

International Electrotechnical Commission’s Discount Packages to Access Sustainable Energy Standards for Rural Electrification

—Transcript of a webinar offered by the Clean Energy Solutions Center on 14 May 2013—
For more information, see the [clean energy policy trainings](#) offered by the Solutions Center.

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Vickie Hello everyone, I’m Vickie Healey with the National Renewable Energy Laboratory and I’d like to welcome you to today’s webinar hosted by the Clean Energy Solutions Center. We are fortunate to have a terrific panel of speakers today. We’ll be covering information on IEC discount packages to access sustainable energy standards for rural electrification.

Okay, just one important note before we actually begin our presentation is this little disclaimer that I will read to you now. The Clean Energy Solutions Center does not endorse or recommend specific products or services. And, the information provided in this webinar today will be featured on the Solution Center’s Resource library as one of many best practices resources that are reviewed and selected by our technical experts.

But before we begin, I just want to go over a few housekeeping items and the first one is audio option. So, for audio, you do have two options, and you could either listen through your computer or over your telephone. If you choose to listen to your computer, please select the “microphone and speakers option” in the audio pane, which is on the right hand side of your screen. And by doing this, this will eliminate the possibility of any feedback or echo that could occur. And, if you select the telephone option, above, on the right hand side of the same box—will display the telephone number and audio PIN that you should use when you dial in. And just as a simple reminder to our panelists, we ask that you please mute your audio device to complete notations again, because your microphones are active and again, it will eliminate the possibility of background noise. Also, this

is one very important note, if you have any technical difficulties in this webinar, you may contact the “GoToWebinars Help Desk at the number that’s listed on this slide which is 888 259 3826 and the Help Desk will be happy to assist you with troubleshooting any of the technical difficulties you might be having.

To go over a couple more items regarding questions. If you’d like to ask a question, we ask that you use the question pane where you will have the capability to type in your question. And if you’re having difficulty viewing any of the materials through this webinar portal, you can find PDF copies of the presentation at URL link center listed on this slide. And you can open those PDF presentations and follow along as the speakers present. After I—just to let you know in addition to posting the PDF copies at the presentation, on our website—within a few weeks, it will be an audio and video recording of the presentation so you can go back and listen and view the presentation at any time and feel free to share that information with your colleagues.

Real quickly, we have a really exciting agenda prepared for you today that is posted from IECs discount packages to access sustainable energy standards for rural electrification. And as you can see from the slide, we have a very impressive group of panel that will be presenting on the topic. Before our speakers [inaudible][00:03:56], again I will begin the presentation. I will provide as short informative overview of the Clean Energy Solution Center initiative and following the presentation, we will have a question and answer session, a short survey to get feedback from you and then we’ll wrap up with discussion and closing remarks.

This is a real quick background on how the Solutions Center came to be. The Clean Energy Solutions Center is an initiative of the Clean Energy Ministerial and it is supported to a partnership with UN Energy and it was launched in April 2011. It’s primary led by Australia and United States government as well as other company partners. And I’ll come to this unique partnership and to support a developing country to enhancement of resources on policies relating to energy access, and we provide no cost policy assistance and peer-to-peer learning and training towards—such as the webinar that you’re attending today.

The Solutions Center has four primary goals. It serves as a clearinghouse to clean energy policy resources, we share policy best practices, data, analysis tools that are specific to clean energy policies and programs. And the Solutions Center delivers dynamic services that enables expert assistance, peer-to-peer learning and sharing of experiences, and lastly, the center fosters dialogue on emerging policy issues and innovation on—occurring around the globe.

Real quickly, one key feature that the Solution Center provides is expert policy assistance and you’ll see on the slide pictures of some of—we have more than 30 policy experts on our team in this slide, just a few of other

pictures of some of our experts. This is a very reliable service, it's offered through the Solution Center, again we've established a broad team of over 30 experts from around the globe and they are available to provide remote policy advice and assistance and analysis to all countries and the key feature of this is this policy advice and assistance is provided at no cost. And of course, we cover all the ranges of clean energy topics including energy access, efficiency, renewable, smart grids, micro grids, transportation, utilities and regulation. And we encourage you to—if you have a need for policy adviser assistance to contact us, we'll be happy to match you up with an expert to help through your question.

A couple of ways to just how you can become involved, again going back to the policy advice assistance, you can request that. And we can also tailor resources on such as that for your country and region. Again, participating in webinars like you're doing right now, we welcome your advice and recommendation on resources that we can share through our curated library of reports and data and analysis and tools. And we have a newsletter that we welcome you to sign up for.

So today I will just quickly, briefly introduce our panelists. First, we have Richenda Van Leeuwen who's the Executive Director, Director of Energy Access Initiative at UN Foundation. We'll have Francisco Rauser who is an analyst at the International Renewable Energy Agency also known as IRENA. We have Françoise Boshell, Executive Secretary and ILO at IEC Affiliate Country Program at the International Electrotechnical Commission. We also, are honored to have Howard Barikmo who is the Emeritus Secretary at IEC's Technical Committee 82 of Solar Photovoltaic Energy Systems. Next slide we have Arne Jacobson, Director of Schatz Energy Research Center and last but certainly not the least, we have Guilaine Fournet who is Head of Sales and Business Development at the Electrotechnical Commission. And with that, I would like to turn over the webinar to Richenda if she is on the line—with some opening remark.

Richenda Hi Vickie and everybody on the webinar. This is Richenda Van Leeuwen, I'm not sure if you can hear me.

Vickie Yes we can hear you, thank you Richenda.

Richenda Okay, perfect. Good morning everybody, my name is Richenda Van Leeuwen as Vickie had said and I'm delighted to welcome you all to this morning's webinar. Thanks very much again to the Clean Energy Solutions Center for hosting us and to—all the time it is that you're going to be hearing from—during the course of this morning. I just want to give a couple of brief overview remarks to set some of the context where I worked with the International Electrotechnical Commission. I believe—you should be looking at—I apologize I'm calling in, I don't have access to the slides so if we get out of sync [inaudible][00:09:53] please let me know but I only have an audio option but I just want to give a very short background to the work of the Sustainable Energy for All Initiative.

