CLIENT: POWER GRID CORPORATION OF INDIA LIMITED				
AGENCY: KEC International Limited.				
Name of the Line: 132kV S/C (on D/C Tower) From Seppa S/S to Bameng S/S.				
COMPARATIVE STATEMENT OF ALTERNATIVE ROUTES				
Sl. No.	**DESCRIPTION**	**ALTERNATIVE ROUTE I**	**ALTERNATIVE ROUTE II**	**ALTERNATIVE ROUTE III**
1	**Route Particulars**	**Line Length as per LOA = 40 km**		
		Bee Line Length (km) =23 km		
	(i) Length (km)	**29.092**	**38.559**	**44.546**
	(iv) No. of angle points	**120**	**144**	**150**
	(iii) Type of Terrain (km)			
	A) Hill	18.258	38.559	44.546
	B) Plain	10.834	0.000	0.000
2	**Environmental Impact**			
	(i) Town limits	The line is routed avoiding towns. Due to scattered nature of settlements, the line has to be routed close to certain major villages Rang, Loffa, Pakoti, Weshi, Tallang, Pachi, Riga Camp, Meora	The line is routed avoiding towns. Due to scattered nature of settlements, the line has to be routed close to certain major villages Seppa, Sengriwa, Tallang, Pakoti, Neping, 18th Mile camp, Facheng, Norrah, Milorang.	The line is routed avoiding towns. Due to scattered nature of settlements, the line has to be routed depart from various villages Seppa, Sengriwa, Yawa, Richa, Sibibok, Psechi,Lorrah, Pizi camp, Rigo camp
	(ii) Houses within R.O.W.	R.O.W. is almost free from houses etc. (LOW)	R.O.W. exists for already constructed houses, market area etc. (High)	R.O.W. is almost free from houses etc. (Medium)
	(iii) Tree/Crop and its extent of damage	Damages to crops in wet cultivation area is marginally low due to less cultivated area. Even though the whole line route comes under forest.	Crops may be damaged in wet cultivation area is marginally low due less cultivated area. Even though the whole line route comes under forest.	The whole line passing through forest.
	(iv) Forest involvement			
	a) Length of forest area	100 Percent	100 Percent	100 Percent
	b) Type of forest	Seppa Reserve Forest	Seppa Reserve Forest	Seppa Reserve Forest
	c) Density of forest	Moderately dense	Moderately dense	Highly dense
	d) Type of Fauna & Flora	Flora : Teak, Sal, Holong, Wild Banana, Bamboo etc.	Flora : Teak, Sal, Holong, Wild Banana, Bamboo etc.	Flora : Teak, Sal, Holong, Wild Banana, Bamboo etc.
		Fauna : Indian wild dog, wild boar, deer, snakes, Elephant etc.	Fauna : Indian wild dog, wild boar, deer, Snakes, Elephant etc.	Fauna : Indian wild dog, wild boar,deer, snakes, Elephant etc.
	e) Endangered Species if any	Nil	Nil	Nil
	f) Historical/ cultural monuments	Nil	Nil	Nil
	g) Details of Tribal areas if any	Nil	Nil	Nil
3	**Details of Crossing**			
	a) Nos. of Railway Crossing	Nil	Nil	Nil
	b) Nos. of Major Road Crossing			
	i) National Highways (NH-229)	1	1	1

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Sl. No.	**DESCRIPTION**	**ALTERNATIVE ROUTE I**	**ALTERNATIVE ROUTE II**	**ALTERNATIVE ROUTE III**
	ii) State Highways	12	3	8
	c) Nos. River Crossing including major stream			
	i) Major River	6	2	3
	ii) Small River/Stream	0	1	1
	d) Nos. Power Line Crossing:			
	(i) 765 kV T/L	Nil	Nil	Nil
	(ii) 500 kV T/L	Nil	Nil	Nil
	(ii) 400 kV T/L	Nil	Nil	Nil
	(ii) 220 kV T/L	Nil	Nil	Nil
	(iv) 132 kV T/L	Nil	Nil	Nil
	(v) 33 kV /11 KV T/L	4	3	4
4	**Compensation cost**	The compensation is required where tree cutting is envisaged of the Reserve Forest.	The compensation is required where tree cutting is envisaged of the Reserve Forest.	The compensation is required where tree cutting is envisaged of the Reserve Forest.
4	**Construction problems**	Transportation Issue may come in 9.1 km of line due to non avaliability of approach.	There is no road connectivity along 30 km of the line so there will be transportation issues.	There is no road connectivity along 34km of the line so there will be transportation issues.
5	**O&M problems**	O&M problems are comparatively less in this alignment due to more approach roads, nearer to city limits and more plain areas.	O&M problems are comparatively more in this alignment due to less approach roads, less city limits and hilly area all along route.	O&M problems exsists for a strech of 34 km due to hilly terrain and also there is no proper approach road.
6	**Approaches along the route**	70% of the line is easily approachable, and 30% has difficult or bad road connectivity for which approach has to be made .	27% of the line is approachable and the rest 73% has no road connectivity for which approach have to be made.	73% of the line is approachable and the rest 27% has no road connectivity for which approach roads have to be made.
7	**Recommendations**	This alternate is shortest in route length with less angle points than Alt-II and Alt-III. some locations are easily approachable except hilly which enables easy construction and maintenance of T/L . Hence, this alternative route is most optimum, so is being recommended.	The route length of this alternate is moderately longer, far from the Bee line with more angle point and some location are not easily approachable, location are as far as 2.0km to 3.0km and being at high hilly unstable area, thus making this alternate less economical, more O&M cost and thus makes this alternate not to be recommended.	The route length of this alternate is longest, far from the Bee line with more angle point and some location not approchable thus making this alternate less economical, more O&M cost and thus makes this alternate not to be recommended. And this alternate route length is more than the LOA quantity.