

Comments are invited on draft framework for generation of EPR Certificate including Item-wise average percentage composition in terms of weight of Key Metals for generation of EPR Certificate. The comments to be provided on wm3.cpcb@nic.in , tarundarbari.cpcb@gov.in & omesh.cpcb@supportgov.in by 23-08-2023

Draft Framework for generation of EPR Certificate under E-Waste (Management) Rules, 2022 for comments from stake holders

1. EPR certificates will be issued against key metals recycled from E-waste. The key metals are classified in 3 groups namely Precious Metals, Non-ferrous metals and Ferrous.

S.No	Group	Metals
1	Precious Metals	Gold (Au)
2	Non-Ferrous	Copper and Aluminum
3	Ferrous	Iron (including steel and galvanized iron)

2. In the initial two years, the Key Metals for generating EPR certificates will be limited to the precious metal Gold (Au), Non-Ferrous Metals [Al and Cu] and Iron [including steel and galvanized iron].
3. The EPR Certificate for Rare Earth and Other precious materials will also be considered and incentivized under EPR Regime.
4. The average material composition of key metals in terms of weight has been given in Annexure I.
5. CPCB has verified the processing capacity of 11 e-waste recyclers across the country who have claimed that they have facilities for recovery of gold from E-Waste. It was found that the annual capacity for recovery of gold from e-waste is less than the EPR obligation of Producers. In view of this, the target EPR Certificates for gold has been reduced proportionally.
6. Considering the limitations in recycling infrastructure in the country, EPR obligation for gold may be 30% of total gold obligation in the first year of implementation that is in FY 23-24(1 year) and it will increase by 10% for next three years, thereafter by 20% in subsequent two years. (i.e. 40%,50%,60, 80 and 100% for the year 2028-29).
7. The gap between total EPR Obligation in terms of gold and gold recycling capacity will be bridged in five years.
8. The EPR obligation of Producers in terms of non-ferrous (Cu and Al) and ferrous metals (Fe) will be 100% of the obligation.
9. In case any Producer fulfils EPR Obligation in excess of the assigned target for gold in current financial year, say by X % which is equivalent to Y kg, then;
 - a) The producer may opt to reduce EPR liability for gold by Y kg in next F/Y.
OR
 - b) The Producer may opt to purchase less quantity of non-ferrous metals, equivalent to X% of the EPR liability for non-ferrous metals in current F/Y.

Example:

F/Y: 2023 -24

EPR Liability for Gold: 0.0015 Tonnes

EPR Liability for Non-Ferrous metals: 9 tonnes

EPR Target achieved for gold: 0.0020 Tonnes

EPR Target achieved in Excess: 33.3333%

Options available to Producer:

- (i) In the F/Y 2024-2025, the Producer's EPR target for gold will be reduced by 0.0005 Tonnes; [(0.002-0.0015) Tonnes]

OR

(ii) In the F/Y 2023-2024 the Producer's EPR target (of 9 tonnes) for Non Ferrous metals will be reduced by 33.3333% that is 3.0 Tonnes. The effective target will be 6.0 Tonnes. [(9.0-3.0) Tonnes]

10. In case the Producer fails to meet EPR Obligation for gold in current financial year, say by X % which is equivalent to Y kg, then;

- a. The producer may opt to increased EPR liability for gold by Y kg in next FY. or
- b. The Producer may opt to purchase more quantity of non-ferrous certificates, equivalent to X% of the EPR liability for non-ferrous metals in current financial year.

Example:

F/Y: 2023 -24

EPR Liability for Gold: 0.0015 Tonnes

EPR Liability for Non-Ferrous metals: 9 tonnes

EPR Target Achieved: 0.0010 Tonnes

Deficit in meeting EPR Target: 33.3333%

Options available to Producer:

(i) In the F/Y 2024-2025 the Producer's EPR liability for gold will be increased by 0.0005 Tonnes; [(0.0015-0.0010) Tonnes].

