WORLD ENVIRONMENT DAY SYMPOSIUM ORGANISED BY THE GREEN INSTITUTE

JUNE 5, 2023

ENERGY SESSION

MODERATOR-CHARLES ANUSIM: Founder - Serene Greenfields, Nigeria.

SPEAKER- ANITA OTUBU: Senior Director, Sustainable Energy for All, United States.

PROTECTING OUR ENVIRONMENT WITH ENERGY TRANSISTION FOCUS

Anita: I'm not sure if it's the my end of from your end Okay so I'm going to be presenting on essentially protecting our environment but with an energy transition focus as we know we have a very difficult situation at the moment the UN convention on biological diversity identifies climate change caused by CO2 emissions, as one of the top five threats to the global environment in 2022 emissions from China, will flat emissions from the EU dropped which was great while emissions from the US. And the rest of Asia, unfortunately, increased things haven't gotten better in March 2023. The IEA reported that Global energy related. CO2 emissions grew. By 0.9%, furthermore under the energy combustion related emissions within the last one year 16 metric. Tons of carbon CO2 is attributed to cooling and heating you to demands of extreme weather in addition, energy combustion, industrial processes is identified as the major sources of omission. So with the crisis that we currently have globally in terms of the Levels of emissions. It's interesting to know which I'm sure you all know that Africa contribute between 2 to 3.8% of these emissions as identified. By UNFCC yet it experiences the devastating effects of extreme weather Associated to the emission, triggered, climate change. So with that being said, understanding the detrimental effects that emissions are having on our environment. It's very important that the world moves towards transitioning to Net Zero, essentially transitioning to a carbon neutral environment. But at the same time whilst we transition towards achieving that zero it's really important that we ensure that nobody is Left Behind. What do I mean by this? In Africa You can't speak about transitioning from something you don't have. So if you don't have access to electricity, it's very difficult to, you know, really push or get the buy-in from the locals with regards to, you know, transitioning to NetZero. It's important for us to be able to show them what the immediate benefits are in transitioning to NetZero. So how do we do this? Ensuring that we Bridge the energy access Gap within these countries. By utilizing renewable energy technology so whether it's many great Standalone systems for productive use certain systems contain hybrid Solutions, captive solar hybrid Power Plus whatever it is provided. We are able to ensure that these people who do not have access to electricity who are not able to develop economically that were able to. At least provide some Immediate Solutions for them. Which can get their buying into the whole energy transition Drive? So essentially within the last decade, there has been a universal core for transition from fossil fuel based to Renewable Energy Technologies, access to clean and reliable energy. Not only have huge socio-economic development benefits but also significant benefits as it concerns climate impact. Furthermore, energy transition plans have become very necessary to accelerate energy access and reduce emissions at the same time for developing countries in sub-Saharan Africa. What the universal energy facility is doing towards supporting governments to achieve Net Zero between 2015 and 2016. Okay so NC froze efforts in driving energy, access with environmental considerations at the Forefront. As you can see, there are a number of programs that NC froze role is embarking upon. We have the powering Health Care Program. So again transitioning from powering our Healthcare facilities from using the standard diesel genets or other fossil fueled power, generators to utilizing Using Solar Solutions. So whether it's rooftop solar or whether it's your containerized solar hybrid solution, your Standalone solar submission to ensure that health care facilities are adequately powered in order for them to provide the necessary services to save lives within these countries in sub-Saharan Africa and then the universal energy facility, which I will speak to later on. I guess the questions will be Targeted to use. We're essentially we're providing support to a private sector companies who essentially build out mini grids to provide adequate power supply to households msmes as well as other public institutions Health Care educational facilities. And then as I mentioned energy, transition plans are working with country governments to develop their energy transition, plans with focuses on five, and vegetables, including oil and gas power clean cooking industry and transportation towards achieving carbon neutrality. So we've already develop the plan. The energy transition plan for Nigeria were working with Ghana, working with Barbados Kenya and we'll still in constant Communications and discussions with other countries

who are really taking those bold steps towards achieving Net Zero as agreed upon during Coup 27. And then we also have clean cooking initiatives. So ensuring that we contribute towards at development of a driving Global Market for clean and efficient cook stoves. Again, to improve the General Health of mainly women who happen to be cooking in Africa using oftentimes wood and other unhealthy sources of energy so supporting with equal King for example, in order to drive down the emissions that are contributed as a result of our unknown clean cooking devices. And then finally, I will new energy manufacturing initiative. I'm not going to mention all of them, but a few of them the renewable energy manufacturing initiative where we are actually supporting countries in building renewable energy, manufacturing plants within these countries and Order to support grow, Jobs and to make jobs available as well as to improve upon the supply chain renewable, energy, components or products or equipment, in order to significantly scale up the development of solar home systems or whether it's mini-grids within these countries that require access to Reliable power supply.

