ENERGY ACCESS FOR IMPACT

CSR partnerships in enabling renewable energy solutions

Proceedings from a CSR roundtable, March 2017

About this report

India has made considerable strides in village-level electrification, but household-level electrification rates are still low and electricity supply remains inadequate. While 96% of all villages were electrified in 2016, there were still 53 million households (244 million people) that did not have access to electricity. For those who are connected to India's grid, the quality of electricity supply tends to be poor; there are 20 million grid-connected households (95 million people) who receive less than hours of electricity each day.[1]
Inclusive economic growth is the single most effective means of enhancing livelihoods and reducing poverty. However, most economic activity is impossible without adequate, reliable and affordable modern energy.

With mandated CSR being introduced in 2013, CSR funding for energy access opens up new possibilities to enable better education, healthcare, agriculture and livelihoods for underprivileged communities through philanthropic capital and support coming from companies.

A Roundtable held on March 8, 2017 by SELCO Foundation and Sattva with the support of GIZ, brought together CSR heads of companies, policy makers, philanthropic funders, impact investors and entrepreneurs, to discuss current status, gaps, and opportunities to fund energy access for social impact. This report presents and summarises the findings of the same.

[1] Dalberg, 2017, "Off-grid energy policy"

Credits

Prepared by Sattva with inputs from the CSR roundtable on energy access held on March 8, 2017, at GIZ, New Delhi.

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Executive Summary

Despite being the third largest electricity generator, almost 250 million people in India live without access to energy.

While the Government — through the Ministry of Power — has taken on the task of improving electrification of villages through grid extension, there are a number of challenges linked to availability of power at the last mile owing to operational issues of the Distribution companies (DISCOMs), revenue generation from the rural segment, and the current transmission and distribution infrastructure. The Ministry of New and Renewable Energy[2] is attempting to complement this grid expansion by supporting decentralised clean energy generation at the source.

Over the last decade, a number of independent private players have established themselves to address this need through standalone systems, micro grids and mini-grids, where the generation of power can happen through clean energy sources at the local level.[3] However, the challenges they encounter are many:

Energy entrepreneurs face multiple challenges in scaling or deepening their solutions
Even though energy entrepreneurs are solving India's biggest problems with market solutions and are operating in the hardest geographies in the country, they face disproportionate costs when prototyping and validating their solutions. A 2014 report on Accelerating Access to Energy by Shell Foundation[4], points out that entrepreneurs face challenges across their value chain right from investing in product design to meet consumer needs, to reaching the last mile with their energy solutions and to maintaining products at the user's end.

CSR programmes have potential to achieve significant impact by supporting energy access
As energy access is an enabler for social development; the potential for integrating energy access into existing education, healthcare and livelihood CSR projects is immense. About 77% of total CSR spending went to education and skill development, health care and sanitation and rural development project in FY 2016 directly. Yet, today, there are only 42 companies reporting an investment of around INR 100 crore in energy access through direct-to-beneficiary, programmatic or ecosystem-based interventions. This investment is just 1.2% of the total CSR investment in FY 2016.

With support from GIZ, SELCO Foundation and Sattva organised a roundtable on '**Energy Access for Impact: CSR partnerships in enabling renewable energy solutions'** in an effort to discuss experiences, gaps and opportunities to collaborate in providing energy access for livelihoods and

[2] Ministry of New and Renewable Energy, "Remote Village Electrification Programmes", accessed March 31, 2017
[3] Bridge to Solar, "India issues a credible draft of mini and micro grid policy", accessed March 31, 2017
[4] Shell Foundation, "Accelerating Access to Energy", 2014

improvement in quality of life among underserved populations across India. The roundtable on March 8, 2017, focused on the following areas:

- Investment support landscape for energy access
- Role of Corporate India in enabling energy access
- Energy Access: Concept to execution
- Creating sustainable and replicable energy access programs
- How do we effectively partner to bridge the gap between what is needed in the energy access sector and what is important to CSR portfolios?

Some of the key insights that emerged from the roundtable include:

- The policy framework does not permit straightforward access to funding energy entrepreneurs, which can be bridged through non-profit structures created by NGOs.
- For ensuring effective implementation of energy access projects, collaboration between CSRs and on-ground implementation organisations is paramount.
- A strategic communication strategy should be devised by analysing the CSR policy of corporates can help energy access NGOs in building relationships that mutually benefit all the stakeholders involved.
- CSRs can support grass-root organisations not just financially but also by building their capacity and providing technical expertise in streamlining their systems and processes.

