Readiness for Investment in Sustainable Energy: New World Bank Group Indicators on Sustainable Energy

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For more information, see the clean energy policy trainings offered by the Solutions Center.

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Tim Reber	Hello everyone. My name's Tim Reber with the National Renewable Energy Lab and I'd like to welcome you to today's webinar, which is co-hosted by the Clean Energy Solutions Center in partnership with the World Bank Group. Today's webinar is focused on the Readiness for Investment in Sustainable Energy, the New World Bank Group Indicators on Sustainable Energy.
	One important note of mention before we begin our presentations 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 resource library as one of many best practices resources reviewed and selected by technical experts.
	Before we begin, I'll quickly go over some of the webinar 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 on the right side of your screen. Doing so will eliminate the possibility of feedback and echo. If you choose to dial in by phone please select the telephone option and a box on the right side will display the telephone number and audio PIN you should use to dial in. If anyone is having technical difficulties with the webinar, you may contact the Go To Webinar help desk at 888-259-3826 for assistance.
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cleanenergysolutions.org/training. And you may follow along as our speaker presents.

Also, an audio recording and the presentations will be posted at the Solutions Center training tapes in a few weeks and will be added to the solution center YouTube channel where you also find other informative webinars as well as video interviews with thought leaders on clean energy policy topics.

Today's webinar is center around the presentation from our guest panelist, Mr. Alejandro Moreno. Mr. Moreno has been kind enough to join us to discuss the readiness for investment in sustainable energy project, including the new World Bank Group indicators for assessing legal and regulatory landscape for investment in sustainable energy.

Before Mr. Moreno presents his presentation, I will provide a short informative interview of the Clean Energy Solutions Center initiative. Then following the presentation we will have a question and answer session where Ms. Moreno will be able to address questions submitted by the audience. We'll finally close with a few 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 thirteen initiatives of the Clean Energy Ministerial that was launched in April of 2011 and is primarily led by Australia, the United States and other Clean Energy Ministerial 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 serves to share policy best practices, data and analysis tools specific to clean energy policies and programs. The Solutions Center also delivers dynamic services that enable expert assistance, learning and peer-to-peer sharing of experiences. And finally, the Center fosters dialog in emergent and policy issues and innovation around the globe. Our primary audience is energy policymakers and analysts from governments and technical organizations in all countries, but we also strive to engage with the private sector, NGOs and civil society.

The marquis feature that the Solutions Center provides is 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 clean energy finance and markets we are very pleased to have Toby Couture, the director of renewable energy at E3 Analytics serving as one of our experts.

If you have a need for policy assistance and finance and markets, 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 to our simple online form at cleanenergysolutions.org/expert.

Or, to find out how the Ask an Expert service can benefit your work please contact Sean Esterly directly at Sean.Esterly@NREL.gov, or a 303-384-7436. We also invite you to spread the word about this service, those new networks and organizations.

Now I'd like to provide a brief introduction for today's panelist. Alejandro Moreno is an energy specialist with the World Bank and a co-coordinator of the RISE initiative. He was previously with the IFC advisory services energy and resource efficiency team, worked with governments in Africa, South Asia and the Middle East and North Africa to design policies and regulations supporting private investment in renewable energy and energy access.

Now I'd like to go ahead and welcome Alejandro to the webinar, and pass it over to him so he can embark on his presentation.

Alejandro Moreno   Thanks, Tim. Can you see my screen? I think I clicked on the right thing.

Tim Reber   Yep, we've got it.

Alejandro Moreno   Excellent. Well thank you, Tim, and thank you to NREL for giving me the opportunity to speak and to everybody for being on the phone. Hopefully this will be an informative session and we will have plenty of time for questions towards the end. As Tim said, I'm here to talk about the Readiness for Investment in Sustainable Energy initiative, or RISE. For those not at all familiar with RISE it is part of the joint U.N. and World Bank sustainable energy for all initiative. For those not familiar with sustainable energy for all it's a multinational initiative with some very ambitious targets in three pillars of sustainable energy, in renewable energy, energy efficiency and energy access.

And specifically those targets are to double renewable energy generation by 2030, to double the rate of improvement in energy efficiency by 2030, and to ensure access to modern energy services universally to everyone in the world by 2030.

And the World Bank has created somewhat of a knowledge of to help primarily track progress and encourage progress towards those targets. And one of the first sort of most high profile product that was delivered is called the global tracking framework. And that specifically looks at outputs. It looks at investments in each of those three pillars and tracks how closely they are to meeting these targets and how much investment is needed on an annual basis in order to actually achieve them.

RISE is a little bit different, and it takes—it's sort of an offshoot of the global tracking framework, but it looks specifically at the policy and regulatory environment in countries and how supportive those are for investments in each of the three pillars of sustainable energy. So really, it's meant as a tool for policymakers to be able to assess their own country's enabling environment for these investments against effectively benchmarked best practices.

So it's a relatively new initiative. As Tim said, it began last year. We released a pilot report of 17 countries, which we'll talk about in-depth today. We are now in the process of just beginning the data collection for a full global rollout, which will cover over 100 countries. And we've made a certain number of changes to the indicators, which we'll talk about at the end as well for the global rollout.

So what I'll do today is I'll give a brief overview of RISE, specifically of the background to it and really, what are the objectives and how it works. I'll go through in some degree of detail some of the indicators from the pilot. I'll give an overview of all of the indicators and then really press down deeply into a couple of them so you can see how we get at the indicators and the scores and what types of questions we ask.

I'll then give a couple example results from the pilot, not comprehensive by any means but all of those results are available on our website at RISE.WorldBank.org, which will also display on the presentation.

I'll then talk briefly about some of the changes, again, that we make for the global rollout and our timeline for that and then we'll end with as much time as we have for questions.

So starting with the overview, really what is RISE?

Well it's an indicator-based tool which means that we take a series of questions and ask the same questions to every government, every country around the world and then we compare countries based on the answers to those questions. Again, some of this is duplicative with what I just said. It's part of the U.N. World Bank's energy for all. It does cover all three of the sustainable energy for all pillars: renewables, energy efficiency and energy access.

