



**Energy Management Centre - Kerala**  
**(Department of Power, Govt of Kerala)**

**CERTIFICATE OF EMPANELMENT**

*This is to certify that M/s LARSEN & TOUBRO, (L&T Business Park, Tower – B, 3rd Floor, Gate No. 5, Saki Vihar Road Powai, Mumbai) is empanelled as Energy Audit firm in Energy Management Centre Kerala to conduct mandatory energy audit as per Government of Kerala G.O (Rt) No.2/2011/PD dated 01.01.2011.*

**Empanelment No:**

**EMCEEA- 1812F-1**

Scope/Area	Building	Industry -Electrical	Industry Thermal
	Yes	Yes	Yes


*This empanelment is valid up to 12<sup>th</sup> May 2018*

*Issuing Date: 13/05/2015*

*Place: Thiruvananthapuram*

Director,  
Energy Management Centre Kerala

**Information of firm**

1.	Name & address of the firm	<b>LARSEN &amp; TOUBRO</b> L&T Business Park, Tower – B 3 <sup>rd</sup> Floor, Gate No. 5, Saki Vihar Road Powai, Mumbai-400072
	Office(with STD)	022-67774 5858
	Mobile	09886300325
	Fax number	022-6774 5859
2.	Website (if any)	<a href="http://www.Intenergymanagement.com">www.Intenergymanagement.com</a>
3.	Email address	C I C @ L N T E B G . C O M
4.	Name ,Designation and address of Contact person	<b>RAVICHANDRAN R</b> Sr. Deputy General Manager Head – Energy Management
5.	Office(with STD)	022-67053050
	Residence(with STD)	NA
	Mobile	09967354330
6.	Email address	R A V I C H A N D R A N . R @ L N T E B G . C O M
7.	Year of establishment	1946
8.	Year of commencement of energy audit by the firm.	2010
9.	No. of branch offices (List of complete addresses including heads of all branch offices with telephone, fax and email addresses)	TWENTY SIX

**Details of Associated Energy Experts and Audits Conducted by firm**

1.	Number of resource persons available	FOUR
2.	Number of full-time energy auditors in position, with work experience of all energy auditors associated with the firm	ONE BEE ACCREDITED & TWO BEE CERTIFIED ENERGY AUDITORS
3.	No. of part-time energy auditors in position during the current year / previous year associated with the firm.	<b>NA</b>
4.	Sectors in which the energy audit firm has conducted energy audits since inception and number of audits in each sector	AUTOMOBILE INDUSTRY ENGINEERING INDUSTRIES INDIAN RAILWAYS WORKSHOP SOFT DRINK MANUFACTURING COMMERCIAL OFFICE BUILDING INFOTECH BUILDING DATACENTRE HOSPITAL
5.	Energy audit process system (list sectors) - If no energy audit has been carried out of the process system and parameters, please list nil.	NIL
6.	Energy audit of thermal utility system (list sectors)	CONTINUOUS FURNACES (AUTO COMPONENT MANUFACTURING) GAS CARBURIZING FURNACE (AUTO COMPONENT MANUFACTURING) HOT WATER GENERATION SYSTEM (AUTOMOBILE MANUFACTURING)
7.	Energy audit of electrical utility system (list sectors)	ELECTRICAL DISTRIBUTION, COMPRESSORS, FANS, BLOWERS, COOLING TOWERS, HVAC SYSTE, PUMPS & MOTORS & DG SETS IN VARIOUS SECTORS MENTIONED ABOVE.

8.	Instruments available	(a) Electrical (list the name of the instruments)	3 Phase Power Analyzer Power meter Digital tachometer
(b) Thermal (list the name of the instruments)		Ultra Sonic liquid flow meter Telescopic Vane type anemometer Pitot Tube (L Types) Thermal Imaging Camera Infrared Thermometer Thermo couple 4 - Channel temperature data logger Thermohygrometer with datalogging Combustion Analyser Digital Manometer Bourdon Type Dial Pressure gauges Lux Meter Water pH Tester ultrasonic leak detector	

**\*Bio-Data of Certified Energy Auditor**

1	Name of Energy Auditor	RAVICHANDRAN R	
2.	Qualifications.	B.E in Electrical Engineering MBA in Marketing Management	
3.	Experience. (use additional sheet if required)	30 years in Electrical engineering, power quality audit & mitigation solutions, application of energy management system across various industry segments.	
4.	Office (with STD)	022 - 67053050	
5.	Mobile	9967354330	
6	Email address	<a href="mailto:Ravichandran.R@LNTEBG.com">Ravichandran.R@LNTEBG.com</a>	
7	Date of Certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil	Nil	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	Nil	
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" ( In case of Certified Energy Auditor, please write CEA Registration No.)	Nil	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	Nil	




