

Towards Energy Access in India: The Role of End-user Engagement around Quality Lighting Solutions

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Webinar Panelists

Hari Natarajan	Clean Energy Access Network India (CLEAN)
Praveen Kumar	IFC
Sahil Khanna	Greenlight Planet
Gaurav Mehta	Dharma Life

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Stephanie Bechler Hello everyone. I'm Stephanie Bechler with the National Renewable Energy Laboratory and welcome to today's webinar which is hosted by the Clean Energy Solutions Center in partnership with the United Nations Foundation's Energy Access Practitioner Network and the International Finance Corporation, IFC. Today's webinar is focused on the energy access in India, the role of end user engagement around quality lighting solutions.

One important note of mention before we begin our presentation is that the Clean Energy Solutions Center does not endorse or recommend specific products or services. Information provided in this webinar is featured in the Solutions Center's resources library as one of many best practices resources reviewed and selected by technical experts. Before we begin I'd like to go over some of the webinar's features. For audio you have two options. You may either listen through your computer or over your telephone.

If you choose to listen through your computer please select the mic and speakers option in the audio pane. Doing so we will eliminate the possibility of feedback and echo. If you choose to dial in by phone please select the telephone option and the box on the right side will display a telephone number and audio pin you should use to dial in. Panelists we ask you to please mute your audio device when you are not presenting. If anyone is having technical difficulties with the webinar you may contact the go to webinars help desk at 888-259-3826 for assistance.

If you would like to ask a question we ask that you use the questions pane where you may type in your question. If you are having difficulty viewing the materials through the webinar portal you will find PDF copies of the presentations at cleanenergysolutions.org/training and you may follow along as our speakers present. Also an audio recording and the presentations will be posted to the Solutions Center's training page within a few weeks and will be added to the [Solutions Center's YouTube channel](#) where you will find other informative webinars as well as video interviews with thought leaders on clean energy policy topics.

Today's webinar agenda is centered around the presentations for our guest panelists, Hari Natarajan, Praveen Kumar, Sahil Khanna, and Guarav Mehtas. These panelists have been kind enough to join us to showcase IFC's experience and lessons learned from the consumer awareness campaign titled Suryoday meaning sunrise on quality solar lighting which was implemented across more than 9,000 villages in the states of Bihar, Uttar Pradesh and Rajasthan.

Before our speakers begin their presentations I will provide a short informative overview of the Clean Energy Solutions Center's initiative. Then following the presentation we will have a question and answer session where Yasmin Erboy Ruff of the United Nations foundation will join the panelists and will address questions submitted by the audience. We will end with closing remarks and a brief survey.

This slide provides a bit of background in terms of how the Solutions Center came to be. The Solutions Center is one of 13 initiatives of the Clean Energy Ministerial that was launched in April of 2011 and is primarily led by Australia, the United States and other CEM partners. Outcomes of this unique initiative include support of developing countries and emerging economies through enhancement of resources on policies relating to energy access, no cost expert policy assistance and peer to peer learning and training tools such as the webinar you are attending today.

The Solutions Center has four primary goals. It serves as a clearinghouse of clean energy policy resources. It also serves to share policy best practices, data and analysis tools specific to clean energy policies and programs. The Solutions Center delivers dynamic services that enable expert assistance, learning and peer to peer sharing of experiences. And lastly the center fosters dialogue on emerging policy issues and innovation around the globe. A primary audience is energy policy makers and analysis from governments, technical organizations in all countries. But we also strive to engage with the private sector, NGOs and civil society.

A marquee feature of the Solutions Center provides a no cost expert policy assistance known as Ask an Expert. The Ask an Expert program has established a broad team of over 30 experts from around the globe who are available to provide remote policy advice and analysis to all countries at no cost. For example in the area of rural electrification we are very pleased to have _____, director in social transformation division of the energy and resources institute serving as one of our experts.

If you have a need for policy assistance in rural electrification or any other clean energy sector we encourage you to use this valuable service. Again the assistance is provided free of charge. If you have a question for our experts please submit it through our simple online form at the cleanenergysolutioncenter.org/expert. Or to find out how to use the Ask an Expert service, how it can benefit your work please contact Shawn Esterly directly at sean.esterly@enrl.gov. We also invite you to spread the word about the service to those in your networks and organizations.

Now I'd like to provide brief introductions for today's panelists. First up is Hari Natarajan. Hari has recently been appointed the CEO of the Clean Energy Access Network and will introduce the Energy Access Practitioner Network and it's country affiliate CLEAN and provide opening remarks on the state of energy access in India through the lens of CLEAN's membership and work to date.

Following Hari we will hear from Praveen Kumar, a rural marketing expert with the lighting Asia/India program for IFC. He'll provide an overview of the _____ consumer awareness campaign focusing on its objectives, design and lesson learned about implementation and impact. After Praveen, Sahil Khanna will present from Greenlight Planet. Sahil comes from the SMCG background with two years of channel sales experience with Hindustan Unilever Limited.

And our final speaker today is Guarav Mehtas and he's the founder and CEO of Project Dharma, Gajam India Private Limited. He will share his lessons learned from the consumer awareness campaign, particularly the importance of establishing a distribution network as a precursor to the success of an awareness campaign. And with those introductions I'd like to welcome Hari to the webinar. Hari?

Hari Natarajan Yes.

Stephanie Bechler Oh wonderful.

Hari Natarajan Good morning or good evening all depending on where you're signing on from. Before we get to the meat of the discussion today I'm going to just take a few minutes to talk about the state of the energy access in India. But before I get to that let me first give you a brief introduction to the energy access practitioner network as well as the—energy access practitioner network was actually set up in 2011 in support of the SE for All initiative to catalyze efforts to scale up energy access and achieve universal energy access to all by 2030.

The practitioner network primarily supports market led decentralized energy solutions for achieving energy access and it aims to do this by promoting new technologies, individual financial solutions and new business models for promoting energy access. It also plays a key role as a platform to convene the next a range of stakeholders around new partnerships. And last but not least it also hopes to facilitate the development and adoption of quality standards.

