

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

## CERTIFICATE OF EMPANELMENT

This is to certify that M/s Bharat Sanchar Nigam Limited (BSNL), (Electrical Kerala Zone, Admin Bldg., Telephone Exchange Compound, Manacaud, Trivandrum – 675 009) 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- 0411F-1

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

This empanelment is valid up to 31st August 2017

Issuing Date: 05/11/2014

Place: Thiruvananthapuram

Director,

Energy Management Centre Kerala

	Inform	nation of firm
1.	Name & address of the firm	Bharat Sanchar Nigam Limited BSNL Electrical Kerala Zone, Admin Bldg., Telephone Exchange Compound, Manacaud, Trivandrum. Pincode: 675009
	Office(with STD)	0471 2459566
	Mobile	9446330333
	Fax number	0471 2455757
2.	Website (if any)	www.bsnl.co.in
3.	Email c e e t v m 1 0 @ g	m a i I . c o m
4.	Name ,Designation and address of Contact person	M. Sudheendran Chief Engineer (E), BSNL Kerala Electrical Zone, Admin Bldg., Telephone Exchange Compound, Manacaud, Trivandrum- 675009
5.	Office(with STD)	0471 2459566
	Residence(with STD)	0471 2445599
	Mobile	9446330333
6.	Email c e e t v m 1 0 @ g	m a i I . c o m
7.	Year of establishment	2000, from the parent department of DOT
8.	Year of commencement of energy audit by the firm.	e 2002 (internal audits in BSNL)
9.	No. of branch offices  (List of complete addresses including heads all branch offices with telephone, fax and emanded addresses)	

	Details of Associated Energy Expe	rts and Audits Conducted by firm
1.	Number of resource persons available	Chief Engineer - I, Superintending Engineers -2, Executive Engineers–5, Sub Divisional Engineers- 35, Junior Telecom Officers- 50
2.	Number of full-time energy auditors in position, with work experience of all energy auditors associated with the firm	Energy Auditors- 10 & Energy Manager- 1, with experience of 7 years and more, in Energy Auditing of BSNL/ External organizations.
3.	No. of part-time energy auditors in position during the current year / previous year associated with the firm.	Nil
4.	Sectors in which the energy audit firm has conducted energy audits since inception and number of audits in each sector	Electro mechanical sector
5.	Energy audit process system (list sectors) - If no energy audit has been carried out of the process system and parameters, please list nil.	
6.	Energy audit of thermal utility system (list sectors)	
7.	Energy audit of electrical utility system (list sectors)	Kairali/ Sree Theatre, Thiruvananthapuram Kairali/ Sree Theatre Trichur Kairali/ Sree Theatre Calicut. Vyloppilly Samskrithi Bhavan, Thiruvananathapuram. Forest Head Quarters, Thiruvananthapuram Institute of Management in Govt., Thiruvananthapuram High Court of Kerala, Ernakulam. Reserve Bank of India Regional Office, Thiruvananthapuram. Doordarshan Kendra, Thirivananthapuram. Doordarshan Kendra, Kozhikode Doordarshan Kendra, Kochi TE Boat Jetty, Ernakulam. D Tax Tel Exchange, Ernakulam. O/o CGMT, Trivandrum TE Kaithamukku, Trivandrum.

8.	Instruments available	(a) Electrical (list the name of the instruments)	<ol> <li>Power/ Harmonic Analyser</li> <li>3 Phase clamp on Power meter</li> <li>Digital Anemometer</li> <li>Digital clamp meter</li> <li>Digital Lux meter</li> <li>Digital DB meter</li> <li>Temperature &amp; Humidity Meter</li> <li>Digital insulation tester- 500 V</li> <li>Hand driven insulation tester- 5000 V</li> <li>Digital Earth Tester</li> <li>Digital Multi meter</li> <li>Digital Tachometer</li> </ol>
		(b) Thermal (list the name of the instruments)	Digital Air flow and temperature meter

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

Place: Trivandrum

Date:3/12/2014

Signature: -Sd-

Name: M. Sudheendran Chief Engineer (E)

