




## Approved Models of Portable Improved Biomass Cookstoves

Natural draft and forced draft models of single part metallic and metal plate ceramic (ceramic composite/ industrial insulating materials) cook-stoves have been developed and are being manufactured in the country. Some of the models have been approved by the Ministry of New and Renewable Energy on the basis of their performance testing as per BIS 13152(part 1) 2013 specification conducted by MNRE supported Test Centres. The models satisfying stipulated performance parameters are incorporated in list. The approved models supplied by respective manufacturers/developers are given below:

Sl. No.	Name & Address of Manufacturers/ developers	Model	Performance Parameters as per test conducted in MNRE supported Test Centres	Photograph of cookstove model
<b>I. Domestic Size Cookstoves - Natural Draft</b>				
1.	Sh. N.C. Panda, Director, M/s Unicus Engineering Private Limited Regd. office ; 23, Madhusudan Nagar, Unit - IV, Bhubaneswar,Dist.: Khurda Pin :- 751001, Factory Office : Plot No. 622, Durga pur, DandiChhatabar Bhubaneswar, Dist.: Khurda, Pin: 751054 (M) 09439556490, 09861794100 Email:nrasingha06@ yahoo.co.in	Harsha Multi- Fuel Cookstove	Thermal efficiency : 28.6% CO : 3.75 g/MJd TPM : 338.33 mg/MJd Power output : 2.0 kW	
2.	Shri Vikram S. Kale, Proprietor, Vikram Stoves & Fabricators. A-37, MIDC, P O Box No.25 Osmanabad-413501, Maharashtra Telefax : 02472 228401. (M) 09422465477,9922157 777,9422465457 Email:vikramskale@re diffmail.com www.vikramstoves.co m	Bio-classic (Fuel- wood) Front Feeding	Thermal efficiency : 26.01% CO : 4.54 g/MJd TPM : 315.38 mg/MJd Power output : 1.49 kW	
		Vikram Bio Super ChulhaTop feeding	Thermal Efficiency : 31.95% CO : 4.51g/MJd TPM : 331.83mg/MJd Power Output : 2.77kW	


		VikramBio Classic Chulha Front Feeding	Thermal Efficiency : 26.30% CO : 2.93g/MJd TPM : 123.80mg/MJd Power Output : 2.13kW	
3.	Ms. Neha Juneja, Co-founder, Greenway Grameen Infra Pvt Ltd, 301, Chawla Complex, Sector 15, CBD Belapur, Navi Mumbai 400614 Tel: 022-41239169, (M) 09930751591 www.grameeninfra.com Email- neha@greenwayappliances.com	Greenway Jumbo Stove Model JS1	Thermal Efficiency : 25.00% CO : 5.00g/MJd TPM : 239.94mg/MJd Power Output : 1.40kW	
4.	M/s Ravi Engineering & Chemical Works, L-166, Ground & 1 <sup>st</sup> Floor, sector-3, DSIDC, Bawana, Delhi-110039 (M) 9911773887 Email: recwfire@gmail.com, www.firenzal.in	FUELNZEL ND no.1	Thermal efficiency : 25.39% CO : 2.91 g/MJd TPM : 327.30mg/MJd Power Output : 1.14 kW	
5.	Adarsh Plant Protect Ltd, 604, GIDC, Vitthal Udyognar, Anand, Gujarat. Contact Details: Mr Sreekanth, Director Pooja Horti & Herbal Farms (P) Ltd. A-102, Anee Circle, Ganesh Chowkdi, ANAND-388001, Gujarat Phone: 02692, 262278, 09825156796 Email: poojahorti@yahoo.co.in	Adarsh Domestic	Thermal Efficiency : 28.10% CO : 4.65g/MJd TPM : 212.13mg/MJd Power Output : 1.41kW	
6.	Shri T. Pradeep, Chief Executive, I -Square D Charitable Trust No. 15, 1st Main, 2nd Cross, RMV 2nd Stage, Dollar's Colony, Bangalore-560094 Contact person: Ms. Anita Balagopal Email: anita@isquared.in, P.-099483535046	Chulika (Fuel-Wood)	Thermal efficiency : 29.77% CO : 2.57g/MJd TPM : 228.37 mg/MJd Power output : 0.74 kW	