The energy access practitioner network today has over 2,000 members which are based in 85 countries but are operating across 170 countries. And if you look at this small graphic you would see that more than 50 percent of these members actually come from the small and medium scale enterprises and another 28 percent come from international NGOs. Among the main services or for what practitioner network has been recognized for it's been a premier mechanism for convening a range of stakeholders around the SE for All partnership and discussing on the approach to universal access to energy for all by 2030.

And within this the energy access practitioner network has been recognized as the pack leader and is also the influencer behind two key focus areas, the energy for women and children's health initiative which looks at health clinic electrification through clean energy and the clean energy mini grid space which looks for expand the contribution of mini and microgrids for energy access. Over the last year across all the network members over 20 million people have been reached and clean energy products and services have been developed. Last but not least the energy access practitioner network is also associated closely with several humanitarian relief organizations such as the United Nations Health Commission for Refugees and also initiatives like the Safe Access to Fuels and Energy.

It's also working closely with the clean energy ministerial initiative such as the global lead program as well as the clean energy educational _____ initiative and obviously with also the clean energy Solutions Center under which this webinar is being hosted. EAPN is also influenced several financing initiative key among them being the use electrify initiative. But it's also been engaging with several other investment funds and has been aggregating the need for investment in this sector. One of the initiatives under this has been the investment directory that was developed about a year or so ago under which it is estimated that over \$1.3 billion is required in financing across a range of financial products and the focus primary need is to do the solar PV segment and also mini grids.

One of the many things that EAPN has been involved in is also being in touch with the [audio breaks up] and here I would like to talk a little about the Clean Energy Access Network which is a technology agnostic member driven network of energy enterprises operating in the United States and India. CLEAN aims to support, unify and grow the clean energy sector in India and again work towards the goal of universal energy access. CLEAN actually came about with 12 different organizations which are active in this space thinking of the need for a single body that represents the needs of the sector across the different stakeholders which are active in India.

And as I said CLEAN is technology agnostic and the key focus areas for CLEAN is around information and networking, skills and capacity building, technology standards and R&D and access to finance and policy and advocacy. CLEAN has been as a concept CLEAN has been discussed for about a couple of years now but it's a little over a year in operation on the ground, primarily because of support from USAID people foundation, _____

foundation and _____. In the little over a year of operation CLEAN has already been seen as the global entity in the energies access space in India. And today CLEAN has 91 members representing the range of technologies and solutions for energy access and also fairly even spread across the country.

Now let me get into the discussion where I take you through briefly all the status of energy access in the country today. When you look at census 2011 data which is still a little dated, nearly 33 percent of the population does not have access to electricity in India and if you look at the country you would see that the northern and northeastern parts of India are actually worse off than the rest of the country. It is estimated even today that about 72 million houses are dependent on kerosene for as the primary source of lighting. When you look at the cooking space the challenge is even more stark. Almost 70 percent of the country is still depending on traditional fuels for cooking and suffer from the challenges of indoor air pollution. But since our discussion today is focused on lighting I'm not going to get into that too much today.

If you look at how the lighting and electrification market looks like in the recent light scheme and empty space you have four segments. You have basic lighting products. You have home lighting systems. You have mini grids and you have mini grids which look at lighting plus services which include entertainment and productive end user _____ and we have a number of companies invested in each of these segments within the country today in India. Again since the focus of the discussion is going to be on lighting products I'm going to focus on the lighting products and home lighting system space in the next couple of slides.

If you look at the state of the market it is these two segments which are now in the growth stage whereas the mini grid space is still fairly recent and there's a lot of policy uncertainty. Although this is getting addressed now just in the recent days. Again if you look at how the markets look like, the lighting products is a very non-subsidy driven market which is growing extremely rapidly and I think we will talk a little bit more about that. The home lighting system is still driven through a partial subsidy which comes from the government of India. And the mini grid space especially around lighting you have both subsidy and non-subsidy models whereas the larger mini grids which provide surplus energy for end users require a fair amount of subsidy in one day.

Some of the recent policy developments in India. One of the main drivers of course is the government of India announced that they're going to look at 100 percent village electrification through the grid by May 2018. Now this may sound surprising given that we talked about off grid solution here. But there's an important discussion, distinction between village electrification and household electrification of India. Village electrification is actually over 90 percent in large parts of India but household electrification is still quite poor and therefore decentralized clean energy solutions still have a significant role to play at least over the next 15 to 20 years if not longer.

Another key driver in this market has been the overall solar PV space around the national solar mission which has an overall goal of 20 gigawatts which

was set in 2010. But it's now recently been raised to 100 gigawatts which includes 40 gigawatts of rooftop solar. More specifically within the, within the off grid space, the off grid solar PV lighting products have been supported through a government subsidy program which is there from 2011 till about March 2015. It was temporarily discontinued because of lack of funds but has now just come online about a week or so ago.

Under this key LED system up to 300 watt will be supported and systems which are less than 40 watt would receive a subsidy of 160 rupees per watt feet which is roughly about a little less than \$3.00 and systems that are greater than 40 watts would receive 100 rupees per watt feet which is roughly about \$1.50. Again the total annual subsidy budget is being set at about \$15 million which leaves the market somewhere, at least the subsidy market is estimated to be about 200,000 systems every year assuming an average of 50 watt systems going in the ground.

In the mini grid space just to give you an update just in the last month or so there have been several interesting developments. The government of India has finally recognized the important of mini grid based solutions and has started looking at the principles of interconnection and operation when the grid arrive as well and the principles of exit and compensation for standard assets when the grid arrives. And I think if these two issues are addressed then clearly and transparently the investment in this segment is likely to go up significantly and over the next couple of years likely to see significant activity in this space. Again even more recently one of the states has actually announced a mini grid policy and graph calculations and they decided just yesterday that they would go ahead and implement it, learn from the experience and then keep modifying the policy as required.

And coming to my last slide just looking at the solar lighting products and the home lighting system space if you look at the market IFC estimates that up to 2013 they were about 2 million solar lanterns and 1 million solar home systems which had been sold. And GOGLA estimates in the period between January 2014 to about July 2015 an additional 2.9 million lighting products have been sold. The scheme itself talks about approximately 500,000 solar home lighting systems having been supported between 2011 and 2015.