Importantly it doesn't score countries; it doesn't give an overall score for a country or rank them. In many ways RISE was based off of another World Bank product called the doing business indicator which some of you may be familiar with, but it does depart from doing business in this very significant way where it doesn't come up with a list of, "Here are 110 countries. Here's the best and here's the worst."

What it does do is it provides enough information for anybody looking to be able to very clearly directly compare countries and how they perform on each pillar.

Lastly, all of the information that we collect is verified by the World Bank. We have a team of about six of us here that we'll go out and collect the information using consultants and mix of individual consultants and firms in each country. But then we bring it back and verify it both using external research and also with all of our individual country teams.

Why was RISE developed? This is quite straightforward. Unfortunately, the numbers on the top are actually slightly out of date now. The newest global

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tracking framework that was just released a month ago shows that annual investment requirements needed to meet those targets I was talking about, are actually over a trillion dollars now. I think it's now 1.3 trillion; this has just 1.029.

Clearly, the amount of money and the amount of investment that's necessary to meet these targets is absolutely huge. And I think there's a universal [audio glitch] from all of the governments we work with that lots of this investment is going to have to come from the private sector. And likewise, there's the clear recognition that in order to attract good quality sustainable private sector investment certain number of supporting policies are needed [audio glitch].

These policies can include everything from planning and resource maps to specific laws and regulations. Sometimes explicit price subsidies, although that's not always critical. One thing that's important to note, we in no way try to say there is one sort of universal right answer that is always applicable. Certainly, the appropriate policy designs will differ from country to country. But we can identify widely applicable good practices. And you'll see in a couple of examples of how we've dealt with that.

The last thing that's also really important to mention is the policy support is obviously only part of what's needed. So in a way the name of this, the readiness for investment is a little bit of a misnomer in the sense that you could score very, very well on all of our indicators and if there were severe macroeconomic issues of if your banks weren't able to lend any—to lend for the tenor needed you still might not have everything you need in order to attract investment but we are really focused on being the World Bank on those elements that energy sector policymakers can directly control.

So how does RISE work? We evaluate the data; we have 85 what we call sub-indicators, actually quite a few more questions now that cover four broad thematic areas within each of the three pillars. And we'll go into these in more in depth but quickly the four areas are planning, which really look at government's commitments and their ability to plan for investments in each of the three areas; policies and regulations, which are those whether they're subsidies or regulatory provisions that are targeted specifically at investments in each of the three pillars. There's something like a feed-in tariff for renewables or minimum energy performance standards for energy efficiency.

Pricing and subsidies look at some of the major sector-wide policies or regulations that have really strong effect on the climate for investment in each of the three pillars. And again, these can include fossil fuel subsidies, the health of the utility or two that we look at. We also look at whether there's a carbon pricing mechanism in place.

And the last one's a little bit different. The last one is procedural efficiency where we actually instead of just looking at what's on paper we go and talk to sector either developers or in the case [audio glitch] product or building designers and look at how long it takes to go through certain key processes. So for renewables, for example, for permitting and getting all of the authorization needed to build large renewable plants for energy efficiency we

look at how long it takes to get a building and then also a certain appliance approved and certified as energy efficient. So it's a little bit different.

Lastly all of the indicators have certain constraints on them because this needs to be a project and the questions need to be applicable everywhere and they need to be collectible, the data. So all of our questions are objective, and what we mean by that is that they all either have yes/no or multiple choice or quantitative answers but they are—we don't go around asking whether a policy is good or bad we ask whether it has two or three key attributes or characteristics that anybody who is answering this questionnaire theoretically would fill it out exactly the same.

Second, they need to be actionable—and this is what I was talking about a minute ago, but any no answer or negative answer on a question really should imply a direct action that a policymaker can take to make that question, to turn it around and make it so that the country was meeting the best practice.

Context neutral—and this is really the toughest one and the reason why we don't see some obvious questions and the one we wrestle with the most which is clearly in order to be relevant everywhere we can't have questions that imply a policy action that might be counterproductive anywhere. So it means that all of our questions really do need to be relevant no matter what the characteristic of the power sector looks like. And that does put a few limitations on what we can and can't score, at least.

And lastly consensus. We do try to reflect what is generally considered best practices now, the objective of RISE is not to take a controversial policy stand on certain criteria although some people will I think fairly argue that we are doing that by including carbon pricing but for the most part we certainly are just looking to try to reflect what we have heard from a wide range of consultations which I'll talk about in a moment are the best practices for policy.

So how are indicators scored, again, I mentioned we don't score countries, we don't give them an overall scoring. The two important things here to keep an eye on, the second bullet each indicator is equally weighted. This is largely because we could not find any consensus as to the consistently of the relative importance of the different indicators across countries. Certainly, in every country some indicators are more important than others. What we will do is provide the functionality on our website once all the data is there for users to go in and effectively re-weight the indicators; however, they want and see how that affects those scores.

And then the last bullet also that we compare countries using a traffic light system where green means you really are very close to best practice. Red means you've got quite a lot of work to get there and yellow, as we say, is somewhere in between.

Who's the target audience? Really unlike some of the other indicator projects that are out there that are similar RISE is specifically designed for policymakers and that's designed to help them design policies to achieve their

own goals, their own national goals and targets whatever those may be and to help them identify best practices across the world to support private investment and meet the broader SE for all goals.

That said I think we're very hopeful and optimistic that the information collected in RISE will be of use to a wide range of people and certainly there's not necessarily a one-to-one correlation between the bullets we have here and the category that they go with and associated with but we do intend that RISE will provide access for investors and developers to a wealth of information all in one place that's validated about the support policies and the regulatory policies that are available in over 100 countries for many different types of investments. Certainly it will help them identify which of the countries that really do prioritize from a political standpoint sustainable energy or at least renewable—one pillar of sustainable energy. And ultimately to the extent we are able to help policymakers design better policies the private investors and developers are likely to be the beneficiary of that.

