Energy Efficiency Program in India

ELCOMA

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The power supply position in the country during 2009-10 to 2017-18:

	Energy				Peak			
Year	Requirement	Availability	Surplus(+)/Deficts(-		Peak Demand Peak Met		Surplus(+) / Deficts(-)	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2009- 10	8,30,594	7,46,644	-83,950	-10.1	1,19,166	1,04,009	- 15,157	-12.7
2010- 11	8,61,591	7,88,355	-73,236	-8.5	1,22,287	1,10,256	- 12,031	-9.8
2011- 12	9,37,199	8,57,886	-79,313	-8.5	1,30,006	1,16,191	- 13,815	-10.6
2012- 13	9,95,557	9,08,652	-86,905	-8.7	1,35,453	1,23,294	- 12,159	-9.0
2013- 14	10,02,257	9,59,829	-42,428	-4.2	1,35,918	1,29,815	-6,103	-4.5
2014- 15	10,68,923	10,30,785	-38,138	-3.6	1,48,166	1,41,160	-7,006	-4.7
2015- 16	11,14,408	10,90,850	-23,558	-2.1	1,53,366	1,48,463	-4,903	-3.2
2016- 17	11,42,929	11,35,334	-7,595	-0.7	1,59,542	1,56,934	-2,608	-1.6
2017- 18*	1,01,329	1,00,810	-520	-0.5	1,59,590	1,58,393	-1,198	-0.8

Vision 2020 - Roadmap for ELCOMA

Highlights – To reduce lighting power consumption from 18% to 13% by year 2020 by changing existing domestic light sockets and street lights with LED

	H2 2014	2015	2016	2017	2018	2019	2020
Consumer awareness programs for LED & CFLs	Identify Partners for awareness program (e.g. MoP, State Govt.)	Design awareness program (ELCOMA and partner)	Workshop and exhibition	Workshops & Awareness Programs	Workshop and exhibition	Workshops & Awareness Programs	Workshop and exhibition
Regulation on product	BEE labelling for LED	BIS standard for street lighting and luminaires	BEE labelling for street	Make all standards mandatory	Make National Lighting Code Mandatory	Mandatory use of smart controls in large public areas and commercial complexes	Standards for CFL Hg content to be <2mg/ lamp
and application specs, labelling norms	lamps	Standards for Fluorescent lamp Hg content <5mg/lamp, CFL Hg<3.5mg/lamp Notification for LED VAT	lights	Mandatory ECBC for large lighting users			
Demand generation by government	Prepare street lighting program.	Notification for LED VAT reduction to <5% by all states	Notification for retail outlets to change all downlighting to LED. Anti-dumping duty	Phase out >40W GLS lamps Introduce affordable replacement by energy efficient lamp		Phase out >25 W GLS	
	Initiate phase out of >60W GLS lamps	Plan and execute retrofit lamps program					
Export promotion			Foreign delegates to visit India	Indian delegates visit to Asian countries	Foreign delegates to visit India	Indian delegates to visit	
Export promotion				Export MOUs with neighbouring countries for Luminaires and LED		Europe, USA	
Lighting excellence centre (LEC) for R&D, testing and education	With an educational institution 1. Create first R&D LEC 2. Get NABL accreditation 3. Add testing facility Add education program to LEC		Create 2 nd LEC		Create 3 rd LEC		
Skills development program	Elcoma joins Electronic Skills Development Council	Organise skills development programs. Setup training institute for Luminaire design,mfg	Set-up design institute for Luminaires	Continue Skills Development for Technical, Marketing, Product deve		lopment, etc.	
ELCOMA newsletter	Preparation of newsletter	Launch first issue	Continue quarterly launch of newsletter				
Garnering	Garner technical support from GLA, ISA and Japanese Association JLMA						

Lighting data

	2005	2014	Est 2020	
LIGHTING POPULATION				
Light Points	1.3 billion	>2 billion	> 2.5 billion	
Streetlight points	22 million	30.5 million	47 million	
Down Lights	15 million	32 million	60 million	
PROJECTED SALE				
CFL	20 million	> 450 million	Nil	
Incandescent Lamps	1 Billion	800 million	600 million	
LED LAMPS	Nil	2 million	600 million	
DOWN LIGHTS		1 million	9 million	
STREET LIGHTS	1.5 million	3 million	7 million	
CFL Manufacturing Capacity in India	4 million	> 1 billion	Conversion to LED manufacturing	

Lighting business projection in India

Quantity Sales between 2016 to 2020

- Street Lights > 40 million pieces
- LED Lamps > 1.5 billion pieces
- Down Lights > 50 million pieces