Some of the key buyers to this market today are there is still a lack of a level playing field because kerosene is still subsidized, heavily subsidized and therefore solar doesn't often manage to compete with that in the space of subsidies. Further allowance government and nongovernment efforts focus on free distribution of products which also tend to disturb the market often. And most importantly and I think part of the discussion later today, there is a complete lack of standards and quality assurance and IFC has been doing some very good work over the last year and a half, two years in addressing this challenge and somewhere leading to that aspect there is a huge influx of imports, very cheap imports where again these are very non-sanitized but have penetrated the market in a big way mainly because of a very price conscious market. So I'm going to stop there and I'm happy to take questions at the end of the session where I'm now going to go back to Stephanie.

Stephanie Bechler Great. Thank you so much Hari. Up next we have Praveen Kumar. Praveen?

Praveen Kumar Hi.

Stephanie Bechler Hi. Wonderful. That looks great.

Praveen Kumar Ok. A very good evening and warm welcome to all the attendants of the webinar. This program comes to you from _____ and part of the IFC lighting initiative available to you, learnings from the lighting Asia/India's consumer awareness campaign. So what's going to happen over the next 15 minutes or so I'll be taking you through what has been one of the largest clean energy consumer awareness campaigns across India for sure. And it is very interesting of other conflicts experiment in the end user engagement space. I actually feel a little strange saying this now to take you through in the next 15 minutes because we ran for months and months this campaign on the ground and before that preparing it and it was just on the ground who request to see this campaign and it was a wonderful experience.

But then I'll try to at least share a little bit of the same feeling here in the next 15 minutes or so. And I'm sure it will be of great interest to practitioners and stakeholders working in this field. So a little bit about our nation itself around this program and the campaign. So as most of you will be aware I have since started the World Bank Group and it was a group of private enterprises and countries across the globe who was the cause of the _____ and shared prosperity. It is their largest global development decision focused exclusively on private sector. So that's about the mission itself.

Coming to the lighting is showing the program of IFC. The program is actually designed to sort of promote modern off grid lighting products in the market which are products like for example the solar home systems, the lanterns and individual mini grid connections. Now what actually happened in the program that before the program in the pre-implementation studies it suggested that a lot of barriers to adoption of this category and the products. And these barriers could be things like distribution challenges, market knowledge, awareness among consumers. And the program was designed to sort of address these barriers as it went along.

So if you see the logos here, these are the associates of clients which are partnered and which are part of this program. And there are 12 in all. Eight of them are the manufacturing associates and there are four which are the solution associates. So these are clients are sort of part of IFC's Lighting Asia/India program. Now as we've spoken with the barriers that we saw in the market in the pre-implementation stage and the key pillars, these are the key pillars of the program which are sort of designed to address these barriers.

And what are these five pillars? So the first pillar that you see is the quality assurance pillar. Then we have the market information, access to finance, business support and finally consumer awareness. Quality assurance itself means that there is a quality standard that the World Bank Group has developed and this assurance, quality assurance framework has been adopted by the international electrical technical commission and this is the quality of

the product that is used to build the program. So what it really means is that if there is a client which has products which needs to come to the market through this program is actually needs to get the product tested in one of the labs which is across including one now in India and only when it has sort of gone through the test can enter the program.

So the first and the foremost sort of the pillar or you could say the base was quality assurance program. The next pillar as we see is marketing information. Now marketing information really means that it is on ground data reports that we did the research we developed. There was the consumer preference report. So all the standard data was there taken from the ground which could help all the clients to sort of get into the market and this program. So the second most important pillar is market information.

The third pillar is access to finance. Now access to finance basically means helping clients to connect with financial institutions for both enterprise as well as consumer financial solutions. Then we have business support. Business support is—this one isn't just—this is not a general kind of support. This was more one to one where it was things like business strategy, training needs, looking at the distribution connects or planning further plans. So in that sense—so in that sense what really happened was that we sort of worked one on one with clients and for example there is a plant called frontier markets in _____ where there was a total business strategy support given to the client. Training support was given to them online and the plan to continue. So all these one to one relationships really help the client to move forward in their business and excel because of these interactions and support.

Of course the final pillar is the consumer awareness pillar. Now this is the most visible piece of the entire, all the five pillars because this was on the ground and there's a huge market so this—so the consumer awareness campaign has only one to three states, not the entire country and 31 districts across UP, Bihar and Rajasthan. So what these pillars have really done is to address the barriers that we just spoke about and this was designed in a way that the barriers for the clients to introduce productivity would be made simpler. And this also has a logic like you have a good product first and then you get into a proper on ground kind of strategy based on market information and then you create awareness to take this forward. So it is all looped into one to these five pillars.

Now let's do the barrier to the campaign itself. Now the first and the foremost sort of important thing to note here is because this campaign was going into large parts of India and in three states of the third and the 9,000 villages how many campaigns would one see when one goes to such a large area, 9,000 villages each of about 5,000 to 10,000 population. So what really was needed was one combining sort of factor so a brand name or an entity was given to the campaign. And for the name they came up with is some ways and that founded center of the entire campaign and the program. And around this was the entire sort of media which was built.

So this was a multimedia approach that was taken. So there was radio for example which was used and along with radio there was static media and the

village outreach which was the main component of the campaign. And this was of course supported with a call center and then also deed management which was sort of feedback all the information that was coming from the ground. So the most important thing to note here is that our entity or brand name or sort of a name to identify the campaign also large scale is important because it actually helps to take it across and for people to sort of relate to it. And then of course to gather the information from the ground and support it. In all this, the entire designing of this approach, the marketing agency of IFC has a big role to play and they're helping designing the entire sort of strategy for the campaign.

Now why do we need this campaign? I mean why do we need consumer awareness and an end user campaign like this with the other campaign. What is the need and relevance for this? So relevancy, the need of course and the relevance comes from the data itself. If we see today and also earlier Hari was speaking about the market penetration itself is very low. So in India it was 5 to 7 percent and in Kenya it was 10 to 12 percent. And therefore it is a very big market which is something out there for this product category. In terms of awareness again we see that there is awareness missing among the consumers as well as the distributors or the sellers of a product.