We also do directly hope that this will help donors and funding agencies and NGOs and our own country teams identify really what are the high impact policy reforms in each country. And once we're able to do some sort of correlation between RISE scores and particular indicators and the prevalence of certain policies with the results from the global tracking framework we really may have a powerful tool to be able to evaluate the performance on a range of different policy design elements and really understand where certain types of policies work, where they don't, what underlying conditions in the country are necessary in order to enable a policy to achieve its stated objectives.

And lastly just for everybody who's interested and hopefully this is something where we really can use feedback from all of you on the phone but we hope that this will be useful just of provide a wealth of information on energy sector structure and policies around the world to do very easy comparisons of not just how countries score but of what types of policies they have, what level their incentives or subsidies are set out and also how those have changed over time.

So what makes RISE different from other indicator projects? There are quite a few other indicator projects that are similar in this sphere in the sustainable energy sphere. Some of the commonly known ones are Bloomberg's climate scope; Ernst & Young has the RECAI, the Renewable Energy Country Attractiveness Index. We work with all of them. We're very well aware, although if there are any that aren't on here that you think we should be aware of please don't ever hesitate to put us in touch.

We think we are largely complementary to the other projects that are out there and very much defined partly by what we do broadly and partly by what we do very narrowly. What we do broadly is both geographic scope where we intend to cover of 110 countries and also thematically, where we cover all three pillars, and really other than one other indicator which no longer exists and was actually a World Bank precursor to RISE we are the only one that

we're aware of that covers energy efficiency, energy access and renewable energy.

We also I think have strength in what we do very narrowly which is as I said before we really only look at those issues the policymakers have direct control over. And that means when we go to a policymaker, we go to a government and say your score was X or you got a red, so to speak, there's no possibility for a policymaker to say, "Well some of these issues are out of my control. Some of these really are just broader things." Everything that contributes to the RISE score is directly under the control of a policymaker.

That said as I've mentioned before a lot of these other initiatives cover topics that RISE doesn't for example climate scope from Bloomberg really looks at the conditions of local financing which we just very, very briefly touch on. That's critical for ultimately understanding what needs to happen to mobilize investment in a country. And it's really by looking at these together and also looking at the success through and the outputs that are reflective of global tracking framework you can really get a complete picture of the enabling environment for private investment in the country.

[Audio glitch] our indicators show[audio glitch] mention this—I'm not going to go through this whole slide because it—the process of going through and getting to final indicators was as complicated as this slide itself. Basically it took about a year to get to just the pilot indicators that started with a lot of literature review and a wide range of consultations. We filtered it through these—the same principles that I mentioned before, also a few additional ones just looking at the practicality of collecting the data. We had a significant additional consultations with both the private sector and with country governments. And then we also have put together and continue to maintain four different advisory groups. One is an internal advisory group with all of the bank foremost experts on each of the three pillars but then we have three separate external advisory groups, the _____ of external—excuse me—comprised of external experts, one for each of the three pillars so one on energy access, one on renewables and one on energy efficiency.

We're constantly looking for people to participate in these groups. There will be the next major convening of these will be probably in the November timeframe once we have collected all our data and are looking to—this will be part of our validation process and our final scoring. If there's anybody on the line that is interested in participating and thinks they have a very good case why they should don't hesitate to contact me we may have room for you or good use for you.

One other note: we have—and I'll talk about this at the end—we've made quite a give of changes to the questions that go into the indicators for the global rollout and these have also gone through a similar process of consultation.

One quick question because we get this all the time and it's extremely valid questioning: what happens when the policies differ within a country as all of you know almost all of the policies we look at can sometimes we set at a state

level. Many energy efficiency policies are set at a municipal level so how do we deal with that? In a couple different ways.

Some questions do specifically look at a national level policy or allow for differentiation and effectively a combined better score if there are policies at different levels at a national level at a state level and at a municipal level. But for the most part we take the same approach that the doing business indicator does and this is completely for just practical concerns of collecting the data. We score from the perspective of the largest city in the country and whichever state that may be.

Now one change for the global rollout that I can say that we're doing because we've begun the collection. This approach that I just articulated [audio glitch] countries where it really is misleading the U.S. being one of them where we looked at New York, India being another where we looked at Mumbai and Maharaja, which have quite good policies relative to India as a whole.

And so we have now for the global rollout we've selected a subset of countries that'll be seven or eight countries, generally one in each region that we will score from the perspective of three different cities and the states that they're in. And that will be again the largest city in the country so to maintain comparability with the other countries. Then we'll also look at the largest city and the richest per capita state and the largest city in the poorest per capita state with the caveat that we only use them through the selection pool states that are in the top ten of total population just to maintain relevance and so for the U.S. I believe that means we will be looking at New York, Los Angeles and Detroit. I can give you the full list if people are interested once we have it absolutely final.

How the information can be shared—we have a website. Right now, all of the results from our pilot are on the website it's RISE.WorldBank.org. Our intention is to have all of the data released for our global rollout at the same time that we release our full report, which will hopefully be in on January/February timeframe. We will also be continually upgrading the functionality of this so initially in January/February you'll see a lot of functionality related to the scoring particularly as I mentioned being able to re-weight as you like and being able to compare countries by their scores.

As we go and progress into the next calendar year we hope very much to be able to also display a lot of the detail of the policy we've collected that don't necessarily get reflected in the score but are critical information for investors so what level is the feed in tariff set at or when were the last auctions, what were some of the provisions of competitive bidding. We also are going to try but I can't promise to host a lot of the source documentation so the actual laws and policies and regulation from each of those countries; we need to look both at some server issues and also copyright issues.

But one thing on this certainly as we go next year this is an area where we're constantly going to be looking for feedback on what type of information do you want to see, how do you want to see if displayed and so this is—if you do have a chance to play around with this website and have ideas of how we can

display information or what information we could include we're very, very happy to hear from you.

