

**PENETRATION LEVEL OF ENERGY EFFICIENT TECHNOLOGIES IDENTIFIED  
UNDER  
BEE SME PROGRAMME  
(Morvi Ceramic Cluster)**

**a. Cluster Background**

Sl. No.	Particulars	Value
1	No. of Units, Numbers	479
2	Total Energy Consumption, toe	1249221
3	Energy Saving Potential, toe	23105

**b. Energy Efficient Technologies Identified**

S. No	Proposed Technology	Document ID	Savings over baseline scenario (in %)	Investment (in Rs. Lakhs)	Penetration Level (in number of units)
1	Solar Heating System of 250 kW & 350 kW for Pre Heating of Slurry	MRV/CRM/SHS/01	5.9	129.0	20
2	Gas Turbine Based Co-generation Technology (3.5 MW)	MRV/CRM/GTG/09	10.0	1867.0	15
3	Energy Conservation in Agitator Section	MRV/CRM/EAS/07	49.1	6.1	62
4	Energy Conservation in Polishing Section	MRV/CRM/EPS/06	23.8	25.3	10
5	Gas Engine Based Co-generation Technology (2.72 MW)	MRV/CRM/GEG/08	5.0	883.0	3
6	Use of Hot Air as a combustion air in Tunnel Kiln	MRV/CRM/HCT/03	2.3	1.5	17
7	Use of Briquette Fired Hot Air Generator	MRV/CRM/HAG/05	2.9	51.9	20
8	Use of proper insulation for Tunnel Kiln System	MRV/CRM/KII/14	5.0	15.3	124
9	Use of Low Thermal Mass Cars in Tunnel Kiln	MRV/CRM/LMC/10	8.7	24.1	35
10	Power Factor correction System	MRV/CRM/PFC/15	2.5	2.3	66
11	Retrofitting of Recuprator in Tunnel Kiln	MRV/CRM/RRT/02	2.7	3.8	17
12	Variable Frequency Drives on Grinding Machine	MRV/CRM/VGM/11	15.0	4.6	193
13	Variable Frequency Drives on Hydraulic press	MRV/CRM/VHP/12	15.0	3.6	45
14	Waste Heat Recovery in Roller Kiln	MRV/CRM/WHR/13	3.0	8.3	106
15	Circulation of Exhaust air from chamber to material for preheating	MRV/CRM/HCM/04	7.5	6.6	9

**c. Information on unit wise technology adoption**

S. No	SME Name	MRV/CRM/SHS/01	MRV/CRM/GTG/09	MRV/CRM/EAS/07	MRV/CRM/EPS/06	MRV/CRM/GEG/08	MRV/CRM/HCT/03	MRV/CRM/HAG/05	MRV/CRM/KII/14	MRV/CRM/LMC/10	MRV/CRM/PFC/15	MRV/CRM/RRT/02	MRV/CRM/VGM/11	MRV/CRM/VHP/12	MRV/CRM/WHR/13	MRV/CRM/HCM/04	Number of Technologies may adopt	Total Investment Required (in Rs. Lakhs)
1	Airson Ceramic Industries	1		1							1	1		1			5	144.8
2	Akruti Ceramic Pvt Ltd	1		1					1		1	1		1			6	160.2
3	Apollo Sanitary Wares			1			1		1	1		1	1				6	55.4
4	Apple Tiles Pvt Ltd	1		1							1	1		1			5	144.8
5	Arrow Ceramics								1		1	1		1			4	25.1
6	Bell Sanitary Wares			1							1	1	1				4	16.8
7	Captain Ceramic Pvt Ltd	1		1							1	1	1	1			6	149.4
8	Delphi Ceramic			1			1		1	1	1	1					6	53.2
9	Dolphin Tile Concept										1	1		1			3	9.7
10	Excel Ceramic Pvt Ltd	1		1					1		1	1	1	1			7	164.8
11	Favourite Ceramic Industries	1		1					1		1	1	1	1			7	164.8
12	Foton Ceramic										1	1	1				3	10.7
13	JET Grantio Pvt Ltd	1		1	1						1	1	1	1			7	174.7
14	Keda Ceramics	1		1							1	1	1	1			6	149.4
15	Lexus Ceramic								1		1	1					3	21.5
16	Marshal Ceramic Industries								1		1	1					3	21.5
17	New Royal Ceramic	1		1					1		1	1	1	1			7	164.8
18	Nobel Industries			1			1			1		1					4	35.5
19	Novel Industries	1		1							1		1				4	142.0
20	Ocean Ceramic Ltd	1		1							1	1		1			5	144.8
21	Option Ceramics	1		1					1		1	1	1	1			7	164.8
22	Pengvin Ceramics	1		1							1	1		1			5	144.8
23	Priya Ceramics			1					1	1	1		1				5	52.4
24	Priya Glod Ceramics								1		1	1	1	1			5	29.6
25	Regal Sanitary Wares												1				1	4.6