Introduction: Investing in Energy Access

The status of energy access in India

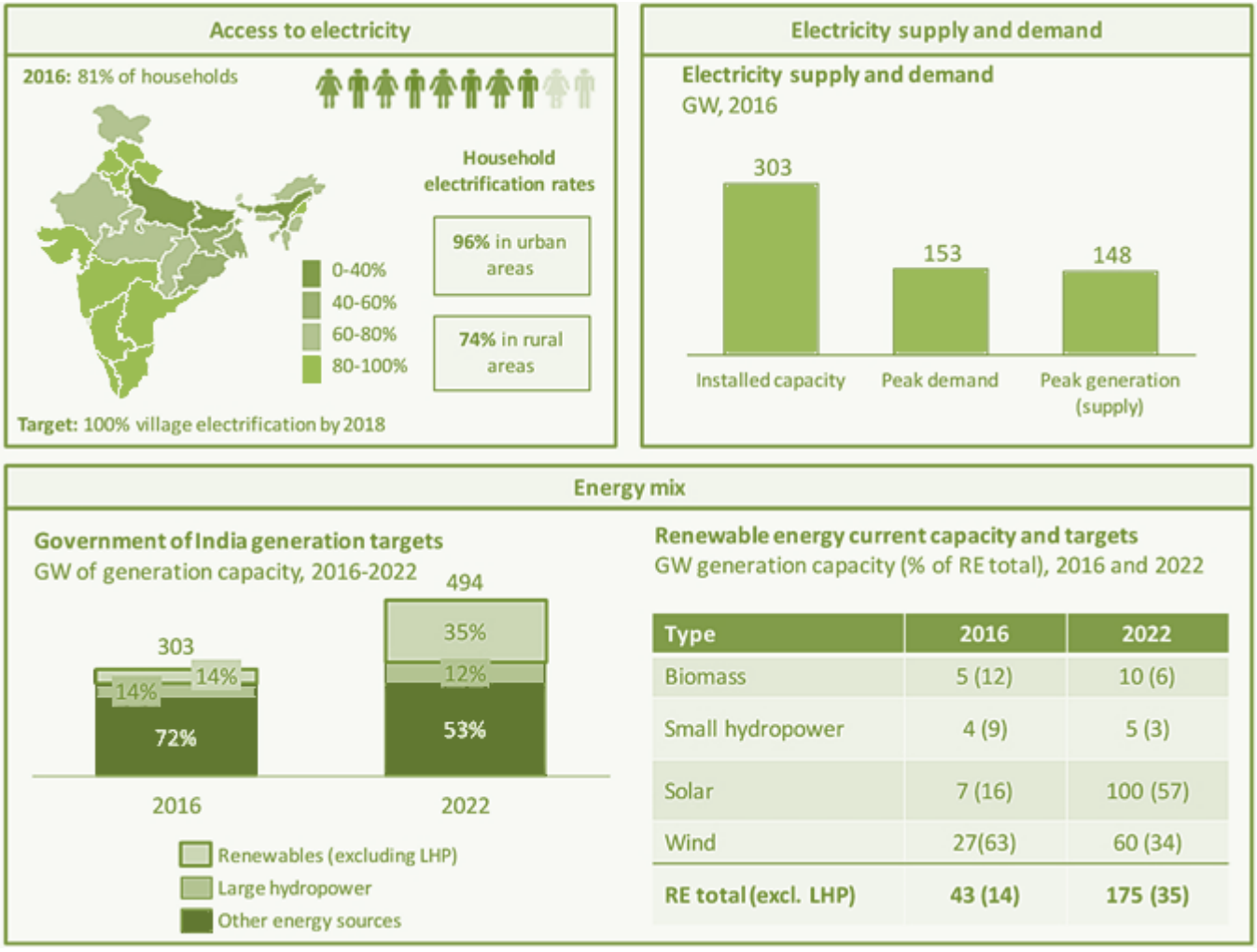
India's energy consumption has doubled since the year 2000 and is expected to be more than double by 2040, which will account for one-fourth of the world's increase in that same period. In terms of per capita energy consumption, India ranks 109 in a list of 137 countries.[5] While village electrification by the government has progressed rapidly and is on course to 100% coverage by 2019, over half of the 244 million people without electricity live in five impoverished states: Uttar Pradesh, Bihar, Odisha, West Bengal and Madhya Pradesh. Renewable energy sources are expected to play a huge part in India's economic growth reaching the untapped rural population. If India is to reach the target of 40% renewables by 2040, USD 120-130 billion dollars will be required for the implementation of its renewable energy target of 175 GW by 2022, and hence, innovative market financing mechanisms, and various forms of socially responsible investing (SRI) will be critical to ensure sustainable energy for all.[6]

Government policies and programmes

The Government of India has set an ambitious target of generating 175 GW of renewable energy by 2022, including 60 GW from wind power, 100 GW from solar power, 10 GW from biomass power and 5 GW from small hydro power. The Government through MNRE, propagates clean power, energy availability and access, and improved energy affordability with the intent to maximize investment in this sector. In the Union Budget for 2017-18, MNRE was allocated INR 5,472.84 crore, which is an increase of 25% from FY17 revised estimates. Solutions propagated by the government are primarily in the areas of grid power, off-grid and decentralised systems.

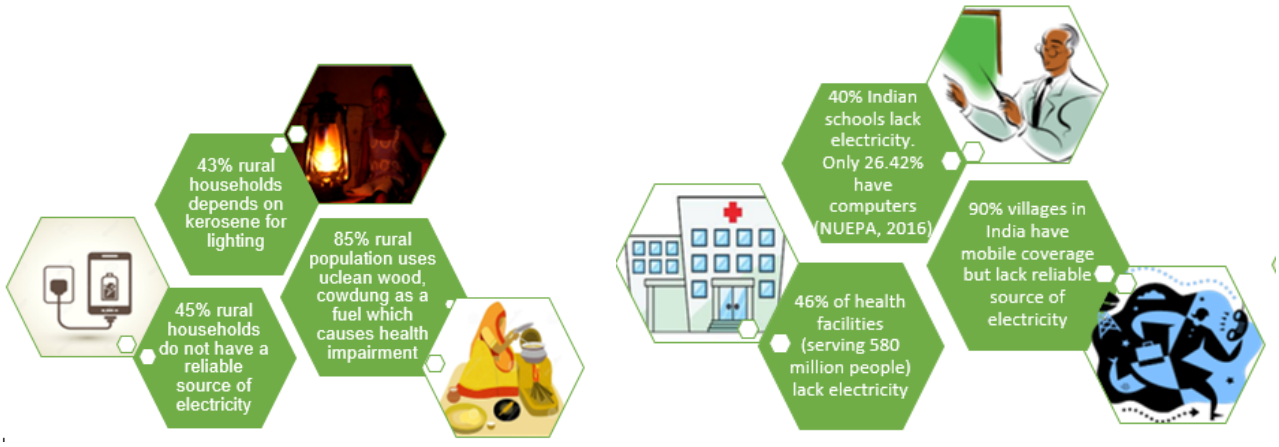
- India's USD 11 billion rural electrification programme – Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) – involves both on-grid and off-grid components.
- Quality and reliability of power continues to remain a critical issue, with 95 million people receiving less than 4 hours of reliable power a day.
- There have been several recent advances in policies pertaining to micro and mini-grids and tariffs. Notably, the National Tariff Policy (NTP) (2016) addresses some of the long-standing policy uncertainty regarding tariffs and grid interactivity. Uttar Pradesh is the first State in India to institute a mini-grid policy.[7]
- The UDAY programme, which was recently launched, could be a game-changer for the country as it is aimed at revitalising and returning the buying power of the weakest link in the electricity supply chain: the state electricity boards (SEBs).

[5] World Economic Forum, 2016, "Why the energy sector is key to India's growth"
[6] Bloomberg New Energy Outlook, 2017, "New Energy Outlook 2017"
[7] Dalberg, 2017, "Off grid policies in India"



