

## Christina Becker-Birck on Real Business, Power 106 FM discuss how Cadmus supports local Jamaican business with local solar energy projects and renewable energy workforce development.

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**Interviewer 1:** We are now going to start on head Southern government policies, Dr. Wayne Archibald is the Executive Director of Green Solutions International. Christina Becker-Birck is Vice President of International Programs at Cadmus and Judith Ephraim is the Program Coordinator for the sustainable energy unit at OECS Commission. And then they'll join us to speak about their efforts to develop the capacity of citizens across the region to provide safe quality solar PV solutions for residential and commercial clients. Good morning ladies and gentlemen.

**Judith Ephraim:** Good morning.

**Wayne Archibald:** Good morning.

**Ralston Hyman:** Morning, everyone.

**Christina Becker-Birck:** Good morning.

**Interviewer 1:** Morning.

**Christina Becker-Birck:** Thank you for having us today.

**Ralston Hyman:** It's a pleasure.

**Interviewer 1:** Okay, so Dr. Archibald let's start with you, tell us about Green Solutions.

**Wayne Archibald:** Well, good morning again, and thank you very much for having us share this time with you. So first of all, Green Solutions, it's an international regional company, an energy company, we like to consider ourselves, that works in the renewable space. So we are a training provider. We provide training opportunities for our citizens in the Caribbean, and we are also a local installation company that... We do both commercial and residential solar installations.

**Interviewer 1:** Okay. And Judith, can you tell us about the OECS Commission and what it is that you do and how you're involved in this?

**Judith Ephraim:** Okay. So the OECS Commission Organization at Eastern Caribbean states, it is the intergovernmental organization in the regional integration in the OECS. So we have 11 member states and we support our member states, most of them are quite small, but we support them in terms of policy harmonization, looking at opportunities for us to build economies out of scale and areas that are critical to our development, including sustainable energy, which we see as a priority for our development in terms of competitiveness and the high quality of living.

**Ralston Hyman:** Okay.

**Judith Ephraim:** So we became involved in this because we saw this as a way of supporting our sustainable energy goals for the region.

**Ralston Hyman:** Okay. Christina, now tell us about your work at Cadmus.

**Christina Becker-Birck:** Sure. And again thank you for having us today. The Cadmus Group is a global sustainability consulting firm. We work all across the world and are most well known for our work, working in an island context, we've worked across the entire Caribbean, working with utilities and regulators and government ministry to help them design and think through how to implement clean energy policies and strategies. And that's how we got to know GSI and Dr. Archibald is often times supporting his team with integrating a policy for the training programs that we helped develop.

**Ralston Hyman:** Okay.

**Interviewer 1:** Okay. So Dr. Archibald, explain for us the North American Board of Certified Energy Practitioners and the whole issue of photovoltaics, what is that?

**Wayne Archibald:** Okay.

Wayne Archibald: Well, one of the things that we realized very early on is that we need to develop the workforce in the Caribbean. And the solar workforce development, it includes online training and the job training curriculum development, and other activities that prepare people for solar energy careers, advance their skills, educate them in ways in which solar can impact their job. Right?

**Wayne Archibald:** So while installation jobs comprise about two thirds of the solar workforce, there are a lot of professions that range from power system engineering, manufacturing, building system design that also work in solar energy, right? So it also includes roles that are either direct or indirectly related to solar such as real estate, finance, insurance, fire code enforcement, state regulation, and so on.

**Wayne Archibald:** So we partnered with the North American Board of Certified Energy Practitioners (NABCEP) in order to bring this industry lead in training to the Caribbean.

**Ralston Hyman:** Okay.

**Wayne Archibald:** Because one of the things we find is that just like how you would go out and get a licensed electrician to wire your house, right, then you should get someone who is certified who's knowledgeable of the relevant codes and standards and so on in order to install solar on your... Right, and do it in a safe and efficient manner.

**Ralston Hyman:** Okay.

**Ralston Hyman:** Now Judith, tell us about the collab between yourself and Dr. Archibald.

Judith Ephraim: Okay. So I think for the longest while we have recognized that there is need for us to really support our member states at all levels to build capacity for sustainable energy, because this is a fairly new area, there is a lot of interest, but it's not easy for persons to get training. We have people who have moved from certified electrician, or you have young people who are coming up who are interested and they find themselves in there, but they are not certified. So they have some basic knowledge, they may have gotten some additional knowledge on the way but we thought it was necessary for them to be properly trained, get the fundamentals, then be certified because we know that's important if you want to create a high quality market.

**Ralston Hyman:** Yes.

**Judith Ephraim:** So we actually reached out to the Caribbean Development Bank with the proposal and they supported our proposal and actually they enhanced it.

**Judith Ephraim:** So we were not only looking at PV installers, but we were also looking at electrical inspectors because that's another arm that is very important. So if you have a system on your home, you want to make sure that it is something that has been approved by the authority in your country, which is responsible for safety and regulations.

