



## **KARNATAKA POWER TRANSMISSION CORPORATION LIMITED**

### **DETAILED SURVEY REPORT**

**NAME OF WORK:** CONDUCTING DETAILED SURVEY USING MODERN SURVEY TECHNIQUES FOR CONSTRUCTION OF 66KV DC LINE ON 110KV DC TOWERS USING COYOTE ACSR CONDUCTOR FOR A DISTANCE OF ABOUT 0.275KMS. FROM THE EXISTING 66KV YACHENAHALLY-SINGAPURA-KADAVINAKOTE DC LINE TO THE PROPOSED 66/11KV, 2X20MVA SUBSTATION AT KUMBENAHALLY IN CHANNARAYAPATNA TALUK, HASSAN DISTRICT.

### **SURVEY CONSULTANTS**

#### **Mangal Electricals**

(Engineers and Contractors)

# 10153, Vijayanagara 4<sup>th</sup> stage, 2<sup>nd</sup> Phase,

Near, Marimallappa School (Compound),

Mysuru - 570017

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# **KARNATAKA POWER TRANSMISSION CORPORATION LIMITED**

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**SURVEYORS BY M/s. MANGAL ELECTRICALS**  
(Engineers & Contractors)

OFF: - #10153, Vijayanagar 4th Stage, 2nd Phase,  
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110KV DC TOWER USING COYOTE ACSR CONDUCTOR FOR A DISTANCE OF ABOUT 0.27KMS FROM THE EXISTING SINGAPURA-KADAMINAKOTE DC LINE TO THE PROPOSED 66/11KV, 2X20MVA SUBSTATION AT KUMBENAHALLI.

TALUK, HASSAN DISTRICT.

**CLIENT: KARNATAKA POWER TRANSMISSION CORPORATION LTD**


**SURVEYORS BY : M/s MANGAL ELECTRICALS, MYSURU**


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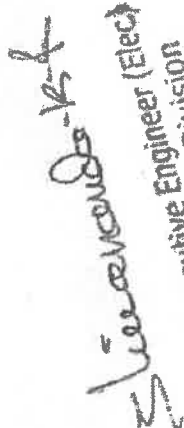
SL. No	AP No's	Angle of deviation		In mts	ive chainage	Hot Curve			U.P. Zone (401)		Crossing details/Remarks	Type of Soil	Village limits
		Existing	Proposed			L	R	T	Easting	Northing			
-	-	BAY			275	-	-	-	642719	1422400	Joining to the Proposed 66/11kV S/S at Kumbenahally	-	"

**Existing 66kV Kadavinakote-Yachenahally DC Line LILO From Singapore**

3	AP-3	Common Tower 110kV 'DD+0' Box Cross arm	63°9'20"LT	76	275	65	-57	8	642678	1422385	Proposed LILO Tower	DFR	"
6	27	66kV DD+3			351	133	-	133	642616	1422428	Joining to the Existing 66kV T.No.27 'DD+3' Tower to be retained	-	"

  
**Assistant Engineer (Ele),**  
 M. W. Sub Division-1,  
 KPTCL, Hassan.

  
**Asst. Executive Engineer (Ele)**  
 Projects Sub Division-1  
 KPTCL, Hassan.

  
**Executive Engineer (Elect)**  
 Projects Division  
 KPTCL, Hassan.

## ABSTRACT OF TOWERS

NAME OF THE WORK: CONDUCTING DETAILED SURVEY USING MODERN SURVEY TECHNIQUES FOR CONSTRUCTION OF 66KV D/C LINE ON 110KV DC TOWERS USING COYOTE CONDUCTOR FOR A DISTANCE OF ABOUT 0.275KMS. FROM THE EXISTING 66KV CHANNARAYAPATNA-SINGAPURA-KADAVINAKOTE DC LINE TO THE PROPOSED 66/11KV, SUBSTATION AT KUMBENAHALLY IN CHANNARAYAPATNA TALUK, HASSAN DISTRICT.

CLIENT: KARNATAKA POWER TRANSMISSION CORPORATION LTD

SURVEYORS BY: M/s MANGAL ELECTRICALS, MYSURU

Sl.No.	TYPE OF TOWERS	NORMAL	+3	+6	TOTAL
<b>Proposed 110kV D/C NB Tower - (KPTCL design)</b>					
1	'DC'	1 ✓	-	-	1 ✓
2	'DD' Box Cross arm	1 ✓	-	-	1 ✓
3	'DD' 9 Cross arm	2 ✓	-	-	2 ✓
<b>Total No's (A)</b>					<b>4 ✓</b>
<b>Existing 66kV D/C Conventional Tower to be retained</b>					
1	'DA'	1 ✓	-	1 ✓	1 ✓
2	'DD'	1	1	-	1 ✓
<b>Total No's (B)</b>					<b>2 ✓</b>
<b>Total No's (A+B)</b>					<b>6 ✓</b>