7.	Mr. Soumitra Kulkarni, Swami Samarth Electronics Pvt. Ltd M-63, Ambad Nasik, Maharashtra 0253- 238 0687, 09953356232 swamisamarthm63@gmail.com	Agnika ND Eco Stove	Thermal Efficiency : 25.05% CO : 4.50g/MJd TPM : 329.67mg/MJd Power Output : 1.47kW	
		Agnika ND Premium Stove	Thermal Efficiency : 25.13% CO : 3.69 g/MJd TPM : 313.09 mg/MJd Power Output : 1.41 kW	
8.	M/s. KSP Industries, Plot No. C 26 MIDC Parbhani-431402 (MS) Ph.- 02452-232911, (M) 9881822555 Email- ksp_industries@rediffmail.com	Srushti Chulha ,(Fuel- wood), Front Feeding	Thermal Efficiency : 25.25% CO : 2.81g/MJd TPM : 203.26mg/MJd Power Output : 2.18kW	
9.	Digvijay Sales & Engineering Works, Ishkrupa Vidyanagar, Parali Vajinath-431515,Beed-431515(MS) Manufacturing Unit: Vimal Udyog B-110, Additional MIDC, Harangul, Latur-413512, Maharashtra (M) 9869254891 Email- digvijaysalesengworks@rediffmail.com	Digvijay Chulha Top Feeding	Thermal Efficiency : 33.44% CO : 2.55g/MJd TPM : 272.04mg/MJd Power Output : 2.46kW	
		Stri Sakhi Chulha, Front Feeding	Thermal Efficiency : 25.04% CO : 3.54g/MJd TPM : 183.43mg/MJd Power Output : 1.89kW	
10.	Energy Devices 7-2-1/a/22 balkampet, sanathnagar hyderabad, Telangana - 500018 Email : energydevices@gmail.com Website : www.energydevices1991.com Cell No. +91-9848020046 Landline : 040-23705090/3062	Urja Dix (Fuel – wood)	Thermal efficiency : 29.00% CO : 3.69 g/MJd TPM : 314.08 mg/MJd Power output : 1.28 kW	

11.	M/s. Envirofit (India) Pvt. Ltd., Hemant Shree Apartment Flat No. 202 ,Bhavdhan Khurd, Pune- 411021 Mob: +91 9890393939 Tel: +91 (20) 718002 00 Fax:+91(20)71800 211 harish.anchan@envirofit.org, infoindia@envirofit.org, www.envirofit.org	Envirofit PCS	Thermal efficiency : 25.46% CO : 4.84 g/MJd TPM : 331.40 mg/MJd Power output : 0.77 kW	
12.	M/s. Shri Ram Deo and Company, Gulmohar Colony, Bhopal- 462039 (MP) Production Unit :- Plot No. 8 , Sector- B Industrial Area , Mandideep Dist. Raisen ( M.P. ) Mobile No. +919425009113 , 8109583839 E-Mail :- kasrekarvijay@gmail.com shriramdeo2012@gmail.com  www.dattuchulha.in	DB1 (Dattu Chulha Big)	Thermal efficiency : 31.81% CO : 2.50 g/MJd TPM : 163.799 mg/MJd Power output : 1.70 kW	
		DS1 (Dattu Chulha Small 1)	Thermal efficiency : 31.67% CO : 2.149 g/MJd TPM : 151.30 mg/MJd Power Output : 1.825 kW	
		DB-II	Thermal efficiency : 33.57% CO : 2.82 g/MJd TPM : 187.992 mg/MJd Power Output : 2.198 kW	
13.	SPRERI, M/s. Nilkanth Industries, Vitthal Udyognagar, Anand	SPRERITECH Eco-Chulha No.190-NDS-L	Thermal efficiency : 25.955% CO : 2.95 g/MJd TPM : 216.64 mg/MJd Power output : 1.907 kW	
		SPRERITECH Eco-Chulha No.170-NDT-L	Thermal efficiency : 25.90% CO : 3.12 g/MJd TPM : 304.14 mg/MJd Power output : 1.85 kW	

