F. No. 367-11/1/2018-GEC

Government of India

Ministry of New and Renewable Energy

(Green Energy Corridor)

Block 14, CGO Complex, Lodhi Road
New Delhi-110003; dated 11.06.2019

Subject: Revised Sanction of Government of India support for creation of Intra-State Transmission System to the States of Andhra Pradesh, Himachal Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu under Green Energy Corridor project.

I am directed to refer to this Ministry's letter with no. 11/7/2015-EFM, dated 30.09.2015 conveying the Administrative Approval for Government of India support of Rs. 4056.67 crores for creation of lntra-State Transmission System in the States of Andhra Pradesh, Himachal Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu under Green Energy Corridor project by the respective State Transmission Utilities.

2. Due to operational requirements, change in locations of RE projects, etc. the projects have undergone several revisions since 2015-16 and were done by the States with the approval of the Central Electricity Authority (CEA), as is mandatory in undertaking any transmission project. In order to streamline the GEC project implementation, an overall package wise sanction is hereby issued to all the States as per the CEA's technical approvals till date. The list of approved projects under GEC scheme is at **Annexure-I.** The said proposal has been recommended by the Project Appraisal Committee for Green Energy Corridor.

3. The detailed project components (including bay extensions, bus reactors, conductor type, etc.) would be as per the technical approvals of CEA communicated to the States at various stages in past years. This sanction is issued to the States along with instructions that the approval of both the Ministry and CEA would be required on making any major changes (including change in scope, alternate scheme/packages) in the GEC.

4. The projects have to be completed within the timeline approved by the Cabinet Committee on Economic Affairs (CCEA), i.e. FY 2019-20. The total central grant/financial implication towards each State, including the projects already under implementation, would be limited to the grant approved by the CCEA communicated vide Administrative Approval of the Ministry with no. 11/7/2015-EFM, dated 30.09.2015.

5. The central support/grant would be released in instalments as per the guidelines of Green Energy Corridor scheme as prevalent at the time.

6. The grantee organization/institution shall be responsible for timely execution of the project as per the Provisions contained in the guidelines and within the allocated budget. Any request for extension of the project duration or for change in budget allocation, for valid reason,

shall be placed before the duly constituted Committee for approval of the Competent Authority, before the expiry of the approved period of the project.

7. The proposal of cancellation of any project(s) from the scheme (as per the list annexed) is to be submitted to CEA and MNRE in writing by the Managing Director/Head of the grantee organization. Merely mentioning the same in the monthly status report shall not suffice.

8. The States are to ensure that the intra-state transmission system thus developed caters to the renewable energy projects and that the transmission capacity is not left unutilised.

9. In terms of Rule 230 (1) of GFR, the grantee organization/institute will certify that it has not obtained or applied for grants for the same purpose or activity from any other Ministry or Department of the Government of India or State Government.

10. The grantee organization/institution shall be liable for recovery of the whole or part amount of the grant/subsidy, with applicable Penal interest, in case of non-compliance of the guidelines of the scheme/sanction.

11. As per Rule 234 of GFR-2017, this sanction has been entered at S. No. 2 at page no. 3 in the GFR-21 register of grants for Green Energy Corridor.

12. This issues in exercise of the delegated powers conferred on the Ministry and in consultation of IFD vide their Dy. No. 433 dated. 19.12.2018.

(Girish Kumar)
Director
011-24368915

To

Pay & Accounts Officer, Ministry of New and Renewable Energy, New Delhi

Copy to

1. Principal Secretaries (Energy) of the eight States implementing GEC-I.
2. Managing Directors of STU / SEB of the eight States implementing GEC-I.

Copy for information to

1. PS to Hon'ble Minister, NRE.
2. Sr. PPS to Secretary, MNRE.
3. PPS to AS / PPS to AS & FA, MNRE.
4. DS (IFD), MNRE.
5. NIC to upload the same on the Ministry's website.

(Girish Kumar)

Annexure-I : Intra-State Transmission System Green Energy Corridor Project Details

