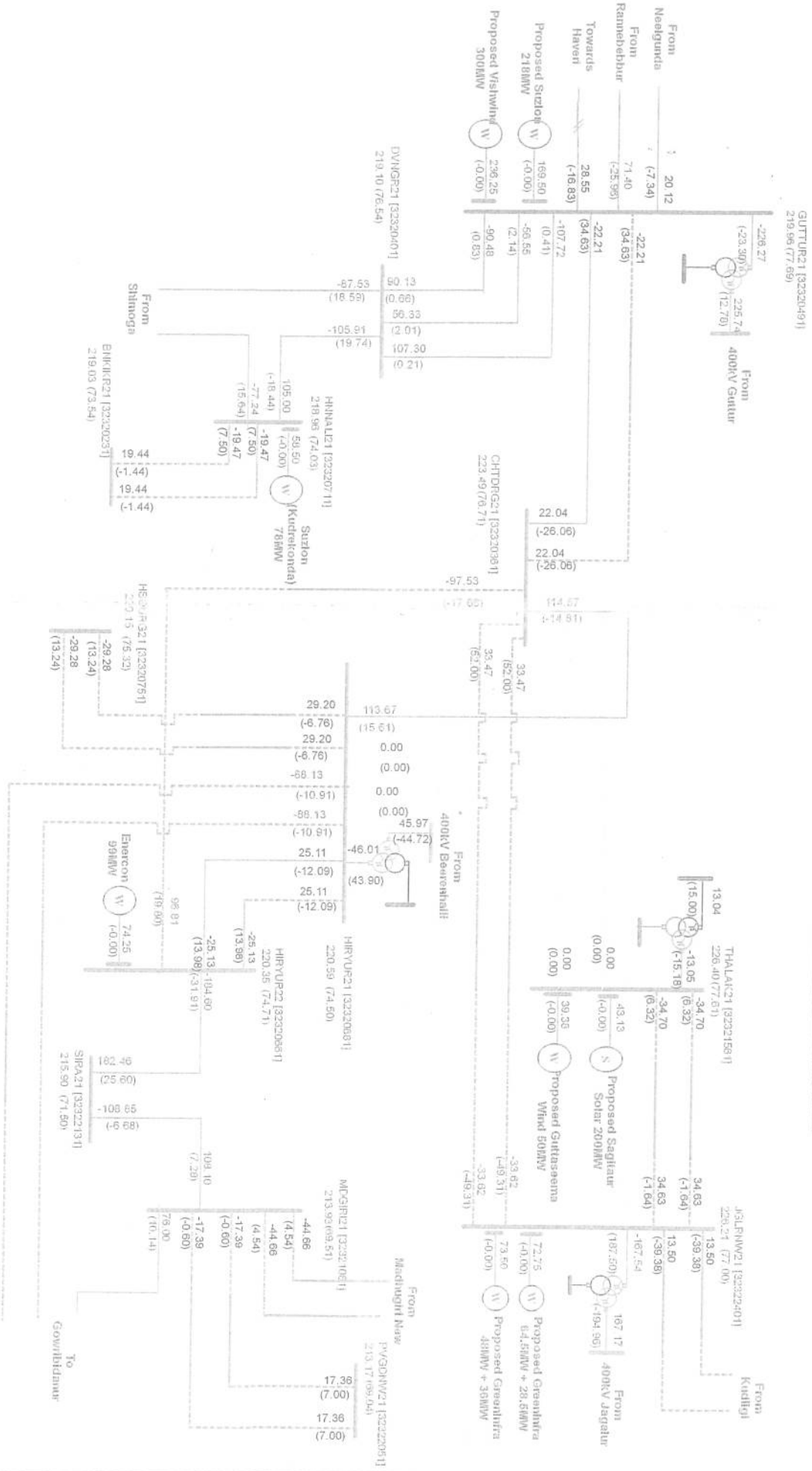


KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE

OFFICE OF THE CHIEF ENGINEER (ELECTRY) PLANNING & CO-ORDINATION KPTCL, KAVENI BHAVAN, BANGALORE-09.