Now when we talk about awareness actually there are two kinds of awareness that is missing. One was that the people are not aware of the category itself and the second of course is if they're aware what is the right product to buy. So that is—for example there are market spoilages that is happening in consumers cannot really differentiate between our good product and not so good product. So the right kind of information is also necessary. And finally we felt that distribution is very important. A supply chain and distribution is actually a precursor to any kind of awareness campaign and therefore the relevance of these kind of campaigns is also not just for reaching the consumer but also reaching the supply chain and the distribution network.

And therefore we see that this was a tool sort of which was designed to explore and create new distribution and built the capabilities in the marketplace to sort of pave the clients forward with new distribution linkages. Therefore it was not a campaign which was focused only on awareness creation for the consumer which generally such kind of consumer awareness campaigns are but also addressed the distribution challenge in the market. I think that's sort of a new approach that was taken and that was really important that was tied to this campaign.

Now in terms of supply chain I'd quickly like to mention one thing that again in Rajasthan we saw case where entirely new sort of women group of sellers was sort of created with the help of the NGO partner which was a new experiment created in this category and the women were actually sort of taking the role of sales women and going out in the market. So they're both consumers of the product itself as well as becoming sellers of our product. So that was one such example of an experiment which we did and it actually worked in the marketplace.

Now this slide is very important because this talks about the entire strategy of how the campaign was designed and sort of executed on the ground. So what we see here are the four Is, the integrated campaign design, inclusive and interactive, insightful and impact. Now when we talk about the integration basically what we mean here is that all kind of again the same things like we talk about marketing media. So all kinds of media was there to address all the people. So it was the use of above the line media like radio and the static media as well as the local line activities like _____.

So two things happened here. We tried to integrate all kinds of target groups of customers and then to recreate the same sort of impact of the here we sort of followed it up with the call center and feet on the street. It was inclusive and interactive again because it was taken care of that all the sort of needs of the people on the ground will be taken into consideration when examining the campaign. Many women, children retailers and key opinion leaders were all addressed but the engagement component was part of the campaign so in sort of village people could actually go, pick up a light which was displayed on the van and take it to a dark room and see it for themselves. So it was very interactive in that sense, games, quizzes. All that was done on the ground was actually very touch and feel so that people could actually be part of the whole campaign itself.

It was insightful because clear cut communication and messaging was given. For example financial tool was used to tell them that how long will it take for the lamp to pay back the amount they are spending on kerosene and how many months equal to that amount will we even be receiving back in terms of not paying because of using solar lights. So how will it pay back for itself? And finally the impact, so there was an audit done, pre and post audit which sort of took care of the impact of the campaign. Now I'm quickly showing here some of the photographs from the field which tells us exactly how the campaign looked like and I think this would sort of give you a feel as to whatever I've been saying as of now and how the campaign actually unfolded on the ground. So we can see the van now and activities here.

Quickly some numbers, so I spoke about the van campaign which was on the ground. So there were about 2,821 of them, van shows and there were 200,000 people attended. The women group meetings were about 2,370 and about 56,000 women attended the meetings. The campaign in 244 schools with 15,000 students attending it and the story writing competition and it was all done again in very interactive manner. And 26,000 retailers were placed in the 9,000 villages that the campaign went to. Quickly on the audit findings what you see here is the reach, efficacy and effectiveness has really gone up.

But two important things to tell you here. One is awareness which has gone up from 18 to 36 percent which actually means that the people who are aware of something who are good quality light rarely knew what it meant and knowledge which has gone from 25 to 60 percent. Now this is very important because knowledge actually means that afterwards when they were asked that what the quality, good quality means they actually said the same things that the campaign wanted to tell them. That means there is a warranty on the

product, it has been tested for three months or more and it is a good quality light. So the quality actually had a sort of face to the phrases that were normally used. That was the kind of post audit results that we found.

Lessons, a campaign mounted on such a large scale obviously will have a lot of lessons. But we like to speak about three main learnings. One is that there should be an attempt to bring things together whether it is a partnership of sort of organizations or learnings. So there should be approach to sort of go together into the market with as many program minded I would say stakeholders as possible. That is very, very important. Second I would say learning very important among all of the learnings that you see here, the distribution linkage is very important. It has to be in place because awareness has no meaning unless there is a distribution linkage. That was a real challenge and it still is a challenge so that needs to be set up while this whole thing is happening. Of course there is a need to train the supply chain to that extent. But it's trying. Distribution itself is important.

And I would say the third most important learning of all these learnings is to create sort of new experiments and offshoots. For example, we saw that the clients actually needed a lot of support in terms of _____ to sort of connect them with the open market distributors and retailers. There was an event which was conducted at partner in one of the states that we had out of the three states. And there were more than 80 participants who came and they sort of attended the program. They interacted with the clients and there were linkages built. And I'm sure the clients have actually gone ahead and worked with some of the distributors on the ground to sell the product. So I think this is really important partnership so work together, do the distribution bid before you start off the awareness campaign. And finally try and do new things and do things which will directly benefit the people who are with you and the campaign so your clients.

Finally this, although this was a social sort of message campaign the main stream organizations sort of organized this and the campaign has won four awards in some key categories. There is a video link that is mentioned here and it will give—once you have the presentation you can go to the link. Please have a look at that. So you can go and actually watch the videos that were parts of the film to show to the consumers. You can watch the video and also the film that has gone with the awards. I would really like to thank all attendees of the webinar and also the UN foundation for giving us the support. Please feel free to get in touch with us on any of these ideas. Please get in touch with us for any more inquiries that you would like to have on the consumer event, solar electric awareness campaign. Thank you.

Stephanie Bechler Thank you so much Praveen. That was wonderful. Next up we have Sahil Khanna from Greenlight Planet. Sahil?

Sahil Khanna Yeah. Firstly, good morning and good evening to everyone who is a part of this webinar. Firstly, I'd like to congratulate IFC for holding such a great campaign. It was a great success and undoubtedly one of the biggest clean energy consumer awareness campaign that we've seen in India. So congratulations IFC for that. So the next ten minutes I am going to just run

you a little brief about our company, the benefits that such promotional campaigns really bring to a company like us. Then we are going to get a little specific on the kind of benefits that the Suryoday Campaign brought for us. And finally we are going to come down to the kind of awareness needs that a solar lighting company really has in a market like India.