S. No.	State	Package No.	Package Details	Substation (SS) / Line	MVA / CKM
1	Andhra Pradesh	1	i) Hindupur 400/220kV Substation	SS	945
			ii) 2Nos. 400kV Feeder Bay extension works at 400KV Uravakonda SS.	Bay	
			iii) 400kV line from Uravakonda SS to Hindupur SS	Line	253
2		2	Erection of Bay Extensions works at : i) Uravakonda 400kV SS	Bay	
			ii) Jammalamadugu 400kV SS	Bay	
			iii) Hindupur 400kV SS	Bay	
3		3	i) Procurement of 315 MVA Transformers (5 nos) at Hindupur (4), Jammalamadugu (1)	Procurement	
			ii) Procurement of 500 MVA Transformers (2 Nos.) at Uravakonda	Procurement	
			iii) 80 MVAR Bus reactors : a) Hindupur - 1 no., b) Uravakonda - 1 no., c) Jammalanadugu - 1 no.	Bus reactors	
4		4	a) 220 KV line from Jammalamadu SS to Betamcherla SS	Line	136
			b) 220/132/33 KV SS at Bethamcherla	SS	383
			c) 132kV LILO line from 132kV Suzlon Wind PStation - existing 132kV Jammalamadugu SS to the proposed 400/220/132kV Jammalamadugu SS	Line	24
			e) 220 KV line - Jammalamadugu SS to Tadipatri SS	Line	80
			f) 220 KV Bay Extensions at 220 KV Tadipatri Substation	Bay	-
			g) Stringing of 2nd Ckt on 132 KV DC/SC Line from Badvel-Porumamilla Line and LILO of Both Circuits to 220KV SS Porumamilla on Multi Ckt Towers	Line	4
			h) 132 KV Bay Extensions at 220 KV Porumamilla SS (2 Nos), 132/33 KV Porumamila SS(1Nos) and 132/33 KV SS Badavel SS (1 No)	Bay	
5		5	a) 220/132 KV Substation at Pampanur Tanda	SS	320
			b) 220 KV line from Hindupur SS to Pampanur Tanda SS	Line	180
6		6	220 KV D/C line from Hindupur SS to Penukonda SS	Line	70
			220/132 KV Substations at Penukonda	SS	320
			220 KV DC Moose line from 400KV Hindupur SS to 220 KV Hindupur SS/Gollapuram SS	Line	56
			132 KV DC line from 220/132 KV Penukonda SS to 132 KV Penukonda SS	Line	20
			220 KV BEs at 220 KV Hindupur /Gollapuram Substation	Bay	-
			132 KV Bays at 132/33 KV Penukonda Substation	Bay	-
		7	Procurement of Power Transformers (PTRS), Reactors for 220 kV Substations	Procurement	-
7	Gujarat	1	220 KV Babara substation (Dist. Amreli)	ss	620
8		2	220 kV Kalavad GIS substation (Dis. Jamnagar)	ss	480
9		3	220 KV Moti Gop substation (Dist. Jamnagar)	ss	480
10		4	Up-gradation of 132 KV Wankaner substation to 220 KV level (Dist. Rajkot) - Hybrid / GIS technology	ss	780
11		5	400 KV Bhachunda GIS substation (Dist. Kutch) (220/66 KV scheme is already approved)	ss	1500
12		6	400/220/66 KV Bhogat GIS substation (Dist. Jamnagar)	ss	1820

13	Gujarat	7	400 KV D/C Shapar – Pachham (Fedra) line (Twin AL-59)	line	200
14		8	220 kV D/C Amreli-Babara line (AL-59)	line	50
15		9	220 kV D/C Shapar-Babara line (AL-59)	line	120
16		10	220 KV, 1 x 25 MVAR Bus Reactors each at 220 KV Moti Paneli, Bhatia, Nakhatrana, Bhachau & Deodar substations	Reactor	
17		11	220 KV Bhachunda GIS substation (Dis. Kutch)	ss	320.00
18		12	400 KV D/C Bhogat – Kalavad line	Line	261
19		13	400 KV Hadala – Shapar line (Twin AL-59)	Line	124
20		14	LILO of both circuits of 220 KV D/C Jamanvada – Varsana line at 220 KV Bhachunda (AL-59) M/C line	Line	82
21		15	LILO of one circuit of 220 KV D/C Akrimota – Nakhatrana line at Bhachunda	Line	52
22		16	220 KV D/C Bhatia - Bhogat line (AL-59)	Line	26
23		17	220 KV D/C Bhogat - Ranavav line (AL-59)	Line	140
24		18	LILO of one circuit of 220 KV D/C Gandhinagar TPS – Chhatral line at Vadavi (AL-59)	Line	25
25		19	220 KV D/C Chorania – Salejada line (AL-59)	Line	135
26		20	220 KV D/C Radhanpur – Sankhari line (AL-59)	Line	96
27		21	LILO of one Circuit of 220 KV D/C Hadala - Sartanpar at 220 KV Wankaner (AL-59)	Line	13
28		22	LILO on 220 KV S/C Lalpar - Sartanpar line at 220 KV Wankaner (M/C tower by replacement of existing 132KV towers) (AL-59)	Line	40
29		23	220 KV D/C Bhogat – Moti Gop line (AL-59)	Line	139
30		24	LILO of both circuits of 220 KV D/C Tebhda – Nyara line at Moti Gop substation (M/C line)	Line	59
31		25	400 kV D/C Bhachunda – Varsana line	Line	280
32		26	LILO of both circuits of 132 KV D/C Sitac WF - Jasdan line at Babara (M/C line)	Line	50
33		27	1 No. of 220 KV Reactor bay each at MotiPaneli, Bhatia, Nakhatrana, Bhachau and Deodar substations	Reactor	
34		28	400 KV Shapar GIS substation (Dist. Surendranagar) (1) 400/220 KV, 3 X 500 MVA Trf with Bay (2) 220/66 KV 3 X 160 MVA Trf with bay (3) 10 Nos. of 400 KV feeder bays (4) 10 Nos. of 220 kV Line Bays (5) 400 KV, 1 x 125 MVAR Reactor with bay (6) 12 nos of 66 kV Bays	SS	1980