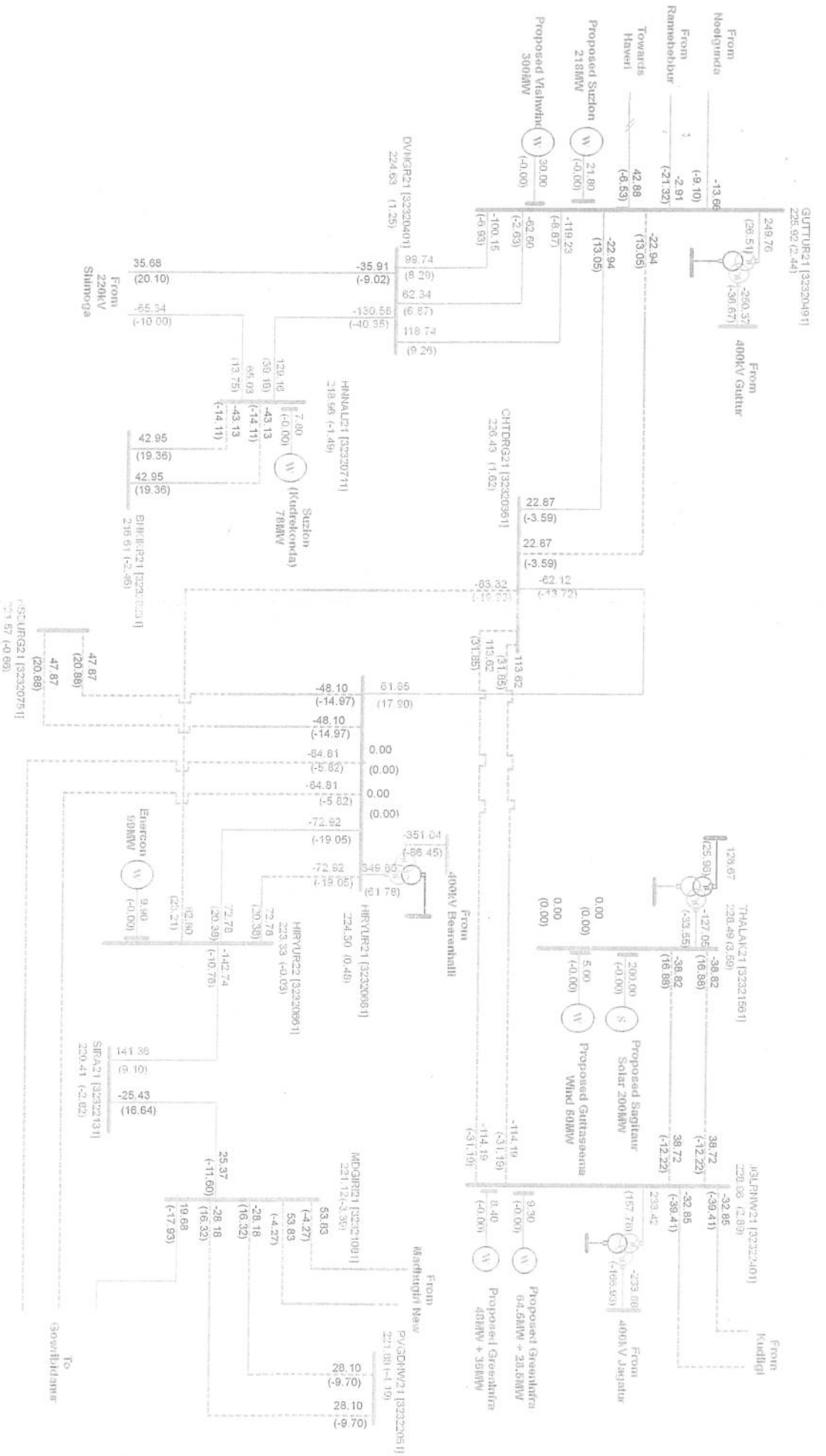
Load flow study results: Construction of 220kV DC line with Drake conductor to link 220/66kV Chitradurga substation to proposed 400/220kV Jagalur substation.

Case 4(B): With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with Chitradurga on Jagalur