**Ralston Hyman:** Yes.

**Judith Ephraim:** And so we needed to strengthen both arms. So CDB supported over 200 persons in the OECS and getting that basic training. So it was both for the PV installers and for some inspectors. And really we see this as contributing to expanding the knowledge and the solar markets. And one of the things we have happening now is the Eastern Caribbean solar challenge, where we're hoping by 2025 to have at least 6.5 megawatts of distributed solar PV on our roof. So we see this being a very good collaboration in helping to build a capacity for that project and the expected demand in the future.

**Ralston Hyman:** Okay.

**Interviewer 1:** Okay.

**Interviewer 1:** And so Christina tell us about Cadmus's involvement in this particular project.

**Christina Becker-Birck:** Sure. We are collaborating with GSI on a...

**Interviewer 1:** Hello, Christina.

**Christina Becker-Birck:** ...in Jamaica.

**Interviewer 1:** Okay.

**Christina Becker-Birck:** Yep. Can you hear me?

**Interviewer 1:** Yes. I hear you now.

**Christina Becker-Birck:** Can you hear me better?

**Interviewer 1:** Yes.

**Christina Becker-Birck:** Okay, great. I'd say we're collaborating most closely with GSI right now on a three year project, that is a project of USA, Jamaica and their Strengthening Energy Sector Resilience in Jamaica Programming and the Jamaica Energy Resilience Alliance, JIRA. And in this program we're aiming to strengthen the ability of Jamaica's energy sector to withstand and also quickly rebound from a natural or human-made shock, like a major power outage, strong storms by adopting solar technologies or solar and storage together. And so we've formed an alliance that combines Jamaican and international private sector and nonprofit organizations that are partnering with currently the tourism sector and as well as expanding to manufacturing and other small and medium size enterprises and industrial facilities to help build out a pipeline of projects to invest in solar and solar and storage.

**Christina Becker-Birck:** And we're combining outreach campaigns and education as part of the way to help sort of create a supply and demand for investing in solar.

**Christina Becker-Birck:** Now, it's difficult to build a lot of projects without having a strong workforce and that's where GSI comes into our projects. GSI together with UMONA are supporting the Jamaica Energy Resilience Alliance with developing a series of trainings that are NABCEP certified, which as Wayne highlighted is really important to be able to give the credibility to any investor about the quality of the solar installation, and so we've been partnering with them to develop and implement a series of training on PV installation, as well as on inspection and have been able to also subsidize the cost of the course so that more people are able to participate and therefore we can have a wider set of individuals who are trained and more qualified to be able to support the growing markets.

**Ralston Hyman:** Okay.

**Interviewer 1:** Okay. We're going to take a short break for the time, so then we just ask you all to remain. When we come back, we continue.

**Interviewer 1:** Welcome back to our business, we continue our conversation with Dr. Wayne Archibald Executive Director of Green Solutions, Christina Becker-Birck, Vice President of International Program at Cadmus and Judith Ephraim, Program Coordinator of the sustainable energy unit at the OECS Commission. They're speaking with us about the efforts to develop a capacity of citizens across the region to provide safe quality solar PV installations for residential and commercial clients. Welcome back everyone.

**Ralston Hyman:** Thank you.

**Interviewer 1:** Okay. So Dr. Archibald, the training that is provided, who are you targeting for this training? And tell us a little bit about the duration and what participants receive at the end.

**Wayne Archibald:** Okay. Basically we are targeting... I would like to support anyone that has an interest in the solar industry, but specifically throughout the region we've trained installers, people who are currently working in the solar industry, inspectors, designers.

**Wayne Archibald:** We've trained people in sales and marketing, policy makers and other professionals in other areas, even bankers and financials and stuff like that, who are interested in learning the intimate details of how solar works and how the installation works.

**Wayne Archibald:** Now, since COVID one of the things that we've done to move forward is to develop an online platform where we can actually have a combination of online where they can do it on demand at their own pace, and also provide weekly tutorials via Zoom so that we can have interactions, students can have interactions with the instructors. Now, the course is generally in most cases, it's exactly 30 days to complete the course.

**Wayne Archibald:** The NABCEP associate course is the most comprehensive, the most fundamental course that we offer. So that would be your starting point before you can move up to the different levels of certification and stuff like that. So through that we realized, for the average person out there, right, I should just mention that the electricity prices that we have in the Caribbean they're extremely high.

**Ralston Hyman:** Yes, yes.

**Wayne Archibald:** Right. With an average of at least 34 cents per kilowatt.

**Ralston Hyman:** Yes.

**Wayne Archibald:** Or, and as high as 50 cents per kilowatts or in some areas, which is more than four times the price paid in the US. Right. So as a pendulum swings back now to higher gas prices and stuff like that, it makes it very difficult for families to be able to afford some of the very basic things that they need.

