

**REVISED EMBEDDED TAX RATES**  
**AS PER BOCEs 23.03.2019**  
**(SoR 2016-17)**



**Statement showing the Schedule of Rates with Revised embedded tax rates for the Irrigation work items of SoR 2016-17**

SI No.	DESCRIPTION OF MATERIAL	Unit	S.Rate for 2016-17 (Rs)	Total embedded tax rate (%)
1	2	3	4	9
1	Acetylene gas	cum	320	18.12
2	Asphalt 80/100 Grade	Kg	45	19.68
3	Binding wire	Kg	55	18.13
4	Burnt stone slab 10 cm thick	sqm	310	18.12
5(a)	Ordinary Portland Cement (43/53 GRADE) Note: As per Monthly rate fixed by Sub-Committee	tonne	5500	28.81
5(b)	Portland Pozzolana Cement * (Note: As per Monthly rate fixed by Sub-Committee)	tonne	5400	28.81
5(c)	Portland Slag Cement * (Note: As per Monthly rate fixed by Sub-Committee)	tonne	5200	28.81
6	Chequered plate	Kg	63	18.13
7	Coarse aggregate 10-4.75 mm (excluding Seignioragecharges)	cum	875	-
8	Coarse aggregate 20-10 mm (excluding Seigniorage charges)	cum	1150	-
9	Coarse aggregate 40-20 mm (excluding Seigniorage charges)	cum	1090	-
10	Coarse aggregate 80-40 mm (excluding Seigniorage charges)	cum	635	-
	The aggregate rates mentioned above (from SI.No.7 to SI.No.10) are exclusive of Seigniorage charges but including blasting charges of Rs.70/cum and 25% machine crushing charges. However, if the metal is obtained from hand broken, the blasting and crushing charges shall be deducted. The aggregate shall be HB Stone of Granite, Dolomite, Dolerite and Trap. (Quartzite and Basalt with aggregate impact of less than 20)			
11	Coir brush	Each	50	18.12
12	Copper sheet 16 SWG	kg	625	18.13
13	Coursed rubble stone 30 x 30 x 45 cm (excluding Seigniorage charges)	Each	20	5
14	Coursed rubble stone 30 x 30 x 60 cm (excluding Seigniorage charges)	Each	28	5
15	Curing Compound	Ltr	130	28.81
16	D – cord	Rm	7	28.91
17	Delay - noiseless trunk	Each	16	14.53
18	Detonating fuse coil	Rm	7	28.91
19	Detonating shock tube / Cord relays	Rm	35	28.82
20	Detonator delay type	Each	16	28.82
21	Detonator electric	Each	10	28.87
22	Detonator ordinary	Each	5	28.87
23	Empty cement bag	Each	5	5.04
24	Explosive ANFO	kg	55	28.84
25	Explosive ANFO high strength booster	kg	70	28.79
26	Explosive small dia ( Kelvex-220 or equivalent)	kg	75	28.82
27	Fine aggregate/ sand(un- screened) for Concrete & Filtering items Filling & Blinding ) (excluding Seigniorage charges)	cum	560	5