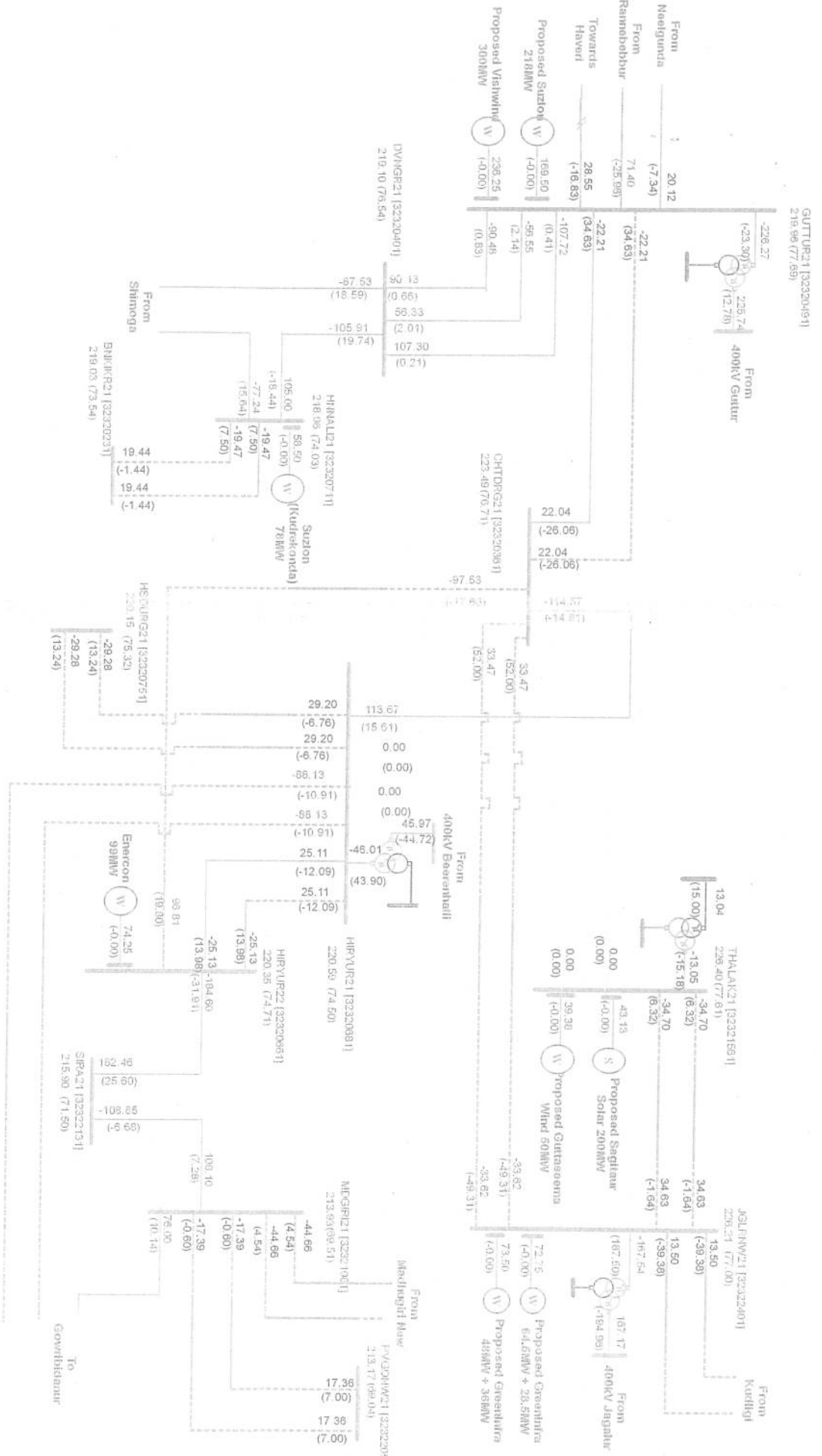
<p>DESCRIPTION</p> <p>With proposed conversion of 220kV Guttur-Chitradurga-Hiriyur, with system light load for 2016-17</p>	 <p>KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE</p> <p>OFFICE OF THE CHIEF ENGINEER (ELECTRIC) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.</p>
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Power flow study results: Establishing 2X100 MVA, 220/66 KV substation at Hosadurga
Case 1: With 220/66KV Hosadurga substation fed radially from Hiriyur(PCCIL)



