

SUSTAINABLE ENERGY IN THE OECS: SOLAR PHOTOVOLTAIC TRAINING AND CERTIFICATION FOR INSTALLERS AND INSPECTORS











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#### MESSAGE FROM THE OECS DIRECTOR GENERAL, DR. DIDACUS JULES

The year 2021 has begun with a recommitment by governments and citizens to find enduring solutions that improve the quality of life for all people. Despite the new challenges brought on by the COVID-19 Pandemic during the previous year, our resolve to pursue our sustainable development goals has not weakened. On the contrary, we have redoubled our efforts as we can now better appreciate the need for us to be innovative, agile and resilient in securing our future and those of generations to come.

Within the OECS, efforts are ongoing to facilitate the improved integration of environmental sustainability principles into our socio-economic development strategies. This is critical to reducing our vulnerability, managing our natural assets and ecosystems and promoting balanced growth and development. Sustainable Development Goal 7 which speaks to the provision of clean and affordable energy is expected to provide significant benefits to the Caribbean including increased energy security, reduction in expenditure on imported fossil fuels and technological advancement. Furthermore, reduction in energy costs will have positive ripple effects on other sectors, helping to stimulate economic growth and increasing the competitiveness of the region. Sustainable energy can therefore simultaneously address the need for climate action whilst contributing to green recovery efforts for COVID-19.

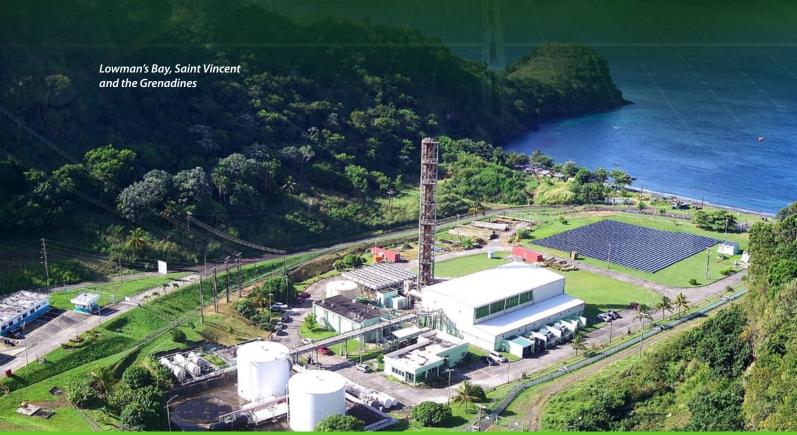
The OECS holds significant potential to develop and use its renewable energy sources such as solar, wind and geothermal. Solar energy is an obvious choice for development and not surprisingly it is the fastest growing renewable energy segment in our region. Factors such as decreasing technology costs, improved regulatory environments and public awareness and acceptability has led to increased demand for solar energy. However, we are still a way off from the optimum contribution of solar to our energy mix. Whilst we have seen increases in solar farms as well as photovoltaic (PV) installations on residential and commercial buildings, the successful mainstreaming of solar energy into productive industries such as agriculture, manufacturing, tourism and transportation will open new and exciting opportunities for our region.

Capacity building through training and public awareness will encourage greater uptake of renewable energy and the growth of the solar industry in the OECS. The OECS Commission sees this as an important part of its sustainable energy mandate and is working to support the dissemination of resource materials, success stories, best practices and lessons learnt in our region to help support our Member States in their sustainable energy endeavours. We are therefore pleased to share this publication, that highlights some achievements and developments in sustainable energy in the OECS and features the OECS Photovoltaic Training and Certification Programme implemented by the OECS Commission on behalf of the Caribbean Development Bank through the Sustainable Energy for Eastern Caribbean (SEEC) project, with funding provided by the European Union (EU) and the UK Foreign, Commonwealth and Development Office (FCDO).

Through this initiative, two hundred and twenty-eight persons from both the public and private sectors received training in PV installation and design. Electrical inspectors received further training to support the oversight and approval functions of their jobs. This is an important milestone for the region as we have a cadre of trained professionals who can correctly design, install and maintain PV systems in the region. The OECS Commission is pleased to be associated with this initiative which will help carve out a new economic trajectory, support new job opportunities and a higher standard of living.