BSNL Kerala Electrical Zone,

Trivandrum

	*E	Biodata of Cer	tified Energy Auditor.	
1	Name of energy au	ditor	M. SUDHEENDRAN	
2.	Qualifications.		B.Sc. Engineering, M.B.A, P.G.D.A.L	
3.	Experience. (use additional sheet if required)		34 years' experience in Electromechanical construction & maintenance works in Telecom &. external projects including green buildings. Conducted a number of energy audits Kerala, Karnataka & Tamilnadu Certified GRIHA Trainer.	
4.	Residence(with STE	))	0471 2445599	
5.	Mobile		9446330333	
6	Email address	sudheendran	m@gmail.com	
7	Date of certification Manager or Energy specify) by Bureau of Efficiency (BEE) ( if list as nil	Auditor ( pl of Energy	Energy Manager and Auditor 30/7/2009	
8	Date of passing the in "Energy Performa Assessment for Equ Utility Systems"	nce	30/7/2009	
9	Examination Registr Number of (i) Energy Manager (ii) "Energy Performa Assessment for Equ Utility Systems" (In case of Certified Auditor, please write Registration No.)	ance ipment and Energy	Certified Energy Auditor CEA-0359	
10	of  (i) Energy Manager  (ii) "Energy Performance Assessment for Equipment and Utility Systems"		No.4469 No	
	Accreditation		Domestra/ if and	
			Remarks( if any)	

1 Name of energy auditor  2. Qualifications.  DEE B.Tech(Electrical & Electronics Engg.)  3. Experience. (use additional sheet if required)  25 years of experience in planning, design & execution of various electrical infrastructure	
B.Tech(Electrical & Electronics Engg.)  3. Experience. (use additional sheet if required)  25 years of experience in planning, design & execution of various electrical infrastructure	
required)  planning, design & execution of various electrical infrastructure	
works for BSNL buildings, 7 years' experience in Energy Auditing.	
4. Residence(with STD)	
5. Mobile 9446066002	
6 Email address ctshaji@bsnl.co.in, ctshaji1112@gmail.com	
7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil	
B Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  Passed in the exam conducted on 18.11.2007	
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.)	
Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"  Energy Auditor Reg No. EA 7421, Certificate No.3249	
11 Are you a BEE accredited Energy auditor. If so: Date of accreditation Accreditation No.	
Remarks( if any)	

		*Biodata of Certifi	ied Energy Auditor.	
1	Name of energy	auditor	T.G. Babu Kammath	
2.	Qualifications.		DEE, BE, MBA, CEA	
3.	Experience. (use additional sheet if required)		32 years experience as Electrical Engineer in BSNL. Conducted Energy Audit for various BSNL/ other buildings from 2003.	
4.	Residence(with S	STD)		
5.	Mobile		9446089444	
6	Email address	tgbabukamath@gma	ail.com	
7	Date of certification Manager or Energy specify) by Burea Efficiency (BEE) as nil	rgy Auditor (pl	Energy Auditor 18.02.2008	
8	"Energy Performa	he examination in ance Assessment d Utility Systems"	Nov-2007	
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.)		Certified Energy Auditor CEA-5774	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		EA - 5774 Certificate No.3123	
11	Are you a BEE ad auditor. If so: Date of ac Accreditation	creditation	No	
	Remarks( if any)			

		*Biodata of Certifi	ied Energy Auditor.		
1	Name of er	nergy auditor	Leelamma Mathew		
2.	Qualification	is.	BSc Engg., Electrical	(a a	
3.	Experience. (use additional sheet if required)		28 years of experience in planning, design & execution of various electrical infrastructure works for BSNL buildings. Also conducted energy audits in various BSNL Exchanges.		
4.	Residence(\	with STD)	0471 2532393		
5.	Mobile		9495501222		
6	Email address	sdetvm.lm@gmail.com			
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil		24 <sup>th</sup> February, 2009 Energy Manager and Energy Auditor		
8	"Energy Per	sing the examination in formance Assessment ent and Utility Systems"	November 2008		
9	(i) Energy M (ii) "Energy for Equipme ( In case of	Registration Number of lanager Performance Assessment ent and Utility Systems" Certified Energy Auditor, CEA Registration No.)	Certified Energy Auditor CEA-4470		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		Certificate No.4007		
11	auditor. If so: Date	EE accredited Energy of accreditation editation No.	No		
	Remarks( if any)				

		*Biodata of Certifi	ied Energy Auditor.		
1	Name of energy	auditor	SREEDEVI. A		
2.	Qualifications.		B.Tech Degree in Electrical and Electronics		
3.	Experience. (use additional sheet if required)		20 years of experience in planning, design & execution of various electrical infrastructure works for BSNL buildings, 7 years' experience in Energy Auditing.		
4.	Residence(with S	STD)	0471 2316590		
5.	Mobile		9446546590		
6	Email address	sreedevi@bsnl.co.in			
7	Date of certification Manager or Enerology specify) by Burea Efficiency (BEE) ( as nil	gy Auditor (pl	August 2007		
8	Date of passing the "Energy Performate for Equipment and	ince Assessment	NA		
9	(i) Energy Manag (ii) "Energy Perfor for Equipment and	rmance Assessment d Utility Systems" led Energy Auditor,	Certified Energy Auditor CEA-3037		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		CEA Certificate No.2627		
11	Are you a BEE ac auditor. If so: Date of ac Accreditati	creditation	No		
	Remarks( if any)				