So firstly I'd like to show the kind of market that we are currently present in. So Greenlight Planet is selling Sun King lanterns in about 40 countries. We have a model to deliver energy that everyone can afford. And to date we have reached about 4 million households and about 15 million daily users. We've generated about 7 million watts of rooftop solar energy to date and we've done about 704,000 metric tons of carbon dioxide offset from that. So as you can see a little more brief about the company. We are supported by about 6,000 micro entrepreneurs across the globe and we have about 100 plus distribution partners again using about 4 million houses. So that's just really brief about the kind of product portfolio that we have.

It starts with an \$8.00 Sun King Pico, goes up to a \$79.00 Sun King home system. So we start off with the range that everyone can afford which is giving the brightness of about 25 lumens. So for everyone who does not understand the technical terms of lumens we can compare it to the lighting of kerosene. So just as an example a normal kerosene light is giving a brightness of about ten lumens. So the category that we start with gives a brightness of about two and a half times that of a normal kerosene lantern at a very, very affordable price. We give out a two year warranty on all our products and use electric batteries which makes sure that the products run for at least five years.

Coming on to the kind of distribution that we have, we have partnerships with micro finance institutions across the globe, agri-companies, telecomm, oil and gas agencies and our own early day network. We have more than 250 partnerships in more than 40 countries. We have more than 800 VLEs in India. VLEs, by VLEs I mean village level entrepreneurs who are basically commissioned agents and going from house to house in extremely rural and interior areas and making sure that people are aware about these products and have access to purchasing these products as well.

Our primary focus over time has been on higher value lanterns and home systems and recently on even low value solar lanterns. The \$8.00 lantern that you just saw is our retail product through which we are trying to reach as many households as possible. So we started focusing on affordability as well. Coming to the traditional channel, we've started partnerships with traditional FMCG distributors when we are trying to reach each and every retail outlet across the country.

Now talking about what benefits a solar lighting company like us can have from these promotional campaigns on a broad level one is customer awareness. Now when I'm talking about customer awareness in a country like India I am talking about the differentiation between branded and unbranded products. This is what the main focus of the IFC campaign was and I think it did a great job with creating that kind of a focus. And in fact that is what we

are looking for as a solar lighting company. So what that will actually do is that that will make the customers understand that if products are a little more expensive than the cheaper substandard lower quality products why they're actually expensive and why they will—why or how they will actually get a payoff over a period of time.

Next is the distribution channel awareness. Just as much as customer awareness is important in this field retailers and distributors should be equally aware about how these products are more beneficial for the customers and how highly rated products and good quality products can be beneficial for them as well as the customers at large. Finally we come at new marketing tools. This is another impressive finding that we found out from the campaign. They could help us identify and validate new marketing and communication tools to generate product awareness which is very, very important in a very rural market like India where if you have extremely, extremely rural areas which could be uncovered mostly and you won't even get to know what the customers would actually be thinking.

I'm going to move on to how we benefit exactly from the Suryoday campaign. So we are going to be a little more specific about the findings of this campaign. So firstly I'm going to come to the product placement in retail. So if we went through the slides that Praveen went through the key findings of this campaign was the feeder market concept. So when we are trying to do a retail coverage in a very complex geography becomes very, very difficult to cover all the retail outlets. And that's where a feeder market concept comes in and that is what I would call a smart awareness creation or smart marketing wherein you get to know that most of the retailers or most of the customers who are located in very interior regions would actually go to the feeder markets in order to buy more products or in order to see whether these products are available or not.

Mostly they're going to be feeder markets because at these feeder markets retailers and distributors are purchasing in bulk which gives them a higher range, more possibilities to give out discounts in the market which really attracts the people or the retailers or the distributors who are located in really, really interior areas. So discounts and the range of availability is something that is really attractive for all of these people who are coming from really interior areas because the access to all of these things is very, very limited for them.

Next we come on to the retail mindset. So village level retailers were keen on selling branded solar products provided that the distribution set up is robust with credit and service facilities. So this is one thing, another major finding that we got from the Suryoday campaign was that the distributors' interest and involvement is going to be higher if we are offering them a robust distribution structure. And as much as the quality of the products is important, servicing is equally important in order to create that positive mindset in the minds of the distributors as well as the retailers.

Now we're coming on to market effectiveness. We saw that the print media and line campaigns were extremely, extremely successful in order to create a

positive impact. So a company like us gets to know where to channel most of our energies, our investments, our efforts. So that is another major finding that we got to know from a campaign like this. Now we come back to the price points for the customers. Now when I'm talking about the preferred price points for customers I am talking more about the impulse purchases. When we had one campaign happening in these areas the preferred price points or the average price points that we saw were low, especially around the \$8.00 to \$10.00 mark which was more affordable to the rural customers in one go to make an impulse purchase. So that is another good finding for us in a way that if we are doing line campaigns, if you wanted to do more consumer awareness we make sure that we have affordable products available to the customers at that point of time.

Next we come to connecting with stakeholders. It was very impressive how the distributor need was organized by Suryodaya. It was called Suryodaya Mela and it helped companies like us connect to various stakeholders, distributors and retailers in Bihar. And the good thing is that we've signed up so many of these distributors and they're already distributing products for us in really interior regions of the state of Bihar in India. Finally we come to customer awareness. This is the most important point. The customer is reached out to with the help of this campaign were educated and made aware about the Sun King products in the market, what are their advantages and how they're actually cost effective in the long run which is actually the nearer they are right now the Indian market is very, very complex and there is a very, very high need of customer education.

And a campaign like this was a great win-win situation for companies like us as well as the customers who might not be knowing the kind of cost impact or the impact of good quality product that can be made in their lives. Awareness needs for the industry, we have the facts in front of all of you guys, an estimated 1.2 billion people which is about 17 percent of the global population did not have access to any electricity in 2013. Most of these places are in Sub-Saharan African regions and developing regions of Asia which really shows why an increased amount of awareness as well as availability is needed in all of these areas. We come to customer awareness, continued efforts to educate the customer about the quality, about the products, about the cost effectiveness.