OR

(ii) In the F/Y 2023-2024 the Producer's EPR liability for non-ferrous metals (of 9 tonnes) will be increased by 33.3333%, that is 3.0 Tonnes. The effective target will be 12.00 Tonnes. [(9.0+3.0) Tonnes]

Annexure – I

**Item-wise average percentage composition in terms of weight of Key Metals
for generation of EPR Certificate**

Sl. No.	Categories of electrical and electronic equipment	Electrical and electronic equipment code	Key metals for EPR certificate generation	Percentage of recoverable Key Metals			
				Au	Cu	Fe*	Al
1	Centralized data processing: Mainframes, Minicomputers	ITEW1	Au, Cu, Al & Fe	0.0008	4.5	30	3
2	Personal Computing: Personal Computers (Central Processing unit with input and output devices)	ITEW2	Au, Cu, Al & Fe	0.0004	1.2	35	3
3	Personal Computing: Laptop Computers (Central Processing unit with input and output devices)	ITEW3	Au, Cu, Al & Fe	0.0004	0.19	5	11
4	Personal Computing: Notebook Computers	ITEW4	Au, Cu, Al & Fe	0.0004	0.19	5	7.5
5	Personal Computing: Notepad Computers	ITEW5	Au, Cu, Al & Fe	0.0004	0.04	-	4.71
6	Printers including cartridges	ITEW6	Cu, Al & Fe	-	0.01	10	1.25
7	Copying Equipment	ITEW7	Cu, Al & Fe	-	0.1	20	1.15
8	Electrical and Electronic Typewriters	ITEW8	Cu & Fe	-	1.5	45	-
9	User terminal and Systems	ITEW9	Cu & Fe	-	1.5	45	-
10	Facsimile	ITEW10	Cu, Al & Fe	-	0.01	16	1.4
11	Telex	ITEW11	Cu, Al & Fe	-	0.45	25	1.25
12	Telephones	ITEW12	Cu	-	0.55	-	-

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				Au	Cu	Fe*	Al
13	Pay telephones	ITEW13	Cu & Fe	-	0.5	25	-
14	Cordless telephones	ITEW14	Cu & Fe	-	2	5	-
15	Cellular telephones	ITEW15, (F. P)	Au, Cu & Fe	0.0015	0.85	17.02	-
		ITEW15, (S. P)	Au, Cu, Al & Fe	0.00157	3	3	7.97
16	Answering System	ITEW16	Cu & Fe	-	1.75	85	-
17	Products and or equipment of transmitting sound, images and or other information by telecommunication s	ITEW17	Cu, Fe	-	-	-	-
18	BTS (all components excluding structure of tower)	ITEW18	Au, Cu & Fe	0.0035	11	27.5	-
19	Tablets, I-PAD	ITEW19	Au, Cu & Fe	0.0004	3.5	40	-
20	Phablets	ITEW20	Au, Cu & Fe	0.00045	5.5	40	-
21	Scanners	ITEW21	Cu	-	0.01	16.01	-
22	Routers	ITEW22	Cu	-	3	-	-
	LAN Switches	ITEW22	Cu	-	3	-	-
	Access points	ITEW22	Cu	-	3	-	-
23	GPS	ITEW23	Cu	-	4.5	-	-
24	UPS	ITEW24	Cu	-	11	-	-

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				Au	Cu	Fe*	Al
25	Inverter	ITEW25	Cu	-	11	-	-
26	Modems	ITEW26	Cu	-	8.5	-	-
27	Electronic data storage devices	ITEW27	Cu	-	3	-	-
28	Television sets (including sets based on Liquid Crystal Display and light Emitting Diode Technology)	CEEW1	Au, Cu & Fe	0.00012	0.5	27.1	-
29	Refrigerator	CEEW2	Cu, Al & Fe	-	0.76	24.21	4
30	Washing Machine	CEEW3	Cu, Al & Fe	-	0.73	30	3
31	Air- Conditioners excluding centralised air conditioning plants	CEEW4	Cu, Al & Fe	-	7.5	45	8.4
32	Fluorescent and other Mercury containing lamps	CEEW5	Fe & Al	-	-	1	1
33	Screen, Electronic Photo frames, Electronic Display Panel, Monitors	CEEW6	Au, Cu & Fe	0.0004	0.15	24	-
34	Radio sets	CEEW7	Cu & Fe	-	2.5	7	-
35	Set top Boxes	CEEW8	Cu & Fe	-	0.5	28.7	-
36	Video Cameras	CEEW9	Cu & Fe	-	0.1	3	-
37	Video Recorder	CEEW10	Cu & Fe	-	0.2	12.3	-
38	Hi-Fi Recorder	CEEW11	Cu & Fe	-	1.5	25	-
39	Audio Amplifiers	CEEW12	Cu, Al & Fe	-	4.5	42.6	4.3