I take this opportunity to congratulate all graduates of the programme. We look forward to your contributing in shaping the solar industry in our region including your participation in our upcoming Eastern Caribbean Solar Challenge. On behalf of the OECS Member States I wish to express my sincere thanks to the Caribbean Development Bank, European Union (EU) and the UK Foreign, Commonwealth and Development Office (FCDO) for their support on this initiative. We look forward to our continued cooperation in advancing sustainable energy in the OECS for a better life for all.

Dr. Didacus Jules
Director General, OECS





## MESSAGE FROM CARIBBEAN DEVELOPMENT BANK (CDB), DIRECTOR OF PROJECTS, MR. DANIEL BEST

The Caribbean Development Bank (CDB) extends its sincerest congratulations to everyone who participated in and completed the various training workshops under the "Training and Certification Programme for Photovoltaic Installers and Electrical Inspectors." Further congratulations to those who have successfully attained certification under the NABCEP PV Associate and NABCEP Systems Inspector

programmes. CDB is in fact, quite pleased to have provided funding for this training using resources under the Sustainable Energy for the Eastern Caribbean (SEEC) Programme provided by our Partners by UK-FCDO and EU-CIF. This is arguably the single largest regional training intervention in solar energy technology in the Caribbean and is therefore quite historic.

When we embarked upon this training initiative back in July 2020, it was noted that CDB saw these training events as a means of improving the skills of persons in the growing solar photovoltaic sector. We noted that a "critical mass" of trained and certified professionals in the renewable energy (RE) and energy efficiency sectors would then be better able to advocate for raising the standards of practice, which will reduce any adverse experiences of clients. After attainment of these certifications, it is expected that you, the participants, will continue to further improve your skills and create a cadre of professionals in your countries who will aid in building this growth sector.

Globally and regionally, the RE sector continues to grow and RE technologies are becoming more commonplace in our societies. The International Renewable Energy Agency publication, SIDS Lighthouses Initiative – Progress and Way Forward (2021)¹ indicated that amongst its SIDS members, during the period 2014 to 2019, 1,180 MW of new RE capacity was installed with solar accounting for 680.4 MW. The CARICOM Regional Energy Policy has established a target of 47% of installed capacity from RE by 2027 and the most recent figures provided by the CARICOM Secretariat indicate that in 2019, RE accounted for 11% of electricity capacity in the CARICOM Region.² While this is an improvement over the proportion of 8.4% in 2015, it also shows that there remains a significant gap to be overcome in order to be on track for the target for 2027.

All of CDB's Borrowing Member States, have established ambitious RE targets as part of their national energy policies towards increased energy security, and also as a key part of their

<sup>&</sup>lt;sup>1</sup> IRENA (2021), SIDS Lighthouses initiative: Progress and way forward, International Renewable Energy Agency, Abu Dhabi.

<sup>&</sup>lt;sup>2</sup> CARICOM Energy Report Card 2018 (CCREEE, 2020)

strategies for achieving the climate emission reduction targets. Currently, five Borrowing Member Countries of CDB have established targets of 100% electricity generation from RE over the next two decades. To achieve these targets, the private sector and particularly micro, small, and medium sized enterprises will be required to play a significant role, in areas including project development, installation, operation, and decommissioning. Local, skilled, competent professionals such as yourselves will be highly valued and critical in meeting those needs.

We trust that you have found these training programmes to be useful and valuable experiences. We expect that you will apply what you have learnt to your daily work activities and that it will result in improved service to your clients and customers. We are aware that you were able to socialise and develop small communities via your course's WhatsApp groups and we encourage you to maintain those linkages as a means of sharing and exchanging knowledge and information.

You may recall that this initiative was our first effort in providing energy sector training in a fully online format and it was as much a learning experience for us as it was for you. We thank those who provided feedback to us during the course of the programmes and we will use the lessons learnt to improve our future online training events.

On behalf of the Management of CDB, we wish you continued success in your endeavours, and we look forward to experiencing the fruits of your labour.





#### MESSAGE FROM THE EU AMBASSADOR, H.E. MALGORZATA WASILEWSKA

#### Dear partners, dear participants,

It is heart-warming in the midst of the difficult times we are all going through to have occasions such as this to celebrate our successes. There is no better proof that this dynamic and optimistic region is ever ready to look forward and actively embrace its future – a prosperous future for both its people and the planet.