All of these points are really, really important to insure a high level of customer awareness. I was in fact going through an _____ research which shows that 37 percent of the rural population in India lacks awareness about solar products and about 77 percent feel that they're really expensive. Now why they feel that these products are really expensive is the right question. This is because of the lack of education. This is because of lack of awareness. Now we come to awareness among the retail distribution channel. So as we told earlier as well awareness amount the retail distribution channel is equally important as customer awareness. If we educate all the retailers, all the stakeholders on the field they get to know about how a business can be sustainable for them and profitable for them as well as the customers in the long run.

Now we finally come on to the awareness among the institutional partners. Now we are talking about IFC rated products, high quality products that institutional partners might or might not be aware of. This is something that has to become a standardized across the market and IFC again is doing a great job with that by rating all the products, all the good quality products in the market and making sure that all of these institutions have a go to place in order to check that the products are standardized or not. That's it for my end. Any questions can be taken after all of the presentations are complete. Thank you guys.

Stephanie Bechler Thank you very much Sahil. And our final presentation will be from Guarav Mehtas, the founder and CEO of Dharma Life. Gaurav?

Gaurav Mehtas Yeah. Thanks. Good afternoon or good morning everyone. I hope I'm audible. So I'll just quickly give a bit of a background on Dharma Life and then talk about the Suryoday Campaign, our learnings and how we were involved. So we're a social enterprise which looks at training entrepreneurs in villages in India. We currently have trained 4,500 entrepreneurs across nine states in India and we have a goal of reaching 100,000 entrepreneurs and 50 million consumers by 2020. We're focusing I mean on the balance of women and entrepreneurs. So we're working on six causes, energy access, indoor air pollution, livelihoods and lifestyle education, nutrition and hygiene.

Stephanie Bechler Gaurav, one moment please. Oh there it goes. The screen show was a bit delayed. Sorry to interrupt. Thank you.

Gaurav Mehtas Ok. So just what do we do? Our business model is we would go into a village. We would recruit underprivileged or unemployed men and women, go train them in sales and entrepreneurship. We would then under the six causes I've mentioned to awareness campaigns and sort of drive behavior change and awareness for these products. We then would provide a supply chain solution to the village via the entrepreneur recruiting. And we would link into financing orders to bridge the affordability gap. And finally we would analyze sort of the whole behavior change and adoption that's actually happening and channel it back into our process. So that's roughly our business model.

How did we engage with IFC? So we were actually involved I mean from the close to the beginning in terms of aligning with the IFC or on the campaign. We would be greatly benefitted from IFC's quality assurance program in terms of the selection of the products and the early kind of aligned to the fact that you would only be distributing products which are quality assured. And we partnered in apart from in the beginning strategy also around on level execution with IFC. So basically the involvement was I said on the planning side, mapping out sort of our distribution network with the root plan which IFC was taking and also expanding our distribution network towards the villages selected in the campaign as being the ones which are kind of priority villages.

We created basically entrepreneurs that we didn't have present so as part of the campaign a large number of entrepreneurs was created. Before the

campaign came to the village these entrepreneurs act as sales agents as well as sort of key opinion leaders who kind of create or help create getting the crowd together during the activity, also engaging the village in terms of pre-activity and post-activity and post-activity specifically serving as sales agents towards distributing the solar lights selected in the campaign. We kind of worked extensively with the different vendors of product partners to align stock and make sure that it's available across and during the campaign. So most of sort of that stock was—this was a huge planning exercise given the large extent of the campaign.

And the idea was also that we would look at converting customer leads then with the stock as well as manage the after sales source. The team was completely overlapped with the IFC and the DWT teams which was the agency was executing. And we also kind of participated in the retailer engagement along with the entrepreneur. Just a few things around the campaign. So I have put some things because up here in terms of what happened during the campaign. As you can see during the three phases we have had significant results on sales. I think the two highlights I would share on this is that we had a 20 percent increase of sales of solar lights as I've mentioned before. We sell multiple products so from solar lights to clean cooking products, nutrition, hygiene and other sort of consumer durables. So the solar light category kind of had a large chunk in sales as to be expected. But it was definitely statistically significant and lasted post campaign.

The other, the market share of solar lights in that phase from our total sales jumped from 42 to 70 percent. And the other highlight is that given that we didn't have consumer financing aligned in this campaign which is obviously very difficult to do but it would be probably—if that would have been it would have been a perfect campaign. We had sales of lights largely in the _____ categories. So the lower end of the solar lights actually sold on cash. The higher end did not really sell as well during the campaign given the lack of consumer financing available.

Then basically the other thing which was big highlight of this campaign for us was kind of the whole call centers leads which were created. We benefited greatly from the data provided by IFC as part of the campaign and I think we had a sort of a part from—also there was the high distribution level which was very useful for us from a sort of alignment of fighting of our channel perspective. But I think the main—so this is to highlight some of the ancillary activities of the campaign which were of great benefit to us.

So finally for us the campaign served as—so I think the question asked was how important it is to have distribution chain and we are a distribution company so probably my answer would be a bit biased. But at the same time I do think that having the channel in place before the campaign started greatly helped in minimizing the time to sort of for a customer to try and actually buy the product instantly after the campaign. So I think it's very important as part of planning for any consumer awareness campaign if the whole sort of conversion cycle is to be tested in that campaign apart from general awareness on the cause.

For us the campaign helped in a big way to expand our channels. So I think we touched a large number of villages where we were not present. We had presence in the neighboring areas but were able through the campaign to launch the large recruitment drive which greatly expanded our channel and also greatly promoted the solar lighting or clean energy category as one of the core categories for them to start the sales force. And to that extent a lot of these entrepreneurs are people that are creating a livelihood so a great social impact from that perspective as well. The other thing, I mean building on from this they're actually taking some of the learnings from the campaign and developing further campaigns to scale up along similar lines. So working on that hopefully with IFC soon as well. That's just a quick summary from my end I think. Thank you.

Stephanie Bechler Great. Thank you so much to all of our panelists. Those presentations were outstanding. We have some great questions that have come in from the audience. And we will start with—this question is directed for Praveen. How was the call center approach managed and did the campaign involve the village _____ or other local groups?

Praveen Kumar So sure. Good question. Unfortunately there's not enough time to sort of—I would have loved to go on and on about this campaign. So the call center itself is a topic and so on. So what we did was we had a toll free number which was taken and before the campaign and it was sort of plastered across the campaign and all kinds of media including the van or all kinds of posters, printouts, all the sales inserts. So it was sort of splashed across well in advancement. So that was the call center information that was given out. People, sort of the people who came to the van campaign actually came to know the number and they would call back and ask if they had questions.