**Wayne Archibald:** So we realized one of the keys, there are many keys to solving this problem, but one of the main keys and which is what we are speaking about today is to have an innovative solar workforce to address some of these challenges that we have. And this also will help to lower the soft cost, I'm not sure if Tina mentioned that the non hardware cost of solar energy.

**Ralston Hyman:** Okay.

**Wayne Archibald:** Which is really responsible for at least two third of the cost of solar insulation, but that's really goes ahead of what we are about and what we bring to the region.

**Ralston Hyman:** Okay. Now, just over 500 individuals were trained during the last two years. This was funded by the CDB and the OECS state. What is it that you saw in the OECS members states in terms of accessing the training programs?

**Judith Ephraim:** I'd say it was over 200 in our case, so I'm not sure for the total number with Dr. Archibald, but under our initiative with him, it was over 200.

**Ralston Hyman:** Okay.

**Judith Ephraim:** In terms of, what do we see in the member states in terms of what?

**Ralston Hyman:** In terms of people access training programs.

**Judith Ephraim:** Oh, there was very, very high interest. I think we were oversubscribed. We tried to really open it up to anyone. So we had people from 18 to, in their sixties also participating in this and persons who were already working as well as people who were new, because it's not easy to get access to training of that level in our region, so we don't have this readily accessible. So I think persons were quite keen and we've had repeated requests since this first round of training has been completed for additional training. I think the fact that it was actually during the pandemic and so we had the online, although it was not the intention, the original plan, but people found... It was a tough course, to be honest, you needed to be dedicated, but there was still flexibility which allowed persons to work around their time schedule.

**Judith Ephraim:** They got additional skills, they got opportunity to network with colleagues who are also involved in the course. So we worked with Dr Archibald to make it very interactive so that they did not miss out on that in-person experience. And so they got to discuss not only what was in the course, which was of course beneficial in the interactive sessions, but they also up to now they're still collaborating on projects and on ideas. And it really is a nice community that has kind of evolved from that gathering but I think it really has given us an opportunity to really start to build this sector at the local level and at the regional level, which is important because when we speak about things like the green economy, we speak about entrepreneurship, green entrepreneurship, opportunities for youth, these are the types of opportunities that we want to engage and promote. So like I said, the access was there to do through

the ministry, but I think there's continued interest and we were happy that we were able to empower our people through this initiative.

**Interviewer 1:** Okay. So Christina, are you getting the workforce that you need, are the people being trained fast enough and women, have you seen a... What percentage of your workforce are women who have been trained?

**Christina Becker-Birck:** Sure. We are about almost one year into the Jamaica Energy Resilience Alliance and the Strengthening Energy Sector Resilience Program with USA. So we've done our first round of training and we had 41 students taking a PV associates course, which is a visible installer course and we had 22 students taking inspector course and all of these students are based in Jamaica, so really supporting the needs of our program.

**Christina Becker-Birck:** We're really pleased to see that 38% of these participants were female.

**Interviewer 1:** Great.

**Christina Becker-Birck:** The solar industry tends to attract primarily men and there are a lot of opportunities for women to engage in the workforce, whether it's on the installation or inspection, or also on the programming side at the utility and government levels as well or on the sales side, so we're really pleased to see this participation, we will be offering an additional course in the new calendar year. So please stay tuned for that and you can learn more about that on the Cadmus website as well, just [Cadmusgroup.com/tomakeenergy](http://Cadmusgroup.com/tomakeenergy) to sign up for more trainings as well but we do need more and are looking forward to having some more participants in our trainings in the year ahead.

**Ralston Hyman:** Okay.

**Ralston Hyman:** Dr. Archibald, you have the final word. What can we expect going forward?

**Wayne Archibald:** Well, first I would just like to publicly thank Christina and Judith for joining on this interview this morning.

**Ralston Hyman:** Okay.

**Wayne Archibald:** And going forward, what we are doing at GSI basically is we have strategic alliances with companies, such as Cadmus, organizations such as OECS, basically two heads are better than one and in many cases two companies are better than one, especially when they combine resources, share expertise in order to continue to build capacity in the region. And what we are doing at GSI is basically bringing industry lead in technical training and certification, not just the solar industry, but to other areas of renewable energy. And our team has the experience, the expertise to be able to help to make our island like 100% renewable and energy independent.

**Ralston Hyman:** Okay.

**Interviewer 1:** Okay. Thank you all for much.

**Speaker 2:** Thank you.

**Interviewer 1:** Wonderful day.

**Christina Becker-Birck:** Thank you for having us today.

**Wayne Archibald:** Thank you very much.

**Ralston Hyman:** Pleasure.

**Interviewer 1:** You're welcome.

**Interviewer 1:** You're welcome.

**Interviewer 1:** Dr. Wayne Archibald, Executive Director of Green Solution, Christina Becker-Birck, Vice President of International Programs at Cadmus and Judith Ephraim, Program Coordinator of the sustainable energy unit at the OECS Commission and they were speaking with us about their efforts to develop the capacity of citizens across the region to provide safe quality solar PV installations for residential and commercial clients.