भारत सरकार
केंद्रीय विद्युत प्राधिकरण
सेवा भवन (उत्तरी खंड) कक्ष सं. 622, छठा तल,
आर.के.पुरम, नई दिल्ली-110066
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सार्वजनिक नोटिस

केंद्रीय विद्युत प्राधिकरण (के.वि.प्रा.), विद्युत अधिनियम, 2003 की धारा 177 के तहत प्रदत्त शक्तियों का प्रयोग करते हुए **केंद्रीय विद्युत प्राधिकरण (विद्युत संयंत्रों और विद्युत लाइनों के निर्माण के लिये तकनीकी मानक) (पहला संशोधन) विनियमों, 2025** के प्रारूप को अधिसूचित करने का प्रस्ताव करता है। हितधारकों से टिप्पणी हेतु विनियमों का उक्त प्रारूप के.वि.प्रा. की वेबसाइट www.cea.nic.in पर उपलब्ध हैं। प्रारूप विनियमों का निरीक्षण **30.05.2025** तक, किसी भी कार्य दिवस को, 11:00 बजे से 16:00 बजे के मध्य, मुख्य अभियंता (विधि), के.वि.प्रा, कमरा नं. 622, सेवा भवन (उत्तरी खंड), छठा तल, आर.के.पुरम, नई दिल्ली-110066 के कार्यालय में भी किया जा सकता है।

2. सभी हितधारकों एवं आम जनता से प्रारूप विनियमों पर अपनी टिप्पणियां ई-मेल **(celegal-cea@gov.in)** अथवा डाक के जरिए मुख्य अभियंता (विधि), कमरा नं. 622, सेवा भवन, (उत्तरी खंड), 6वां तल, आर.के.पुरम, नई दिल्ली-110066 को **30.05.2025** तक भेजने का अनुरोध किया जाता है।

(राकेश कुमार)
सचिव, के.वि.प्रा.

[To be published in the Gazette of India, Extraordinary, Part III, Section 4]

CENTRAL ELECTRICITY AUTHORITY
NOTIFICATION
New Delhi, the ……., 2025

F No. .....— In exercise of the powers conferred under clause (e) of sub-section (2) of section 177 of the Electricity Act, 2003 (36 of 2003) read with clause (b) of section 73 of the said Act, the Central Electricity Authority hereby makes the following regulations to amend the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022, namely: -

1. Short Title and Commencement- (1) These regulations may be called the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) (First Amendment) Regulations, 2025

   (2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines), 2022 , Schedule-VII referred to in the sub-Regulation (4) of Regulation 84 of the said Regulations shall be substituted as under:—

SCHEDULE-VII

(See sub-Regulation (4) of Regulation 84)

Table 1

Right-of-way (ROW) for normal route, forest area, urban area, populated area and approach section near substation for Lattice Structures with ACSR conductor

Voltage level	Configuration	Conductor type	Terrain	Design Span (m)	String Type	RoW width (m)
			Normal route without constraint	400	"I" String	67
					"V" String	
					Tension	
			Forest		"V" String	56

765kV D/C	Vertical	ACSR ZEBRA		300	Tension	
			Urban area / populated area / approach section near substation	250	"V" String	54
					Tension	
765kV S/C	Vertical /Delta	ACSR BERSIMIS	Normal route without constraint	400	"I" String	64
					"V" String	
					Tension	
			Forest	300	"V" String	54
					Tension	
			Urban area / populated area / approach section near substation	250	"V" String	52
					Tension	
765kV S/C	Horizontal	ACSR BERSIMIS	Normal route without constraint	400	"I" String	74
					"V" String	
					Tension	
			Forest	300	"V" String	65
					Tension	
			Urban area /populated area/ approach section near substation	250	"V" String	62
					Tension	
±800kV HVDC	Horizontal	ACSR Lapwing	Normal route without constraint / Forest/ Urban	400	"Y" String	69
±500kV HVDC	Horizontal	ACSR Lapwing	Normal route without constraint / Forest/ Urban	400	"V" String	52
					"I" String	46

400kV D/C	Vertical	ACSR MOOSE	Normal route without constraint	400	"V" String	
					Tension	
			Forest	300	"V" String	40
					Tension	
			Urban area / populated area / approach section near substation	250	"V" String	38
					Tension	
400kV S/C	Horizontal/ Vertical	ACSR MOOSE	Normal route without constraint	400	"I" String	52
					"V" String	
					Tension	
			Forest	300	"V" String	47
					Tension	
			Urban area / populated area / approach section near substation	250	"V" String	44
					Tension	
1200kV	Horizontal	ACSR Moose	Normal route without constraint / Forest/ Urban	400	"V" String	89
220kV D/C	Vertical	ACSR ZEBRA	Normal route without constraint	350	"I" String	32
					"V" String	
					Tension	
			Forest	300	"V" String	28
					Tension	
			Urban area / populated area / approach section near substation	200	"V" String	24
					Tension	
132kV D/C	Vertical	ACSR PANTHER	Normal route without constraint	320	"I" String	25