My sincere thanks and congratulations to all the participants in the OECS Photovoltaic Training and Certification Programme. The Caribbean needs to decrease its energy dependency on fossil fuels, while transitioning to use its infinite, sustainable, cost free, zero-carbon resources to fuel its economy. The main two things that are needed for this important shift are a strong political will and a generation of capable and daring professionals and entrepreneurs, able to take further the transformational agenda. This means you. You are the ones that through your interest and perseverance in this programme have declared you will be part of the solution and not contributors to the problem. You are the ones on whom the Eastern Caribbean is counting to help reduce the high electricity bill to citizens and businesses, to release the pressure on ecosystems, and to even to help your countries fulfil their international commitments. You are the ones with the courage to take these heavy burdens on your shoulders, and we should all follow your example.

I would also extend my congratulations to our partners in cooperation - the Organisation of the Eastern Caribbean States and the Caribbean Development Bank - which worked together to make this certification programme a success, for the benefit of the states that they represent. We are happy to be part of this progressive initiative, where citizens from the OECS will continue to reap the benefits of the work of the graduates from this training programme as they continue to provide renewable energy and energy efficiency goods and services in their respective countries. There can be no sustainable development without sustainable, affordable, and reliable energy.

The European Union and the OECS countries share a common goal in achieving a transition to clean energy. We know from experience how hard it is to make the right investments, to change legislation, to change professional profiles, to shake mentalities' and still to go on. Through trial and error, together we will reach a result that we know, from overwhelming scientific evidence, to be the good one, not only for us, but also for the generations to come and for the world in which they will live.

Warmest congratulations to all the graduates!





# MESSAGE FROM UK FOREIGN COMMONWEALTH AND DEVELOPMENT OFFICE, CARIBBEAN DEVELOPMENT DIRECTOR, MR STEFAN KOSSOFF

It is a great a pleasure to join you on this special occasion of the Virtual Graduation Ceremony for the Photovoltaic Training/Certification. Given the pandemic and the many stressors around us it is wonderful to have an opportunity to celebrate.

Congratulations to all graduates! You are now included in the cadre of trained professionals well poised to help the region capitalise on the opportunity to transform economies by reducing reliance on high cost fossil fuel imports and increasing renewable energy penetration. Since the region is blessed with an abundance of sunshine, it makes sense that PV technology would be an important component of diversifying the energy mix and you are now in a position to support your countries by delivering high quality PV installations. This training also positions you to secure high-skilled employment in a vibrant, growing sector that will contribute to secure livelihoods for yourselves and your families. So, kudos to you for taking up this opportunity and successfully completing the training.

The UK has been providing support to the region through our "Increasing Renewable Energy and Energy Efficiency in the Eastern Caribbean programme" since 2015. We are providing up to £19.3 million through the International Climate Fund (ICF) to increase the use of renewable energy (RE) and energy efficiency (EE) measures with the view of improving energy security in the Eastern Caribbean. £16.3 million is being used to support geothermal exploration and development in St. Lucia, Dominica and St. Vincent and the Grenadines while £2.5 million from which this activity was funded is our contribution to the CDB-implemented multi-donor fund for small-scale investment and technical assistance to the public and private sector in the Eastern Caribbean.

So why did the UK provide this support? We listened to the Governments in the region who expressed their desire to move towards low-carbon energy systems but indicated that they lacked the finance, capacity and market opportunities to do so. We also recognised that the cost of energy in the Eastern Caribbean remains high and is a critical constraint to growth. In addition, over-reliance on imported fossil fuels leads to growing economic imbalances, higher levels of external debt and reduced resilience to exogenous shocks. Given the unique vulnerabilities and challenges faced by Small Island Developing States such as those in the Caribbean region, the UK sees our work on renewable energy as part of a wider package of measures to strengthen climate resilience in the region.