And there were people sitting in the call center who would answer the queries. And these people were trained, the members of the call center. They were trained in all products and the basic queries that were answered. And then the queries if there's sort of a specific manufacturing company or distribution company it was addressed to them. So it was sort of later on sent to them. So that is how the whole call center thing was looked back. So all the information that came was given to the concerned client.

That is how it worked. And it is still on even after the campaign has ended so that people do not have any confusion even now if they want to buy a product. They will call about a particular kind of product, a brand or whatever. They can get back to us. That is one. Regarding _____ as I've said we don't really work very closely with governments in our program and especially on the sort of the rollout of the campaign as concerned. So we did the key opinion leader thing and they were sort of concerted when the clients went to stakeholder awareness to some events and all that which are the good markets. But we did not sort of interact with the _____ but the _____ as a key opinion leader was definitely taken into sort of consideration and was discussed with and taken permission or whatever, was part of the campaign in that sense.

Stephanie Bechler Great. Thank you so much. Our next question is for Sahil. Traditional distribution chain makes the products a bit more pricey for end users which should inhibit adoption. Does your company deal directly with end users?

Sahil Khanna So I'd like to just clarify the question. Is the question—does the question say that should we deal directly with end users and not the retail channel?

Stephanie Bechler Yes, it's asking if you do deal directly with end users at all.

Sahil Khanna Ok. Great. So that's actually a good question. So we actually have two channels running in which one is what we call the energy officer model and one is what we call a _____ rural distribution channel. So in an energy officer model what we do is that we have village level stock points and we have energy officers which are also called commission agents or _____. These are village level entrepreneurs who would be independent entrepreneurs doing their own jobs but would be working with us as commissioned agents just to make some extra money.

So these commissioned agents go to the stock points, take the stock, go from house to house and make sure that they're promoting these products, making the customers aware and in turn selling these products to the customers. So this is how we're reaching the customers directly, the traditional FMCG channel is what we call the _____ rural distribution channel which is fairly new for our organization. We're seeing how successful it will be over time. But right now we're seeing a good amount of throughput through the same channels. So to answer your question, yes we are using both the channels here. We are using a media channel as well as the traditional distribution channel to make the products available to the customers.

Stephanie Bechler Good to know. This next question is for Guarav. Are there any areas where you felt the program was more successful than others? And any specific socioeconomic factors that give a higher success rate for the campaign?

Gaurav Mehtas So I think the most successful area for us was the whole buzz it created for someone who never had seen a solar light before. So the whole sort of visual impact of the van and the video created—I think Praveen mentioned it won an award. It was very, very impactful for someone experiencing solar lighting for the first time. So I think that was probably one of the best parts of the campaign for us because it really generated interest for people who had never used a solar light.

From a socioeconomic perspective it's—I'm not sure how to answer this question right now because I think it really—it covered many sort of layers of villages and we were in a very—I mean I think there was a diverse spectrum of villages taken. So I do think we covered a good cross section of different types of socioeconomic profiles if that is what is meant by the question. I wouldn't particularly highlight one specific one here.

Praveen Kumar May, I add a point here as well?

Gaurav Mehtas Please.

Praveen Kumar Yeah. This Praveen. So I just want to make one important point that needs to be mentioned is that by selecting the villages itself it was taken care that the area that we were going to not only are good but also people depending on the usage of kerosene so in that sense to some extent of course if you're talking about really off grid people and a high usage of kerosene in households for lighting that was one of the categories of selection of villages where we went to and the 9,000 villages that I have been telling you about. So that of course—so in that sense, yes, it was considered. It was a very important criteria for this.

Stephanie Bechler That's great. And along those lines what learning can you all share on gender either related to the targeting of male and female consumers with the awareness campaign or related to women and men as distributors or entrepreneurs? Would anyone care to jump in on—ok. Well, we can move on to the next question.

Praveen Kumar This is Praveen.

Stephanie Bechler Yeah.

Praveen Kumar Yeah so I was holding on so that I was on mute. We did pay a lot of attention to this whole thing. So I always mention the women sellers that we have created in Rajasthan to an NGO. So there was a clear focus on gender. So if you see right from the beginning when we spoke about the customer groups it is very complicated now so the children and of course women influence men and sort of men take the decisions. So it's all very complex. So in that sense you have to address all groups and women were very important for us.

So we have very clear-cut two mentions here. One is that women's groups and the meetings that we had mentioned and there are a large number of those meetings, more than 2,000 were sort of conducted. That is one. The second about gender is the fact that there is the whole collaboration with NGO and their sort of groups and the women there were actually incorporated, sort of enrolled in the program and they have become now sort of a part of the distribution chain. So yes, it was definitely a very huge and a very big focus area for us in the country.

Hari Natarajan Yeah. And just to add here I think for us there was a specific segment in the campaign which was women's group meetings, meetings which was covered as part of the activities in the village and that was I mean specifically focused on women which I mean for us it also led to specific sort of learnings around use cases and engagement around female users. So that's kind of something we have learned from and are developing further.

Stephanie Bechler Great. Thank you so much. This question comes in. How do you assess the quality of clean energy products, particularly the solar energy products?

Praveen Kumar So in terms of our quality assurance that I've already mentioned is one of the key pillars and not only the pillars as I also mentioned was it's a gate actually to get into sort of the program. So there is this quality assurance table that has been developed by World Bank Group and it has been adopted by

international electric technical commission. And there are two actually layers to the whole testing process which the first one is smaller and the next one is the longer tests. This whole process takes about three to four months.

So it's really important for any sort of client or manufacturing company to pass this gate and therefore quality is very important and quality assurance standard is already sort of adopted by this international electric technical commission. And there are labs which test the products and that is how we take care of the quality aspect. So yes, there are standards and there are fixed parameters and labs that do it and that is how it is conducted.

Stephanie Bechler Excellent. Our next question is also a general question for everyone. Grid research and supplies improving rapidly. Also mini grids are becoming more relevant. Do you see the grid and micro/mini grids affecting your business model and the choices that are made by the consumers?