Hopefully by now, most if not all of the participants within the webinar are familiar with the initiative, which was launched by the United Nations Secretary General in 2011, specifically to focus on how the world can be looking at making the changes that are needed from those standpoints of sustainable development in three different areas. First of all, energy access and looking towards achieving global universal energy access, where they—a goal of 2030 for us to be able to achieve energy access which includes such things as universal access to at least [inaudible][00:10:47] electrification and also looking at universal access to cleaner and more modern cooking fuels and appliances.

And then, the two other objectives also are very much focusing on increasing our energy efficiency as a world and then also doubling the amount of renewable energy that we are using globally within our energy systems. And the Sustainable Energy for All Initiative has been developing in fact so much so that the Director General of the UN Industrial Development Organization is leaving his post as Director General as of July 1st to become the Chief Executive Officer of this initiative, which is now not only led by the United Nations Secretary General but also in concert with the President of the World Bank, and the World Bank as an equal partner. So it's been building momentum. You will be—you would have heard about the 2012 International Year of Sustainable Energy for All last year, which was tremendously successful with engagement by many many countries around the world, those developing countries and OECD countries. And next year we are going to be launching the decade of sustainable energy, which will run from 2014 to 2024.

In this context, I hope that's the overview of the Practitioner Network. The United Nations Foundation established an energy access practitioner network in 2011 as part of our contribution towards the work on Sustainable Energy for All. A network which really intended to focus on supporting, catalyzing advocacy on both the quality side but also on developing partnership, highlighting funding needs, highlighting challenges and solutions to those challenges faced in the sector by particularly market led approaches towards achieving universal energy access, focusing very much on the contribution of micro grid and off grid solution in that mix. Certainly, we're looking very much at grid extension to be continuing as well, but the reason and the rationale behind establishing it this way was recognizing in fact that there was not a unified global voice for the off grid and the micro grid sector and at the same time, there was a very strong emphasis on the contribution that can be made through both micro grid and off grid solutions as part of the answer in the [inaudible][00:13:40] landscape of achieving energy access. So it's grown drastically since we started it, last year by [inaudible][00:13:48] plus 20, we had 300 members, today, less than one year later, we now have 1200 members drawn from 191 countries. So it's been tremendously successful in terms of mobilizing the communities and we are very much looking for continued growth but also advocacy around some of the

changes that are needed in order to help mobilize the work that you are all undertaking. And today's webinar, in part, is a representation of some of the work that has been quietly ongoing behind the scenes to a range of partnership, in particular I want to thank the International Electrotechnical Commission and they will tell you a little bit about what they have been doing in support to Sustainable Energy for All, but specifically understanding the needs of practitioners and particularly within that, some of the smaller companies the SME's that are delivering these solutions and some of the constraints that they've been facing. Lastly, I just want to talk about the work of the Practitioner Network as it relates to standards. We've had a very active standards working group, as one of the working groups that we host within the Practitioner Network, very ably led by Moneer Hassan, the CEO from Solo One and Jack Warner from Institute for Sustainable Power (ISP), but they have been really focusing on helping us understand the broader context, not only in terms of the technical aspects of solutions and really looking at the need for driving quality in the sector, and that is an area particularly that ultimately supports consumer protection. And when we're working particularly on the energy access issues with very low income communities, my [inaudible][00:15:49] impression is you know, if you can only pay one for it then we better be doing a good array of product or service to that consumer, to that customer because they can't afford to purchase it twice.

The second area that we've been focusing on standards is really looking at the ecosystem and services as well, particularly relating to the training that's required in order for us to be able to truly have a system of sustainable energy in a country in a given context. So we've been looking very much at insuring that not only do we have the solutions and the quality's solution in place but that we also can be catalyzing the development and the training of the technicians or the electricians and the other—the human resource side of it as well, to ensure that we can drive a sustainable ecosystem of change. So thank you to everybody, I'm sorry I can't stay on for the full webinar, my colleague Yasemin Erboy will provide context and closing remarks from the United Nations Foundation but—back over to you Vickie and again we thank all our panelists for joining us this morning.

Vickie

Thank you Richenda for the very nice opening remarks and very appreciated. With that I think we are turning over now to Francisco who will be presenting first. So Francisco with that, welcome and feel free to move forward.

Francisco

Thank you very much Vickie. Good morning or good afternoon or evening to everyone. First, I would like to thank the organizers of this important webinar for inviting IRENA to present our working [inaudible][00:17:41] Standardization for Renewable Energy Technologies. And we are convinced at the IRENA of the importance of standards and quality assurance for sustainable and accelerated deployment of renewables at a global scale. So today, I'm pleased to briefly present to you all our work in

this field. Unfortunately, I cannot see the slides on my screen, I don't know, I have a technical problem I think. Vickie can you see my slides on the screen?

Vickie

Yes, I can see your slides.

Francisco

Okay, thanks. So just a few words about our organization, the International Renewable Energy Agency (IRENA) is an intergovernmental agency, we have the mandate to support sustainable deployment of all types of renewable energy. Our world program is defined then by our member countries within their annual assembly. Our agency was founded in 2009, and its first assembly was held in 2011. The Headquarters are in Abu Dhabi, but we also have our Innovation and Technology Center located in Bonn, Germany. At present, 159 countries plus the European Union are affiliated with 109 full members, and 51 countries in the process of becoming full members of the agency.

We are convinced at the IRENA that countries can use the standards in benefit of the Renewable and the Heat Deployment Programs. For example, national regulations as well as [inaudible][00:19:39] documents presenting renewable energy can refer to standards communicated in the documents that they have requirements to be complacent. The standards can also be able to document its source of information by sending the best available technologies and practices concerning specific applications. Certification against the standards is also a useful tool to mitigate technical [inaudible][00:20:02] and then granting easier access to financial sources. If you have all these benefits in national renewable energy markets founded on appropriate requirements for quality and safety.

Due to the importance of standardization toward a renewable energy sector, IRENA has carried out last year our needs and gaps analysis of International Standardization for Renewables. This work was led by Mr. Gino Richards, he's an experience expert in the field and a member of the ISO strategic advisory group in energy efficiency and renewables, was also enriched by inputs from different organizations including ISO, IEC, UNIDO, ICT, SD and others. They identified gaps and options but the rest of them were also disposed in an experts' workshop on organized last autumn in Bonn, where we have representatives from the standards bodies, industrial associations, and [inaudible][00:21:03] banks and other stakeholders. This story includes a set of recommendations to where foundations identify during the analysis, and those recommendations were categorized in four main books. Recommendations will then disseminate information on knowledge to define a strategic framework for standardization to support engagement of all stakeholders in the process and to address specific needs in these numbers, for example, related to environmental and sustainability aspects.