It is clear that helping to increase energy security will contribute to improved conditions for economic development and resilience to future exogenous shocks, such as oil price volatility and natural disasters. Increasing renewable energy and energy efficiency measures also contributes to reducing greenhouse gas emissions and Nationally Determined Contribution targets in the region. By providing grant funding the UK is contributing to direct finance and technical assistance to help unlock institutional, commercial and legislative barriers that limit the uptake of RE and EE measures. We have already seen early results in terms of cost savings and emission reductions. For example, Antigua and Barbuda is registering cost savings (USD 1.87m/Yr) and environmental benefits including reduction in CO2 emissions (1,509.07 ton/Year) and protection of turtle nesting sites due to installation of "turtle friendly" streetlights. St Vincent and the Grenadines is in the process of rolling out its streetlight installations and as of November 2020, they were already saving XCD 280,000 and reducing CO2 emissions by 381,000 tonnes.

This training is one aspect of the technical assistance that the Caribbean Development Bank (CDB) our implementing partner on this programme is providing to the region. It was recognised that a critical part of building capacity in the region was to ensure that there are adequate human resources to provide the needed technical expertise to install and maintain RE technologies. This training was therefore developed to support that need and was to be conducted in the second quarter of 2020; however, the COVID-19 pandemic caused a halt in face to face activities, but we are very happy that a virtual solution was identified and we could successfully deliver this training.

While the current programme is in its final stages, the UK remains committed to supporting increased use of sustainable energy in the region. The UK is seeking to lead by example as host of the COP26 conference. We have raised our climate ambition and legislated for net zero emissions in the UK by 2050. Through our Presidency, we will be championing a clean, inclusive and resilient recovery from Covid-19. The UK is also doubling our International Climate Finance to £11.6bn from 2021-25 to provide global support for climate action. We strongly believe that for the Caribbean region a critical pillar for recovery will be further investments in renewable energy systems as such, the need for skilled professionals will be even more necessary.

I would like to close by taking this opportunity to congratulate the CDB and the OECS Secretariat for delivering this successful training session under such difficult circumstances. We recognize and appreciate your continued efforts to drive momentum in the programme while managing the existential threat that is Covid-19. To the graduates, again I say congratulations and thank you for your full participation and commitment which made this training possible and such a success.

Thank you.





## MESSAGE FROM THE DIRECTOR OF GSI INCORPORATED, DR. WAYNE ARCHIBALD

would like to congratulate all of the participants who successfully completed the North American Board of Certified Energy Practitioners (NABCEP) Associate and System Inspectors courses. NABCEP certification is a voluntary certification that provides a set of national standards by which PV Professionals with skills and experience can distinguish themselves from their competition. Certification also provides a measure of protection to the public by giving them a credential for judging the competency of practitioners.

The demand for a certified workforce is driven primarily by population growth and economic development. As electricity consumption increases, the demand for a qualified workforce increases. Furthermore, the political emphasis towards a low carbon economy means a rapid increase in solar energy production. This bodes well for those of you who have successfully completed and passed the exam.

By providing a high level of education and collaboration to local and regional contractors, Green Solutions International SKN Incorporated (GSI) contributes to the health and resilience of the solar industry and, by extension to the communities we serve.

Recognizing the fact that a well-managed energy sector is pivotal for economic growth, and that the sector continues to play an important role in achieving the country's broader development objectives over the longer term, the Organization of Eastern Caribbean States (OECS) with support from the Caribbean Development Bank (CDB), has signaled its intention to shift its developmental trajectory towards one that is low-carbon and climate resilient. To realize this vision, the diversification of the countries' energy mix is critical thereby capitalizing on its abundant renewable energy potential.

The GSI team is excited about our continued engagement in the coming months and years as a network of solar professionals who will address the challenges that lie ahead in our region.

GSI is a non-profit educational organization that works closely with the private and public sector organizations, universities and colleges and government institutions throughout the Caribbean to ensure that its programs and training opportunities lead to certificates and credentials that employers want. GSI has brought advanced solar photovoltaic (PV) expertise, with a technical curriculum approved by NABCEP, to the Caribbean. For questions about our training programs, please email us at training@greensolutionsskn.com or go to our website at https://greensolutionsskn.com.

Here's to continued learning together in 2021.