35	Himachal Pradesh	1.1	Construction of 66/220 kV, 80/100 MVA sub station in the yard of 132/220 kV Sunda sub station	Substation	100
		1.2	66 kV D/C line from Sunda to Andhra	T-Line	12
36		2	22/132 kV , 2x31.5 MVA sub station in the yard of Tangnu Romai HEP	Substation	63
37		3	132 kV D/C line from 22/132 kV sub station at Tangnu Romai HEP to 132/220 kV sub station at Sunda.	T-Line	24
38		4.1	32/220 kV, 2x100 MVA GIS sub station at Dehan in Distt. Kangra	Substation	200
		4.2	220 kV D/C Transmission Line (55 Kms) from Dehan sub station to 400/220 kV sub station of PGCIL at Hamirpur	T-Line	110
39		5	33/132 kV, 31.5 MVA sub station in the yard of Rupin HEP	Substation	31.5
40		6	132 kV D/C line between 33/132 kV sub station at Rupin HEP and 132/220 kV sub station at Sunda	T-Line	44
41		7	66/220 kV, 100 MVA sub station at Heling by LILO of 220 kV Bajoli Holi-Lahal D/C line	Substation	100

42	**Himachal Pradesh**	8	Providing additional 33/220 kV, 100 MVA Transformer at 132/220 kV, 100 MVA GIS sub station at Charor (ADB funded) in Distt. Kullu	Substation	100
43		9	Providing additional 33/132 kV, 31.5 MVA Transformer at 33/132 kV, 31.5 MVA GIS sub station at Pandoh in Distt. Mandi	Substation	31.5
44		10	Providing additional 400/220 kV, 1x315 MVA transformer in the 400/220 kV sub station at Gumma (ADB funded) in Distt. Shimla.	Substation	315
45		11	33 kV GIS switching station at Palchan in Distt. Kullu.	Switching station	
46		12	33 kV Palchan-Prini line	T-Line	17.2
47		13	220 kV Snail-Hatkoti line	T-Line	12.97
48		HPSEB A (P-I)	a. Augmentation of existing conductor of 66 kV D/C line between Ghanvi-II to Kotla with HTLS conductor b. Augmentation of existing conductor of Kotla- Nogli-Samoli 66 kV line with HTLS conductor c. 22 kV D/C Line from Gumma to Andhra d. 22 kV D/C Line from Rukti to Shaung	Line	78
		HPSEB A (P-II)	a. 66/22 kV GIS Sub Station at Pooh along with 66 kV Line b. 66 kV line from Nathpa to Wangtoo c. 66 kV line from Hatkoti to Samoli	Sub-Station & Line	10 MVA / 18 ckm
		HPSEB A (P-III)	a. Providing additional 10 MVA, 66/22 kV Power Transformer with spare bay at Nogli Sub-Station b. Augmentation of 2nd 10 MVA, 66/22 kV Power Transformer to 20 MVA at 66/22 kV Sub-Station Samoli c. 66/22 kV Sub-Station Hatkoti d. Construction of additional 66/22 kV, 1x25/31.5 MVA Sub-Station at Andhra e. 66/22 kV sub station Rukti at shaung power house f. One 66 kV terminal bay at Nathpa	Sub-Station	74 MVA
49		HPSEB B.1 (P-I)	a. Augmentation of 22KV S/C HT Line from 22 kV Control point Kotkhai to 22 kV control point to Gangtoli b. Augmentation of 33 kV HT Line from 33/11 KV S/Stn. Shillai to Sataun & augmentation of Transformer at Shillai S/S c. Augmentation of 33 KV S/C HT line from Dhaula Kuan to Dadahu	Sub-Station & Line	18 ckm
		HPSEB B.1 (P-II)	a. 33kV line from Gondpur (Paonta) to Sataun b. 22KV line from Jhakri to Rampur c. 22KV line from Rampur to Nogli d. 22KV line between Karcham and Bhoktoo e. 22kV terminal bays at Hatkoti & Kotkhai	Line	71 ckm
50		HPSEB B.2	a. 33KV overhead line to underground cable from Dunkhra (Jari) to Manikaran b. Reconductoring & strengthening of 11KV feeder from Barshaini SS to Dunkhra SS c. Conversion of 33KV Bajaura - Naggar single circuit line into double circuit d. 33 KV line Prini Sub-Station to Sub-Station in the Yard of AD Hydro HEP e. Strengthening of 33KV (Double Circuit) Pandoh- Bijni line f. Strengthening of 33KV (Single Circuit) Padhar(Gwali)- Bijni line g. LILO OF 33 kV Pandoh-Bijni line at proposed 132/33 kV S/s at Pandoh h. Interlinking of 33 kV Naggar-Bajaura feeder at 6 pole structure	Line	137 ckm