.Government of India energy access targets. Source: Dalberg, 2017

By the numbers: Energy access gaps



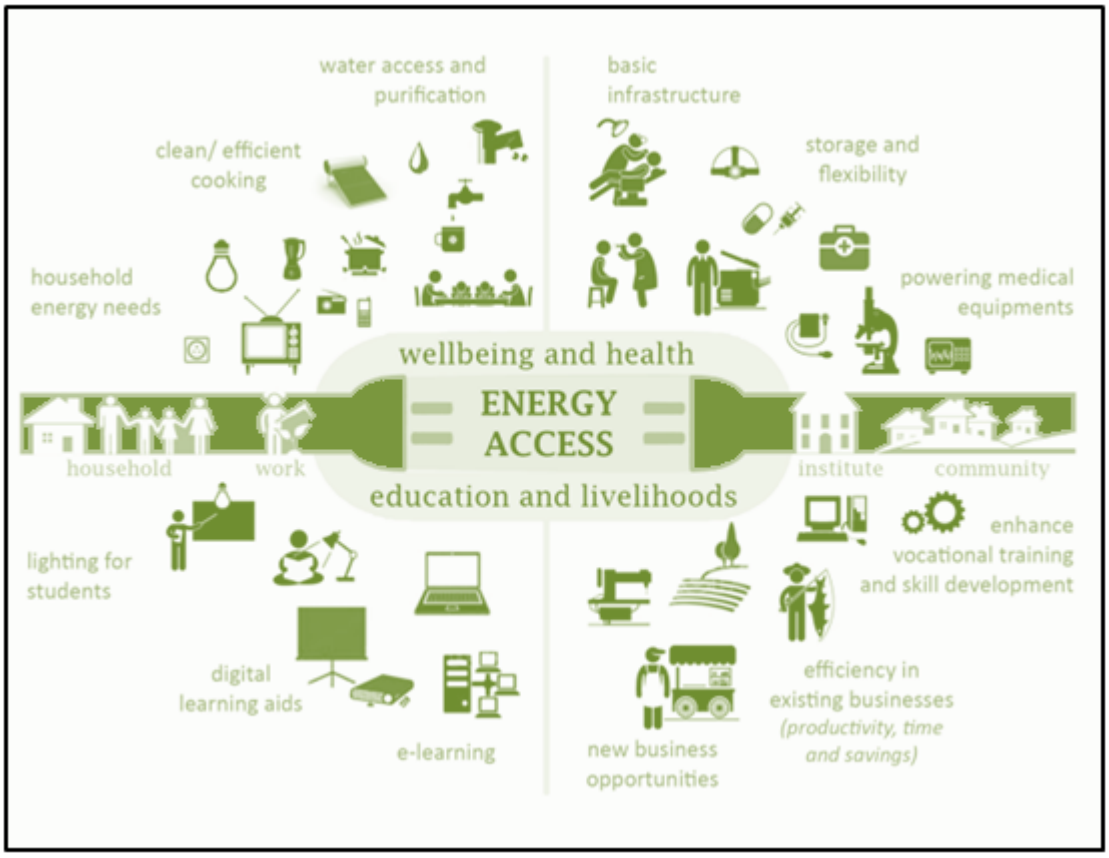
Source: Census 2011

Energy access can lead to positive benefits across individuals and community institutions:

- **Individual:** According to an NSSO Report on Level and Pattern of Consumer Expenditure 2009-2010[8], fuel and light constitute the 2nd highest expenditure items after food in rural areas. Energy consumption at the household level is dictated by availability, affordability, and household characteristics based on quality of access existing for consumption.

- **Community/Institutions:** Energy access plays a significant role in ensuring provision of basic services including clean drinking water, healthcare facilities, education and agricultural processing technology.

Energy entrepreneurs aim to offer cost-effective solutions to the needs of the consumers. This requires increasing social investment support from corporates throughout the value chain of entrepreneurs' right from product innovation, distribution and sales of energy solutions at the last mile to maintenance of products at the user's end by training local youth and entrepreneurs.



Role of energy access in enabling development. Source: Selco Foundation

[8] NSSO, 2009-10, Level and pattern of consumer expenditure

The case for funding energy entrepreneurs

Given that energy access plays a critical role in other development oriented efforts including education, healthcare, livelihoods and well-being, it is essential to take note of the ongoing efforts to facilitate last mile delivery of energy solutions, particularly through clean energy entrepreneurs. These energy entrepreneurs are solving India's biggest problems with market solutions and are operating in difficult geographies in the country. The complete ecosystem required for these innovators and entrepreneurs to flourish in continues to be immature. This is because, of an underlying assumption that the poor are a homogenous group. According to a report on Accelerating Access of Energy, published by Shell Foundation in 2014, these pioneers face disproportionate costs when innovating, prototyping and validating their solutions. Major investment in product development, business model innovation and marketing are required to serve low-income consumers while navigating a poor enabling environment – all without comprehensive market data. It therefore takes substantial time to develop an attractive value proposition that meets consumer needs and generate development value.

Key challenges that energy entrepreneur face can be classified in four broad categories:

- **Product:** The poor are not a homogenous group and thus, one size does not fit all, and a range of products need be developed to suit different consumer needs, tastes and preferences in different regions.
- **Distribution:** Cost effective sales and distribution channels have to be established to ensure that the energy solutions reach the last mile.
- **Talent:** Investing in human capital is crucial for growth but it becomes difficult for social enterprises to allocate capital as they have a limited pool of resources.
- **Need for after-sales support and maintenance:** Maintenance of energy solutions for rural population requires recruiting, training and supporting a network of young entrepreneurs at the village level.

The case for funding to be spent on building the Ecosystem for Energy Access

The Ecosystem Approach:

All organisations and institutions, irrespective of whether they are government organisations, private enterprises, community-based organisations or NGOs, work within an environment that enables and/or constrains their work and ability to deliver. If an organisation or institution has to deliver to the peak of its ability, then the environment or the ecosystem that it works in has to be conducive to the goal of the organisation. The organisation has to work in tandem with other stakeholders in this ecosystem to succeed.

All organisations have to choose or innovate from a range of delivery models, across technologies and scales of operation. Organisations choose particular models depending on the ecosystem in which they operate, such as geography, population segmentation, socio-economic conditions, financial systems, infrastructure, etc. Figure below depicts a schematic representation of the ecosystem factors in an Indian context.