Next, we will provide for you some more details and some highlights on the identified gaps and the possible solutions. I would like to start by saying that standards should not be seen as isolated documents but as part of a broader quality assurance framework. This framework, that on the slide, is called quality infrastructure, includes different elements in addition to standards. So it's just calibration on methodology, testing and inspection, accreditation and certification and strengthening the whole quality infrastructure and not only standards, they are very important part as they are, will permit that the related benefits have a bigger impact on the national renewal energy market.

As mentioned before, the standards and quality infrastructure in general can support national renovations. One example, as already seen in some countries, is the link from business between financial incentive initiatives such as [inaudible][00:22:46] for example, and the use of tested and certified equipment. This can support the market for [inaudible][00:22:53] technologies under the initiative, as well as increase in likelihood that the initiative itself. We can deliver what was expected [inaudible][00:23:00] but the customers.

Now, if we look for example at the small-scale applications for renewal energy technologies, we observed that more and more domestic producers are emerging in developed and developing countries. For example, the Warming Energy Association, in their last report, identified more than 300 registered manufacturers for the small [inaudible][00:23:28]. But these might be just a small fraction of the total number of manufacturers available worldwide. The issue now is—that not all manufacturers may have the experience or capacity to produce good quality products and in some regions, equipment is [inaudible][00:23:45] to quality issues. [inaudible][00:23:48] between the particular manufacturer not in the whole technology segments. Therefore, [inaudible][00:23:55] the whole market of such technology in a very negative way. Then we have an excellent technology, and more and more people interest to manufacture it. Now we need to support that they get access to the right tools to be capable to produce good quality products.

However, it is also true that the cost related to testing and certifying that products might be too high for these producers of small-scale technologies. The question then is, how to balance the cost related to quality infrastructure and the related benefits also in performance, safety etcetera. In IRENA, we have started the analysis of these issues and how quality infrastructure can be built or improved in an affordable manner, of people only for small-scale applications in developing countries. We will start by [inaudible][00:24:54] the case of solar water heaters on small wind turbines and we will expand this work in the future.

IRENA's story on standardization also identified more than 570 standards relevant to renewal energy, and this is not an exhausted inventory. However, the last year's analysis showed that most of these standards are

related to the product or equipment itself. For example, the hydro turbines [inaudible][00:25:29], but few to the installation and post installation aspects including for instance, operation and maintenance of a complete system.

Now the other question is, what is the result of deployment systems with quality products but not properly installed for example. So in a manner that you use the less available equipment if it is not installed, operated and maintained properly. This types of failures as we see on the slide, with a wrong wiring or wrong installation of [inaudible][00:26:06] systems have been observed for example in some islands in the Pacific region where IRENA is carrying out [inaudible][00:26:13] in this area for some standardization at present. This is why we consider that the development and use of sound standards in showing the competence and skills of installers, operators and maintenance staff is crucial. In other words, do not think in terms of product standards but system standards.

One more need identified in our analysis concerns the lack of awareness and knowledge in what international standards are available and how to use them. In this area, IRENA has started also the development of an information platform for the standards and will also include information concerning patents relevant to renew energy. We are planning with organizations like ISO and IEC to get access to the appropriate information and make it easily accessible to users. [inaudible][00:27:14] to optimize the access information from all the benefits of quality infrastructure and standards and facilitate the cooperation between standards users and standards makers as well as between countries.

Finally, a very important issue is also the involvement of all relevant stakeholders in the International standardization process including the policymakers, industry, manufacturers and users. We've also from a geographical prospective developed and developing countries should be actively involved to assure the respective needs and issues are addressed in international standards. For this is very important in the case of developing countries, that they make use of existing mechanisms to participate, such as the IEC Affiliate Country Programme that will be presented in detail [inaudible][00:28:09] by our IEC friends and also the [inaudible][00:28:14] for developing countries system DEVCO. Also all the mechanisms can be explored for exports from all the represented regions to participate in the process as a visual meetings or forums where users from these regions can dispose particular needs with members of the technical committees developing the standards.

And last but definitely not the least, is to make the standards affordable to users in these regions. There are for instance discounted prices and additional funding support. In our story, in fact, we use the case of the IEC 52 to 57 series for rural electrification as an example of the cost of the standards and the impact that it may have in rural community. Today we are glad to see the initiative from IEC, and the UN Foundation to provide

precisely these series of standards at a discount price. We certainly commend such type of initiatives and we hope that more similar ones will follow in the near future.

With this I conclude my presentation. My contact details are on the screen, please feel free to contact me if you are interested in many of the national or rather activities in IRENA. In this slide, you can also find the link to download our eBooks for free and I would like to thank you all for your kind attention. Thank you very much. Should I introduce the next speaker Vickie?

Vickie That's fine, I can go ahead and do that for you Francisco, but thank you for that—okay, feel free. Go ahead.

Francisco Okay, thanks. So now, it's also my pleasure to introduce a good friend and colleague, Ms. Françoise Boshell, she is the Executive Secretary of the IEC Affiliate Country Programme of the International Electrotechnical Commission and I know that she is working very strongly and devoted to really at developing countries involved in the process, so it is a pleasure for me to introduce Françoise, on that, yeah Françoise the floor is yours.

Françoise Thank you Francisco and hello to everybody. So I will be happy to give you a short presentation of the IEC and the program for developing countries and I'm really happy that IEC is on board today which all of you probably still [inaudible][00:30:48] up.

I won't go into details but just to remind you where we work, we work on the international level together with other organizations such as ISO or ITU and we work on a national level, that's where our members are and at the IEC they're called national committees. But of course we have interaction with the regional bodies which have signed some cooperation agreement with us, so in Africa, in America, Latin America and Europe and the Europe—Asian countries.

Well the IEC is a rather old already because we are over 100 years old and our mission is to promote the cooperation on the international level so all questions of standardization and co—committee assessment. And of course we prepare international standards and technical specification. You might have heard of the IEC family, by family we understand the grouping of our members, which are 82 countries, and the countries that are participating in our pre—program for developing countries, the Affiliate Country Programme put together, the IEC family comes 164 countries.