51	**Himachal Pradesh**	HPSEB B.3 (P-I)	a. Augmentation of existing 33 kV Gharola to LILO point at Karian of 33 kV line from Gharola to Chamba b. Strengthening / Up-gradation of existing S/C 33 kV feeder No.II from Baner Power House to 132/33/11 kV Sub-Station Dehan c. LILO of one circuit of 33 KV D/C line from Shahpur to Kangra at proposed 33/132 KV CHAMBI Sub-Station and LILO 33kV S/C line from Gaj to Shahpur at 33/132kV sub-stastion Chambi	Line	104 ckm
		HPSEB B.3 (P-II)	a. 33KV D/C line from Salooni to Koti b. line from 33/11 kV Darkata (Ranital) SS to 33/11 kV un-manned SS c. Augmentation of existing 33 kV line from Gaj Powerhouse to kangra d. LILO of Bharmour- Gharola line at Lahal e.Construction of 33 kV S/c line from Jassore a/w terminal bay at Jassore and Sihunta	Line	90 ckm

52	**Karnataka**	1	Gadag(Dhoni): Establishing 400/ 220 kV Sub station	SS	2x500
		1.1	Gadag(Dhoni)_line : 400kV LILO line Guttur-Guddadahalli SC line to the proposed 400/220kV Station at Gadag(Doni)	Line	54
		1.2	220kV DC LILO line from 220kV Gadag-Lingapur DC line to the proposed 400/220kV station at Gadag(Doni)	Line	5
53		2	220 kV SC line on DC towers from existing 400 kV PGCIL station at Beeranahalli (Hiriyur) to existing 220/66/11 kV KPTCL station at Hiriyur in Chitradurga district in existing corridor of 220 kV SC line from Hoysalakatte to 220/66/11 kV station Hiriyur	Line	15
		2.1	220 kV DC line on DC towers from existing 220/66 kV station Chitradurga to existing 220/66 kV Station Hiriyur in Chitradurga district in existing corridor	Line	78
54		3	Jagalur (Hiremallanahole): 400/220 kV S/s in Davanagere district	SS	2x500
54		3.1	400 kV DC line to link the proposed 400/220 kV Jagalur (Hiremallanahole) S/s from anchor point 39/0 of 400 kV Rampura limits to Jagalur line	Line	1
		3.2	400 kV DC line with Quad Moose ACSR for a length of about 64.5 Kms from Rampura limits (400 kV MC line from BPS) upto Anchor point 39/0 near proposed 400/220 kV S/s at Jagalur (Hiremallanahole)	Line	129
		3.3	220 kV DC lines from proposed 400 kV Jagalur (Hiremallanahole) to 220 kV existing Thallak (27.47 Kms) , Kudligi (35.64 Kms) and Chitradurga S/s (41.449 Kms)	Line	209.1
55		4	220kV DC line for having LILO arrangement of 220kV Narendra-Haveri first circuit to 220kV Station Bidnal in Haveri and Dharwad districts	Line	31
56		5	220/66 kV and 66/11kV sub station at Hosadurga, Hosadurga taluk, Chitradurga district	SS	2x100, 1x12.5
		5.1	220 kV DC line from proposed 220/66 kV Benkikere S/s to proposed 220/66 kV Hosadurga S/s	Line	82
57		6	220/66 kV and 66/11kV sub station at Shivanasamudra, Malavalli taluk, Mandya district.	SS	2x100, 80
		6.1	220 kV Double DC line on MC towers tapping from existing 220 kV DC T.K.Halli-Madhuvanahally line to the proposed sub-station Shivanasamudra	Line	4.274
58		7	220/110 KV & 110/11 KV Sub station at Mughalkod in Raibag Taluk, Belgaum District	SS	2x100, 1x10
		7.1	220 kV DC LILO of Chikkodi –Ghataprabha line	Line	LILO