So let's go into the example indicators from the pilot. What you see in front is [audio glitch] is all the indicators that we included in the pilot. These indicators they've changed slightly for the rollout but the broad categories are roughly the same. What I will now do is go through—for each pillar I'm going to go through all of them in a little bit of detail and show you sort of what are the components that go into these indicators and then for each filler for a couple specific ones I'll go down to the question level so you can see what are the types of questions that we ask in how we arrived at.

So starting with energy access the four areas, again, planning, policies and regulations, pricing and subsidies, procedural efficiency, actually let me go back one slide—one thing I want to highlight—you'll see a few of these bullets or circles are in clue rather than in green. Those are simply because these are indicators that are relevant across more than one pillar. So utility performance, fossil fuel subsidy, carbon pricing and also the retail price of electricity and so we call these our crosscutting indicators.

For energy access indicators we look at electric—the presence of an electrification plan, whether that plan covers both grid and off grid electrification and how often it's updates. We then look separately at the policies that are there to support—and this includes subsidies for mini grids, for stand along home systems. And then if you go to pricing and subsidies you'll see funding support for electrification. That has for the rollout been moved into policies and regulations and that's really—it parallels many grids and standalone home systems but it's really at what are the incentives both for the utility and for individuals to get connected to the main [ring tone]. Sorry that was my phone.

The—underpricing and subsidies then also we have an indicator that looks at the retail tariffs and whether they're affordable and then we go into utility performance both how—a few indicators of financial performance and how transparent the utility was in reporting. This is something we've significantly bulked it up for the global rollout as well but it's still we'll look at whether the utility is financially sustainable and how well they document and record their technical performance.

And lastly on the procedural efficiency we look at two different things, one how long it takes and then what are the costs for a consumer to get a new connection and secondly how long it takes to permit a mini grid. And so in depth I'll just now quickly walk you through and so you can see how the scores add up and what do the questions specifically look like for the planning and then for the policies and regulations to support mini grids.

So for planning it's very straightforward it's what I just went over is there a plan, does it include off grid and on grid and when was the last update. You'll see for the first few it's binary, you've either got a full score or no score, for the last update we gave a full score if it would have been updated within the last five years and no score if it hadn't been if it was older than that. And then

we just summed it by the scores and that's the score for the indicator and then the score for the country on that pillar is the score of all the indicators divided by the number of indicators so it's very, very simply mathematically.

Other policies and regulations so this one also—and I'll say this a couple times: the questions, specific questions that we ask have been updated quite significantly for the global rollout but the approach that we take and the format is very similar. So in the pilot we looked whether there were specific regulations that _____ the rights of many good grid operators and then we looked at whether those operators specifically can chare other than the national tariffs and whether—we looked at the level of regulatory approval that was needed to go into third party power sales agreements. We looked at a wide range of standards and all of them needed to be available and needed to be in place and publicly available in order to be scored. For the rollout, we've made it very clear from the global rollout. We've revised it to make it clear that it's standards specifically that are required to connect to the larger grid. We look at whether there's a law that deals with expropriation of mini grids once the territory is—the main grid arrives in the mini grid territory and we looked at whether there are duty exemptions or subsidies.

So on to renewable energy. I'll just skip this slide and go straight into the details. Again, on planning we looked at whether there was a renewable energy target, whether that target had an action plan that specified activities that were needed to meet that target. And then we looked at whether renewables were explicitly taken into consideration both in generation expansion planning and in transmission planning. And we looked at the quality of the mapping and some of the zoning issues.

For policies and regulations, we looked at whether there was a legal framework in place that governed renewable energy at all, whether there were incentives both for grid connected and distributed generation. And then this is one I want to pause on for a second: we looked at the regulatory policies and policy design instead of just trying to look at the type of policies that they have, whether there's a feed in tariff, whether there's a production tax credit, whether there's competitive bidding. That posed a number of problems, both obviously because certain policies are only best practice in certain countries in certain conditions, even more so because they could be wildly duplicative and you don't necessarily want all of these policies and we need to be able to score.

Instead, we tried to isolate a few key attributes that any policy should have and scored based on whether the policies, whichever they may be, had those attributes. And those were predictability, whether the price was in fact guaranteed and the policy itself was likely to sustain itself and be—I'm sorry, not sustain itself but to be in place, whether the developer could be guaranteed that it would exist, sustainability which is whether the policy—if there was a subsidy implied, whether that revenue—the revenue that funded that subsidy was gathered in a sustainable way and whether the level was sustainable, accessibility, which is really guaranteeing access in dispatch,

access to the grid in dispatch and then remuneration efficiency just whether the price implied was enough to actually cover the investment.

We also look at network connection and pricing, how the cost allocation and third party usage and pricing, and then what did certain financial support mechanisms in particular credit enhancement when it's needed when the offtaker and a lot of the countries we look at the offtaker isn't creditworthy and a certain degree of credit enhancement is absolutely critical.

In pricing and subsidies, we looked at the fossil fuel subsidy, whether there was a carbon pricing mechanism—and again, a utility performance. And as I mentioned before in procedural efficiency the time and the cost of setting up a new renewable energy project.

And the ones that I'll go in depth right now are planning and then this policy design attributes. So for planning you'll see there are quite a few questions— again, I'm not going to go over the ones I just said on the last slide but if you look at the resource mapping this may be of particular interest to some of the NREL folks, we do score the resource mapping, obviously only for those technologies that are relevant to the given country but based on a series of criteria that we think define good resource maps and those criteria are in the process of actually being updated and becoming a little bit more stringent for the global rollout. If anybody's interested in what we're looking at let me know and I can certainly give you a sense of what are the likely criteria for the resource maps we're likely to judge.

And then for the regulatory policies and policy design attributes this is also one where we have added about twice as many new questions, but again, trying to get at each of these three areas: is the policy predictable? Does it provide—can the developer bank on the fact that it's going to be there and that the price that it implies and the subsidy level it implies will be provided by the time the project is ready to go.