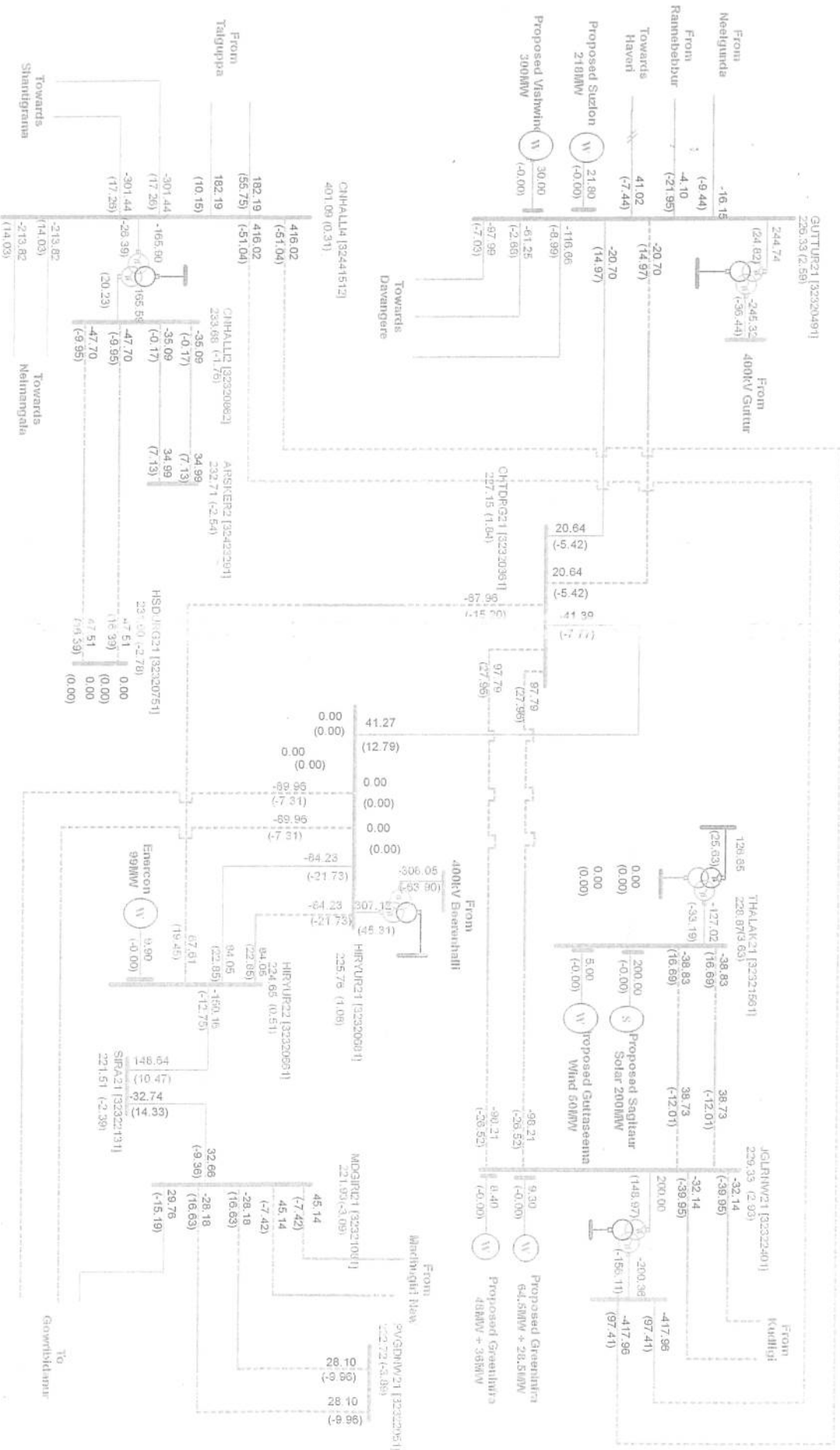
<p>DESCRIPTION</p> <p>With proposed 220KV lines with system peak load for 2016-17</p>	 <p>KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE</p> <p>OFFICE OF THE CHIEF ENGINEER (ELECTRIC) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.</p>
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Power flow study results: Establishing 2X100MVA, 220/66kV substation at Hosadurga
Case 1(A):With 220/66kV Hosadurga fed radially from 400kV Hiriyur(PCCIL).



DESCRIPTION	 KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE
With 220kV Hosadurga fed from 400kV Hiriyur with system light load for 2016-17	OFFICE OF THE CHIEF ENGINEER (ELECTRICITY) PLANNING & CO-ORDINATION KPTCL, KAVERI BHAVAN, BANGALORE-09.

Power flow study results: Establishing 2X100 MVA, 220/66 kV substation at Hosadurga
Case 2: With 220kV DC line with Drake conductor from CH Halli to Hosadurga.



DESCRIPTION

With proposed 220/66kV Hosadurga with system peak load for 2016-17



KARNATAKA POWER TRANSMISSION CORPORATION LIMITED, BANGALORE

OFFICE OF THE CHIEF ENGINEER (ELECTRICITY) PLANNING & CO-ORDINATION KPTCL, KAVENI BHAVAN, BANGALORE-09.