59	**Madhya Pradesh**	Package-I	220kV Double Circuit Double Strung line from Julwaniya 400kV S/s to Sendhwa 220kV S/s	Line	70 CKM
			New 220/132kV S/s at Sendhwa	SS	1x160 + 1x63 MVA
			2 nos 220kV Feeder Bays at Julwaniya 400kV S/s	FB	2 Nos.
			132kV Interconnector between Sendhwa 220kV S/s and Sendhwa 132kV S/s	Line	12 CKM
			2 nos132 KV Feeder Bays at Sendhwa 220kV S/s	FB	2 Nos.
			132kV Double Circuit Double Strung line from Sendhwa 220kV S/s to Pansemal 132kV S/s	Line	95 CKM
			2 nos132 KV Feeder Bays at Pansemal 132kV S/s	FB	2 Nos.
			220kV Double Circuit Double Strung line from Badnawar 400kV S/s to Kanwan 220kV S/s	Line	63.8 CKM
			New 220/132kV S/s at Kanwan	SS	1x160 + 1x63 MVA
			2 nos 220kV Feeder Bays at Badnawar400kV S/s	FB	2 Nos.
			220kV Double Circuit Double Strung line from Kanwan 220kV S/s to Dhar 220kV S/s	Line	62.7 CKM
			2 nos 220kV Feeder Bays at Dhar 220kV S/s	FB	2 Nos.
			132kV Inter connector between Kanwan220kV S/s and Kanwan132kV S/s	Line	29.6 CKM
			2 nos 132kV Feeder Bays at Kanwan 132kV S/s	FB	2 Nos.
			132kV Double Circuit Double Strung line from Kanwan 220kV S/s to Teesgaon 132kV S/s	Line	24.6 CKM
			2 nos132kV Feeder Bays at Teesgaon 132kV S/s	FB	2 Nos.
			Second circuit stringing of 132kV Jhabua - Meghnagar 132kV Double Circuit Single Strung line	Line	26 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Jhabua and 1 No. 132 KV feeder bay at existing 132kV Substation Meghnagar	FB	2 Nos.
			Second circuit stringing of 132kV Rajgarh(D)220 - Jhabua 132kV Double Circuit Single Strung line	Line	68.8 CKM
			Second circuit stringing of 132 kV Rajgarh (D) 220- Petlawad 132 kV DCSS line	Line	54 CKM
			1 No. 132 KV feeder bay at existing Substation Rajgarh(D)220 and 1 No. 132 KV feeder bay at existing 132kV Substation Jhabua	FB	2 Nos.
			1 No. 132 KV feeder bay at existing Substation Rajgarh(D) 220 and 1 No. 132 KV feeder bay at existing 132kV Substation Petlawad	FB	2 Nos.
60		Package-II	400kV Double Circuit Double Strung line from Nagda 400kV S/s to Mandsaur 400kV S/s	Line	137.32 CKM
			New 400/220kV S/s at Mandsaur with Bus Reactor	SS	2x315+ 2x160 MVA
			2 nos 400kV Feeder Bays at Nagda 400kV S/s	FB	2 Nos.
			LILO both circuits of Nagda - Neemuch 220kV line at Mandsaur 400kV S/s	Line	86 CKM
			LILO both circuits of Neemuch - Mandsaur 132kV line at Mandsaur 400kV S/s	Line	142 CKM
			220kV Double Circuit line - Mandsaur 400kV S/s to Marut Shakti Pool 220kV S/s	Line	92 CKM
			2 nos220kV Feeder Bays at Marut Shakti Pool 220kV S/s	FB	2 Nos.
61		Package-III	220kV Double Circuit Double Strung line from Betul 220kV S/s to Gudgaon 220kV S/s	Line	93.5 CKM
			New 220/132kV S/s at Gudgaon	SS	1x160 + 1x63 MVA
			2 nos 220kV Feeder Bays at Betul 220kV S/s	FB	2 Nos.
			132kV Interconnector between Gudgaon 220kV S/s and Gudgaon 132kV S/s	Line	20 CKM
			2 nos 132KV Feeder Bays at Gudgaon132kV S/s	FB	2 Nos.