14.	M/s Productiser Corporation 292, Ambica Vihar, Delhi-110087	Tapash Ojh stove	Thermal efficiency : 29.64% CO : 4.31 g/MJd TPM : 314.80 mg/MJd Power Output : 1.03 kW	
15.	Director, CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur-440020	Neerdhur Domestic	Thermal efficiency : 33.3% CO : 3.78 g/MJd TPM : 340.10 mg/MJd Power Output : 1.70kW	
16	M/s Taylormade Solar Solutions Pvt. Ltd., 705 - Shapath II, Opp. Rajpath Club, S.G. Road, Bodakdev, Ahmedabad - 380015. Contact: Dharmendra Gor Tel.: + 91 79 40040888, 40035875 Fax: + 91 79 40040666 Cell: + 91 9712933390 Website: www.tss-india.com	Surya FLD	Thermal efficiency : 30.24% CO : 2.42 g/MJd TPM : 183.307 mg/MJd Power Output : 1.631 kW	
		Surya FLD-BPL	Thermal efficiency : 32.21% CO : 1.511g/MJd TPM : 168.92 mg/MJd Power Output : 1.99 kW	
17	M/s Accutech Engineering Pvt. Ltd., W-275/182, MIDC, Bhosari, Pune	Accutech Tirupathi Saral Model No. 2	Thermal efficiency : 27.25% CO : 3.21g/MJd TPM : 264.27 mg/MJd Power Output : 1.42 kW	

## II. Domestic Size Cookstoves- Forced Draft

1.	Shri Mahesh Yagnaraman, Managing Director, First Energy Pvt. Ltd., B 101, Signet Corner Building, Baner Road, Baner,Pune – 411045(Fax:020-67210444). Tel: 020-67210500. Email:yagnaramans@gmail.com	Oorja K3 Dlx (Portable -Forced Draft)	Thermal Efficiency : 37.26% CO : 1.12g/MJd TPM : 128.26mg/MJd Power Output : 1.51kW	
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2.	<p>The Energy and Resources Institute (TERI), 6C, Darbari Seth Block India Habitat Place, Lodhi Road New Delhi - 110 003 Tel: 011-24682111/24682100 Manufacturer Address: Phoenix Udyog Pvt Ltd, Nahan Road, Moginand, Kala-Amb, District: Sirmour, Himachal Pradesh-173030 Tel: 098161 03575 Email: phoenix.hp@rbgroup.in</p>	<p>TERI SPT-0610 (Fuel- Wood)</p>	<p>Thermal efficiency : 36.84% CO : 2.25 g/MJd TPM : 147.40mg/MJd Power output : 1.08 kW</p>	
		<p>IMPMUD, TERI PMU 0414D</p>	<p>Thermal Efficiency : 35.52% CO : 3.63.g/MJd TPM : 107.56.73mg/MJd Power Output : 4.36kW</p>	
		<p>TERI-SPF 0414S (Front-fed)</p>	<p>Thermal efficiency : 40.78% CO : 1.28 g/MJd TPM : 71.36 mg/MJd Power output : 2.24 kW</p>	
3.	<p>Mr. I.H. Rehman Director, The Energy &amp; Resources Institute (TERI), Darbari Seth Block, IHC Complex New Delhi- 110003 Email- ihrehman@teri.res.in</p>	<p>IMPMUD Stove TERI SPF 0143</p>	<p>Thermal Efficiency : 36.77% CO : 2.13g/MJd TPM : 100.94mg/MJd Power Output : 3.06 kW</p>	
4.	<p>Shri Ashwin Patel, Director, Alpha Renewable Energy Pvt. Ltd. At. &amp; Po. Vasna (Borsad), Ta. Borsad, Dist. Anand, Gujarat, India-388 540 Tele: 02696-290380; (M): 09904184849 Email: info@alphaindi a.co.in ap@wallguard.net</p>	<p>XXL Eco Chulha Stoves</p>	<p>Thermal Efficiency : 36.52% CO : 1.14g/MJd TPM : 56.290mg/MJd Power Output : 1.98 kW</p>	<p>Model : XXL</p> 
5.	<p>Shri Sashidhara B T, Proprietor, Sacks Right Energy Innovations No.83/84, Kempgowda Circle 14th A Cross, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore - 560 058 (M): 09900241276, 0988642 5879 Email: wedesignforyo u2000@gmail.com</p>	<p>OJAS (Fuel-Pellets)</p>	<p>Thermal Efficiency : 35.33% CO : 2.569 g/MJd TPM : 78.82 mg/MJd Power output : 1.99 kW</p>	