SI No.	DESCRIPTION OF MATERIAL	Unit	S.Rate for 2016-17 (Rs)	Total embedded tax rate (%)
28	Fine aggregate /Sand (Screened) for Mortar, Plastering items and Sand blasting items (excluding Seigniorage charges) (Rs.76 is added towards screening Charges)	cum	760	5
29	Geo-textile ( filter fabric ) 160 gsm	sqm	100	28.8
30	Geo-textile ( filter fabric ) 200 gsm	sqm	120	28.81
31	Geo-textile ( filter fabric ) 250 gsm	sqm	140	28.82
32	G I Pipe 100 mm dia B Class	Rm	785	18.13
33	G I Pipe 15 mm dia A class	Rm	80	18.13
34	G I pipe 25 mm dia A class	Rm	150	18.12
35	G I pipe 40 mm dia B class	Rm	250	18.13
36	G I pipe 50 mm dia A class	Rm	290	18.13
37	G I Pipe 80 mm dia B Class	Rm	500	18.13
38	G.I Bolts / Nuts and Washers	kg	100	18.12
39 (a)	G.I sheet ( plain )	tonne	60000	18.13
39 (b)	G.I sheet ( corrugate )	tonne	64000	18.13
40	Hariyala turfing sods	sqm	28	14.52
41	Hectometer stone one line dressed	Each	260	5
42	Hemp yarn	kg	72	18.13
43	Honne wood planks	cum	57000	28.81
44	Hume pipe with collar 150 mm dia (NP2)	Rm	220	18.13
45	Hume pipe with collar 300 mm dia (NP2)	Rm	430	18.13
46	J- Bolts 30 cm long	Each	40	18.1
47	Jungle wood planks	cum	26000	14.5
48	Khandki stone 15 to 20 cm height	Each	11	4.96
49	Khandki stone 20 to 25 cm height	Each	13	5.01
50	Khandki stone 25 to 30 cm height	Each	16	4.99
51	Kilometer stone one line dressed	Each	470	5
52	LDPE sheet ( Geo membrane ) 500 micron thick	sqm	92	18.13
53	LDPE sheet ( Geo membrane ) 750 micron thick	sqm	130	18.13
54	LDPE sheet ( Geo membrane ) 1000 micron thick	sqm	180	18.13
55	M S Bolts / Nuts / Washers	kg	70	18.12
56	Murru (including loading charges <b>but excluding</b> Seigniorage charges )	cum	175	0
57	Oxalic acid	Ltr	80	18.13
58	Oxygen gas	cum	40	18.1
59	PVC sealing strip	Rm	44	18.15
60	PVC water stopper 310 mm wide	Rm	460	5
61	PVC pipe of 100 mm dia	Rm	160	5
62 (a)	<b>Reinforcement steel (HYSD/TMT )</b> from integrated steel producers like TATA, SAIL, VSP, Jindal as approved by Ministry of Steel. <b>*(Note: As per Monthly rate fixed by Sub-Committee)</b>	tonne	41000	18.12
62 (b)	<b>Reinforcement Steel (HYSD/TMT )</b> BIS approved secondary producers confirming to IS:1786-2008 must have valid licence and well established TMT process of either Thermax, Tempcore, Evcon Turbo & Turboquench.	tonne	<b>Monthly rate fixed by Sub-Committee</b>	
63	Resin bond Cement capsule	Each	45	18.11

SI No.	DESCRIPTION OF MATERIAL	Unit	S.Rate for 2016-17 (Rs)	Total embedded tax rate (%)
64	Rough stone 20 x 20 x 75 cm ( Including Loading charges <b>but excluding</b> Seigniorage Charges)	Each	21	5
65(a)	Shahabad stone slab (including loading charges <b>but excluding</b> Seigniorage charges)	sqm	240	5
65(b)	Shahabad stone slab (including loading charges <b>but excluding</b> Seigniorage charges)	sqm	140	5
66	Stone chips (at dump yard/Spoil)(including loading charges <b>but excluding</b> Seigniorage charges)	cum	185	5
67	Stone chips ( at quarry )(including loading charges <b>but excluding</b> Seigniorage charges)	cum	360	5
68	Structural steel angle / channel / beam / bars <b>Note: As per Monthly rate fixed by Sub-Committee</b>	tonne	37500	18.12
69	Structural steel plate / flats <b>Note: As per Monthly rate fixed by Sub-Committee</b>	tonne	41000	18.12
70	Super Plasticizer (Pozolith-55R/Conplast RP-264 or equivalent )	kg	45	14.5
71	Synthetic Enamel paint 1st quality	Ltr	240	28.81
72	Synthetic adhesive ( Resin + Hardener )	Kg	348	28.81
73	Tar felt joint filler board 12 mm thick	sqm	410	30.53
74	Tar felt joint filler board 20 mm thick	sqm	630	30.53
75	Through stones 20 x 20 x 30 to 45 cm (including loading charges <b>but excluding</b> Seigniorage charges)	Each	21	5
76	Through stones 25 x 25 x 45 to 60 cm long (including loading charges <b>but excluding</b> Seigniorage charges)	Each	37	5
77	Through stones 30 x 30 x 65 to 75 cm long (including loading charges <b>but excluding</b> Seigniorage charges)	Each	57	5
78	Un-coursed rubble stones ( at dump yard /Spoil) (including loading charges <b>but excluding</b> Seigniorage charges)	cum	165	5
79	Un-coursed rubble stones ( at quarry ) ( including loading charges <b>but excluding</b> Seigniorage charges)	cum	330	5
80	Water proofing compound	kg	80	28.8
81	Welding electrodes 4 mm dia	Each	13	18.18
82	Wire brush	Each	41	18.12
83	Wire mesh 20 gauge	sqm	220	18.13
84	Zinc chromate red oxide primer paint	Ltr	170	28.82
85	inorganic zinc silicate	Ltr	550	28.81
86	solvent less coal tar epoxy paint	Ltr	250	21.37
87	Zinc phosphate primer	Ltr	200	28.82
88	Allkyd based iron oxide paint	Ltr	175	28.81
89	a) Cost of hdpe (80mm dia)	Rm	220	18.13
	b) light black MS casing pipe 80 mm dia (4mm thick)	Rm	680	18.13
90	welded steel wire fabric 100X100X5 mm size	Kg	165	18.13