Within the IEC membership, we differentiate between the full members, there are 60 countries, and associate members, 22 countries. Associate membership is a form of membership of a country that has limited resources. They do have access to all our standards but they have a limited voting right, they can't vote in four technical committees of their choice such as [inaudible][00:32:50]. We have in our catalogue almost 7000

publications that are prepared by technical committees or sub— committees. And we also administer free conformity assessment system.

I won't go at all into details for this organization chart but what is interesting is to note that the IEC work on free section if you want free sectors. The standardization of course, has also conformity assessment and the market strategy. The market strategy is the most recent of our management board and the aim is to advise the IEC on future field of standardization. As you know electrotechnology is a domain that changes rapidly and we always need to be ahead in what comes in the future.

I mentioned that we work on the national level, and our member is called the national committee. The national committee brings together all stakeholders that are involved in the field of electrotechnology and it is a very wide range which covers all electrical and electronic equipment. In a national committee we will have an expert coming from the industry but also the SMEs, the government, the university and so on. That's where we will find the expert that will work in the technical committee such as TC 82 that is going to present the work later on in this webinar.

Now, to develop standards is a good thing but they have to be used, they shouldn't stay in a cupboard or drawers, so the best way to use standards and specially international standards is to use them to check better product resistance, its safe performance and reliable, and that's what we called conformity assessment and this is possible within the IEC against IEC international standards.

As I mentioned earlier, we're one of the pillar of IEC conformity assessment and the IEC administers free systems, each have a special purpose, the most important of the three is called the IECEE and it deals with electrotechnology equipment and component. It is sometimes referred to the CB scheme, but in fact the CB scheme is only one of the schemes that is administered by the system. The second one, The IECex is most specific, it has to do with equipment for use in exquisite atmosphere such as petrol stations, hospital and so on. And the third one is to check the quality of electronic components.

Now we come to our affiliate country programme, we have 82 countries, developing countries in this program, but as you can notice on these slides some countries are marked in red and they are countries that have been actually invited to join this program and they've not yet responded. We are at the moment waiting for confirmation from Saint Kitts and Nevis that should join the program in the next few weeks. So the Affiliate Country Programme was launched in 2001 and that was in the response from a call from the WTO to encourage the participation of developing countries in international standardization. This program is free of charge and it is not of course the kind of membership that's why our affiliates are not considered our members and they have no voting rights. But they enjoy a few benefits, one of them is to have access to 200 standards that they can

choose in our catalogue of almost 7000 standards. They can choose for national use. We also help our affiliates to establish a national electrotechnical committee so that they benefit from the same [inaudible][00:37:18] as our members, which will allow them to use the program with full extent. Because the second aspect of the program is to encourage developing countries to have an active part in the development of international standards, which is, exactly what the WTO is looking for. They can select ten technical field, technical committees and they will be given some log in to download the document and give a comment.

Our affiliates will also receive guidance to use our conformity assessment system. They may come to the IEC annual meeting, which is called the general meeting, where there can happen some technical meetings. Each year, we have a few technical meetings and many of them decide to meet during the general meeting and I know this year [inaudible][00:38:18] is going to meet in New Delhi in India. We then have a forum for our affiliates and the workshop that we organize for the developing countries and this year the topic is going to be a [inaudible][00:38:32] standards for developing countries and we'll have actually [inaudible][00:38:36] on board and what probably even [inaudible][00:38:39] to participate actively too. We also have the wet side zone for our affiliates and we provide some assistance who are there in our meeting. In 2009 we launched a new status for those countries that have reached the boundaries of the program.

This is the affiliate team as we call it, so the affiliate program as a leader, this year [inaudible][00:39:07] Mr. Phuntsho Wangdi from Bhutan is succeeded to Carlos Rodriguez from Costa Rica who was a previous leader and we've now coordinating the participation of our affiliate countries in Latin America. We have another coordinator for Africa, Evah Oduor] from Kenya, who happens to be as well the Vice President of AFSEC, AFSEC being the equivalent to the IEC on the African continent. And of course the Secretary in Geneva, I have two collaborators working with me to serve the needs of our affiliate countries.

We have succeeded in helping our affiliates to establish the national committees as you can see almost 50% are now a national electrotechnical committee. They would be meeting during the general meeting. This is the chance to share their experience, good and bad, and also to help those who are not at par to learn to establish the national committee. We try to visit the national committee when we are attending the regional event and that would be the case which you are a couple of countries that would put Phuchan [0:40:21.1 Inaudible], Cambodia, Democratic Republic of Congo, [0:40:24.4 Inaudible] and Peru.

Ten of them have upgraded to IEC members, next slide please. Although this is not the objective of the program to push the country to join the IEC, they can stay in the program as long as they need to. It's a total springboard for those who want more from the IEC and as you can see ten

countries who have the least up now join the IEC members. Next slide, please.

Okay, this is our last slide. Our objective for this year and next year, which is of course to get more countries to become affiliate class. To be an affiliate class country, the country has to have adopted at least fifty IEC standards as national standards and to have established a national committee. And that would give them access to four hundred standards free of charge by adoption instead of two hundred and would give them priority in our mentoring program. With mentoring program we tend to be activated in July this year so very near. Now, as well as we're going to launch a new status committee assessment for our affiliate countries. We are happy to be your partner now for the UN Assistance Border and [0:41:46.5 Inaudible] Initiative. And we are going to work more and more with the regional bodies. This year we had thirty—six collaboration with APSEC Copan Task [0:41:57.2 Inaudible] and ESC.

We are hoping to reach out to the Pacific regions and hoping that they like that the partnership will be system [0:42:07.5 Inaudible] would help us to that. There are a few small islands which are not definitely fitting in the program and they could usually do as free of charge.

We were so trying to encourage with the Pacific countries to be more active. And we're doing that through virtual training and I'm also going to visit the GRC in August back to back with the APSEC general meeting.

Next slide, last one.

So if you have any questions I will be very, very happy to take your question and now I would like to for the transition to hold Barry Moe [0:42:48.3 Inaudible] who was the former secretary of the CCAT2 and we are going to present this technical committee and his work.