6.	Mr. Rajesh Saboo, Phoenix Udyog Pvt. Ltd, Vishal Market, West Mukherjee Nagar, Delhi-110009 Mb: 098161 03575 Email- rajesh@rbsgroup.com	TERI SPT 0314 Stove	Thermal Efficiency : 40.81% CO : 2.09g/MJd TPM :140.67mg/MJd Power Output : 1.46 kW	
7.	M/s. Pura Infrastructure development Consultants Pvt. Ltd. 9081, Pocket C9, VasantKunj, New Delhi-110070 Mob: +91-9871454997 purainfrastructure@g mail.com www.purainfrastructur e.com	PMTS, (Thermoelectric Generator Stove)	Thermal efficiency : 35.47% CO : 3.20 g/MJd TPM :117.03mg/MJd Power output : 1.50 kW	
8.	M/s Biolite 302, Block-C, manorama Estate, NH 203, Bomikhal, Bhubaneswar, Odisha-751010. ethan@biolitestove.co m	Biolite Homestove (Thermoelectric Generator stove)	Thermal efficiency :36.92 % CO : 0.91 g/MJd TPM : 120.02 mg/MJd Power output : 1.68 kW	
9.	M/s Sanjay Techno- Plast Ltd., MIDC Waluj Aurangabad, 431136 Maharashtra	Eco Chulha 2.5	Thermal efficiency : 39.28% CO : 2.458g/MJd TPM : 114.765 mg/MJd Power Output : 3.3712 kW	
10.	M/s Abellon Clean Energy Ltd., Sangeeta Complex, near Parimal Railway Crossing, Ellis bridge, Ahmedabad-380006, India	Atom	Thermal efficiency : 35.91% CO : 2.727g/MJd TPM : 124.274 mg/MJd Power Output : 1.798 kW	
11.	M/s Taylormade Solar Solutions Pvt. Ltd., 705 - Shapath II, Opp. Rajpath Club, S.G. Road, Bodakdev, Ahmedabad - 380015. Contact: Dharmendra Gor Tel.: + 91 79 40040888, 40035875 Fax: + 91 79 40040666 Cell: + 91 9712933390 Website: www.tss- india.com	Surya FDD	Thermal efficiency : 40.9% CO : 1.802 g/MJd TPM : 133.433 mg/MJd Power Output : 2.497 kW	


### III. Community Size Cookstoves - Natural Draft



1.	<p>Shri Vikram S. Kale, Proprietor, Vikram Stoves &amp; Fabricators. A-37, MIDC, P O Box No.25 Osmanabad-413501, Maharashtra Telefax : 02472 228401. (M) 09422465477,9922157 777,9422465457 <a href="mailto:vikramskale@rediffmail.com">vikramskale@rediffmail.com</a> <a href="http://www.vikramstoves.com">www.vikramstoves.com</a></p>	<p>Vikram Jumbo Bio Super, top feeding</p>	<p>Thermal Efficiency : 28.10% CO : 1.15g/MJd TPM :123.67mg/MJd Power Output : 3.64 kW</p>	 <p>The image shows a black, cylindrical cookstove with a top feeding mechanism. It has a label that reads 'VIKRAM COMMUNITY CHULHA'. The stove is mounted on four legs.</p>
2.	<p>Digvijay Sales &amp; Engineering Works, Ishkrupa Vidyanagar, Parali Vajinath- 431515, Beed- 431515(MS) Manufacturing Unit: Vimal Udyog B-110, Additional MIDC, Harangul, Latur- 413512, Maharashtra (M) 9869254891 <a href="mailto:digvijaysalesengworks@rediffmail.com">digvijaysalesengworks@rediffmail.com</a></p>	<p>Digvijay Community Chulha Top feeding</p>	<p>Thermal Efficiency : 30.28% CO : 1.73g/MJd TPM :168.85mg/MJd Power Output : 4.209 kW</p>	 <p>The image shows a black, cylindrical cookstove with a top feeding mechanism. It has a label that reads 'DIGVIJAY SAMPLE NO. 4'. The stove is mounted on four legs.</p>