That concludes my very short presentation. Unfortunately I was giving just 10 minutes

Charles: Thank you so much and Anita. So I'm going to ask you few questions. We just have five more minutes before this session is over and I'm going to utilize this 5 time because have being looking for you. I see everything you guys are doing at the universal Energy facility very commendable I must say understanding the transition. We have to make from using fossil fuel into using renewable energy to sustain the environment that we almost protect in the universal energy facility. What are you doing to bridge the gap of accessibility or implementing renewable energy projects sub-Saharan Africa? What are the challenges you guys are having and what is the long-term impact of sustainability?

Anita: Okay very good question. I mean everybody probably knows all of the challenges by now they're always so many of these conferences in which these issues are shared. The common issue is obviously access to finance. It's estimated that about 600 million people. In Africa don't have access to Reliable power supply. In the World Bank is estimated that you need about twenty eight point six to 11 billion US dollars in order to bridge energy access Gap utilizing people energy technology. Now the challenge here is that most countries in Africa are not really deemed as being attractive enough to invest in terms of viability issues and whether these people are willing and actually able to pay for power supplied such technology is deployed to these communities. And so what do you is it that you are doing to sort of address that issue is to provide one subsidies that should ultimately attract private sector companies because it also disinvest these businesses as well. Knowing that there are Grant subsidies that they can blend with either the equity or debt that they're investing in these projects. It also shows them all of a good portion of their money being returned back to them within the shortest time frame so, for example, we pay roughly about 60% of a cost of connections with like five hundred ninety two dollars per connection. So, if they know that they're going to get a good 60 percent of the cost of the actual expenditure, with income, also, delivering these projects, it definitely, you know, reduces that viability Gap and makes it a lot more attractive. So that's the very atoms of providing these web series in addition. It doesn't just help the private sector companies, build out these meaning it doesn't just make it more viable but also works towards making these products more affordable for the end-users. That's also another challenge with renewable energy projects in Africa before the ability of the time. And these people actually pay providing ones of these, the hope is that ultimately it should drive down the cost of the Tariff, you know, drive down the cost to the end user to make it more affordable. I don't know if I still have time to talk about the challenges.

Charles: two more minutes, so we're just going to stay on this accessibility sustainability and of these projects and I hear you said subsidy. And if you are Nigeria am sure you know subsidy has become a word on everybody's mouth, you know, considering the removal of subsidy by the present administration. Feels free that is now the challenge with the feels free subsidy. Like we all know especially players in the industry. Is that the subsidy as it is a good scheme but the implementation of it is what the real issues are now, how are we going to see the same kind of situation where the subsidy is not as implemented as it should be and for the benefit of the end users, which for example are the people who are supposed to be able to, you know, access to clean energy and all of that. So is there a well-thought-out plan to manage the subsidy on renewable energy or power projects for the end users?

Anita: First of all it's important to mention that the goal the objective is not to have subsidies forever. We're hoping that the market should Patrol to the point where these projects ordinarily without subsidies available. And you know the end users to be able to get to thing where they can afford to pay for this power because that productive use Element should hopefully be a part of these businesses that are being all these many good projects that are being developed Within These communities. That's really the ultimate goal. But with that being

said power that's typically generated from your usual sources of power, in most African countries still being subsidized and the regularly being subsidized whereas under the universal energy facility, the subsidy that's being provided is just for the capital expenditure. Just for portion of the capital expenditure is not an ongoing. Subsidy doesn't provide subsidy for operations and maintenance, and so on, it's literally just more the national capital investment. Yeah. So just to make that point I don't know if there was another Part of the question.

Charles: So for example, we have rollout for the equipment and you subsidize the initially. How do we ensure that we adopt the results based financing approach?

Anita: first of all we adopt result based financing approach so we only collect subsidies upon, Actual tangible results Initially the universal energy facility only provided these subsidy payouts after 30 days of supply of power from those mini grids to the households to ensure that not only are the world those projects built but they're actually fit for purpose as well. And then we also look at them, you know the modeling structure in terms of the Tower of the calculation to ensure that the cost has been impacted as a moment of the materials being provided. However we recently amended this payment structure to allow for earlier Master payments. So you make a payment to 40% of, let's say the 60% at the point of major equipment arriving at site. And then another 40% of the point of the commissioning of these mini grids at the balance of 20% after 30 days, because we still want to be sure that these projects are actually films the purpose.

Charles: I'm going to bust in there Anita I'm so sorry I know there's so much to unpack here.

Anita: very so much

Charles: We are going to have subsequent, you know symposiums like this and form like this for us to sort by because the whole idea is to put out the advocacy where the whole idea is to make sure that power gets to lame man. You know and to make sure that if there is them subsidy it is properly implemented and of course like we almost subsidy don't last forever because you know that's not good that's not the goal. But we're going to pause here. This is a pause, not a full stop. Anita so we would have order opportunities to have conversations with you and everything you're doing in the energy transition sector. Thank you so much Anita

Anita: you're welcome.

Charles: I also want to thank you all the previous speakers for the info educative, Symposium, and happy World environment day. And I pray that everybody understands that what we're trying to do is advocate for clean energy, zero net emission and look forward to more conversations like this. Thank you very much for listening.