		*Biodata of Certif	ied Energy Auditor.	
1	Name of energy	auditor	Jessy J. Thattil	
2.	Qualifications.		B.Tech (Electrical)	60
3.	Experience. (use additional sheet if required)		20 years of experience in planning, design & execution of various electrical infrastructure works for BSNL buildings, 7 years' experience in Energy Auditing.	
4.	Residence(with S	STD)	0484 2426039	
5.	Mobile		9446566039	
6	Email address	jessyjthattil@bsnl.co	o.in	
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 – 2.11.2006	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		2.11.2006	
9	(i) Energy Manag (ii) "Energy Perfo Assessment for E Utility Systems" (In case of Certif	rmance	Certified Energy Auditor CEA-3903	
10	Certificate Regist (i) Energy Manag (ii) "Energy Perfo Assessment for E Utility Systems"	er rmance	Certificate No.1614 (Reg. No. EA-3903)	
11	Are you a BEE acauditor. If so: Date of acade Accreditat	creditation	No	
		Re	marks( if any)	

1 Name of energy auditor  2. Qualifications.  B.Tech (Electrical & Electronics), PGDCA  3. Experience. (use additional sheet if required)  Experience. (use additional sheet if required)  20 years of experience in planning, design & execution of various electrical infrastructure works for BSNL buildings, 7 years' experience in Energy Auditing.  4. Residence(with STD)  5. Mobile  6 Email address nishajosegrace@gmail.com  7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  9 Examination Registration Number of (i) Energy Manager  (ii) "Energy Performance Assessment for Equipment and Utility Systems"  10 Certificate Registration Number of (i) Energy Manager  (iii) "Energy Performance Assessment for Equipment and Utility Systems"  10 Certificate Registration Number of (i) Energy Performance Assessment for Equipment and Utility Systems"  11 Certificate Registration Number of (i) Energy Performance Assessment for Equipment and Utility Systems"  12 Parante (if any)			*Biodata of Certif	fied Energy Auditor.	
Electronics), PGDCA  3. Experience. (use additional sheet if required)  20 years of experience in planning, design & execution of various electrical infrastructure works for BSNL buildings, 7 years' experience in Energy Auditing.  4. Residence(with STD)  5. Mobile  6 Email address   nishajosegrace@gmail.com  7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  9 Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"  9 (In case of Certified Energy Auditor, please write CEA Registration No.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" Certificate No.4486 Reg. No.EA-4256	1	Name of energy	auditor	NISHA JOSE	
required)  planning, design & execution of various electrical infrastructure works for BSNL buildings, 7 years' experience in Energy Auditing.  4. Residence(with STD)  5. Mobile  9446776969  6 Email address nishajosegrace@gmail.com  7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  9 Examination Registration Number of (i) Energy Performance Assessment for Equipment and Utility Systems"  9 Examination Registration Number of (i) Energy Performance Assessment for Equipment and Utility Systems"  10 Certificate Registration No.)  10 Certificate Registration Number of (i) Energy Performance Assessment for Equipment and Utility Systems"  Certificate No.4486  Reg. No.EA-4256	2.	Qualifications.		· ·	66
5. Mobile 9446776969  6 Email address nishajosegrace@gmail.com  7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  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.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Manager (iii) "Energy Performance Assessment for Equipment and Utility Systems" Certificate No.4486 Reg. No.EA-4256	3.	·		planning, design & execution of various electrical infrastructure works for BSNL buildings, 7 years' experience in	
6 Email address nishajosegrace@gmail.com  7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  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.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" Certificate No.4486 Reg. No.EA-4256	4.	Residence(with	STD)	0471 2433300	
7 Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  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.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"  Certificate No.4486 Reg. No.EA-4256	5.	Mobile		9446776969	
Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil  8 Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"  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.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Manager (iii) "Energy Performance Assessment for Equipment and Utility Systems" ( Reg. No.EA-4256 )	6	Email address	nishajosegrace@gn	nail.com	
"Energy Performance Assessment for Equipment and Utility Systems"  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.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"  Certified Energy Auditor CEA-4256  Certificate No.4486 Reg. No.EA-4256	7	Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list		30/07/2009	
(i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)  10 Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"  Certified Energy Auditor CEA-4256  Certified Energy Auditor CEA-4256  Certificate No.4486 Reg. No.EA-4256	8	"Energy Perform	ance Assessment	30/07/2009	
(i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"  Certificate No.4486  Reg. No.EA-4256	9	(i) Energy Manag (ii) "Energy Perfo Assessment for I Utility Systems" ( In case of Certi	ger ormance Equipment and fied Energy Auditor,	<u> </u>	
	10	(i) Energy Manag (ii) "Energy Perfo Assessment for I	ger ormance		
		Julity Systems	Da	emarks( if any)	