SI No.	DESCRIPTION OF MATERIAL	Unit	S.Rate for 2016-17 (Rs)	Total embedded tax rate (%)
91	Protective Mastic	Ltr	475	28.81
92	Solventless coal tar epoxy (brown)	Ltr	260	21.37
93	Excavation of drain with Excavator	cum	35	0
<b>Items are Included in the Year 2016-17</b>				
94	Crushed stone sand/Rock sand 4.75mm to 2.36mm as per IS 383 (1970) (excluding Seigniorage charges)	Cum	510	-
95	Fly ash conforming to IS: 3812 (Part II & I)	cum	72	5
96	Benching old embankment slopes 0.45 x 0.45 M	RM	5	0
97	Laying of Sand Bags in the stipulated places including cost of empty cement bag, sand, thread, stitching charges and labour charges etc., with 13.615% overhead charges and contractors profit.	per bag	26	0
98	Rough stone for revetment 225mm thick ( Including Loading charges but excluding Seigniorage charges)	cum	160	-
99	Eradication of Weed growth from Drains, Canals by spraying Chemicals	sqm	2	0
100	Thinner	ltr	80	28.8
101	Credit for excavated rock found suitable for use	cum	194	-
102	Earth Cost or compensation for earth taken from private land (Excluding Seigniorage Charges)	cum	40	0
<b>ADDITIONAL MATERIALS FOR GATES &amp; HOISTS</b>				
1	Alloy steel ( IS : 1570-carbon steel ) shafts	Kg	240	18.13
2	Alloy steel ( IS : 1570-stainless steel ) pins	Kg	420	18.12
3	Bolt / Nut / Washer ( hot dipped galvanized )	Kg	120	18.12
4	Bolt / Nut / Washer ( stainless steel )	Kg	370	18.12
5 (a)	Bronze (IS:305) bearings / bushes	Kg	970	18.13
	Aluminum alloy (IS:305) bearings/bushes	Kg	960	18.12
6	Cast iron blocks	Kg	90	18.13
7	Cast steel drums / gears	Kg	245	18.13
8	Cast steel pinions	Kg	230	18.12
9	Cast steel wheels / pulleys / hubs / rollers /Retainers	Kg	200	18.12
10	Chemical for de-greasing/ de-rusting/phosphate Coating	Ltr	140	14.5
11	Coal tar epoxy paint	Ltr	240	21.37
12	Forged steel hooks / shackles	Kg	260	18.12
13	MS pipe 200 / 300 mm dia	Kg	175	18.12
14	MS pipe 32 mm dia	Rm	190	18.13
15	MS pipe 25 mm dia	Rm	165	18.13
16	Rubber bottom seal ( IS : 11855 )	Rm	780	28.81
17	Rubber side seal ( music note type Teflon claded ) ( IS : 11855 )	Rm	1840	28.81
18	Rubber side seal ( music note type uncladed ) ( IS : 11855 )	Rm	1330	28.81