61	**Madhya Pradesh**	Package-III	LILO one circuit of Satna(PGCIL) – Bina(PGCIL) 400kV line at Sagar 400kV S/s	Line	50 CKM
			New 400/220kV S/s at Sagar (Upgradation) with Bus Reactor	SS	2x315 MVA
			Second circuit stringing of Sidhi 220kv - Mauganj 132kV Double Circuit Single Strung line	Line	60 CKM
			1 No. 132 KV feeder bay at existing 220kV Substation Sidhi and 1 No. 132 KV feeder bay at existing 132kV Substation Mauganj	FB	2 Nos.
			Second circuit stringing of Maihar - Amarpatan 132kV Double Circuit Single Strung line	Line	26 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Maihar and 1 No. 132 KV feeder bay at existing 132kV Substation Amarpatan	FB	2 Nos.
			1 No. 132 KV feeder bay at existing 132kV Substation Birsinghpur and 1 No. 132 KV feeder bay at existing 132kV Substation Shahdol	FB	2 Nos.
62		Package-IV	220kV Double Circuit Double Strung line from Neemuch 220kV S/s to Ratangarh 400kV S/s	Line	85 CKM
			220/132kV S/s at Ratangarh 400kV S/s	SS	2x160 + 1x63 MVA
			2 nos 220kV Feeder Bays at Neemuch 220kV S/s	FB	2 Nos.
			132kV Interconnector between Ratangarh 400kV S/s and Ratangarh 132kV S/s	Line	8.4 CKM
			2 nos132 KV Feeder Bays at Ratangarh 132kV S/s	FB	2 Nos.
			220kV Interconnector between Sailana 400kV S/s and Ratlam Switching 220kV S/s	Line	66.4 CKM
			220/132kV S/s at Sailana 400kV S/s	SS	2x160 + 1x63 MVA
			2 nos 220kV Feeder Bays at Ratlam Switching 220kV S/s	FB	2 Nos.
			Second circuit stringing of Ratlam Switching - Daloda 220kV Double Circuit Single Strung line	Line	72 CKM
			1 No. 220kV feeder bay at existing Ratlam Switching Substation and 1 No. 220kV feeder bay at existing Substation Daloda	FB	2 Nos.
			LILO of Ratlam – Daloda 220kV line at Jaora220kV S/s (Route lenght-15 Kms)	Line	7 CKM
			220/132kV S/s at Jaora (Upgradation)	SS	2x160 + 1x40 MVA
			132kV Interconnector between Sailana 400kV S/s and Sailana 132kV S/s (Route lenght-10 Kms)	Line	36.6 CKM
			2 no.s 132kV Feeder Bays at Sailana 132kV S/s	FB	2 Nos.
			Second circuit stringing of Alot - Sitamau 132kV Double Circuit Single Strung line (Route lenght-40 Kms)	Line	43 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Alot and 1 No. 132 KV feeder bay at existing 132kV Substation Sitamau	FB	2 Nos.
63		Package-V	400kV Double Circuit Double Strung line from Astha 400kV S/s to Ujjain 400kV S/s (Route length-100 Kms)	Line	180 CKM
			2 nos 400kV Feeder Bays at Astha 400kV S/s	FB	2 Nos.
			400kV Double Circuit Double Strung line from Indore(PGCIL) 765kV S/s to Ujjain 400kV S/s	Line	90 CKM
			2 nos 400kV Feeder Bays at Indore (PGCIL) 765kV S/s	FB	2 Nos.
64		Package-VI	New 400/220kV S/s at Ujjain with Bus Reactor	SS	2x315 + 2x160 MVA
			400kV Double Circuit Double Strung line from Nagda 400kV S/s to Ujjain 400kV S/s (Route length-65 Kms)	Line	106 CKM
			2 nos 400kV Feeder Bays at Nagda 400kV S/s	FB	2 Nos.