In sustainability, we looked at the subsidy passed through to the consumer, and then some element—and this will change for the global rollout of how does the total amount of money spent on the subsidy compare to overall. Here it was the residential electricity bill; in the rollout it's likely be compared to overall national income.

And then accessibility we will now look separately at whether the policy provides and renewables are provided guaranteed access to connect to the grid and then also whether there's some form of priority dispatch, typically take or pay in most of the countries we look at.

We also look at whether there's a grid code and whether there are clear policies and rules on curtailment, specifically involuntary curtailment from the perspective of the seller. And lastly, remuneration _____ we just looked at. Regardless of what the policy is the resulting wholesale price due to the project development enough to cover their costs.

On energy efficiency, you'll see there are a number of—quite a few more questions. This is largely because there's such a wide range of different types of consumers that can be the target of energy efficiency mandates. So broadly, we look at, again, planning. We also look at a little bit more in depth the entities that are responsible for planning at different levels, both at the state level and at the national level, largely because in so many of the countries it's different agencies that set energy efficiency policy from those that set standards, those that regulate suppliers, those that regulate consumers. So we do look at them a little more in depth for energy efficiency.

And then for the policies and regulations we look at a few key areas. The first is the type of information that's provided to consumers generally through the bills. We look at the incentives or mandates that are in place on supply side for energy supply utilities, and then also for large consumers whether they're public entities or large-scale private entities. Then we look at minimum energy performance standards and labeling systems whether those are in place and some of the attributes that—and in the both the performance standards and the labeling are the ways we've organized the different sectors has changed a little bit from the eyelet, but the idea is still the same that we look and give scores for standards and labeling, reflectively cumulatively depending on how much or your appliances or you cover. And then lastly we looked at building energy codes for residential, commercial buildings and look at whether there's a compliance system, look at whether it captures renovated buildings in addition to new ones.

For pricing and subsidies the same ones we've been over. We also look at incentives for electricity pricing only because this has such a direct impact obviously on _____ for investment in energy efficiency it's probably the number one driver.

One thing you don't see here in the pilot is any procedural efficiency questions for energy efficiency. That will change for the rollout. We have two that we will look at, as I said, one is looking at how long it takes to get an appliance certified as energy efficient and one is looking how long it takes to get a building design certified through the building energy code, whether it's a separate code as it is in some countries or part of the overall building code which it is in most countries.

The two I'll go into depth with here are the planning, again, and the information that's provided to consumers. For planning, again you see we score whether you have a target at the national level or whether—and whether government has energy efficiency legislation or an action plan to identify, again, the specific activities that are needed to meet that target.

And then we also score whether the government has supply side targets, residential targets, commercial targets or industrial targets differentiated out. You'll see on the score it says yes, 100, partial 50, no 0. The partial means you only get 100 percent score if your supply side targets include all of your supply side utilities. If your residential targets include your entire residential sector. And if it includes part of each sector you get half score.

The quality of information. We've added some additional information for the global rollout but broadly, we're looking at utilities—sorry, consumers' electricity bills provided by the utilities whether they get one, sort of like getting a point for writing your name on the exam. But really at what intervals do they receive the reports you get a full score if it's accessible effectively real time less than once a month and decreasing scores based on how often these reports are available, additional points if the report includes your price levels and show a consumer how their electricity usage has changed over time, additional points if the bill or report enables them to compare their electricity usage to the same region—to have the consumers in the same region or class, which zero of our 17 countries in the pilot actually did, and then also scores with the utilities provided some sort of just informational campaigns to consumers to show them how to save energy.

So we'll go now into the results from the pilot. Again, I'm only going to give a couple what we thought were interesting results from each pillar, one overview and then just one area to show a little bit more detail but the full range of our results are available on our website, again, RISE.WorldBank.org.

One thing to keep in mind before we start is again we only looked 17 countries so any time I say "all the countries" or "the best country" it's only within that very small, limited subset. You can see all the countries that we looked are in front of you on this map. Because they were in part determined by countries that were part of the Scaling-up Renewable Energy Program or SREP program they're a little skewed. You'll notice we have three small island nations: Solomon Islands, Vanuatu and the Maldives, and that's why but these are what we had the funding to do in the pilot.

So for energy access you'll see that India, Nepal and Tanzania performed very well but most of our countries were pretty good and most of them were roughly around the same. Obviously, we didn't score Denmark and the U.S. for energy access and we will only score for energy access those countries that actually have energy access issues.

But one specific result that we found quite interesting was that first of all on the mini grid ____—this is where the policies and supports differed wildly by country and some countries like Mali and Tanzania have very supportive policies on paper for mini grids and many other countries have little or nothing. The other really important lesson from this slide is that no single indicator tells the story by itself and that obviously they need to be with that in conjunction with each other. And if you look at Tanzania _____, they score very, very high on policies and regulations to invest in mini grids, which is again sort of the rules, and the laws that they have on paper.

But if you look at actually how long and how much it costs to permit and get a mini grid built it's—you can see why there are very, very few private meters in Tanzania. It's a year and a half and over $6,000.

Now one caveat I want to make on this is part of the reason Tanzania's cost is so high and their time is so high is that they force private developers to get their EIA done through the government. So you pay the government as an

official fee, they go out and hire the consultant and they come back. Because of that and the way this was scored and calculated in the pilot that all went under the cost of official fees, and these costs here really just look at fees that the government charges in the pilot and sensing the time is time it takes to get through government processes, whereas if you were paying your own— through your own pocket outside of the government directly a consultant to do the EIA it wouldn't have counted.

We're making changed in the rollout, so we look at additional costs that go beyond just these to try to be able to capture that and compare on a more equal basis.

For renewables, the scores were all across the board. That was the message from a 6 from Yemen, which I guess isn't terribly surprising, Vanuatu which really should, if anywhere, should be strongly supporting renewables, to Denmark and the U.S. and India and Chile to a less extent that had very, very strong scores across the board.