S. No	SME Name	MRV/CRM/SHS/01	MRV/CRM/GTG/09	MRV/CRM/EAS/07	MRV/CRM/EPS/06	MRV/CRM/GEG/08	MRV/CRM/HCT/03	MRV/CRM/HAG/05	MRV/CRM/KII/14	MRV/CRM/LMC/10	MRV/CRM/PFC/15	MRV/CRM/RRT/02	MRV/CRM/VGM/11	MRV/CRM/VHP/12	MRV/CRM/WHR/13	MRV/CRM/HCM/04	Number of Technologies may adopt	Total Investment Required (in Rs. Lakhs)
26	Sacmi Ceramics Pvt Ltd	1		1					1		1	1	1	1			7	164.8
27	Salon Ceramic Pvt Ltd	1		1							1			1			4	141.0
28	Samay Sanitary Wares			1			1		1	1		1					5	50.9
29	Sanro Ceramic Pvt Ltd	1		1					1		1	1		1			6	160.2
30	Sanyo Ceramic Pvt Ltd			1			1		1	1	1	1	1				7	57.7
31	Savio Ceramic Pvt Ltd	1		1	1						1		1	1			6	170.9
32	Shreeji Gold Ceramic Pvt Ltd	1		1							1	1	1	1			6	149.4
33	Shree Nilkanth Industries			1			1		1	1	1	1					6	53.2
34	Signet Ceramics	1		1							1	1		1			5	144.8
35	Silk Ceramic										1	1	1	1			4	14.3
36	Simco Tiles								1		1	1		1			4	25.1
37	Skymax Ceramics	1		1							1						3	137.4
38	Sober Ceramics	1		1							1	1		1			5	144.8
39	Sogo Ceramics Pvt Ltd	1		1	1						1	1	1	1			7	174.7
40	Somex Ceramics			1			1		1	1	1	1	1				7	57.7
41	Sona Ceramics			1			1			1	1	1	1				6	42.4
42	Sonafield Ceramic			1			1			1	1	1					5	37.8
43	Sonex Ceramics			1			1		1	1	1	1					6	53.2
44	Soranto Granito Pvt Ltd	1		1	1				1		1	1		1			7	185.4
45	Soriso Ceramic Pvt Ltd	1		1							1	1	1	1			6	149.4
46	Starware Ceramics	1		1					1		1	1	1				6	161.2
47	Sunsilk Ceramics			1					1	1							3	45.5
48	Suntop Ceamic Pvt Ltd										1	1	1	1			4	14.3
49	Surya Ceramic	1		1							1	1	1	1			6	149.4
50	Tiptop Ceramic Pvt Ltd	1		1							1						3	137.4
51	Verona Granito Pvt Ltd	1		1	1						1	1	1	1			7	174.7
52	Active Ceramic Pvt Ltd								1			1	1	1			4	27.3

S. No	SME Name	MRV/CRM/SHS/01	MRV/CRM/GTG/09	MRV/CRM/EAS/07	MRV/CRM/EPS/06	MRV/CRM/GEG/08	MRV/CRM/HCT/03	MRV/CRM/HAG/05	MRV/CRM/KII/14	MRV/CRM/LMC/10	MRV/CRM/PFC/15	MRV/CRM/RRT/02	MRV/CRM/VGM/11	MRV/CRM/VHP/12	MRV/CRM/WHR/13	MRV/CRM/HCM/04	Number of Technologies may adopt	Total Investment Required (in Rs. Lakhs)
53	Antique Granito Pvt Ltd	1	1	1	1	1			1		1		1	1			9	2936.2
54	Face Ceramic Pvt Ltd	1		1					1			1	1	1			6	162.4
55	Gangotry Glaze Tiles				1				1		1	1	1				5	51.3
56	Gokul Ceramic Pvt Ltd								1		1	1	1	1			5	29.6
57	Lorenzo Vitrified Tiles Pvt Ltd	1	1	1	1	1			1		1	1		1			9	2935.4
58	Mark Glaze Tile Pvt Ltd	1		1					1		1		1	1			6	160.9
59	Mega Vitrified Tiles Pvt Lrd	1		1	1						1	1		1			6	170.1
60	Metro Ceramics	1		1					1		1	1	1	1			7	164.8
61	Metrocity Tiles Pvt Ltd	1		1	1						1	1	1	1			7	174.7
62	Optel Ceramic Pvt Ltd	1		1					1		1	1	1				6	161.2
63	Satyam Ceramics	1		1					1		1	1	1				6	161.2
64	Shubham Ceramics	1		1					1		1	1	1	1			7	164.8
65	Silvenia Ceramic Pvt Ltd	1		1					1		1		1	1			6	160.9
66	Simpolo Ceramics			1			1				1	1	1				5	18.4
67	Simpolo Vitrified Pvt Ltd	1	1		1	1					1						5	2906.6
68	Sonara Sanitary Wares Pvt Ltd			1			1		1	1		1	1				6	55.4
69	Sonet Ceramics			1			1			1		1	1				5	40.1
70	Surani Ceramics	1		1					1		1		1	1			6	160.9
71	Suzlon Ceramics	1		1					1		1	1	1	1			7	164.8
72	Suzuki Ceramics	1		1					1		1	1	1				6	161.2
73	Swagat Ceramics	1		1					1		1	1	1	1			7	164.8
74	Vraj Ceramic Pvt Ltd	1		1							1						3	137.4
75	Vrundavan Ceramic Pvt Ltd	1		1					1		1	1	1	1			7	164.8
<b>Total</b>		<b>46</b>	<b>3</b>	<b>61</b>	<b>11</b>	<b>3</b>	<b>13</b>	<b>0</b>	<b>41</b>	<b>14</b>	<b>66</b>	<b>61</b>	<b>47</b>	<b>45</b>	<b>0</b>	<b>0</b>		<b>16582.5</b>