Howard Barikmo: Thank you Francois, I'm having technical problems with but I will try to at least alleviate that. I am listening also to the local national public video station here in Phoenix and there's no way I can get rid of it. So hopefully it's not being fed to the URL.

Anyway, my name is Howard Barikmo. I was most recently the secretary TCAT2 and if we go to the next slide, we will see what it's all about. Oops, am I getting through it all? Then, okay.

TCAT2 has been charged by IECY all the standards relating to portable text for them. And we do this in six working groups. Working group one is grocery 2 marginal 3 systems working six balancing systems and then working group seven in cost and traders. But the big one that we're going to be talking about today is Joint Working Group One that has at its charter of technical specifications for decentralized grid electrification projects.

Next slide.

And Joint Working Group One is led by now I have to go through his name because I usually call him Cevus. Cevus Gontham Jonas Syngum Mena of Malaysia and the co—convener of that working group is Liam Andre Graske of South Africa. They have written over the year some 20 technical specifications and a 62257 recommendations for small renewable energy and hydrogen systems for world electrification series. And if you want titles and previous of these, you can go to the IEC web store site and get those abstracts of what and what do they do.

Next slide please.

Now I object if someone will do most of the talking on our most recent publication 6257—9—5englishproject.net and he'll lead you to the steps on why this document is necessary to introduce these types of quality products in the developing world. He will also mention that revision of other documents in the series is imminent in Joint Working Group One and ask for your input and process if you're interested. So contact here Francois or me for further information if you want to help us out in these areas. And without further ado, let's go to Arne and I think I've done a decent job of introducing you, haven't I? If not, why, let us know where you need to have filled in. Arne, it's up to you.

Arne: Thank you very much, Howard. And thanks to everyone for joining the webinar, the organizers. I should note that in addition to being an active member of technical committee 82 as specific Joint Working Group One, I also play a leading role in coalition activities for the IEC and World Banks, writing Africa and Asia programs. As a part of what I'll be talking about is the focus on IEC technical specifications 6257—9—5which Howard just mentioned but also how it's related to an integrated LGU, called insurance activities of the Lighting Africa and Lighting Asia programs.

And in terms of quality assurance probably on both the IEC side and the Lighting Africa and Lighting Asia side, we have been working from a set of key propositions and I think, one, first and foremost is that effective pro—insurance efforts can help enable energy access for low—income people in off—grid areas. We see the 6257 series of the IEC has a series that has a great potential play a leading role in providing standardized test methods in quadrimetrics for those other effort.

In the context of doing this work, we're very aware of the need to strike an effective or an appropriate balance between quality and affordability. Like given the particular purchasing power and needs of the people and markets that we're working to serve. And so in order to do effective standards development, we need to have not only an understanding of the technology and the technology transfer but also careful understanding of end—user needs, purchasing power and ability to access these technologies as well as brother—market dynamics. And so we work very

hard to try to pull all these things together as we think about the development of standards, documents and quality assurance programs in this arena.

Last but certainly not the least in terms of these initial propositions, we feel pretty strongly that widespread adoption of a harmonized set of test methods standards brings benefits to a number of stakeholders and so we are strongly encouraging governments and organizations to adopt these IEC standards and to take the harmonized approach to [0:48:44.7 Inaudible] these efforts.

Next slide please.

So focusing initially on the IEC 6257—9—5 document, this is a document that is intended to provide a quality of framework for off—grid lighting systems and this is a document that was published as the most recent revised edition which is the second edition of this document that was published last month April of 2013 after milling through the IEC's riskiest [long pause].

Arne

That's the one that's used for activities such as verification of products in the context for example of a certain occasion program. But there are also several derivative test methods also included in the document that are quite similar but are tailored to other specific purposes such as conducting a market check test of a product after it has already gone through a testing and verification or doing initial screening of a product prior to going through the full test method.

So the 6257—9—5 document includes all the of these test methods. It also includes a framework for specifying a minimum quality standards, performance targets, and warranty requirements. And so what I mean by a framework is that it provides guidelines and set of metrics for specifying what the criteria period for meeting those sort of things. But the document doesn't, it's self—specifies the past criteria. The idea there is that individual quality assurance programs would specify their own passing thresholds but hopefully we'll be doing that using this common framework that is matched up with the test methodologies into a single system.

And then the third item that's included in the document is a standardized framework for reporting verified performance for products in the form of a standardized specification sheet template. It's a document that includes all those elements.

Much of the material that's included in the 6257—9—5 document was recently developed under the IEC and World Bank's Lighting Africa program. And so those of you who are familiar with the Lighting Africa test method will be familiar with much of the material. The Lighting Asia program was launched in March 2012 and they also with that program it has also contributed to the effort. And integration of all that material into IEC technical specifications 6257—9—5 was supported financially by US

Department of Energy in partnership with IEC and World Bank and of course the IEC. So this was very much a team effort.

Next slide please.

The Lighting Global Body Shorts programs is that name of the program that now supports the both the Lighting Africa and Lighting Asia quality assurance activities. And the IEC document is a foundation document for the Lighting Global Quality Assurance effort. And so I think this really points to the importance of not just taking of these documents in isolation but linking them to an active quality assurance effort that can utilize them in the context of the program. If we can give a backward slide that would be great.

Okay, [0:56:34.6 Inaudible] they're not quite in the same order that I thought they were in. So, the development of the Lighting Global Body Assurance framework has been a cooperative one with the members and stakeholders many of which are shown here. And as I mentioned the Lighting Global program supports both the Lighting Africa and the Lighting Asia initiatives.

In the context of developing the technical specification 6257—9—5, a number of these organizations as well as others mentioned here provided key employ in a stakeholder process. And a number of private sector companies participated in that as well where fifteen companies provided comments. And as we move forward, both in summarizing the 6257—9—5 document and also working on other documents within the easy series, we encourage similar levels, actually even greater levels of participation from key stakeholders.

Next slide.

And the next slide when it comes up will show a framework that indicates where the 6257—9—5 document fits into the broader Lighting Global program. You can see that the Lighting Global program has three key areas of activity and that includes specifying and using test methods and standards. There's a testing and verification activity where products are submitted for testing and their performance is evaluated through laboratory testing. And then there's of course a mention of communicating the quality of products that meet the minimal quality of standards to the brother market. And 6257—9—5 is a foundation document in that framework. And so of course it defines the test methods and quality metrics that are used in the program and all of the other activities related to that or drawn from those original test methods and that framework.