I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: MUMBAI  
Date: 12-06-2015

Signature:  
Name: RAVICHANDRAN R  
Designation: Head – Energy Management

**\*Biodata of Certified Energy Auditor**

1	Name of energy auditor	<b>JOYDEEP BANERJEE</b>		
2.	Qualifications.	B.E in Industrial Engineering, P.G Diploma in Energy Management		
3.	Experience. (use additional sheet if required)	10 years' experience in Energy Audits of , Engineering units, Automobile units, soft drinks/beverage, foundry, cable manufacturing, commercial & IT buildings, Steel, Cement, Power Plant, Pharmaceuticals, Food Products, Refractory, Rubber Products,		
4.	Office (with STD)	022-67055047		
5.	Mobile	09167006496		
6	Email address	<a href="mailto:Joydeep.Banerjee@LNTEBG.com">Joydeep.Banerjee@LNTEBG.com</a>		
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil	ACCREDITED ENERGY AUDITOR 30 <sup>th</sup> July 2009		
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	24 <sup>th</sup> May 2009		
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" ( In case of Certified Energy Auditor, please write CEA Registration No.)	CEA-11106		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	CEA-11106		

I hereby state that information furnished above is true and correct to the best of my knowledge.



Place: Mumbai  
Date: 12-06-2015

Signature:  
Name: Joydeep Banerjee  
Designation: Manager

**\*Bio-Data of Certified Energy Auditor**

1	Name of Energy Auditor	<b>SANJAY AGGARWAL</b>	
2.	Qualifications.	B.TECH in Electrical Engineering, & BBA P Graduation – MMM, & PGDBM	
3.	Experience. (use additional sheet if required)	23 years' experience in Electrical Industry with knowledge on Industrial Automation, Power Systems, Reactive Power Management & Harmonics , Protection Relays ,Metering Solutions, Switchgears Selection. Have done Harmonic Studies / Audits & Energy Audits of Engineering units, Automobile Units, Soft drinks / Beverage, Commercial & IT Buildings,	
4.	Office (with STD)	011 – 41419515	
5.	Mobile	09899020306	
6	Email address	<a href="mailto:Sanjay.Aggarwal@LNTEBG.com">Sanjay.Aggarwal@LNTEBG.com</a>	
7	Date of Certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil	ENERGY AUDITOR 7 <sup>th</sup> October 2010	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	18 <sup>th</sup> July 2010	
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" ( In case of Certified Energy Auditor, please write CEA Registration No.)	CEA-8337	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	CEA-8337	




I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: MUMBAI  
Date: 12-06-2015

Name: SANJAY AGGARWAL  
Designation: Manager

**\*Biodata of Certified Energy Auditor**

1	Name of energy auditor	<b>PRASAD V KULKARNI</b>	
2.	Qualifications.	B.E in Electrical Engineering,	
3.	Experience. (use additional sheet if required)	8 years' experience in LV Switchgear, final distribution Products, IBMS Products & BBT, Energy Audits and power quality audits, conducted 5 energy audits & harmonic analysis.	
4.	Office (with STD)	022 - 67054615	
5.	Mobile	9820225794	
6	Email address	<a href="mailto:Prasad.Kulkarni@LNTEBG.com">Prasad.Kulkarni@LNTEBG.com</a>	
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil	ENERGY AUDITOR 28 <sup>th</sup> May 2010	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	28 <sup>th</sup> May 2010	
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" ( In case of Certified Energy Auditor, please write CEA Registration No.)	CEA - 5455	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	CEA - 5455	

I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: MUMBAI  
Date: 12-06-2015



Name: PRASAD V KULKARNI  
Designation: Manager




<b>*Bio-Data of Certified Energy Auditor</b>		
1	Name of Energy Auditor	<b>DILIP BADVE</b>
2.	Qualifications.	B.E in Electrical Engineering
3.	Experience. (use additional sheet if required)	27 years' experience in electrical distribution, reactive power management, application of energy management system
4.	Office (with STD)	022 - 67055988
5.	Mobile	9930998547
6	Email address	<a href="mailto:Dilip.Badve@LNTEBG.com">Dilip.Badve@LNTEBG.com</a>
7	Date of Certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not)	Nil
8	Date of passing the examination in "Energy Performance Assessment for	Nil
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	Nil
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for	Nil



I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: MUMBAI  
Date: 12-06-2015

  
 Name: DILIP BADVE  
 Designation: AGM