### IV. Community Size Cookstoves - Forced Draft

1.	<p>Shri Ashwin Patel, Director Alpha Renewable Energy Pvt. Ltd. At. &amp; Po. Vasna (Borsad), Ta. Borsad, Dist. Anand, Gujarat, India-388 540 Tele:02696-290380; (M):09904184849 <a href="mailto:info@alphaindia.co.in">info@alphaindia.co.in</a>, <a href="mailto:ap@wallguard.net">ap@wallguard.net</a></p>	<p>XXXL Plus Stove</p>	<p>Thermal Efficiency : 35.52% CO : 1.97g/MJd TPM : 78.93mg/MJd Power Output : 3.78 kW</p>	 <p>The image shows a tall, cylindrical, stainless steel cookstove with a top feeding mechanism. It has a label that reads '301'.</p>
2.	<p>Shri Sashidhara B T, Proprietor Sacks Right Energy Innovations No.83/84, Kempgowda Circle 14th A Cross, Thigalarapalya Main Road, Peenya 2nd Stage, Bangalore - 560 058 (M): 9900241276,98864258 79 Email: <a href="mailto:wedesignforyou2000@gmail.com">wedesignforyou2000@gmail.com</a> <a href="mailto:Sin_e@yahoo.co.in">Sin_e@yahoo.co.in</a></p>	<p>Ojas - M06 (Fuel-Pellets)</p>	<p>Thermal Efficiency : 35.11% CO : 1.05 g/MJd TPM : 69.01 mg/MJd Power output : 5.43 kW</p>	 <p>The image shows a red, square-shaped cookstove with a top feeding mechanism. It has a label that reads '301'. The stove is mounted on four legs.</p>



3.	Mr. Sandeep Kashyap, M/s. Navitas Green Power(Fuel Management) Pvt. Ltd. Udyog Vihar, Gurgaon Ph- 0124-4987400 124-4987499(Fax) Mb: 9910402185 Email- sandeep.kashyap@sar- group.com	Navshakti Cookstoves, Model: NSTF10 (Fuel -Pellet)	Thermal Efficiency : 42.80% CO : 1.03g/MJd TPM : 68.45mg/MJd Power Output : 12.2 kW	
		Navshakti Continous Cookstove, Model No. NSCF10	Thermal efficiency : 35.42% CO : 1.34 g/MJd TPM : 123.28mg/MJd Power output : 11.46 kW	
4.	Teri, PMU Lab Jagdishpur, Amethi, U.P	IMPMETAL TERI SPFB_0514b	Thermal efficiency : 37.12% CO : 1.59 g/MJd TPM : 105.62mg/MJd Power output : 9.11 kW	
5.	M/s. Supernova Technologies Pvt. Ltd. Gujarat Tel: +91 2692 237037 sntgstove@yahoo.com , sntgujarat@gmail.com www.supernovawinds olar.com	Supernova-SGDCM	Thermal efficiency : 36.10% CO : 4.63 g/MJd TPM : 112.17mg/MJd Power output : 4.62 kW	
6.	M/s TERI , Darbari Seth Block, IHC Complex, Lodhi Road, New Delhi-110003	IMPMETAL-TERI- SPFC-1114	Thermal efficiency :36.49 % CO : 1.71 g/MJd TPM : 133.65mg/MJd Power output : 3.36 kW	
		IMPMETAL-TERI- SPFM-0414N	Thermal efficiency :35.41 % CO : 1.889 g/MJd TPM : 116.63mg/MJd Power output : 4.256 kW	
7.	M/s Phoenix Udyog (P) Ltd., Nahan Road, Moginand, Kala-Amb- 173030, Dist. Sirmour (Himachal Pradesh) Tel: 09816103575 Email: phoenix.hp@rb sgroup.in	TERI SPFB-0514C	Thermal efficiency :37.32 % CO : 0.830 g/MJd TPM : 92.38 mg/MJd Power output : 9.05 kW	
		TERI SPFM-0414E	Thermal efficiency :35.75 % CO : 2.22 g/MJd TPM : 138.73mg/MJd Power output : 4.26 kW	

8.	M/s Abellon Clean Energy Ltd., Sangeeta Complex, near Parimal Railway Crossing, Ellis bridge, Ahmedabad-380006, India	Smart 9/15	Thermal efficiency : 36.98% CO : 3.41 g/MJd TPM : 135.108 mg/MJd Power Output : 8.367 kW	
9.	M/s Sanjay Techno-Plast Ltd., MIDC Waluj Aurangabad, 431136 Maharashtra	Eco-Chulha 5.0	Thermal efficiency : 36.60% CO : 2.159 g/MJd TPM : 106.985 mg/MJd Power Output : 5.896 kW	
		Eco-Chulha 10.0	Thermal efficiency : 41.154% CO : 1.482 g/MJd TPM : 105.961 mg/MJd Power Output : 9.477 kW	