65	**Madhya Pradesh**	Package-VII (Lot-I)	Second circuit stringing of Sabalgarh 220kV – Vijaypur 132kV Double Circuit Single Strung line	Line	32 CKM
			1 no 132/33kV 40 MVA Additional Transformer at existing 132kV Substation Vijaypur	SS	40 MVA
			1 No. 132 KV feeder bay at existing 132kV Substation Vijaypur and 1 No. 132kV feeder bay at existing 220kV Substation Sabalgarh	FB	2 Nos.
			Second circuit stringing of Astha 400kv - Ichhawar 132kV Double Circuit Single Strung line	Line	35 CKM
			1 No. 132 KV feeder bay at existing 400kV Substation Astha and 1 No. 132 KV feeder bay at existing 132kV Substation Ichhawar	FB	2 Nos.
			Second circuit stringing of Susner(Nalkheda) – Moman Badodiya 132kV Double Circuit Single Strung line	Line	30 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Moman Badodiya	FB	1 No.
			220kV Double Circuit Double Strung line from Ujjain 400kV S/s to Susner (Nalkheda)220kV S/s	Line	200 CKM
			New 220/132kV S/s at Susner (Nalkheda)	SS	2x160+1x63 MVA
			LILO both circuits of Ujjain – Badod and Ujjain - Nagda 220kV line at Ujjain 400kV S/s	Line	80 CKM
			LILO both circuits of Ujjain – Tarana 132kV line at Ujjain 400kV S/s	Line	20 CKM
		Package-VII (Lot-II)	132kV Double Circuit Double Strung line from Alot S/s to Zarda S/s	Line	50 CKM
			2 nos 132kV Feeder Bays at Alot 132kV S/s and 2 nos 132kV Feeder Bays at Zarda 132kV S/s	FB	4 Nos.
			Second circuit stringing of Mahidpur - Zarda 132kV Double Circuit Single Strung line	Line	24 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Mahidpur and 1 No. 132 KV feeder bay at existing 132kV Substation Zarda	FB	2 Nos.
			220kV Double Circuit Double Strung line from Badod 220kV S/s to Susner (Nalkheda) 220kV S/s	Line	70 CKM
			2 nos 220kV Feeder Bays at Badod 220kV S/s	FB	2 Nos.
			LILO one circuits of Susner – Jeerapur 132kV line at Susner (Nalkheda) 220kV S/s	Line	40 CKM
			Line in Line out (LILO) one circuits of Agar – Susner 132kV line at Susner(Nalkheda) 220kV S/s (Route length-20 Kms)	Line	40 CKM
			Second circuit stringing of Susner - Jeerapur 132kV Double Circuit Single Strung line	Line	32 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Susner and 1 No. 132 KV feeder bay at existing 132kV Substation Jeerapur	FB	2 Nos.
			Second circuit stringing of Tarana - Makdon 132kV Double Circuit Single Strung line	Line	28 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Tarana and 1 No. 132 KV feeder bay at existing 132kV Substation Makdon	FB	2 Nos.
			LILO of Ujjain 220 - Agar 132 line at Makdon 132kv	Line	60 CKM
			2 nos 132kV Feeder Bays at Makdon 132kV S/s	FB	2 Nos.
			220kV Double Circuit Double Strung line from Rajgarh(B) 220kV S/s to Susner(Nalkheda) 220kV S/s	Line	144 CKM
			2 nos 220kV Feeder Bays at Rajgarh(B) 220kV S/s	FB	2 Nos.
			Second circuit stringing of Agar - Susner 132kV Double Circuit Single Strung line	Line	35 CKM
			1 No. 132 KV feeder bay at existing 132kV Substation Agar and 1 No. 132 KV feeder bay at existing 132kV Substation Susner	FB	2 Nos.

66	**Madhya Pradesh**	Package-VIII	400KV 315 MVA Power transformers - 2 Nos - Mandsaur, 2 Nos - Sagar, 2 Nos - Ujjain	Transformer	315MVA (6 Nos.)
			220KV 160 MVA Power transformers - 2 Nos - Mandsaur400, 2 Nos - Ujjain400, 2 Nos - Ratangarh, 2 Nos - Sailana, 2 Nos - Jaora Upgradation, 2 Nos - Susner, 1 No.- Sendhwa, 1 No.- Kanwan, 1 No. - Gudgaon	Transformer	160MVA (15 Nos.)
			132KV Power transformers - 63MVA, 132/33kV Transformers - 6 Nos Sendhwa,Kanwan, Ratangarh, Sailana, Gudgaon, Susner 40MVA, 132/33kV Transformers - 3 Nos Jaora Upgradation, Nalkheda, Vijaypur	Transformer	63MVA (6 Nos.) 40MVA (3 Nos.)

Maharashtra has divided its three packages into 27 elements

67 - 69	**Maharashtra**	1	2nd ckt. stringing of 220 kV Miraj - Ichalkaranji (Tilawani) SCDC line	Line	30
		2	132 kV Kavthemahankal - Savlaj SCDC line	Line	25
		3	132 kV Kadegaon - Kirloskarwadi DCDC line	Line	28
		4	132 kV Kavthemahankal - Jath D/C line	Line	64
		5	LILO of 132 kV Lonand - Phaltan S/C line at Phaltan MIDC	Line	6
		6	LILO of 132 kV Mayni - Dighanchi S/C line at Mhaswad S/s.	Line	10
		7	2nd ckt. stringing of 132 kV Kale (T) - Warna line	Line	20
		8	2nd ckt. stringing of 132 kV Aundh - Dahiwadi SCDC line	Line	30
		9	132 kV D/C line from 220 kV Sawantwadi - Kudal	Line	50
		10	2nd ckt. stringing of 132 kV Manmad - Yeola SCDC line	Line	30
		11	LILO on 132 kV Ozar - Chandwad S/C line at 220/132 kV Pimpalgaon S/s.	LILO	10
		12	2nd ckt. stringing of 132 kV Nandurbar - Visarwadi D/C line	Line	44
		13	2nd ckt stringing of 220 kV Valve - Jamde SCDC line	Line	30
		14	1 x 25 MVAR Bus reactors at 220 kV Dhule s/s.	Reactor	-
		15	220 kV D/C line from M/s.Vish Wind S/s. - Bhenda	Line	120
		16	M/C line to connect 132KV Khaprale- Sangamner line to 220KV Sinnar (Musalgaon) S/s.	Line	20
		17	132 kV Ahmednagar - Supa DC Line using existing Corridor.	Line	47
		18	2nd ckt. stringing of 132 kV Shevgaon - Bhenda D/C line	Line	26
		19	2nd ckt. stringing of 132 kV Shevgaon - Pathardi D/C line	Line	23
		20	132 kV Ahmednagar - Ahmednagar MIDC D/C line	Line	28
		21	132 KV D/C Babhaleshwar - Rahuri - Ahmednagar MIDC line	Line	120
		22	2nd ckt. stringing of 132 kV Shevgaon - Ghodegaon SCDC line	Line	40
		23	132 kV Kharda - Ashti D/C partly on M/C tower	Line	91
		24	2nd ckt. stringing 132 kV Georai - Beed SCDC	Line	45
		25	LILO of one ckt of 220 kV Beed - Patoda D/C line at 220KV Manjarsumbha s/s.	Line	10
		26	LILO of 132 kV Sawangi - Pishor at 220 kV Phulambri S/s.	Line	13
		27	LILO of 132 kV Padegaon - Sillod S/C line at 220 kV Phulambri S/s.	Line	13