Sl. No.	Categories of electrical and electronic equipment	Electrical and electronic equipment code	Key metals for EPR certificate generation	Percentage of recoverable Key Metals			
				Au	Cu	Fe*	Al
40	Other products and or equipment for the purpose of recording and or reproducing sound and or images including signals and other technologies for the distribution of sound and image by telecommunication s	CEEW13	Cu, Al & Fe	-	0.1	12.9	4.8
41	Solar panels/cells, solar Photovoltaic panels/cells/module s.	CEEW14	Fe & Al	-	-	1	13
42	Luminaires for fluorescent lamps with the exception of luminaires in households	CEEW15	Cu, Al & Fe		0.5	9	13.5
43	High intensity discharge lamps, including pressure sodium lamps and metal halide lamps	CEEW16	Fe & Al	-	-	8	9
44	Low pressure sodium lamps	CEEW17	Fe & Al	-	-	11	3
45	Other lighting and or equipment for the purpose of spreading and or controlling light excluding filament bulbs	CEEW18	Fe & Al	-	-	11	3
46	Digital camera	CEEW19	Cu & Al	-	0.1	-	6.3
47	Large cooling appliances	LSEEW1	Cu, Al & Fe	-	2	49	1.4
48	Freezers	LSEEW2	Cu, Al & Fe	-	2	51	1.4
49	Other large appliances used for refrigeration, conservation and	LSEEW3	Cu, Al & Fe	-	2	49	1.4

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				Au	Cu	Fe*	Al
	storage of food						
50	Clothes dryers	LSEEW4	Cu, Al & Fe	-	1	17	1
51	Dish Washing Machines	LSEEW5	Cu & Fe	-	4	55	-
52	Electric cookers	LSEEW6	Cu, Al & Fe	-	0.15	7.5	5
53	Electric stoves	LSEEW7	Cu, Al & Fe	-	0.15	19.5	9.5
54	Electric hot plates	LSEEW8	Cu, Al & Fe	-	0.25	39.5	0.25
55	Microwaves, Microwave Oven	LSEEW9	Cu, Al & Fe	-	0.5	50	1.5
56	Other large appliances used for cooking and other processing food appliances used	LSEEW10	Cu, Al & Fe	-	1	42.5	4.5
57	Electric heating appliances	LSEEW11	Cu, Al & Fe	-	2	40	2
58	Electric radiators	LSEEW12	Cu & Fe	-	2	41.5	-
59	Other large appliances fan or heating rooms, beds, seating furniture	LSEEW13	Cu & Fe	-	2	43.5	-
60	Electric fans	LSEEW14	Cu, Al & Fe	-	6	55	5
61	Other fanning, exhaust ventilation and conditioning equipment	LSEEW15	Cu, Al & Fe	-	3	50	3
62	Vacuum cleaners	LSEEW16	Fe & Al	-	-	2.87	2.5
63	Carpet sweepers	LSEEW17	Cu, Al & Fe	-	1.5	11	2.5

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				Au	Cu	Fe*	Al
64	Other appliances for cleaning	LSEEW18	Cu, Al & Fe	-	1.5	11	2.5
65	Appliances used for sewing, knitting, weaving and other processing for textiles	LSEEW19	Cu, Al & Fe	-	1.75	47.5	2.5
66	Iron and other appliances for ironing, mangling and other care of clothing	LSEEW20	Cu, Al & Fe	-	1.5	47.5	2.5
67	Grinders, coffee machines and equipment for opening and or sealing containers and or packages	LSEEW21	Cu, Al & Fe	-	1.25	32.5	1.25
68	Smoke detector	LSEEW22	Cu & Fe	-	2	1	-
69	Heating Regulators	LSEEW23	Cu & Fe	-	0.75	7	-
70	Thermostats	LSEEW24	Fe	-		27.5	-
71	Automatic dispensers for hot drinks	LSEEW25	Cu, Al & Fe	-	2.5	32.5	1.5
72	Automatic dispensers for hot and or cold bottles and or cans	LSEEW26	Cu, Al & Fe	-	1	32.5	3
73	Automatic dispensers for solid products	LSEEW27	Cu, Al & Fe	-	1	32.5	3
74	Automatic dispensers for money	LSEEW28	Cu, Al & Fe	-	0.1	57.5	0.45
75	All appliances which deliver automatically all kinds of products	LSEEW29	Cu, Al & Fe	-	1	32.5	3
76	Indoor air purifier	LSEEW30	Cu, Al & Fe	-	2	4.5	2
77	Hair dryer	LSEEW31	Cu, Al & Fe	-	0.5	9	5