<b>SI No.</b>	<b>DESCRIPTION OF MATERIAL</b>	<b>Unit</b>	<b>S.Rate for 2016-17 (Rs)</b>	<b>Total embedded tax rate (%)</b>
19	Rubber side seal Z-type ( IS : 11855)	Rm	<b>1760</b>	28.81
20	Rubber corner seal ( Teflon claded ) ( IS :11855 )	Each	<b>1790</b>	28.81
21	Rubber corner seal ( un claded ) ( IS : 11855 )	Each	<b>1270</b>	28.81
22	Stainless steel plates / flats	Kg	<b>300</b>	18.13
23	Welding electrode 4 mm dia x 450 mm (radiographic low hydrogen )	Each	<b>18</b>	18.11
24	Welding electrode 4 mm dia x 450 mm (stainless steel )	Each	<b>27</b>	18.16
25	Wire rope 6x37 constn ( IS : 2266 )	Kg	<b>200</b>	18.12
26	Zinc	Kg	<b>190</b>	18.13
27	Zinc rich ( zinc content : 90 % ) epoxy primer	Ltr	<b>700</b>	28.81

**Revised Embedded Tax Rates for Capital cost of Machinery / Equipment  
(For the SoR 2016 - 17)**

<b>SI No.</b>	<b>DESCRIPTION OF Machinery/Equipment</b>	<b>Unit</b>	<b>S.Rate for 2016-17 (Rs)</b>	<b>Total embedded Tax Rate (%)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Agitator car / Transit mixer 2 cum ( excluding tyres )	Each	<b>2,150,000</b>	-
	tyres and tubes 6 sets	Each	<b>86,000</b>	-
2	Air compressor 5 cmm electric	Each	<b>710,000</b>	-
3	Air compressor 7 cmm diesel	Each	<b>950,000</b>	-
4	Air compressor 7 cmm electric	Each	<b>865,000</b>	-
5	Air compressor 8.5 cmm diesel	Each	<b>1,085,000</b>	-
6	Air compressor 8.5 cmm electric	Each	<b>1,120,000</b>	-
7	Air compressor 15 cmm electric	Each	<b>1,370,000</b>	-
8	Angle Dozer 90 hp	Each	<b>5,475,000</b>	-
9	Batching plant 0.5 cum with accessories	Each	<b>1,200,000</b>	-
10	Batching plant 2 x 1.00 cum with accessories	Each	<b>4,245,000</b>	-
11	Batching plant 2 x 1.50 cum with accessories	Each	<b>5,425,000</b>	-
12	Bending machine	Each	<b>530,000</b>	-
13	Clamp shell and hoisting ropes	Each	<b>30,000</b>	-
14	Concrete bucket 1.5 cum	Each	<b>56,000</b>	-
15	Concrete hand mixer 45/30 ltr	Each	<b>15,500</b>	-
16	Concrete mixer 300/200 ltr(diesel)	Each	<b>150,000</b>	-
17	Concrete mixer 300/200 ltr ( electric )	Each	<b>145,000</b>	-
18	Concrete mixer 600/400 ltr(diesel)	Each	<b>260,000</b>	-
19	Concrete mixer 600/400 ltr ( electric )	Each	<b>255,000</b>	-
20	Concrete paver 100 Sqm / hr	Each	<b>2,361,000</b>	-
21	Convey mucker ( excluding tyres )	Each	<b>3,855,000</b>	-
	tyres and tubes 6 sets		<b>86,000</b>	-
22	Core drilling machine	Each	<b>1,100,000</b>	-
23	Diesel generating set 30 KVA	Each	<b>495,000</b>	-
24	Diesel generating set 50 KVA	Each	<b>640,000</b>	-
25	Diesel Loco 45 hp	Each	<b>2,120,000</b>	-
26	Dewatering pump 5 hp diesel	Each	<b>40,000</b>	-
27	Dewatering pump 5 hp electric	Each	<b>24,500</b>	-
28	Dewatering pump 10 hp diesel	Each	<b>60,000</b>	-
29	Dewatering pump 10 hp electric	Each	<b>55,000</b>	-
30	Dewatering pump 20 hp diesel	Each	<b>190,000</b>	-