One things we found really interesting was on the planning side. Almost every country we looked at the only exceptions were the Maldives and— where is it?—in Tanzania—that have specific renewable energy targets. But the level of planning that's done to actually see how those targets can be led, especially by the actions by which those targets need to be met was really much less ubiquitous. And so only about half of the countries explicitly include renewables in their transmission and generation expansion planning and only, what is it, 18 percent had a national atlas on one or more renewable energy technologies. So clearly there's a lot of work to be done in actually helping governments understand what needs to be done to implement those targets and then go ahead and plan for that.

For energy efficiency, it's kind of the opposite of energy access where the scores across the board were quite poor. And really only four countries— three countries had above a 50 percent, Denmark, the U.S., and again India, keeping in mind that as I mentioned before India is really just Maharaja State.

And what we often think of relatively low-hanging fruit is having mandatory or even voluntary minimum energy performance standards and the vast majority of countries we looked at had neither. The only that really had them comprehensively again were India, the U.S. and Denmark.

So now, I'll talk quickly about the global rollout and then we'll go for questions. I would like and I know I have dropped many, many hints about things that will change in the global rollout. First of all obviously the scale will change, and that we can commit to right now instead of 17 countries we will look at 110 but if you look at this map that is 110 countries that cover 96 percent of the global population, 91 percent of global energy consumption and 97 percent of global access deficit. The countries were not chosen at random; it included SE for All's top 50 high impact countries where reforms would make the biggest difference in all three pillars and access renewables and energy efficiency as well as all of the SE for All opt in countries except

we excluded any country that had a population of less than 5 million which is why Norway, for example, didn't make the cut.

And then as I've mentioned we have added a lot more detail to our indicators. And what's I think the bottom row here is what's interesting. If you look at it in the pilot and in the rollout the number of indicators has increased from 28 to 32; the number of sub-indicators from 85 to 85, hasn't changed at all. But the number of actual questions that we are used to get at those final scores has more than doubled.

And so as I was going to say before I've dropped some hints as to what some of those new questions will be. The reason I can't lay them out for you is that they're not final yet. But if you're interested I can certainly offline give you a very frank, honest assessment of what we're thinking and where we're likely to go with that but I've done that to an extent in this talk where we are very confident that we will go there. The final indicators probably won't be finalized for a little while but we are very—we're about 95 percent of the way, 98 percent of the way there.

The timeline for the rollout, right now we are in the data collection process. We're just beginning our data collection and we are very, very ambitiously hoping to do that in two months. I think the reality is for some countries it'll probably take a bit longer, particularly those that take most of August off. In the fall, we will be validating and analyzing all of the data we have, including going back to each of our external advisory groups and our own World Bank country energy teams to make sure that the data does reflect accurately the situation in each country. And then we'll prepare the report and release the report in early 2016.

The one thing I want to leave you with, though, is of course this is meant much more to be a living tool than just a periodic report. And so while the report itself probably we can't do this more than once every couple years our hope very much is that we will have more data and more often updated data on our website and that the website itself can serve as the primary means of communication for all of the people that are interested in the data that we have.

Questions. One surprise: I want to turn this around a bit and say I also have questions for all of you, which really revolve around how RISE can be useful for you, whether it is useful for you. If not, depending on your line of work, why not—what part of it is most useful, and what would you actually like to see there that it isn't measuring right now given the constraints that I've articulated. And always we are interested. This is a new project; we don't pretend that we have all of the answers. And really, we are developing a tool that is meant to be for you. And so we want to hear from you about how RISE can be as useful as possible. We have, again, some constraints on what we can do and can't do, both in order to maintain a rigorous methodology and also frankly just in terms of budget. But given those constraints we want to make this obviously as good and as useful a product as possible and the only way to do that is to get feedback as often as possible.

	So thank you everybody for joining and Tim I can turn this back to you and we can take questions.
Tim Reber	Thanks Alejandro. We're going to let you keep your closing slide here up for a little while. I appreciate you turning it around and asking attendees to offer us some thoughts on how the RISE indicators and initiative can be of most use to them. Unfortunately, we're the only two who really have audio but at least I'll let them answer that through the question pane here and as it comes in I'll wrap that to you and we can try and get some discussion going.

In the meantime, we do have a couple of other questions here to start off on. The first one is wondering what your thoughts are on testing these in parts of Europe, particularly with mention of the U.K. and France. I saw Denmark and the U.S. up there on your list but I think this person's interested a bit more on your thoughts of testing these indicators in parts of the EU. |
Alejandro Moreno	Sure. I've just gone back to the slide of the global rollout and you can see almost all of the EU except for Portugal and Ireland and I believe Luxembourg it looks like will be tested in the global rollout. We are _____ client countries so typically are developing countries but we felt it was important to benchmark the scores against the EU and OECD countries as we went so most all of those will be included.
Tim Reber	Will the global rollout data be available online before the final report is released in early 2016?
Alejandro Moreno	That depends on what our communications gurus tell us. My guess is no, that they'll probably want to release them altogether, but we may—and this is by no means a promise or a guarantee, but we would like to have at least some data, maybe a teaser of the data that's available for the COP in November in Paris.
Tim Reber	Do you have any other closing thoughts to spark this discussion in terms of asking for feedback on attendees and how it might be most useful, maybe some guidance to guide people in offering up suggestions?
Alejandro Moreno	Really I don't want to limit it too much. If people were listening—I know it was a long time. You're aware of some of the reasons we can't do certain things but we're open to ideas. I mean really understanding—I guess the two things that are most critical are if you don't find RISE useful and you are in this sector and you're somebody that was in that initial list of target audiences let me know why. That I really want to hear.

Really if there are elements that RISE doesn't cover that you do think are—it should, given the rules that we articulated, that it's actionable by a policymaker that you think really does reflect best practices that we don't cover also very much want to hear that and any good justification. We are still open. This is—again, we're probably fairly close to what we can cover this year but this is a project that we certainly intend to keep as a living initiative that is updated at least annually or parts annually, parts biannually for the |

next foreseeable future. So any suggestions can always get incorporated into future editions.