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				Au	Cu	Fe*	Al
78	Electric shaver	LSEEW32	Cu, Al & Fe	-	0.1	1.5	1
79	Electric kettle	LSEEW33	Fe	-		41	8
80	Electronic display	LSEEW34	Au, Cu & Fe	0.0004	0.15	24	-
81	Drills	EETW1	Cu, Al & Fe	-	0.75	37.5	1
82	Saws	EETW2	Cu, Al & Fe	-	0.75	37.5	1
83	Sewing Machines	EETW3	Cu, Al & Fe	-	1.75	47.5	2.5
84	Equipment for turning, milling, sanding, grinding, sawing, cutting, shearing, drilling, making holes, punching, folding, bending and or similar processing of wood, metal and other materials	EETW4	Cu, Al & Fe	-	0.15	55	1.25
85	Tools for riveting, nailing and or screwing and or removing rivets, nails, screws and or similar uses	EETW5	Cu, Al & Fe	-	0.75	37.5	1
86	Tools for welding, soldering, and or similar use	EETW6	Cu, Al & Fe	-	7	45	10
87	Equipment for spraying, spreading, dispersing and or and other treatment of liquid and or gaseous substance by other means	EETW7	Cu, Al & Fe	-	0.5	9	0.5
88	Tools for mowing and or other gardening activities	EETW8	Cu, Al & Fe	-	1	37.5	1

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				Au	Cu	Fe*	Al
89	Electrical trains and or car racing sets	TLSEW1	Cu & Fe	-	0.02	6.5	-
90	Hand-held video games consoles	TLSEW2	Fe	-	-	0.2	-
91	Video games	TLSEW3	Cu & Fe	-	0.15	0.25	-
92	Computers for biking, diving, running, rowing, etc.	TLSEW4	Au, Cu, Al & Fe	0.0004	0.19	5	7.5
93	Sports equipment with electric and or electronic components	TLSEW5	Cu, Al & Fe	-	0.15	12	2.5
94	Coin slot machines	TLSEW6	Cu, Al & Fe	-	0.15	37.5	2.5
95	Radiotherapy equipment and accessories	MDW1	Cu, Al & Fe	-	2	36.5	10
96	Cardiology equipment and accessories	MDW2	Cu, Al & Fe	-	1.33	36.5	6
97	Dialysis equipment and accessories	MDW3	Cu, Al & Fe	-	2	-	8
98	Pulmonary ventilators and accessories	MDW4	Cu, Al & Fe	-	0.55	20	35.67
99	Nuclear Medicine Equipment and accessories	MDW5	Cu, Al & Fe	-	3.5	36.5	10
100	Laboratory equipment for in vitro diagnosis and accessories	MDW6	Cu, Al & Fe	-	1.2	-	14.73
101	Analysers and accessories	MDW7	Cu, Al & Fe	-	4.76	-	8
102	Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET) Scanner, Computed Tomography (CT) Scanner, & Ultrasound Equipment along with accessories	MDW8	Cu, Al & Fe	-	5.5	36.5	10

Sl. No.	Categories of electrical and electronic equipment	Electrical and electronic equipment code	Key metals for EPR certificate generation	Percentage of recoverable Key Metals			
				Au	Cu	Fe*	Al
103	Fertilization tests equipment and accessories	MDW9	Cu, Al & Fe	-	0.5	-	0.5
104	Other electric appliances/equipment/kits used for preventing, screening, detecting, monitoring, evaluating, reviewing, examining, investigating, probing, treating illness sickness, disease, disorder, affliction, infection, injury, trauma, abuse or disability including the Mobiles, Tablets or any other device with the features having the potential of sex selection and their accessories	MDW10	Cu, Al & Fe	-	3.5	36.5	10
105	Gas analyser	LIW1	Cu, Al & Fe	-	7.14	20	17.86
106	Equipment having electrical and electronic components	LIW2	Cu, Al & Fe	-	3.5	36.5	10