<b>SI No.</b>	<b>DESCRIPTION OF Machinery/Equipment</b>	<b>Unit</b>	<b>S.Rate for 2016-17 (Rs)</b>	<b>Total embedded Tax Rate (%)</b>
31	Dewatering pump 20 hp electric	Each	100,000	-
32	Drifter	Each	1,058,000	-
33	Drilling jumbo ( excluding tyres )	Each	1,302,000	-
	tyres and tubes 6 sets		86,000	-
34	Dumper 4.5 cum ( excluding tyres )	Each	1,450,000	-
	tyres and tubes 6 sets		86,000	-
35	Geophysical Ele.resistivity meter	Each	475,000	-
36	Grouting pump	Each	102,000	-
37	Guniting / sand blasting equipment	Each	280,000	-
38	Ice plant with accessories 30 t / day	Each	2,280,000	-
39	Jack hammer	Each	65,000	-
40	Needle vibrator 40 mm petrol	Each	20,000	-
41	Needle vibrator 40 mm electric	Each	21,000	-
42	Needle vibrator 60 mm petrol	Each	21,500	-
43	Needle vibrator 60 mm electric	Each	25,500	-
44	Planing machine 4 m stroke	Each	780,000	-
45	Plate shearing machine up to 12 mm	Each	425,000	-
46	Pneumatic placer 0.5 cum	Each	580,000	-
47	Pneumatic tamper	Each	85,000	-
48	Pug cutting machine	Each	16,000	-
49	Pusher leg	Each	52,000	-
50	Road roller diesel 10 t	Each	850,000	-
51	Shovel 0.50 cum 75 hp	Each	3,750,000	-
52	Shovel 0.85 cum 110 hp	Each	6,380,000	-
53	Stationery derrick crane 5 t	Each	653,000	-
54	Tipper 5 cum ( excluding tyres )	Each	1,625,000	-
	tyres and tubes 6 sets		86,000	-
55	Tipping tub 1.5 cum	Each	240,000	-
56	Tower crane 5 tonne	Each	7,475,000	-
57	Transformer 250 KVA	Each	425,000	-
58	Truck 10 t ( excluding tyres )	Each	1,475,000	-
	tyres and tubes 6 sets		86,000	-
59	Truck mounted derrick crane 5 t ( excluding tyres )	Each	1,960,000	-
	tyres and tubes 6 sets		86,000	-
60	Upright drilling machine	Each	56,000	-

SI No.	DESCRIPTION OF Machinery/Equipment	Unit	S.Rate for 2016-17 (Rs)	Total embedded Tax Rate (%)
61	Ventilation fan 20 hp	Each	260,000	-
62	Vibratory pad foot roller 8 t	Each	2,950,000	-
63	Wagon drill	Each	650,000	-
64	Water tanker 8000 ltr (excluding tyres)	Each	1,422,000	-
	tyres and tubes 6 sets		86,000	-
65	Welding set	Each	48,000	-
66	Winch 35 hp electric	Each	375,000	-
67	Hydraulic Truck Crane 30T	Each	14,484,250	-
	tyres and tubes 6 sets		185,220	-
68	Hydraulic Truck Crane 16T	Each	10,390,875	-
	tyres and tubes 6 sets		185,220	-
69	Heavy Duty Airless Spray Painting Equipment	Each	487,770	-
<b><u>ACCESSORIES TO MACHINERY / EQUIPMENT</u></b>				
1	Casing shoe bit	Each	10,500	-
2	Diamond core bit BX size	Each	10,600	-
3	Diamond core bit NX size	Each	12,720	-
4	Double tube core barrel	Each	13,704	-
5	Extension drill rod with coupling sleeve	Rm	2,226	-
6	Jack hammer drill rod 1.5 m	Each	4,150	-
7	Jack hammer drill rod 2.5 m	Each	6,400	-
8	Nozzle for Guniting / sand blasting gun	Each	700	-
9	Paving Cylinder	Each	28,080	-
10	Rails 30R ( 30 kg / m )	tonne	52,530	-
11	Reamer shell	Each	5,150	-
12	T.C. Cross bit 50 mm dia	Each	5,000	-
13	T.C. Cross bit 75 mm dia	Each	10,000	-
14	T.C. Cross bit 100 mm dia	Each	12,000	-
15	Tyres and Tubes for truck	Set	18,000	-
16	Wire rope 16 mm dia	Rm	265	-
<b><u>OTHER COSTS ON MATERIAL / MACHINERY / EQUIPMENT</u></b>				
1	Air hose 25 mm dia	Rm	185	18.13
2	Air hose 50 mm dia	Rm	298	18.12
3	Demand charges (HT-I : General-11 KV category)on power supply (as per TSSPDCL tariff)	KVA /month	350	0