Sahil Khanna So I'd like to answer that question. This is Sahil. So when you're talking about consumers who are preferring grids to the consumers who are actually using smaller sized solar lighting solutions or home systems I think we're talking about a completely different market segment here. So if you're talking about those customers or grids coming in and threatening our current markets I think we should be looking at energy access, availability as a whole and thinking about good things for the customers in a way that if the grids are growing and customers can afford it they should go ahead with it. And the customers who cannot afford the bigger grids can go in for the small lighting solutions or for the smaller home systems. So I think this is again a win-win situation for all of us.

Hari Natarajan This is Hari. If I may add to that, so the grid extension doesn't necessarily mean that energy is flowing through those wires. I think so somewhere all the solutions which are currently there in the market are complimenting to each other and not necessarily—well, there is a bit of competition I would say but still by and large complimentary and the bottom of the pyramid in India is a huge range of customers with different affordability levels, different needs for services. And therefore at the present moment I think given that we've barely touched a fraction of that unmet demand I think for the next 10 to 15 years at least these solutions actually have their own relevance and role to play in the market.

Stephanie Bechler Excellent. Thank you so much, Hari. Our next question is directed for Praveen. It's kind of been touched on earlier but did you tailor any of the Suryoday Campaign for individual manufacturers or were they generic campaigns where multiple products were showcased simultaneously?

Praveen Kumar Yeah. So I guess is when some of the programs that we showed out of the van it actually showcased all products. And that is what the complex part of the whole campaign was which I mentioned right in the beginning that when you have a one product category or one product of a brand or a company it's much easier. In this case there were eight manufacturing companies and four distribution companies so there was no particular client or company for which the program was designed. It was designed as a common sort of awareness

campaign for the category as such. But then it was actually—there was one to one sort of advisory or relationship or sort of strategy that was given to our clients which I also mentioned. But the program was for the entire sort of category.

Stephanie Bechler Great. And also someone is asking are there any Suryoday Campaigns planned in the Chennai area?

Praveen Kumar Which area is that?

Stephanie Bechler I'm sorry. I could be pronounced it wrong. C-H-E-N-N –

Praveen Kumar Oh ok.

Stephanie Bechler I apologize.

Praveen Kumar So no that's fine. That's fine. So Chennai is actually in the southern part of the country and this time this campaign was as I said it's a large country. In three states itself the total population is around 400 million of these three states together. So it was only in these three states. It's not gone to any other state apart from Uttar Pradesh and Rajasthan.

Stephanie Bechler Ok. And another question for Praveen. Did you encounter any counter campaigns where incompatible products were promoted possibly from a company which were not relevant or useful in the long run?

Praveen Kumar No. We did not. We did not.

Stephanie Bechler Great. Our next question is the solar street lights promotion, wind operated water lifting systems and they face failure in many places in India. Do you have any opinions on that? The solar street light promotions and wind operated water lifting systems?

Hari Natarajan I kind of on mute at the same time and started talking. Could you just repeat that? Wind operated systems you said –

Stephanie Bechler No problem. So the question is asking for opinions on solar street lighting promotions and wind operating water lifting systems since they're facing some failure in different parts of India?

Hari Natarajan Ok. So wind operated water pumps we have not seen—I mean there were a lot historically but I haven't seen any recently so I'm not sure about that and I would not take it on. On solar street lighting at least historically I think the failure has not been so much around the technology but it's really around just very poor implementation practices especially around the government subsidized schemes. So just a little example. Again I don't have exact data to back up what I'm saying but I've seen instances where a solar street light has been installed outside a government leader's house and that's because he picks where the street light goes. And it's under the cover of a huge tree.

And then when you're asking "Hey, listen. Why did you even put it? It cannot be in a shaded area. You need to cut the tree off or something like that" and he would say "Listen a street light works on the first day and after that it didn't work so I didn't really see a point in doing anything, trimming the branches of a tree and such." So it's just been very poor implementation historically and I would even suggest that people who have concerns around this can look at some of the more recent government programs. I mean I have interpreted it myself recently and a lot of the installations that are coming under the government schemes are much more well thought out implemented well and those street lights are actually doing quite well. I don't think there is any real concern around the technology itself but it's really about how its implemented and whether there is any servicing provided for these systems once they're on the ground.

Stephanie Bechler Great. Thank you, Hari. Another question for Praveen. The program has generated a lot of interest and also a great market for solar products. The asker would like to know if there are any plans for recycling or disposal of the products in the long run?

Praveen Kumar Not part of this program as such but I'm sure there is. This is going to be an important issue. So it's the solar lighting _____ has this component which should take care of this aspect.

Stephanie Bechler Great. And that is the end—that is the last question that's come in. We'll take time to do a brief survey for everyone but if you have any last minute questions feel free to send those along. If we can't get to any more we will send out the question log to the presenters at the end. So please, you still have some time to get those questions in. Right now we would have five short questions for the attendees and your feedback is really important so we can make sure we're doing a good job with the webinar and improve. The first question is on the screen now. The webinar content provided me with useful information and insight. Great. Thank you.

The next question, the webinar's presenters were effective. Please select strongly agree, agree, not sure, disagree or strongly disagree. Thank you very much. And the third question, overall the webinar met my expectations. Thank you very much. And the fourth question, do you anticipate using the information presented in this webinar directly in your work and/or organization? And now our final question, do you anticipate applying the information presented to develop or revise policies or programs in your country of focus? Great. Thank you all so much for answering our survey.

On behalf of the Clean Energy Solutions Center I'd like to extend a thank you to all of our expert panelists and to our attendees for participating in today's webinar. We've had a terrific audience and we very much appreciate your time. I invite our attendees to check the Solutions Center website if you would like to view the slides and listen to a recording of today's presentation as well as previously held webinars.

Additionally you will find information on upcoming webinars and other training events. We are now posting the webinar recordings to the [Clean](#)

[Energy Solutions Center YouTube channel](#). Please allow for about one week for the audio recording to be posted. We also invite you to inform your colleagues or those in your networks about the Solutions Center's resources and services and no cost policy support. Have a great rest of your day, evening, wherever you're listening from and we hope to see you again on future Clean Energy Solutions Center events. This concludes our webinar.

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