Next slide.

The technical specification is being used in currently in the context of a very active and robust quality lighting assurance program. So to date these are test methods have been used to evaluate more than a hundred products

on a commercial basis and the company's submitting these products for testing and paying fee for that testing. More than forty companies have submitted at least one product for testing and a number of products or companies have submitted more than one product, today 54 products have met the Lighting Ripple Programs Minimum Quality Standards and in South Sudan, Africa more than 1.4 Million quality assured products are bought, products that have been quality assured through this program have been sold on a commercial basis and a similar number of products have been sold in Asia but we don't have the numbers documented in quite the same way.

So this document is—is been used in the very active coalition's program, next slide. One of our key goals going forward is to encourage widespread adoption of this quality assurance framework; we feel pretty strongly that having a common quality assurance framework, uh— across multiple markets will have a number of benefits for companies who are operating in the States, this simplifies quality assurance testing and verification for them, because they only need to engage in a single framework, which ends up saving them a ton of money, —Supply Chain Actors, Wholesale Distributors, Bulk Purchase, Bulk Purchasing Organizations, Financial Organizations having interest in this phase et—cetera, will only need to understand this single quality assurance framework, if we're able to achieve a wide—spread option and of course, the buyers of these products that are benefitting from a simplified framework, from disassociated lower prices, — and so we're strongly encouraging , widespread adoption of the framework.

And for the next steps, looking forward a Joint Working Group 1 is planning to revise other documents in the 62257 series uh, in order to update them and make them more relevant for energy access activities, priority areas include Solar Home Systems, so Joint Working Group 1 is— identified the document 62557—9—6 which includes coverages Solar Home Systems as a priority document for revision, Micro—grids for rural electrification are another document that is identified as a priority document and so that is 62257—9—2 and the third area that has been identified as a priority area is Solar street lighting systems and that will require development of an entirely new document and that is something that the Working—Joint Working Group 1 is interested to pursue in near term and, given these priorities, we are of course interested to have a stakeholder input into this process and, if that is something you are interested to do, I would encourage you to contact, either [Inaudible 1:03:49.8] or Howard Barikmo and we could find ways of integrating that—that into the stakeholder process.

And with that I will close and thank the organizers and thank and all you for driving the webinar and now pass things over to Guilaine Fournet who will discuss a Discounting Program that IEC is prepared to offer for the 62257 series so thank you very much and I'll pass it over to you Guilaine.

Thank you Arne. Well, depending where you are, good morning, good afternoon or good evening. Now that you know more about the IEC about DC82 and about IEC—62257 you may now be wondering how to get those publications or these publications [Inaudible 1:04:58.9]

The IEC is now to be able to offer reduced price not only on these specific publications but specific publications but also other parts of the 62257 series. I am using the IEC Standard Facilitate Access to sustainable energy there also are developing countries to comply with the WGOGG Agreement.

So now, let's have a look at the technical specification of IEC 62257 Part 9, Section 5. Edition 2.0 has been published earlier last month the 3rd of April to be précised. If you are already an expert in IEC products you may have not better [Inaudible 1:05:58.3] or compared to the previous edition has changed, now recommendations for small renewable energy and average systems for rural electrification Part 9—5 integrated system selection of stand—alone lighting kits for rural electrification. Quite often all titles are very long, you may notice. So let's have a look at the different options so let's look at the next slide please.

Depending on your needs, you may want just the 62257—9—5 and in that case, it's just one publication, either; it's up to you in paper or PDF electronic format you have the choice. Each publication are the list of normative references, next bullet please.

So for this publication, we have 12 other publications that are referenced in 62257 Part 9 Section 5, they are almost appearing. So that gives us a total of 13 publications, either for the publication [Inaudible 1:07:35.6] or for the publication with normative references. We are only happy, next bullet please.

We are only happy to be able to offer a 58% discount, which translates talking about Swiss Francs because being based in Switzerland or [Inaudible 1:07:58.1] in [Inaudible 1:07:59.3] so we'll let you convert in your local currency. So instead of 340 Swiss Francs the publication only [Inaudible 1:08:11.2] would be 143 Swiss Francs if you choose the publication and the normative references. I repeat 13 publications in that case it would be 1,078 Swiss Francs instead of 2,567 so that's what we offer under Option 1. We have 1—A and 1—B [Inaudible 1:08:41.1].

For Option 2, here it's a huge—huge package. Why is it huge? Why—because first, you would get the full series of the 62257 not only all the different parts [Inaudible 1:08:58.9], but also all the normative references, which equals a total of 136 publications, next bullet please.

So for this huge package, where you will get everything and even more; again we would be very happy to offer you a 58% discount and in Swiss Francs, I know it's a lot of money but I repeat 136 publications, the price would be 9,982 Swiss Francs instead of 23,756 so that's for Option 2 the

full package, we may call it but we also have the 3rd Option, it's what we call Pick and choose; so basically, ny publication in the service—uh next bullet please—of course, if you want the part 9 section 5, I recommend that you refer to option one, but any other publication in the service with or without the normative references—again, it's up to you depending what you need, in that case, next bullet please—we have a suspense here [Overlapping Conversation][1:10:36] so for the total flexibility, pick and choose in that case, because it's a customized offer that we—we would uh, process the order according to the—to your needs, in that case, the discount would be 50 percent.

So, that's what we can offer and you may wonder if there are any conditions – next slide please.

So yes, uh the only condition is very simple. We ask you to be from a SE4ALL country and belong to the IEC family. Uh, I'll let you refer to my colleagues presentation to – to see if you—you fit the criteria. So thank you and now back over to you Vickie.

Vickie

Great, thank you everyone for the presentation. Just to remind the audience, this is now our time for questions and answers, and our panelists are very happy to address any questions that you have on the materials that they've presented.

I just have one that came in specifically for you Arne, and – the question came in – and basically he's – he's asking – he would like to know if there is any timeline for the publication of the document that you mentioned, that needed , a bit of updating regarding the Solar home systems, Micro—grids, and the solar street lighting.

Arne

Yes so first – thanks for the question and the interest in those documents. The timeline for those is probably – varies a little bit.