					"V" String Tension	
			Forest	200	"V" String Tension	21
			Urban area / populated area / approach section near substation	150	"V" String Tension	19
110 kV D/C		ACSR PANTHER	Normal route without constraint	305	"I" String	22
					"V" String Tension	
			Forest	200	"V" String Tension	19
			Urban area / populated area / approach section near substation	150	"V" String Tension	17
66kV	Vertical	ACSR PANTHER	Normal route without constraint	250	"I" String	18
					"V" String Tension	
			Forest	150	"V" String Tension	14
			Urban area / populated area / approach section near substation	100	"V" String	13

Table 2

Right of Way for Normal Route, Forest Area, Urban Area / Populated Area / Approach Section near Substation for Pole Structures with ACSR conductor

Voltage Level	Configuration	Conductor type	Terrain	Design Span(m)	String Type	ROW width (m)
765 kV S/C	Vertical DELTA	ACSR BERSIMIS	Normal route without constraints	250	Tension I String	**52**
			Forest area	250	Tension V String	**46**
			Urban area/Populated area/approach section near substation			
400 kV D/C	Vertical	ACSR MOOSE	Normal route without constraint	250	Tension I String	**36**
			Forest area	250	Tension V String	**31**
			Urban area/Populated area/approach section near substation			
220 kV D/C	Vertical	ACSR ZEBRA	Normal route without constraint	350	Tension I String	**31**
			Forest area	250	Tension I String V String	**26**
			Urban area/Populated area/approach	200	Tension I String	**24**

			section near substation		V String	
132 kV D/C	Vertical	ACSR Panther	Normal route without constraint	325	Tension	**25**
					I String	
			Forest area	200	Tension	**20**
					I String	
					V String	
			Urban area/Populated area/approach section near substation	150	Tension	**18**
					I String	
					V String	
110 kV D/C	Vertical	ACSR Lynx	Urban area/Populated area/approach section near substation	150	Tension	**16**
					I String	
					V String	

Table 3

Right Of Way for Normal Route, Forest Area, Urban Area / Populated Area / Approach Section near Substation for Pole Structures with HTLS conductor

Voltage Level	Configuration	Conductor type	Terrain	Design Span(m)	String Type	ROW width (m)
400 kV D/C	Vertical	CFCC Dia:31.77mm	Normal route without constraint	250	Tension	**34**
					I String	
			Forest area	250	Tension	**29**
					V String	
			Urban area/Populated area/approach section near substation			

400kV D/C	Vertical	ACSS Dia:37.77mm	Normal route without constraint	250	Tension	**39**
					I String	
			Forest area	250	Tension	**33**
			Urban area/Populated area/approach section near substation		V String	
400kV D/C	Vertical	GAP Dia:29.9mm	Normal route without constraint	250	Tension	**37**
					I String	
			Forest area	250	Tension	**31**
			Urban area/Populated area/approach section near substation		V String	
220kV D/C	Vertical	CFCC Dia:28.14mm	Normal route without constraint	350	Tension	**26**
					I String	
					V String	
			Forest area	250	Tension	**23**
					I String	
					V String	
			Urban area/Populated area/approach section near substation	200	Tension	**22**
					I String	
					V String	
220kV D/C	Vertical	ACSS Dia:28.04mm	Normal route without constraint	350	Tension	**33**
					I String	
			Forest area	250	Tension	**27**

					I String	
					V String	
			Urban area/Populated area/approach section near substation	200	Tension	**25**
					I String	
					V String	
220kV D/C	Vertical	GAP Dia:27.1mm	Normal route without constraint	350	Tension	**31**
					I String	
			Forest area	250	Tension	**26**
					I String	
					V String	
			Urban area/Populated area/approach section near substation	200	Tension	**24**
					I String	
					V String	
132 kV D/C	Vertical	CFCC Dia:21 mm	Normal route without constraint	320	Tension	**22**
					I String	
			Forest area	200	Tension	**18**
					I String	
					V String	
			Urban area/Populated area/approach section near substation	150	Tension	**17**
					I String	
					V String	
132 kV D/C	Vertical	ACSS Dia:20.5 mm	Normal route without constraint	320	Tension	**26**
					I String	
					V String	
			Forest area	200	Tension	**21**
					I	

					String	
					V String	
			Urban area/Populated area/approach section near substation	150	Tension	**19**
					I String	
					V String	
132 kV D/C	Vertical	GAP Dia:20.60mm	Normal route without constraint	320	Tension	**25**
					I String	
			Forest area	200	Tension	**20**
					I String	
					V String	
			Urban area/Populated area/approach section near substation	150	Tension	**19**
					I String	
					V String	

Table-4

Right of Way for Normal Route, Forest Area, Urban Area / Populated Area / approach Section near Substation for Lattice Tower Structures and HTLS conductor

Voltage level (kV)	Configuration	Conductor type	Terrain	String Type	Design Span (m)	ROW width (m)
400 kV D/C	Vertical	CFCC Dia:31.77mm	Normal Route	I string	400	**43**
				V String		
				Tension		
		ACSS	Normal Route	I string	400	**50**