NOTE:- 1) Minor deviation if any due to way leave problem that may arise during the execution of the work will be incorporated accordingly.

for MANGAL ELECTRICALS  
MYSURU

Assistant Engineer Ele,  
Projects Sub Division,  
KPTCL., Hassan

Assistant Executive Engineer Ele  
Projects Sub Division,  
KPTCL., Hassan

Approved

Executive Engineer Ele  
Projects Division,  
KPTCL., Hassan

Superintending Engineer Ele,  
Transmission Projects Circle,  
KPTCL., Hassan

## LINE SCHEDULE

ONE OF THE WORKS CONDUCTING DETAILED SURVEY USING MODERN SURVEY TECHNIQUES FOR CONSTRUCTION OF 66KV DC LINE ON 110KV DC TOWERS USING COYOTE WIRE CONDUCTOR FOR A DISTANCE OF ABOUT 0.275KMS. FROM THE EXISTING 66KV KUMBENAHALLY-SINGAPURA-KADAVINAKOTE DC LINE TO THE PROPOSED 66/11KV, 20MVA SUBSTATION AT KUMBENAHALLY IN CHANNARAYAPATNA TALUK, HASSAN DISTRICT  
 CLIENT : KARNATAKA POWER TRANSMISSION CORPORATION LTD  
 SURVEYORS BY : M/S MANGAL ELECTRICALS, MYSURU

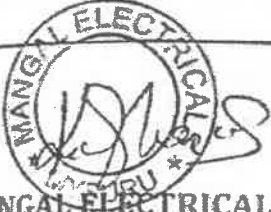
SL Nos.	Chainage	Name of the Line	Voltage in Class	Height of the Line	Remarks
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NIL

## ABSTRACT OF LINES

Sl.No.	Name of the Lines	Power Lines	Tele Lines	Total
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NIL



MANGAL ELECTRICALS  
 MYSURU

*[Signature]*  
 Assistant Engineer Ele,  
 Projects Sub Division,  
 KPTCL, Hassan

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 Assistant Executive Engineer Ele  
 Projects Sub Division,  
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 Transmission Projects Circle,  
 KPTCL, Hassan

# **TREE SCHEDULE**

NAME OF THE WORK: CONDUCTING DETAILED SURVEY USING MODERN SURVEY TECHNIQUES FOR CONSTRUCTION OF 66KV DC LINE ON 110KV DC TOWERS USING ALUMINUM CORED STEEL CONDUCTOR FOR A DISTANCE OF ABOUT 0.275KMS. FROM THE EXISTING 11KV, 2X20MVA SUBSTATION AT KUMBENAHALLY IN CHANNARAYAPATNA TALUK, HASSAN DISTRICT.

CLIENT: KARNATAKA POWER TRANSMISSION CORPORATION LIMITED  
SURVEYORS BY: M/S MANGAL ELECTRICALS, MYSURU

Nos.	Chainage	Name of the Tree	Grid Size in Mtrs	Tree Height in Mtrs	Distance from the line in Mtrs	Remarks (No of Tree)
NIL						

## **ABSTRACT OF TREES**

No.	Name of the Tree	Total
NIL		



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# SOIL RESISTIVITY REPORT

NAME OF THE WORK: CONDUCTING DETAILED SURVEY USING MODERN SURVEY TECHNIQUES FOR CONSTRUCTION OF 66KV DC LINE ON 110KV DC TOWERS USING COYOTE ACSR CONDUCTOR AT A DISTANCE OF ABOUT 0.275KMS. FROM THE EXISTING 66KV YACHENAHALLY-SINGAPURA-DAVINAKOTE DC LINE TO THE PROPOSED 66/11KV, 2X20MVA SUBSTATION AT KUMBENAHALLY IN CHANNARAYAPATNA TALUK, HASSAN DISTRICT.

CLIENT: KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

CONVEYORS BY: M/S MANGAL ELECTRICALS, MYSURU

Cumulative Chainage	Soil encountered	Earth resistance in ohms	Soil resistivity in ohms-cms	Remarks
0	DFR	0.80	25120	Existing 66kV T.No.26 'DA+6' Tower to be Retained
275	DFR	0.82	25748	Proposed 66/11kV S/S at Kumbenahally
TOTAL			50868	

Average soil resistivity  $\frac{50868}{2} = 25434$  ohm-cms.

Formula used =  $2\pi rl$

Where 'l' spacing between electrodes = 5000cms

'r' is earth resistance in ohms.



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