I would say for the solar home systems and micro—grid documents, the group is likely to be looking to have an initial draft that could be shared for stakeholder comments and probably in the next six months, but we need to – it could be that – that will come sooner, but we need to talk with a few of the – of the key members who are working on this to get an exact time before – before specifying that a bit more carefully.

On the street lighting documents, because it's a new publication, the process would take a little bit longer for – for drafting, it's possible that – that could be also available in the next six months but it could take a little bit longer than that.

Vickie

Okay definitely – definitely coming in the near – you know, next six months or so. So, that's very good to know, thank you for that.

Another question that's come in from one of our attendees in Mexico, asking – basically if an affiliate country , and they didn't see a country you

know with the – in the IEC, and in case they're interested to participate, she would like to know how they can start the communication to discuss this option?

Francoise Uh, Francoise speaking here. So Mexico is a member – a full member of the IC so there should be no problem to benefit from our commercial offer. Now we just have to put in the place with the sustainable energy for all the list of countries, I guess Mexico is – might be in these list of countries, but I don't know, but the point of view of the IEC – there's no problem.

Vickie Great. Thank you so much Francoise for that, and I'll – I'll share some e—mail information with you so – you know, uh to make contact, perhaps this discussion.

Our next question and this may be again for – you Arne, and – but it could be to the entire panel regarding the micro—grid standard, how is this process envisioned to occur?

Arne So the—the micro—grid document is of course one that is – has already been published in an initial addition, and so, what I would first do is encourage people who are interested to—to review the current version of the document which is 62257 – 9 – 2.

And the joint group has identified the set of countries or—or representatives from countries within the working group to form a subcommittee, to review a set of – of possible revisions and to discuss that within the group.

If there are people who are interested to comment or suggestions for possible revisions of that document, I would encourage them to contact Howard Barikmo, and he can pass that information onto one of the co—organizers or co—conveners of the working group.

And I think having the contact information for the people who are interested to play a role would—would help us to incorporate them into the process less effectively.

Vickie Okay, great, thank you for that great answer. Let's see, next question is regarding Lighting Global standards.

And the question is – what might be the fundamental differences between the Lighting Global standards and standard CT certification and – or CE certification for lighting projects? And the question was posted by Joseph of TradeWithout Borders.

Arne So I can address that as well. The Lighting Global Quality Assurance framework of course focuses on minimum quality and durability for products, uh and it uses the IEC 62257—9—5 test methods to make that evaluation.

Programs like CE I think focus primarily on safety questions rather than on the types of quality assurance metrics – that are the focus of—of something like the Lighting Global quality assurance framework and the IEC 62257 – 9 – 5 document.

Vickie Okay, great, thanks Arne. Next question that has come in, is there a list of 54 products meeting the minimum criteria available? This is a question that translates over to you? Okay thank you.

Arne Yes, there is a list. The Lighting Africa website which is www.lightingafrica.org includes a section on it that lists all of the – the products that have met the minimum quality standards, and it also indicates products that have an addition to meeting the memo quality standards of – have also met some programs specific, performance targets.

That webpage can be accessed from the main Lighting Africa webpage or if you go directly to www.lightingafrica.org/stecs – as in S—T—E—C—S, uh that will take you to that page.

I think currently there are 49 products listed there. there are a few that passed recently that will take another week or two to be posted.

But, in general all of the products that have met the minimum quality standards and have currently active, test results are listed there.

According to the program, the test results are valid for a period of years, and so there, well there are some products that—that are discontinued by the test results are valid for a period of 2 years and so there, will be, of course, some products that, ah, are discontinued by the manufacturer for whatever other reason will be. Eventually, these test results will expire and that protocol will no longer be listed. And so that also can occur but, in general, all of the products that have currently active test results and have met those requirements are listed on that site.

Vickie Healey Okay. Thank you very much. Let's see. Next question, “Can you comment on any in—country standards that compete with the IEC standards? Do you know of any such situations?”

Arne Jacobson Uh, there certainly are countries that have, their own set of, uh, quality requirements or, things like solar lanterns or other similar products. , they, uh, I don't have a comprehensive knowledge of all of the countries that have those but I think it's only just a handful of countries, uh, currently.

And so that actually provides us with an excellent opportunity to achieve harmonization because, uh, there isn't a ready—a patchwork of, competing quality frameworks, uh, in the space, uh, IEC document, in the lighting global framework, are, uh, very early, in terms of, uh, uh, setting up, uh, quality standards for a foundation's framework for this, ah—for this space. So, unlike a number of other products, historically, this—this is a great

opportunity to achieve broad harmonization if we can, get governments and, uh, other, uh, ah, programs to adopt this single framework.

Vickie Healey Okay. Then, on that note, a follow—up question came in asking, not only in the framework of competing that either, both that would be complimentary to IEC standards.

Arne Jacobson Well, certainly within the, IEC framework, there are certain other certifications or tests that can complement or there are, potential inputs for that process. So, there are few things like for example, if the product is able to achieve certain certification or some of the other similar certifications, so there's things that, can be listed on, the specifications sheets that are developed, uh, through the lighting global program when the product meets the minimum quality standards and is eligible to receive that kind of a spec sheet. And so the—will be a those are complimentary in a certain way, ah, and also indicate, uh, something about those products. , but I wouldn't say that there, are other frameworks that would act as a substitute in the eyes of the lighting global program.

Vickie Healey Well, great, thank you so much. Arne, this question is for you. Can you elaborate on IEC's involvement in further discounts in addition to the IEC [Inaudible][1:24:14] and how practitioners might be eligible for or able to access them?

Arne Jacobson There has been some discussions within the World Bank group to offer additional discounts that—that framework is not yet final and so I don't want to, uh, provide comment or conferment that's definitely going to happen but there are, uh, definitely has been some discussion about that and I think there's a decent chance that that will happen in the coming months.

Vickie Healey Okay, great. Another question. Actually, I can't say specific question, and the question that came in is, can someone from Belgium benefit from the discount?

Arne Jacobson I think, my understanding of the discounts, as they're set—up and Guilaine can comment on this as well, my understanding is that, as long as the country is, affiliated with SE for All and is an IEC—is part of the IEC family—then it's eligible to receive the discount.

Guilaine Fournet Yes, Arne, uh, thank you and I confirm that it is correct that the both conditions is and, not or, uh. [Inaudible][1:12:44] in the IEC family but, as you can imagine, it's not in the SE for All list.