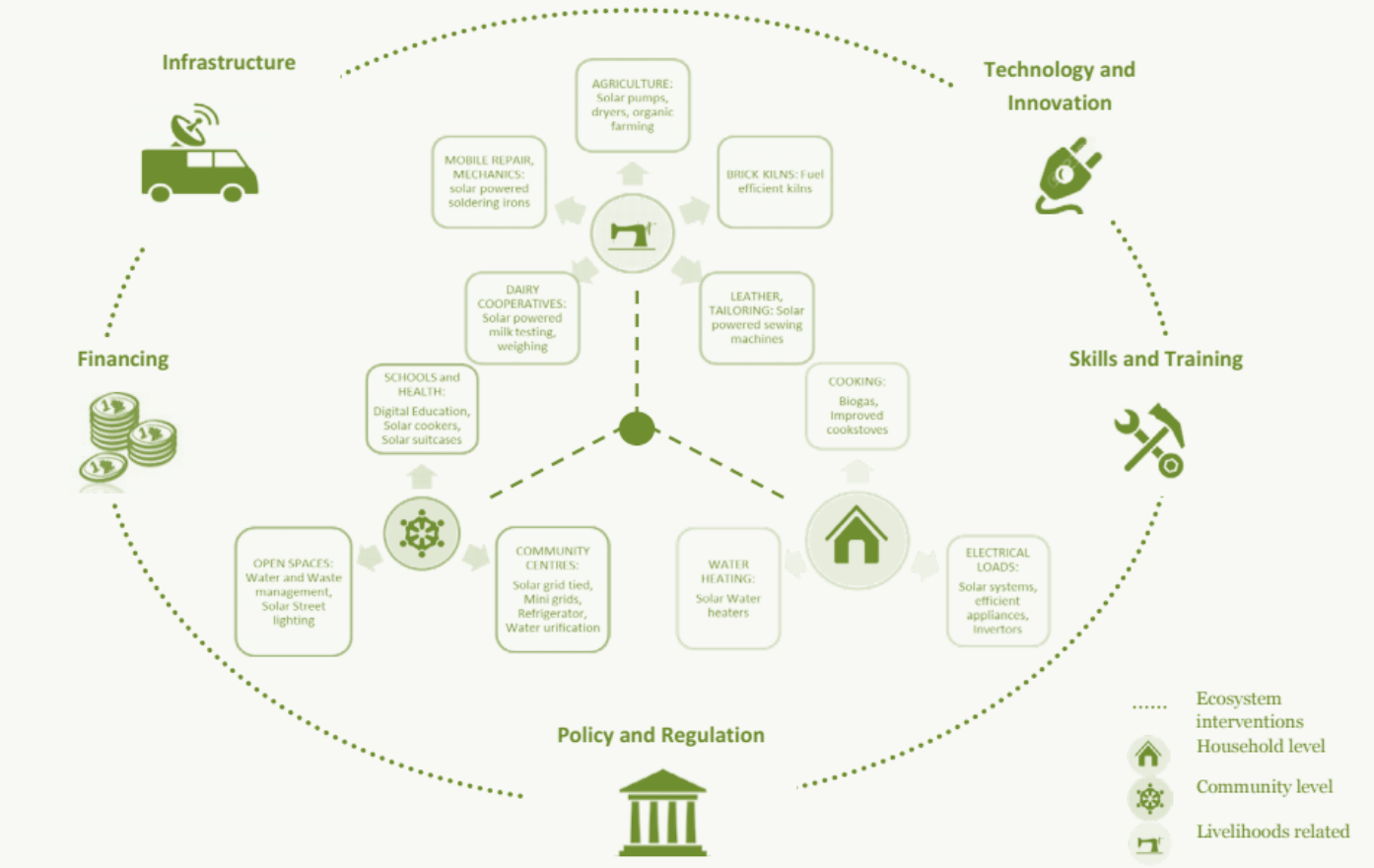


Figure: Schematic Representation of Various Ecosystem Factors

By enabling these critical components, any delivery model should be able to sustain and flourish. Thus, for organisations working towards providing energy access to the poor, it becomes crucial to move beyond the technology paradigm to incorporate a holistic approach that looks at other factors in the ecosystem, such as combining customised technology with affordable financing, a sustainable dissemination and maintenance mechanism, a conducive policy framework, etc. CSR funds could be used to help develop or strengthen the ecosystem that have the potential to have long term impact on the uptake of renewable energy.

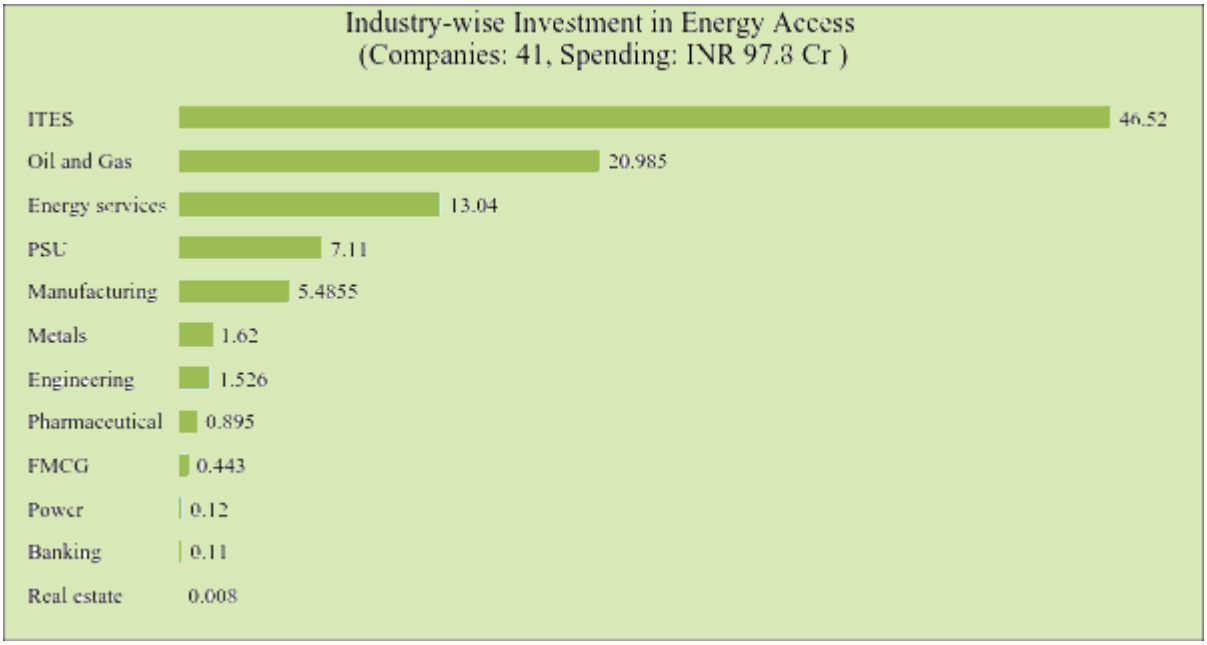
Leveraging CSR to finance gaps in Energy Access

The enactment of Section 135 of the Indian Companies Act 2013 has brought in attention and investment from corporates in critical social issues. CRISIL reports a spending of 8,349 crores among 4887 companies in 2017, an increase of 22% over 2016.[9] Out of the total spending, environment sustainability received about 564 crores or 7% of the total spending, a minor portion compared to education or healthcare.

Current spending

An analysis of top 250 companies (NGOBOX, 2016) reveals that **42 companies** support initiatives in the Energy sector with an overall **investment of around INR 100 crore which is only 1.2% of the total CSR spending** of INR 8349 crore for the financial year 2016.