		Dia:37.77mm		V String Tension		
		GAP Dia:29.9mm	Normal Route	I string V String Tension	400	**48**
		CFCC Dia:31.77mm	Forest	V String Tension	300	**38**
		ACSS Dia:37.77mm	Forest	V String Tension	300	**43**
		GAP Dia:29.9mm	Forest	V String Tension	300	**41**
		CFCC Dia:31.77mm	Urban/Populated/ approach section near substation	V String Tension	250	**35**
		ACSS Dia:37.77mm	Urban/Populated/ approach section near substation	V String Tension	250	**40**
		GAP Dia:29.9mm	Urban/Populated/ approach section near substation	V String Tension	250	**38**
220 kV D/C	Vertical	CFCC Dia:28.14mm	Normal Route	I string V String Tension	350	**27**
		ACSS Dia:28.04mm	Normal Route	I string V String Tension	350	**33**
		GAP Dia:27.1mm	Normal Route	I string V String Tension	350	**31**

		CFCC Dia:28.14mm	Forest	V String / Tension	300	**24**
		ACSS Dia:28.04mm	Forest	V String / Tension	300	**30**
		GAP Dia:27.1mm	Forest	V String / Tension	300	**28**
		CFCC Dia:28.14mm	Urban/Populated/ approach section near substation	V String / Tension	250	**23**
		ACSS Dia:28.04mm	Urban/Populated/ approach section near substation	V String / Tension	250	**27**
		GAP Dia:27.1mm	Urban/Populated/ approach section near substation	V String / Tension	250	**26**
132 kV D/C	Vertical	CFCC Dia:21 mm	Normal Route	I string / V String / Tension	320	22
		ACSS Dia:20.5 mm	Normal Route	I string / V String / Tension	320	27
		GAP Dia:20.60mm	Normal Route	I string / V String / Tension	320	26
		CFCC Dia:21 mm	Forest	V String / Tension	200	19
		ACSS Dia:20.5 mm	Forest	V String / Tension	200	22

		GAP Dia:20.60mm	Forest	V String / Tension	200	21
		CFCC Dia:21 mm	Urban/Populated/ approach section near substation	V String / Tension	150	18
		ACSS Dia:20.5 mm	Urban/Populated/ approach section near substation	V String / Tension	150	20
		GAP Dia:20.60mm	Urban/Populated/ approach section near substation	V String / Tension	150	19
66 kV D/C	Vertical	CFCC Dia: 21 mm	Normal Route	I string / V String / Tension	250	**16**
		ACSS Dia: 20.5 mm	Normal Route	I string / V String / Tension	250	**20**
		GAP Dia: 20.6 mm	Normal Route	I string / V String / Tension	250	**21**
		CFCC Dia: 21 mm	Forest	V String / Tension	150	**13**
		ACSS Dia: 20.5 mm	Forest	V String / Tension	150	**16**
		GAP Dia: 20.6 mm	Forest	V String / Tension	150	**14**
		CFCC Dia: 21 mm	Urban/Populated/ approach section near substation	V String / Tension	100	**12**

		ACSS Dia: 20.5 mm	Urban/Populated/ approach section near substation	V String Tension	100	**14**
		GAP Dia: 20.6 mm	Urban/Populated/ approach section near substation	V String Tension	100	**13**

Note: The following shall be applicable for the above Tables – 1, 2, 3 & 4:

- ***a)*** *D/C: double circuit; S/C: single circuit.*
- ***b)*** *For Carbon Fiber Composite Core (CFCC), Sag is calculated at 180 °C.*
- ***c)*** *For Aluminium Conductor Steel Supported (ACSS), Sag is calculated at 250 °C.*
- ***d)*** *For Gap-type Aluminium Conductor Steel Reinforced (GAP conductor), Sag is calculated at 210 °C.*
- ***e)*** *Sag for the above conductors are as per design mentioned in 'CEA's Guidelines for Rationalised use of High Performance Conductors'.*
- ***f)*** *All the electrical clearances and safety parameters shall be met within the RoW as per relevant standards and CEA regulations.*
- ***g)*** *During the process of determining RoW width, the general safety requirements including minimum live metal clearance, ground clearance, surface gradient, corona loss, Radio Interference Voltage (RIV), Audible Noise and minimum mid-span separation between earth wire and conductor, Electromagnetic Field (EMF i.e. induced voltages etc) exposure limits and design consideration for tower structure, shall be kept as per relevant standards and CEA regulations.*
- ***h)*** *The RoWs provided in the tables have been calculated based on the specified design span, maximum sag of the conductor, horizontal distance of the conductor, attachment point from centre of Pole/ Tower as per prevalent practices and horizontal electrical clearance requirement as per CEA (Measures Relating to Safety and Electric Supply) Regulations 2023. The RoW may vary with change in any of the above parameters. If the calculated RoW are different from the above specified values, the same shall be got approved by the Authority before implementation in the field.*

(Rakesh Kumar)
Secretary

Note: The principal regulations were published in the Gazette of India, Extraordinary, Part III, Section 4, vide notification No. CEA-TH-17/1/2021-TETD Division, dated the 23rd December, 2022.