Tim Reber   Great. And now that you said that some suggestions have certainly started flowing in. One comment that's come in is that—yes and no questions that actually potentially hide the reality, for example does a renewable energy plan exist. The answer could be yes but the plan might not be applied or be very useful or helpful. Certainly consideration of that aspect in these indicators.

Alejandro Moreno   Yes, that's a great question and it nails one of the difficulties of an indicator project like this where you have to go out and be able to score. So you can't—again, we can't ask suggestive questions like is the plan good or how well is it being implemented. That said we recognize that having information on paper is only part of the story and how well implemented it is critical. We do try to ask some questions that get at whether the plan has been well thought out, but ultimately if you have a perfect plan on paper and it's just being ignored that's something that we then ask our consultants. And when we go collect the data, we give a lot of room for our consultants to provide explanatory context. And that's something that we then deal with sort of on a case-by-case basis and see. If something ultimately meets our scoring criteria, we'll give it the score that it gets but in our report and in our country page we may well quantitatively note some issues like that.

Tim Reber   Wonderful. We have a specific question from somebody who you may have met, Lao Marindi. I guess you guys knew before.

Alejandro Moreno   Absolutely. Yeah.

Tim Reber   They just wanted to confirm if Nicaragua, Honduras and El Salvador will be included in the report in the future.

Alejandro Moreno   In the future, yes. Actually, I can't guarantee which countries will and won't be there in the future. I think ultimately we'd like to do every country we can and every country that's interesting. We had to make certain cutoffs this year just purely for practical reasons. But if we have the budget and the resources and there's the interest we can also consider having those.

Tim Reber   A follow-up to that same question _____ wants to know how and who will fill out the surveys and how the data will be validated.

Alejandro Moreno   Two different answers. We have individual consultants, either sometimes firms, sometimes directly contacted by the World Bank that will fill out the data in each country. So more or less one consultant per country. There are a couple outliers with small countries when we have two people doing it and some of the firms will have—I'm sorry, where we have one person for two countries. And some of the firms we'll have two people working on one country. But by and large, individuals that we have selected for their experience in the sector and also their personal knowledge of, or I should say—relationships isn't the right word—but their connections with people that can answer these questions well.

It will be validated by the World Bank, by our team doing a first blush country-by-country analysis, then internally just to make sure all of the data is internally consistent. We will then validate it with—on a pillar-by-pillar basis where experts in renewables, energy efficiency in utilities for the crosscutting one and energy access validate all of the data. We'll then probably take it back to our country offices once we have a more or less final, validated version to verify that this is in fact the reality that they see every day. We have offices with energy teams in probably about 80 percent of the countries that we're looking at. So those are the major ways we'll validate it.

That said, at any point once the data is public if you see a mistake let us know because we do our very, very, very, very best to be 100 percent accurate but things happen.

Tim Reber   Fair enough. One final _____—wanting to know if they can contact the advisory group, some of the work that they're doing. Maybe that's something you guys could discuss later or could be helpful for everybody else on the line as well.

Alejandro Moreno   I would ask that—we can put you in touch with individuals on the advisory groups but if there are particular questions that you want to ask let me know and we can go ask them. I don't want to put the advisory groups in a situation where all of a sudden they're being tasked with questions as a group just by dint of the fact that they've offered to help us on this. So we need to be a little sensitive of their time. But if you have specific questions that you want to ask them as a group let me know and then we can try to facilitate that.

Tim Reber   Specific question about Norway and I think you mentioned it was due to such a small population, wanting to know why Norway is not included. Is there more to it?

Alejandro Moreno   No. We love Norwegians. It missed the cut by like a few hundred people. The population is just barely under 5 million and so it was one that with a little bit of sadness we cut out.

Tim Reber   Another specific question about Jordan—not sure if that was a similar issue or why Jordan wasn't —

Alejandro Moreno   This is where we're being a bit opportunistic. Jordan wasn't originally one of the ones we were going to do for the same reason, but we have since had an opportunity at a relatively low cost to do it and because Jordan just came out with—they just released competitive bidding for renewable projects it was a particularly pertinent country to do in the Middle East. A lot of our client countries are looking to Jordan to see how that process actually works out. I don't know if everyone's familiar but Jordan just released a competitive bidding process and the prices that they got for solar were somewhere between six and seven cents, I believe, an all from companies that were relatively small players in the field, some of which I had never heard of, a couple great company. And the typical large players in the business bid at significantly higher rates, companies like Aquo or ___ Edison came in at over nine cents.

So I think there's a lot of interest in the region as to whether these prices are good, did the design of the solar—of the bidding documents meet best practices. So there was a specific reason that we want to cover Jordan right now. We have the opportunity so we are going to have it.

Tim Reber

She'll be happy to hear that.

What about the possibilities including jobs in some of these pillars? I'm not sure if that's jobs created or employment available but is that anything that's been considered?

Alejandro Moreno

It's a good question. I will admit I'm relatively new on this project. I've only been here for a few months and it hasn't been considered in the update and I don't know in the global rollout. And I don't know to what extent it was considered initially. I know we really are focusing, though, on policies. So if we wanted to consider jobs you'd have to look at policies that were specific towards jobs, like is there manufacturing support or something. And my guess is that wasn't included only because it isn't directly motivating investment in projects in that country. It can certainly contribute but it's not required. And foreign investment is in many of these countries probably the much more likely route to at least in the short and medium term meeting the sustainable energy for all targets. But that's just my guess off the top of my head and I can certainly go back to people that were in the initial group of year and a half ago and get more definitive answers on whether that was considered and what was the rationale for not including.

Tim Reber

Any data information on whether or not the financial sector in each country is ready to provide debt financing for renewable energy projects? This whole _____ small-scale projects.

Alejandro Moreno

It's an absolutely critical question and it's one we look at only tangentially in the sense that some of the policies are only needed from a government perspective if they're not provided by the financial sector. It's a lot in energy efficiency side in particular. So we do marginally count whether the financial sector provides certain key financing mechanisms. We also look at what's the average tenor for and yield on certain loans.