ITES industry contributes to more than 45% of the total investments. Top spenders include WIPRO (INR 36 crore) and Infosys (INR 10 crore)
Contribution from Oil and Gas companies is significantly high (21% of total) with HPCL investing around INR 18 crore in providing energy access to BPL families



Source: NGOBox, Investment in environment sustainability. Note: Much of the energy access investment at PSUs and other companies may be carried out under sustainability programmes and hence does not reflect as CSR funding.

Opportunities to maximise social impact in CSR by investing in energy access

[9] CRISIL Foundation, 2017, "Altruism rising: The CRISIL CSR yearbook"

1. Energy access is a horizontal

It is apparent that CSR funding is driven towards national priority areas with social issues such as education, health care and skill development assuming predominance. Environmental causes receive much less funding than social causes. However, ***energy access is an area that functions as a horizontal area, cutting across all themes, from education to rural development.***

Section 135 focus area	Potential for energy access CSR programme	Example
Education	Powering classrooms, edtech and digital learning aids	The e-Shala programme, a partnership between Menda Foundation, SELCO foundation, Children's Love Castle Trust and Powers of 10, uses a solar-powered LED television (with solar-panels hosted on roofs of the school) along with a tablet containing the full course material for delivering edtech. For ensuring good upkeep of the equipment, the school contributes towards the annual maintenance contract of 5 years with SELCO.
Healthcare	Telemedicine centres, powering equipment, basic PHC infrastructure and emergency services	Envirofit designs innovative cook-stoves by working with financing organisations, small businesses, small holder farmers and women groups which goes through rigorous consumer testing. The organisation partners with last mile entrepreneurs, local businesses and NGO partners to scale access to clean cooking technology.

WASH	Off-grid RO, pumps, sewage treatment plants powered by renewable sources	Grundfos provides off-grid, self-sustaining solar water pumping solutions in villages.[10]
Livelihood	Powering equipment, irrigation and processing in farming, dairy and livestock	Tata Trusts and their partner Trust Community Livelihoods (TCL) enhance the income of small farmers through crop intensification. Farmers are grouped in water user groups of five to seven members so that costs as well as water could be shared. Using the subsidy from the government's agriculture department, 20 new pumps were installed in March 2016. Together, the 22 solar pumps installed through the Tata Trusts' project is benefitting 114 small and marginal farmers across 92 acres in 14 villages.
Rural development		HCL Foundation is investing in 100+ villages in Uttar Pradesh through renewable energy in order to play a catalytic role in the development of villages in India by addressing five broad areas in the selected villages – Education, Employability, Healthcare, Infrastructure and Water.

2. Energy access programmes bring enduring value to community & company

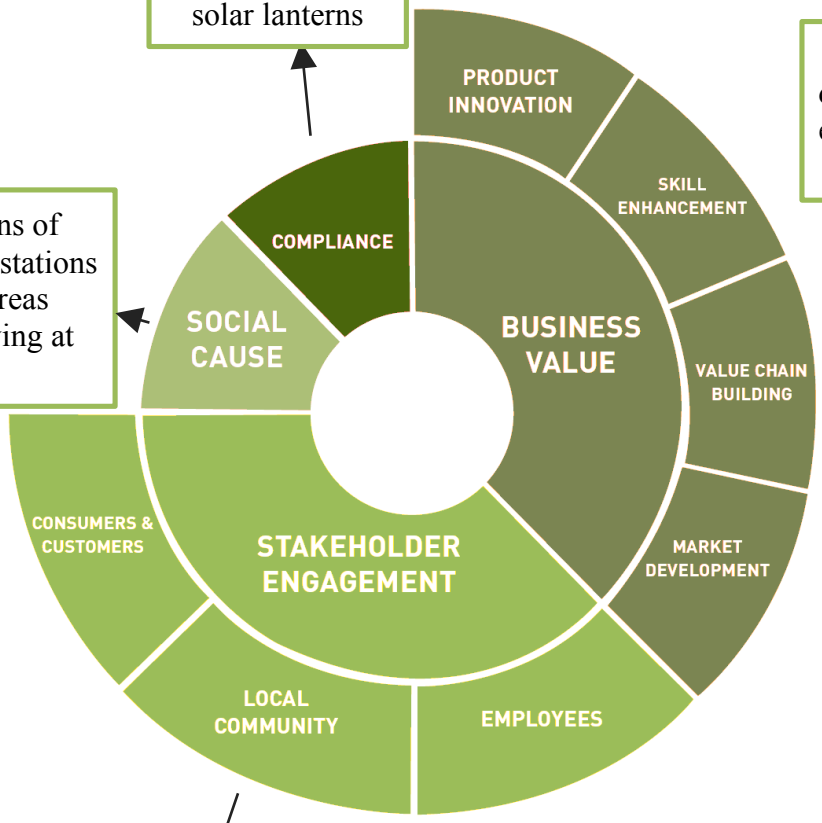
Assuming that corporates are looking at maximising the social return on their investment while striving for value to company, in Sattva's analysis of CSR programmes, it emerges that there are four anchors that characterise CSR funding: Social Cause, Compliance, Stakeholder Management,

[10] http://www.financialexpress.com/opinion/how-to-provide-water-to-millions-in-india-grundfos-pumps-honcho-explains/353335/

and long-term Business Value. There is potential for translating energy access programmes in all four approaches.

Compliance: *Meeting legal requirements*	Idea Cellular provides solar lamps to children across 9 States to equip them in their education.[11]
Social Cause: *Addressing a social cause that might be unrelated to the business*	In 2007 **Shell Foundation** co-founded Envirofit as a global strategic partner to design, produce and distribute clean cookstoves. With over 300,000 stoves sold, Envirofit is now the clean cookstove market leader across India.[12] **HPCL** runs the Lighting a Billion Lives programme to set up and run solar charging stations in villages that offer certified, bright, solar lanterns for rental to the local people. The charging station consists of 50 solar lanterns and charging panels.[13]
Stakeholder engagement: *Leveraging CSR to engage key stakeholders including employees, local communities or customers.*	**Schneider Electric**, through the BipBop programme, provides low-cost energy solutions while also training local low-income populations. With 13 partners, the company has set up 89 training centres in 23 states, providing vocational training in electricity for residential and commercial buildings to underprivileged young people throughout India. In addition to technical issues, participants are trained on spoken English, computers, customer interaction and entrepreneurship. The programme is certified by Schneider Electric India and its partners, which helps students gain recognition from their employers. In addition, entrepreneurs get funding to start their businesses in renewable energy.[14]
Long-term business value: *Integrating CSR with the core purpose of the business*	Shell Foundation is working with the rural marketing company, Project Dharma, to serve the needs of rural households at the Bottom of the Pyramid by creating a rural distribution network providing customised products and services sold at a socially affordable price point. The company provides income generating opportunities for rural entrepreneurs and consumers in order to create sustainable livelihoods at the rural level.[15]