SI No.	DESCRIPTION OF Machinery/Equipment	Unit	S.Rate for 2016-17 (Rs)	Total embedded Tax Rate (%)
4	Diesel	Ltr	58.72	0
5	Electric power (HT-VIII Category) including tax ( 1.5 times of the Tariff of HT-I(A):General-11 KVA Category)	Kwhr	8.6	0
6	Excise duty on Gates / Hoist supplies	%	0%	
7	Insurance charges on machinery	% / annum	1%	
8	Interest on capital cost	% / annum	11.00%	
9	Lubricants	Ltr	230	18.12
10	Petrol	Ltr	66.29	
11	Rivets	Kg	100	18.12
12	Road tax on transport vehicles	Rs./annum	As per RTA	
13	Shalimatic sealing compound	Kg	105	14.5
14	Shutter oil	Ltr	30	14.5
15	Structural steel fabrication	Kg	24	0
16	Sundries ( Lump sum for un quantified inputs )	LS	20	0
17	Water hose ( pressure ) 20 mm dia	Rm	185	18.13
18	Steel wedges	LS	16	18.08
19	Elbows / Nipple / Plugs etc.,	LS	17	18.14
20	Soldering materials	LS	17	18.14
21	Steam circulation arrangement	LS	17	18.14
22	Fuel charges ( gas for heating )	LS	17	5
23	Vulcanizing materials	LS	17	12.51
24	Gas cutting set ( 2 No's 15 m hose and nozzle unit )	Each	14,500	18.13
25	Grease	Kg	275	18.13
26	Welding holder set ( cable / holder / gloves / mask etc )	Each	7,800	18.13
27	Use rate of ropes	LS	150	0
<b><u>MATERIALS FOR GATES AND HOISTS</u></b>				
1	Worm reducers	Each	224,400	28.81
2	Electric motor 20 hp(Double Shaft)	Each	121,000	28.81
3	Electric motor 17.5 hp(Double Shaft)	Each	85,800	28.81
4	Electric motor 12.5 hp(Double Shaft)	Each	72,600	28.81
5	Electric motor 5 hp(Double Shaft)	Each	33,000	28.81
6	Electric motor 3 hp (Double Shaft)	Each	23,100	28.81
7	Electric motor 2 hp (Double Shaft)	Each	12,100	28.81

<b>SI No.</b>	<b>DESCRIPTION OF Machinery/Equipment</b>	<b>Unit</b>	<b>S.Rate for 2016-17 (Rs)</b>	<b>Total embedded Tax Rate (%)</b>
8	Floating shaft 300 mm dia	Kg	180	28.81
9	Manual operating system	Each	28,820	14.5
10	Gate position indicator	Each	195,800	28.81
11	Ele-magnetic brake	Each	35,200	28.81
12	Electric cable / switch / control panel etc	LS	50,380	18.13
13	Wire rope sockets	Each	4,620	18.13

Sd/- C. Muralidhar  
Engineer-in-Chief (Irrigation)  
Irrigation & CAD Department

Sd/- B. Nagendra Rao  
Engineer-in-Chief (AW)  
Irrigation & CAD Department and  
Chairman, Board of Chief Engineers