70	**Rajasthan**	ICB-1	400/220kV GSS at Jaisalmer-2 alongwith 2 Nos. bays at Barmer and 1 No. bay at Akal	SS	1000 MVA
71		ICB-2	400kV D/C Jaisalmer -2 -Barmer line	Line	260kms.
			400kV D/C Barmer -Bhinmal (PGCIL) line	Line	280kms.
72		ICB-3	Procurement of Moose Conductor for 400kV D/C Jaisalmer (2) - Barmer line , Barmer -Bhinmal (PGCIL) line and 400kV S/C Jaisalmer(2)-Akal	Procurement	
73		ICB-4	Procurement of 2 Nos. 400/220kV 500MVA Power Transformers.	Procurement	1000 MVA
			Procurement of 1 Nos. 400kV 125MVAR Bus Type Reactor.	feeder modification	125MVAR
74		ICB5	220/132 kV GSS at Chhatargarh	SS	160 MVA
75		ICB6	220 kV D/C Gajner-Chhatargarh line	Line	100
			132 kV D/C Chhatargarh-Loonkaransar line	Line	77
76		ICB7	220 kV D/C Akal-Jaisalmer-2 line	Line	75
77		ICB-8	LILO of one circuit of 400kV D/C Akal- Jodhpur(new) line at 400kV GSS Jaisalmer-2	Line	10
78		ICB-9	2 Nos. 220kV feeder bays at 400kV GSS Jaisalmer-2 and 1 no. 400kV feeder bay at 400kV GSS Jaisalmer-2 with additional hardware for conversion of one 400kV twin Moose bay to Quad Moose bay	feeder bay	….
79		ICB-10	Procurement of 3 Nos. 400/220kV 500MVA Power Transformers at 400kV GSS Akal along with dismantling ,shifting of 2 Nos. 400/220kV 315MVA Power Transformers at 400kV GSS Jodhpur-New (Kakani) and 1 No. 400/220kV 315MVA Power Transformer at 400kV GSS Jodhpur-Old (Surpura).	Procurement	1500 MVA
			Procurement of Power Transformers 160MVA- 2No. and 40/50 MVA-1 No.	Procurement	370 MVA
80		ICB-11	Procurement of Moose Conductor- 240 Kms approx. , Zebra Conductor- 1050 Kms approx. Panther Conductor- 465 Kms approx (for 400kV, 220kV and 132 kV lines at Jaisalmer, Chattargarh, Gajner, Loonkaransar)	Procurement	

81	**Tamil Nadu**	1	400 kV SS at Thennampaati	Sub station	1030 MVA
82		2	Thenampatty - Kayathar 400 kV line	Transmission line	48 CKM
83		3	Rasipalayam - Palavadi 400 kV transmission line	Transmission line	378 CKM
84		4	230 KV Transmission lines & Bay Extns: a. Kayathar 400 kV Substation – Tuticorin b. Veeranam-Tirunelveli (PGCIL) Substation c. Veeranam- Kodikurichi d. Ingur- Arasur 400 kV Substation (PGCIL) e. Arasur 400 kV Substation (PGCIL) – Gobi SS f. Cuddalore- SP Koil (Veerapuram)	Transmission line	665 CKM
85		5	Augmentation of 230/110KV transformation capacity at six existing Sub-stations - Sembatty SS, Anupankulam SS, Cuddalore SS, Pudukottai SS, Tiruvannamalai SS, Villupuram SS	Sub station	1220 MVA

NOTE : The detailed project components (including bay extensions, bus reactors, conductor type, etc.) would be as per the technical approvals of CEA communicated to the States from time to time