[11] Idea sustainability report 2016, http://sustainability.adityabirla.com/pdf/reportspdf/idea/2016.pdf
[12] Shell.in, http://www.shell.in/sustainability/communities/shell-foundation-programmes-in-india.html, accessed May 2017
[13] hindustanpetroleum.com, accessed May 2017
[14] The Guardian, 2013, "Energy access for all"
[15] Shell.in, http://www.shell.in/sustainability/communities/shell-foundation-programmes-in-india.html, accessed May 2017



Distribution of solar lanterns

Training and livelihood development of women as entrepreneurs selling solar energy solutions

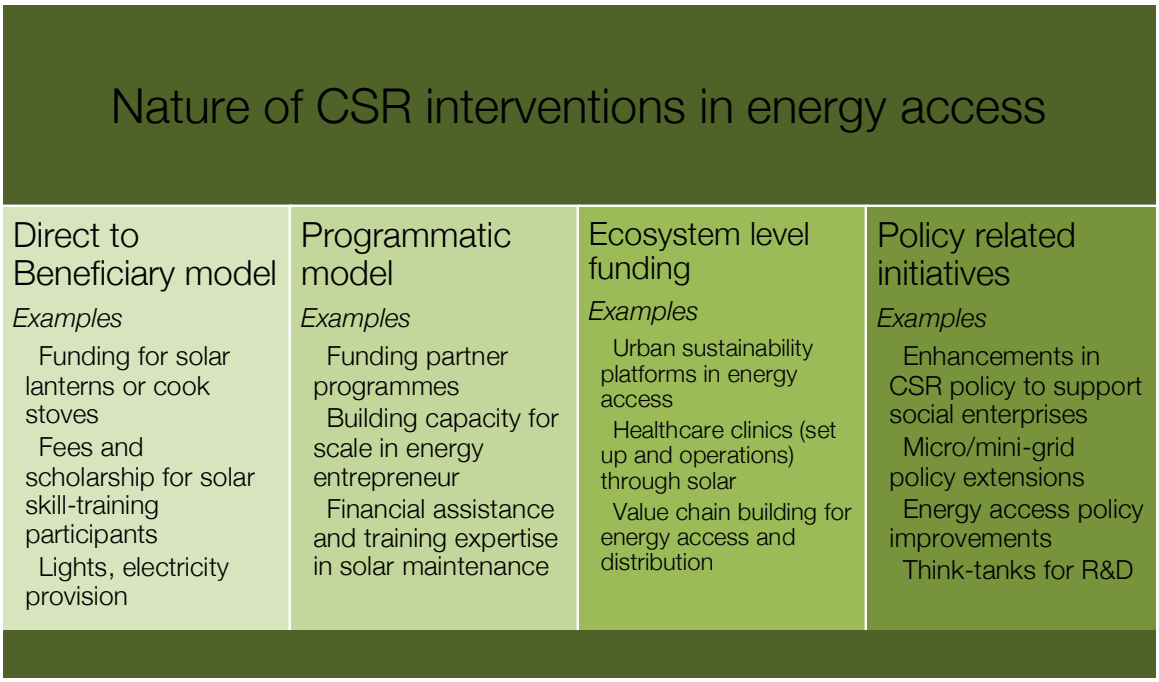
Set up and operations of mobile-charging solar stations in disaster struck areas
LED lamps for studying at home

Solar water pumping system for irrigation, solar light for weavers

Energy access programmes relating to the four anchors in CSR.

3. CSR programmes can enhance energy access effectiveness through diversified forms of funding

CSR programmes vary in their nature of intervention from beneficiary-led models (most direct) to policy-level interventions (least direct). While direct models are preferred for CSR as a form of perceiving and communicating tangible impact in the short to mid-terms, ecosystem or policy-led initiatives have more sustainable, long-term impact. Energy access being a nascent ecosystem and underdeveloped high-priority area in India, as well as being a high-impact enabler for social impact, **there is significant potential to partner to begin pilots and co-fund initiatives at the level of the ecosystem or policy.**



Potential for interventions at different levels. Framework adapted from McKinsey Impact in Philanthropy[16]

Legal constraints of leveraging CSR contribution

While CSRs can contribute immensely to social development, the Companies Act 2013 prevents them from investing in for-profit entities. Investing in social enterprises having scalable models deploying innovating solutions to solve the energy access problems could benefit immensely if CSRs invest in them strategically. In this regard, there is substantial policy advocacy work that can help advance energy access investment through CSR.

[16] McKinsey & Co, 2014, "Designing philanthropy for impact"

Collaborating for impact through energy access: takeaways from the roundtable

With support from GIZ, the roundtable organized by **SELCO Foundation** and Sattva on '**Energy Access for Impact: CSR partnerships in enabling renewable energy solutions'** was the first step in an effort to discuss experiences, gaps and opportunities to collaborate in providing energy access for livelihoods and life quality improvement among underserved populations across India leveraging partnerships between CSRs and social enterprises. The following key takeaways emerged from the discussion:

Energy access must be integrated into ongoing programmes
"If we look at companies on the Y axis and X axis being investment across sectors, energy access is an enabler that can traverse the entire grid. Corporates and energy organisations must look at the intersection of these axes to determine how impact can be maximised by integrating it in existing CSR programs" — Nikhil Pant, Indian Institute of Corporate Affairs (IICA)

Interpreting energy access

- Energy access must be understood as an enabler
- Considering the magnitude of the challenge, energy solutions have to be decentralised for them to be sustainable
- Energy is beyond a light bulb. Energy must enable education, health, skills, livelihood and help the community to move forward
- Energy access can enable 10 of the 17 SDG goals: SDG 3, SDG 4, SDG 5, SDG 6, SDG 7, SDG 8,9, SDG 11, 12 and 17
- There is potential to leap frog a community's development by providing access to energy
- When dusk starts falling in a typical village in India, there is pitch darkness, dark alleys with few flickering candles, women cooking and coughing in a room full of smoke, infants breathing in that smoke, shopkeepers keep their wares by candle or just shut shop — this is the reality of most villages in India
- From business to services, economic development of villages is enhanced 5X just by providing energy access
- Efforts in funding must be calibrated not just from benefits but also learning
- There is a grey space to be navigated within the CSR law while working with social enterprises and incubators.