The main issue with that has been most of the health of the financial sector is outside of the control of policymakers. So we very explicitly aren't scoring countries by how well their local banks are set up to support renewable energy. And this is one of those areas that I think I mentioned briefly as absolutely critical for investment. And so really to understand from a developer's point of view whether the country has an appropriate support structure and enabling environment you do need to look beyond what is just in RISE.

Tim Reber

Question here on scaling up—I'll just read the question directly. Can you explain briefly if you have any upscale city level data to be incorporated in the country indicators? For example, I do energy policy work in a major city in California. Both the city and the state have their own policies, regulations, etc.—how do we roll them up into country level data?

Alejandro Moreno	That's a really good question. It depends a little bit on the question but our default is that you look from the perspective of the largest cities. So Los Angeles, for example, if you're not—any municipal level policy that's not in Los Angeles won't count. We just don't have the resources to be able to cover it.
	If Los Angeles has a city level policy and California has a state level policy and they both are in force and effectively overlap each other or complement each other then you look at the combined effect. So you'd look at all of the measures that a policy has. If one supplants the other then you're just looking at the one that's actually in force.
	So we had this question come up in Sydney, Australia, New South Wales has a different I think it's a building code, from the rest of Australia. Australia has a national level one that all of the territories and states in Australia are welcome to use; New South Wales has decided to develop its own that's a little bit more stringent. And for Sydney, which we will look at, you would then look at New South Wales as instead of Australia because Australia's is no longer in force in New South Wales and thus by extension in Sydney.
	Again, there are a few questions where we specify is a national program or a national policy in place, in which case we are looking specifically at the country level. Otherwise, it's not sort of just looking from the perspective of the largest city.
Tim Reber	What are the results of the pilot projects presented at the national policymakers and if so what were their reactions?
Alejandro Moreno	The results have been presented in a wide range of different fora, including most recently at the annual Sustainable Energy for All conference in New York in May. The results have largely been positive. I mean this part of the reason very frankly that we don't yet rank the countries or give them overall scores. We really intend this to be a dialog starter, both for policymakers and for those of us that help advise policymakers.
	Part of the World Bank has been undergoing a very substantial restructuring over the last couple of years and part of the real focus of this restructuring has been able to help share knowledge across regions and across countries to ensure that best practices that we identify in one part of the world are really clearly and effectively communicated in the rest of the world, specifically to help policymakers achieve their objectives, whatever those objectives might be. And I think from policymakers we've really seen that they've taken this project in that spirit where it's certainly trying to provide them information that they can use to better craft policies that better help them achieve their own objectives.
Tim Reber	Thank you. We have a question here about innovation. We all know innovation is needed in order to meet the targets of the SE for All initiative. So is there anything _____ considered, including consideration at the country level of policies that support piloting, demonstration, innovative new tech and business models beyond just deployment?

Alejandro Moreno	Only briefly, and that's because most of the countries that we look at are generally looking to—not necessarily but you don't have to be able to develop your own technology in-house as a country in order to benefit from it. So do look briefly at whether government provides certain types of financial support including R&D support and grants to companies but we don't break it out at the level of is there support for basic R&D, is there support for demonstration projects or by TRL level or anything like that it's just one sort of blanket question.
Tim Reber	Gotcha. This isn't so much of a question but more kind of in response to what can we do to help. _____ suggesting that policies related to planned investment jobs could be considered prior to November it could _____ in terms of raising the INDTs at COP 21. I guess that's just more of a comment, really.
Alejandro Moreno	I think it's similar to the first question we got on jobs—it wasn't the first, it was an earlier question.
Tim Reber	Again, another mention of presenting these at COP 21. Do you guys have plans to do that?
Alejandro Moreno	I think it depends a little bit on how long it takes us to validate the data but what we would certainly like to be able to do is present at least some examples of the data that we get.
Tim Reber	Another question will this be open data available for others to download and play with?
Alejandro Moreno	Absolutely.
Tim Reber	Great.
Alejandro Moreno	With the exception that anything that is legally publicly available we will make both the results and, to whatever extent we can, the source data also available.
Tim Reber	That should be most of it for now. I'm sure _____ asked some more questions and comments will be coming in but we've sort of worked our way down to the end of the list here at the moment. I guess we'll give folks a couple minutes if they come up with any other questions and then you've got some closing remarks in the meantime?
Alejandro Moreno	No, I really just wanted to put my and Tanya's email addresses back on here. So both Tanya Primiani at the IFC and I are the two co-coordinators of this project. If you had a burning question or statement or idea that you didn't get to ask right now please don't hesitate to contact either or both of us. Both is probably usually a better bet. But we effectively are to a large extent doppelgangers of each other on this project and we'd lost to hear from you. So thank you to everybody for listening. If you actually managed to make it through the whole presentation and thanks again Tim and Sean and NREL for

	supporting this. I appreciate the opportunity for being able to talk about this and hopefully you'll hear more about RISE over the next six months. Thanks.
Tim Reber	Yeah, thanks so much Alejandro. It was a really fascinating work and it was a pleasure having you with us today.
	So with that we'd like to ask everybody here to take a brief survey. Your feedback's important and helps us inform future webinars. So we have three questions. If those of you in attendance could please go ahead and just answer the question you see up on your screen.
	Okay, next question.
	All right, and one final question. Okay. Well thank you so much, again, Alejandro and thank you to all of our attendees today. On behalf of the Clean Energy Solutions Center I'd like to thank everyone. Again, if you'd like to see a recording of today's Rabbit webinar or the presentations [garbled] those will be posted to the Clean Energy Solutions Center at CleanEnergySolutions.org/training. Please allow about one week for the other recordings to be posted and they'll also be posted to our YouTube page where you can also find other Clean Energy Solutions webinars and interviews.
	So with that I'd like to thank everybody once more, wish everybody a great rest of the day, we hope to see you all again at future Clean Energy Solutions webinars and events. Thank you very much everyone.