Vickie Healey Okay, great, thank you both. Well, this next question is, for Francoise. They would like to ask you if you could elaborate on what the process would be for interested practitioners to access the discount point forward.

Francoise Rauser To ideally, we would like, uh, to know as soon as possible if there will be an additional discount that, uh, we could, uh, then associate to through the

people interested in this, uh, publication, uh, series of publication. So, if we move forward without any additional discount from the World Bank or any other organization to benefit for, the offer that has just been presented, in that case, the order would be processed if you want many money by my team and, the person interested, would simply have to contact us by e—mail and like this, we can double check if the two conditions are on that sentence and move forward. And of course, if you forward [Inaudible] — would be copy to stay in the loop.

Vickie Healey

Uhummm.

Francoise Rauser

Francoise speaking. I just wanted to have in what we really need is to have an updated list of the countries that are involved in the sustainable, uh, energy for all project and as soon as we have that at the IEC, then the [Inaudible][1:27:48] quite [Inaudible][1:27:49] to check if there [Inaudible][1:27:52] this discount.

Vickie Healey

That's great. Thank you both very much. I just want to let you know we've had several other questions coming in but looking at the clock, I see our time is, you know, nearing the end of the scheduled time for the webinar so I think I still have a time for one more question.

But, I'd like to let everyone know who, just asked questions that we did not have enough time to answer, I will forward your questions to our panelists, so that they can respond to you directly. And, if, you know, and then apologies that we don't have enough time on the webinar to answer everyone's questions but we will see that they are answered consequent to, you know, the end of the webinar.

So thank you all to those submitted these questions and again, we'll be responding to these, consequent to the webinar. So, with that, I did promise one more question out of these so, and the last and final question is: Can all of discussed IEC standards be tested and certified by standard labs all over the globe such as, uh, ITS and TUV and others?

Arne Jacobson

The, uh...

Howard Barikmo

So I guess that...

Arne Jacobson

Go ahead.

Howard Barikmo

Well, I was going to say maybe that question is directed to me. This is Howard. Uh, I can't guarantee that every test lab throughout the world would do that, but, uh, TUV will. They have done it for all the other IEC documents that we have written. And, uh, a number of other laboratories throughout the world that would do it but.... So there are plenty that are capable of doing it, I suspect that there will be others too that will be doing it just so if they can also get in this game of providing lighting devices for developing countries. Arne, over to you.

Arne Jacobson Yeah. I would support that. The none of those labs that currently are, accredited to test to this specific method but does this because it was only, published, just a month ago and so, but, all of those commercial testing labs have the capability of doing that and, I'm sure that a number of them will do that.

There are test labs that have been, uh, doing that kind of testing, within the lighting global framework and those labs are already set—up to do that testing. But I would expect additional commercial labs to move towards being accredited to do that kind of testing going forward in the very near future.

Vickie Healey Great. Thank you again everyone for your very, thoughtful and thorough responses to the audience for your questions. We really appreciate, not only your attendance but your interest in this, uh, really great topic. And so with that, I think we'll turn it over now, to do our little, quick survey. So, Heather, if you could set—up the survey questions for the audience and we'll give you all a few seconds to answer this and to not close it out and go to the next question. Just very short, very easy questions to answer.

So, I would start with Number 1, which the question is, "Did the webinar content provide you with useful information and insight?" So, go ahead and push the radio button that, compliments, uh, your thoughts and we'll give you a few seconds to do that. Did this function work, Heather? I can't...

Heather Yes, it is. Yes, it is.

Vickie Healey Okay.

Heather So, we'll close that and move to the next.

Vickie Healey Okay, thank you. Second question, for outer, uh, participants, uh, "The webinar's presenters were effective." and again, you have the 5 multiple choice, options to answer.

And.. With that, I think we'll go to question Number 3, which is "Overall, the webinar met my expectations." Again, we'll give you a few moments to answer.

Okay. Great. Thank you everyone. We really do appreciate your feedback. It's very important to us and help us know we're doing right and the areas where we could improve. So we thank you for your responses. And with that, I'd like to turn, the webinar back over to Yasmine Erboy from the UN Foundation, to offer a few closing remarks on Richenda Van...

Yasemin Erboy Hi, can you hear me?

Vickie Healey Yes, yes, we can hear you. Thank you.

Yasemin Erboy

Great! Uh. Hi, this is Yasemin Erboy with the UN Foundation. On behalf of Richenda, I just wanted to thank all of you for joining us for this webinar and also thank our presenters for showing you details about IEC's current work, their new spanners pertaining to solar PT systems and the steps that are being taken, uh, to reduce the barriers to access their cost, [Inaudible][1:34:19] for some practitioners.

We just want to let you know that this webinar is just the first step to providing information on this exciting opportunity to our practitioners, uh, through the Energy Access Practitioner Network. We will be in touch with further developments and also, materials pertaining to the process that will be put in place, to take advantage of these discounts in the coming days.

If you have any questions or concerns for the meantime, please feel free to contact me. Well, you should have my e—mail information already and we will circulate everybody's e—mails, at the end of this webinar as Vickie mentioned. So thank you very much.

Vickie Healey

And Yasemin, thank you very much for those nice closing remarks. So with that, I just like to, state that on behalf of the Clean Energy Solutions Center, I'd really like to extend a very hearty thank you to all of our experts and distinguished panel that we have today. You did a terrific job of informing the audience on these standards and opportunities.

And I also want to extend the thank you to our attendees for participating in today's webinar. You've been a great audience. You've submitted terrific questions. And we know you are busy, so we appreciate your time and effort to be here. I also invite our attendees to check the Solutions Center website, you know, over the next few weeks if you would like to, again, view the slides and listen to a recording of today's presentation.

Again, I have the URL link up on the slide for you to access the presentations. And also, you can go to our main training page and view previously held webinars to find many topics of interest, I'm sure, that you might like to take a little time to look at.

Let's see, we additionally—we have information on upcoming webinars and other training events and, uh, we really also invite you to inform your colleagues and those in your network about the Solutions Center Resource Assistance Services in—including the no policy—the no cost policy support that we provide, to policymakers around the world. So with that, I wish you all a great rest of your day and we will see you again at future Clean Energy Solutions Center events. And, with that this concludes our webinar. Thank you.