Funder Considerations:

- Energy entrepreneurs need to create sustainability projections and plans so that CSR decision-makers can understand their involvement and time-period for impact and exit.
- Identifying the core geographical areas of interest to the company and energy opportunities in those areas is critical for better buy-in.
- The communication of energy access needs to move from technical details or energy indicators to overall impact measures, as well as compelling human narratives depicting ground realities for people, terrain challenges and the potential impact that energy could have.
- Energy organisations should be prepared with groundwork and background knowledge of the CSR policy, focus and earlier organisations that were funded, in order to make a better case for their funding. Furthermore, understanding and approaching corporates at the beginning of budget and funding cycles would prove useful.
- Corporates might wish to fund a combination of pilots and scaling models, and it might be useful to understand the spread of the same. For example, the IKEA Foundation builds sustainability and climate change outcomes into the core of its programmes. In 2010, none of the IKEA bulbs were all incandescent bulbs, but by 2014, the company had shifted entirely to CFL.
- The CSR society lens is applied more in initial phases. Over time, shared value strategies start assuming importance in the eyes of the corporate.
- There is a wide gap between how one speaks to community and the CSR committee and energy entrepreneurs need to be cognizant of this.
- CSR and energy entrepreneurs must co-create messages such that it presents a picture of the benefits to the community.
- The quantum of funding is of importance to CSRs, so it might be beneficial to give options in terms of budgets.
- For ensuring sustainability of projects, community participation and creating institutional structures is the key.

Opportunities for Synergy among Corporates and Implementation Agencies

- Corporates can help in absorbing risk, scale and nurture innovation among energy entrepreneurs.
- Gap funding in the form of CSR can enable energy enterprises to scale their efforts. An example is the Schneider Electric Energy Access Fund (a co-investment from Schneider Electric and Schneider Energie Sicav Solidaire, a sustainable mutual fund)[17]
- Corporates can provide expertise in training and on-the-job learning. Godrej for example has a CSR programme in providing skill training in green jobs.

[17] WBCSD, 2016, BipBop case study, accessed May 2017

- Given the time and money involved in establishing sustainable energy solutions, entrepreneurs need financing in different forms – private sector philanthropy funding, higher risk capital in the form of debt from banks. Entrepreneurs would also benefit from incubation support, R&D and technology support.

- Platforms such as CLEAN can bring corporates together to work together on innovative funding and support models, both on the demand and supply side. >100 companies are members of CLEAN and so are progressive social purpose organisations.

- Tech in the context of rural development is a huge requirement, and several corporates are engaged in rural development technology enablement. Energy access solutions can help overcome the unreliable power roadblocks in installation of this tech.

- Corporates can help energy enterprises in various non-monetary ways: through allowing entrepreneurs to piggyback on their logistics chains, in last-mile distribution infrastructure, initial working capital, mentorship at organisational and individual levels.

- Impact measurement is a significant opportunity area for working together. For example, Envirofit built an app to with partners to track its 75,000 beneficiaries of cook stoves as they moved and migrated to different places.

- MFIs are potential partners in financing and supporting energy entrepreneurs. Currently, there are few partnerships between MFIs and energy access entrepreneurs
- CSRs can invest in helping energy enterprises deliver products in difficult terrains. For example, an energy entrepreneur frequently faces difficulties in transporting goods in the difficult North East terrains, resulting in prolonged delays in delivery of products. CSRs, with their efficient last-mile distribution capacities, can help clear these roadblocks.
- Greater impact can be seen by integrating CSR funds/ programmes to operate in a single area in order to achieve greater impact.
- PSUs are well positioned to fund and offer last mile delivery assistance for energy products, considering their wide reach across India.

Appendix

CSRs investing in Energy Access

CSRs	Programme	Size of investment (INR crores)
WIPRO	1. Carbon Disclosure Project India, New Delhi 2. IUCN India, New Delhi 3. TERI, New Delhi 4. CII, New Delhi 5. Ashoka Trust for research in Ecology and Environment,	36.1
Hindustan Petroleum Corporation Ltd.	LPG Connections to BPL families	17.87
Infosys Ltd.	Biomass Cook Stove	6.3
Power Finance Corporation of India Ltd	Proposal for extending Financial Assistance to Project of LED based Solar Home Lighting Systems (SHS) in 8589 nos. households in Ten Districts of Arunachal Pradesh through Energy Efficiency Services Limited (EESL)	5.43
NHPC Ltd	Development of Biodiversity Park and Herbal Parks Installation of food Processing Units for preservation of local fruits. Restoration of Canals for Irrigation purpose. Voluntary Afforestation and Plantation of Saplings Rain Water Harvesting Systems Installation of Solar Street Light Poles. Distribution of Solar Lanterns, Solar Cookers.	3.54
Container Corporation Of India Ltd	Solar Electrification Project at Sirohi for 2255 beneficiaries in 17 villages of Rajasthan by Central Electronics Ltd	2.51
Infosys Ltd.	Biomass Cook Stove	2.46
Ultra tech cement	Natural Resource conservation programs & Non -conventional Energy	2.45
Larsen and Toubro Ltd	Providing infrastructure support for education (drinking water and sanitation facilities, renovation of classrooms, water proofing of school buildings, providing furniture and light fittings, donation of computers, Upgradation of libraries, playground development, distribution of solar lamps)	2.26
Rural Electrification Corporation Ltd	861 nos. of LED based Solar street lighting	1.67
Hindalco Industries Ltd	Natural Resource conservation programs & Nonconventional Energy: Bio gas support Programme; Solar Energy Support; Other energy efficient supports; Plantations; Soil Conservation; Land development; Water Conservation and harvesting structures; Development of Common pasture land;	1.62
Infosys Ltd.	Biogas Project	1.58
Cairn India Ltd.	Electrifying villages through solar electricity	1.39
Container Corporation Of India Ltd	Solar street lights for weavers and persons belonging to backwards classes	1.2
Petronet LNG Ltd	Tree/mangrove plantation, solar lights, water harvesting, garbage collection vehicles	1.13

