

## STANDARDS & LABELLING PROGRAMME – ELECTRICITY SAVING POTENTIAL PRIORITY

Equipment (1)	Annual electricity consumption of equipment GWh <sup>1</sup> (2)	Annual sales of equipment in 2002-03 millions (3)	Annual electricity consumption of new stock GWh <sup>2</sup> (4)	Electricity consumption of new stock to total electricity % <sup>3</sup> (5)	Estimated improvement in efficiency of new stock % <sup>4</sup> (6)	Annual electricity savings GWh <sup>5</sup> (7)	Organised sector <sup>6</sup> % (8)	Informal sector <sup>7</sup> % (9)
Industrial motors	<b>99,317<sup>8</sup></b>	<b>4,350 MW</b>	24,618	<b>6.3</b>	5	<b>1,231</b>	98	2
Fluorescent tube lights	?	190	11,096	<b>2.8</b>	10	<b>1,110</b>	90	10
Agricultural pump sets <sup>9</sup>	<b>84,486</b>	0.8	6,000	<b>1.6</b>	<b>15</b>	<b>900</b>	55	45
Refrigerators	25,550	3.4	2,172	<b>0.6</b>	32	695	100	0
Air conditioners	12,113	0.8	2,100	<b>0.5</b>	21	441	85	15
Ceiling & table fans	?	12.5	1,313	<b>0.3</b>	21	276	<b>6</b>	<b>94</b>
Industrial pumps <sup>10</sup>	18,906	<b>8%</b> <sup>11</sup>	3,781	<b>1.0</b>	7	265	90	10
Ballasts	?	30	720	<b>0.2</b>	31	223	30	70
Industrial fans	18,167	15%	2,725	<b>0.7</b>	8	218	85	15
Distribution transformers	12,709	16,600 MVA	843	<b>0.2</b>	24	202	50	50
Geysers (hot water)	?	0.8	864	0.2	17	147	?	?
CFLs (60 W incandescent lamp replacements)	?	<b>1.94</b>	<b>57</b>	<b>0.01</b>	80	<b>40.8</b>	?	?
Compressors	13,137	12%	1,576	<b>0.4</b>	5	79	95	5
<b>Total</b>			<b>57,957</b>			<b>5,845</b>		

<sup>1</sup> Energy Sales was 390,168 GWh in 2002-03

<sup>2</sup> Yearly energy consumption of new stock on business as usual basis including replacement.

<sup>3</sup> Percentage contribution of new stock to total energy sales of 390,168 GWh in 2002-03

<sup>4</sup> Estimated improvement potential in % over old stock by moderately efficient products.

<sup>5</sup> Estimated annual savings if all new stocks would have been more efficient by the % indicated in column 6.

<sup>6</sup> Percentage of equipment manufacturers in the organized sector, meaning large and medium enterprises

<sup>7</sup> Informal Sector refers to equipment manufactured in small scale sector, unorganized assembly sector such as kit pump manufacturers in agriculture pump sets.

<sup>8</sup> Industrial motive load had been taken at 60% of industrial consumption (utility+ captive) @ 165,528 GWh.

<sup>9</sup> Sample calculation for agricultural pump sets is given below. Similar estimates were made for other equipment.

Column 4 = Annual electricity consumption of new stock = column 3 \* 1500 hours per year \* average 5 kWh consumption per hour = 6000 GWh

Column 5 = Electricity consumption of new stock to total electricity = Column 4/ 562572 \*100 = 1.1%

Column 6= Estimated improvement in efficiency of new stock = 5kW pump replaced by 3.1 kW high efficiency pump delivering the same quantity of water = 100\* (5-3.1)/5 = 38%

Column 7 = Annual electricity savings = Column 4\* column 6/100 = 2280 GWh

<sup>10</sup> For industrial pumps, fans and compressors the efficiency improvements are only due to equipment and not motors, to avoid double counting.

<sup>11</sup> Figures in % in these columns represent sales growth rate of the equipment