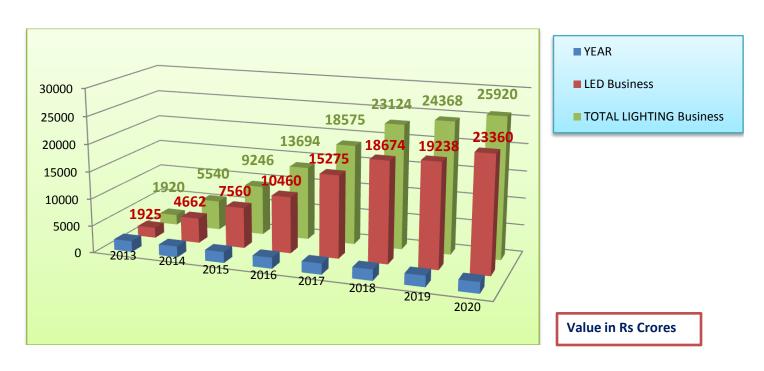
Value Sales

- TOTAL LED PRODUCTS Value > Rs 23,000 Cr in year 2020 = US\$ 3.5 billion
- 2017 to 2020 > Rs 75,000 Crores
- US \$ > 12 Billion

LED Scenario — 2016-17

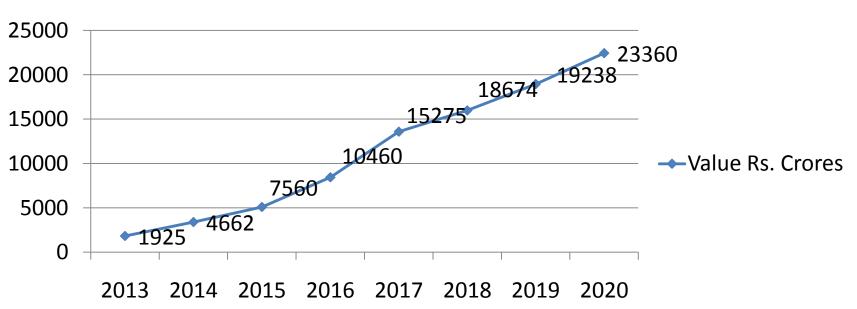
- Members reduced MRP of 9W LED Lamp to less than Rs. 100
- Given complete range from 1W to 25W to counter EESL one wattage lamp of 9W
- Industry full diversion on making of LED Lighting products in India
- State governments initiated large procurement for LED Lamps and Street Lights
- Compulsory Registration Scheme by Deity
- BEE initiated LED Labeling program
- Shift government regulation to BIS to make standards mandatory and give license
- Many new global manufacturers entering in LED Business in India
- In itiative of one lighting point to all unelectrified households
- Solar street lights in all villages
- Special Street Light technicians training program

Development of Lighting business projection in India Year 2020



Estimated LED Business Development







EESL Vs Industry

LED LAMPS PROCURED AND DISTRIBUTED FROM 2014 TO 2016

LED Lamps 2014-2016

Qty million pieces

YEAR	EESL	INDUSTRY	TOTAL	
TEAR	EESL	INDUSTRY	IOIAL	
2014/2015	114.45	22.09	136.54	
2016	103.00	147.90	250.09	
TOTAL	217.45	169.99	387.44	Actual
2014-2016				distributed
Actual	228.25	169.99	398.24	
procured				
STREET	1.60	2.10	2.38	Million
LIGHTS				Pieces

Off-grid lighting program in India

- 2010 > 35% without electricity
- 2016 > 30%
- Action on war footing to provide electricity to all by off-grid lighting by year 2019
- Status of Rural Electrification (RE) under DDUGJY
- Government of India has launched the scheme "Deendayal Upadhyaya Gram Jyoti Yojana" for rural electrification. Rural Electrification Corporation is the Nodal Agency for implementation of DDUGJY.
- Under DDUGJY-RE, Ministry of Power has sanctioned 921 projects to electrify 1,21,225 unelectrified villages, intensive electrification of 5,92,979 partially electrified villages and provide free electricity connections to 397.45 lakh BPL rural households. As on 30th June 2015, works in 1,10,146 un-electrified villages and intensive electrification of 3,20,185 partially electrified villages have been completed and 220.63 lakh free electricity connections have been released to BPL households.

More Opportunities

- "Make in India"
 - Manufacturing Partnerships with OEMs
 - LED Chip manufacturing government support
- 100 Smart Cities
- New Intelligent Lighting
- Beyond lighting
 - Poultry
 - Medical / Health
 - Horticulture
- Off-grid Lighting

Thank you

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