RITES Ltd	Harvesting of rainwater and its storage in a reservoir & Renewable energy (solar power plant) project at Gulbarga, Karnataka	1.09
Gujarat Pipavav Port	Provide Bio Gas units, Mangrove Plantation, Environment awareness course.	0.9
Power Finance Corporation of India Ltd	Project for extending Clean Energy Solutions to 25,000 No. of Households across backward districts of Bihar through TERI	0.9
Container Corporation Of India Ltd	Solar Electrification of Govt. Schools, Health Centre, Library, Gram Panchyat and Street lighting system in Alwar and Udaipur District of Rajasthan by Rajasthan Electronics & Instruments Limited (REIL).	0.8
Aurobindo Pharma Ltd	Donated to 'Sri Venugopala Swami Mandir' Goshala, Constructed gobar gas plant for generation of power for usage of Goshala cows.	0.795
TATA Power Ltd	Nurturing Sustainability for Inclusive Growth (Focus Areas: Rural Energy, Promoting Sports/Games, Support to Natural Calamity, Tree plantation, Employee Volunteering)	0.79
Ujaas Energy Ltd.	Natural Resource conservation programs & Nonconventional Energy Bio gas support program, solar energy support and other energy support programs - (low smoke wood stoves / sky light), plantation / green belt development / roadside plantation, soil conservation / and improvement, water conservation and harvesting (small structures / bigger structures), community pasture land development / orchard development	0.61
Container Corporation Of India Ltd	Assistance to 1372 families by providing Solar lights in 23 un-electrified villages in Jodhpur District of Rajasthan	0.56
Rural Electrification Corporation Ltd	Providing of 4000 Solar-Lanterns and installation of 100 Mobile-charging Solar Stations in natural calamity-struck Rudraprayag in Uttarakhand	0.51
Coal India Ltd	Installation of 50 solar powered street lights and 50 Hand Pumps	0.3
RITES Ltd	Providing clean energy services through Integrated Domestic, Energy Systems (IDES) to rural communities in Bihar through TERI	0.3
Numaligarh Refinery Ltd	Installation of Solar power lighting system in 8 schools under project “Suryajyoti”.	0.295
Container Corporation Of India Ltd	Solar Electrification of Chittorgarh, Neemach, Ratlam and Indore railway stations in association with Central Electronics Limited and DRM office, Western Railway. Rain water	0.27
Rural Electrification Corporation Ltd	Setting up of 237 LED based Solar Street Lighting Systems	0.26
VST Industries	Solar street Lighting	0.253
Bajaj Electricals Ltd.	CIIE, IIMA Solar Energy marketing incubation projct	0.25
Dabur India Ltd.	SUNDESH Promotion of Solar Energy	0.19
Rashtriya Chemicals & Fertilizers Ltd.	Installation of solar water heating system	0.16
Grasim Industries	Natural Resource Conservation Programmes and NonConventional Energy	0.12
Triveni Turbines	Rural Electrification Programme	0.12

Biocon Ltd.	Biocon Foundation- We have adopted a township in North Karnataka coupled with rain water harvesting system and solar light	0.1
BOSCH India Ltd	Tree Plantation and Solar lighting in villages and Govt. school	0.1
CESC Ltd	Urja Chetana Environment and Energy Education Programme)	0.1
Container Corporation Of India Ltd	Solar Water Pumping System for Irrigation at Gaya District & Electrification of Yamunapur Village in East Champaran District by Central Electronics Ltd. (CEL)	0.1
IDBI Ltd.	Madras School of Economics, Chennai, Installation of Solar Power System on	0.09
	'Centre of Excellence' building on institute campus	
KPIT Technologies Ltd	Solar Pump Project (Project for social implementation- Solar pump for small farm holders	0.08
RITES Ltd	Solar panel 7.5 kWp at Gurgaon Rly. Stn. Platform shelter (additional on the existing 25 kWp)	0.076
Rural Electrification Corporation Ltd	Installation of solar micro grids	0.07
Kirloskar Oil Engines Ltd	Environment awareness session for school children, programmes on energy conservation, Workshop on recycle of waste, Kirloskar Vasundhara film festival, Pest control measures, PUC Checkup of vehicles.	0.05
Praj Industries Ltd	Contributing to environment sustainability through Solar lighting system of residential facility for children with special needs	0.05
Rural Electrification Corporation Ltd	Implementation of smart PV mini grids	0.05
Rural Electrification Corporation Ltd	Solar micro grids	0.05
Heidelberg Cement India Ltd	Plantation of saplings and providing solar lights	0.03
IDBI Ltd.	The Energy and Resources Institute, New Delhi	0.02
Aditya Birla Nuvo Ltd	Natural Resource conservation programs & Nonconventional Energy: Bio gas support Programme; Solar Energy Support; Other energy efficient supports; Plantations; Soil Conservation; Land development; Water Conservation and harvesting structures; Development of Common pasture land	0.02
Rural Electrification Corporation Ltd	Implementation of Solar PV Smart Mini Grids in 5 Off-grid locations in Dhenkenal, Odisha	0.02
Amrit Corporation Ltd	(i) Renewable Energy (ii) Education & Skill Development (iii) Women livelihood projects (iv) Nutrition/Health camps etc.	0.0175
Mitcon Consultancy and Engineering Services Ltd	Providing of Solar Water Heater to Torana Rajgad Nyas for their hostel at Velhe Taluka	0.01
Cummins India Ltd	Renewable Energy	0.01
Kirloskar Ferrous Industries Ltd	Preservation of forests, Tree plantation drives, Environment Awareness programmes, programmes on energy conservation, Kirloskar Vasundhara Film Festiva	0.01

D.S. Kulkarni Developers Ltd	To motivate work relating to energy conservation and renewable energy for those individuals, corporate, NGOʒs who make enormous contribution in conserving energy	0.008
Dalmia Bharat Group Ltd	Energy Conservation (Bio Gas Plants, Fuel efficient Cook stoves Solar products and grids)	0.008

Government programmes for energy delivery

Ministry	Program	Description	Resource/Application	Source
Ministry of Power	Solar Lantern	Distribution of solar lantern in remote villages	Solar lantern	Household
	Solar PV Program	Demonstration of PV equipment in rural, urban and commercial	Solar home systems for rural segment	Household
	VESP	Total energy security for villages meeting continuous power and energy requirement	Biomass preferred then mini hydro and solar	Household
	Small Wind Energy and Hybrid Programs	For electricity and energy through windmills, aero-generators and hybrids	Small wind mills and aero-generators	Livelihood
	JNNSM	Electrification of villages using solar PV applications	Focus on Solar PV	Community /Institution
	RVE	Electrification of Remote Villages	All renewable however solar PV is most prevalent	Community /Institution
	RGGVY	Electrification and Intensive electrification of un electrified villages	Renewable based DDGs-Hydro, PV, Biomass based	Community /Institution
Ministry of New and Renewable Energy	Family type Biogas plants	Biogas plants for cooking	Biogas plants for cooking	Household
	Solar Thermal Energy	Solar water heating, cooking and drying	Solar water heaters, solar cookers	Household
	Small Hydro Program	Water mills for mechanical work and power production	Micro hydro water mills	Livelihood
	Biomass Gasifier	Gasifier for power production	Biomass gasifier-conventional and 100% producer gas	Livelihood

	Bio Gas Power	Biogas plant for power generation	Biogas plant for power generation	Livelihood

Source: MNRE

Participating Organisations

General Electric	Onergy
CLEAN	Sattva
Envirofit	Schneider
Envo Solutions	SELCO Foundation
Fiserv	ShaktiShi
Indraprastha Gas Limited	Shell Foundation
IICA	Sony
IKEA Foundation	Tata Power
TIDE	Tata Trust

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