	*Biodata of Certi	fied Energy Auditor.	
1	Name of energy auditor	RAJESH. S	
2.	Qualifications.	B.Tech in Electrical & Electronics	
3.	Experience. (use additional sheet if required)	(i) Working as JTO(E) in BSNL from 2002 onwards (ii) 7 years experience in Energy Auditing.	
4.	Residence(with STD)	0471 2596121	
5.	Mobile	9447126614	
6	Email address rajeshsivanandan@	gmail.com	
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil	4 <sup>th</sup> September 2008 as Energy Auditor	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	4 <sup>th</sup> September 2008	
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.)	Certified Energy Auditor CEA-4443	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	EA-4443 as Energy Auditor Certificate No.3533	
11	Are you a BEE accredited Energy auditor. If so:     Date of accreditation     Accreditation No.	No	
	Re	emarks( if any)	

		*Biodata of Certifi	ied Energy Auditor.	
1	Name of energy	auditor	SURESH T.V.	
2.	Qualifications.		B.Tech (Mech.Engg) MBA, PGDPE	
3.	Experience. (use required)	additional sheet if	Conducted Energy Audit of commercial and Technical buildings (BSNL as well as external buildings)	
4.	Residence(with STD)		04602207800	V V
5.	Mobile		+919447515800	
6	Email address	tvsureshbe@gmail.c tvsuresh _be@yaho		
7	Date of certification Manager or Energy specify) by Burea Efficiency (BEE) as nil	rgy Auditor (pl	April 2006 Energy Auditor	
8	"Energy Performa	he examination in ance Assessment d Utility Systems"	April 2006	
9	(i) Energy Manag (ii) "Energy Perfo for Equipment an ( In case of Certif	istration Number of ler rmance Assessment d Utility Systems" lied Energy Auditor, a Registration No.)	Certified Energy Auditor CEA 4243	
10	` /		Reg No: CEA4243 Certificate No.2581	
11	Are you a BEE ad auditor. If so: Date of ac Accreditation	creditation	No	
		Re	marks( if any)	

		*Biodata of Certifi	ed Energy Auditor.	
1	Name of energy	auditor	Sanjay Kumar	
2.	Qualifications.		B.E (Elect .Engg) MBA	
3.	Experience. (use required)	additional sheet if	20 years of experience in planning, design & execution of various electrical infrastructure works for BSNL buildings. Also conducted energy audits in various buildings.	
4.	Residence(with S	STD)	0471 2114990	
5.	Mobile		9446090990	
6	Email address	mail2sanjay@gmail.	com	
7	Date of certification Manager or Energy specify) by Burea Efficiency (BEE) as nil	rgy Auditor (pl	April 2013 Energy Auditor	
8	"Energy Performa	he examination in ance Assessment d Utility Systems"	April 2013	
9	(i) Energy Manag (ii) "Energy Perfo for Equipment an ( In case of Certif	istration Number of er rmance Assessment d Utility Systems" ied Energy Auditor, Registration No.)	Certified Energy Auditor CEA- 16267	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		Reg No: CEA 16267 Certificate No. 5302	
11	Are you a BEE ad auditor. If so: Date of ac Accreditati	creditation	No	
		Rei	marks( if any)	

		*Biodata of Certific	ed Energy Manager.	
1	Name of energy	auditor	T.J.Varghese	
2.	Qualifications.		DEMIPE	
3.	Experience. (use additional sheet if required)		34 years of experience in DOT/ BSNL	
4.	Residence(with STD)			
5.	Mobile		9446411105	
6	Email address ptjverghese@yahoo.		.co.in	
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) ( if not appeared list as nil		Feb 2009 Energy Manager	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		Nov 2008	
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.)		Energy Manager EM- 0181	
10			Certificate No: 3302	
11	Are you a BEE accredited Energy auditor. If so:     Date of accreditation     Accreditation No.		No	
		Re	marks( if any)	