Green Solutions International SKN Incorporated: Locally Rooted: Globally Connected

**3/GSI** 



#### THE CARIBBEAN: SEA, SUN AND PHOTOVOLTAICS?

BY: JUDITH EPHRAIM

As the world continues to seek reliable, affordable and safe energy sources to fuel our daily activities and support our growth, the Caribbean remains largely dependent on imported fossil fuels with only a minimal contribution of renewable energy to the grid. In fact, for most of the OECS Member States, there is significant dependence on imported fossil fuels despite ambitious sustainable energy potential and targets. This has negative implications for economic growth and competitiveness for the region in several sectors. The ongoing COVID-19 pandemic has underscored the need to support local production and sustainable solutions for Small Island Developing States. An economy based on affordable, green and indigenous energy can contribute to recovery efforts for COVID-19 and support attainment of the Sustainable Development Goals (SDGs) of the region.

Given global trends in renewables and solar energy in particular, many wonder why solar energy is not a bigger part of our region's energy mix. Solar energy is certainly not experimental technology and the industry has experienced rapid growth in the past decade. Power generation from solar photovoltaics (PV) was estimated to increase by 22% in 2019, to 720 TWh (IAE 2020). So why is the Caribbean, a region known for "Sea, Sand and Sun" not known for photovoltaics as well? The geographic location of the Caribbean means that the islands receive an almost constant amount of surface solar radiation throughout the year. This makes solar energy an obvious choice for development as energy from the sun can be used to generate electricity and for heating purposes. Whilst the region has been able to embrace solar water heating decades earlier, the initial high cost of PV technology for electricity generation proved a challenge.

Generally speaking, photovoltaic systems are mainly off-grid or grid-tied systems. Off-grid systems can be viewed as autonomous as they operate independently of the electricity grid. These were the first systems used in the region and the energy produced was consumed very close to the location where it was generated. The applications for these stand-alone PV systems include water pumping for water irrigation and consumption, water desalination and purification, communication antennae and telemetry stations. Remote health facilities, schools, touristic sites and rural businesses can also make use of off-grid PV systems. The introduction of pilot net-metering projects can be credited for the accelerated entry of grid-tied photovoltaic systems in the region. Grid-tied PV systems feed their energy production into a centralized electricity grid, which means that a very large number of PV systems of varying sizes could be connected to the same electricity grid. Distributed generation under a net-metering arrangement allows residential and commercial buildings to feed any excess power produced to the national grids, and subsequently, they receive a credit towards their energy bill. In countries with net-billing arrangements, differing rates are used to value the excess energy fed into the grid and energy received from the grid.

Interest in solar is growing and there are calls for increasing the sizes of the PV systems allowed on the roofs of buildings. Solar energy application is also expanding to areas such as transportation. Electric mobility represents a tremendous unexploited opportunity for land and marine transportation in the region. Incorporation of energy storage into solar systems helps effectively address the concerns of intermittency and resilience. This is of special interest for critical infrastructure and the businesses seeking to use solar energy to fuel their operations. On the level of utility scale solar projects, there is ongoing progress with several commissioned and planned solar farms in the region. These larger projects have help to diversify the energy generation of the electrical utilities and will contribute to the mitigation efforts under national climate change commitments.

The interest in PV technology and renewables in general, has brought to the fore the issue of an appropriate tariff for renewable energy and energy from persons who self-generate. The governments in the region are being proactive and are beginning to develop policies to address such areas, as they are expected to become even more important in the future. The world is changing at a pace, faster than ever before, and the energy market is a big part of this change. The trend is towards low or zero carbon sources of energy, as well as distributed generation and autonomy in energy production. These developments support solar energy, therefore, it is not difficult to imagine that solar energy will soon play a very important part in the Caribbean Region's energy mix. With advances in technology, more affordable prices and growing knowledge and expertise, photovoltaics will become a key feature of the Caribbean.



#### **POWERED BY THE SUN:**

#### **SOLAR ENERGY IN ANTIGUA AND BARBUDA**



Antigua and Barbuda, like the other small island States and territories comprising the OECS, has historically been almost totally dependent on imported fossil fuels for its commercial energy sources.

Over the last decade however the country has sought to take advantage of its favorable solar regime to reduce its dependence on fossil fuels while at the same time reducing its contribution to global greenhouse gas emissions and reducing its considerable foreign exchange outlay for imported fuels. The ultimate aim is to ensure stable, cost efficient and sustainable energy to the population.

These efforts have taken various forms and got underway around 2011 with the adoption by the Government of Antigua and Barbuda of a National Energy Plan, one foundation principle of which was support for the harnessing of the country's indigenous energy resources particularly solar and wind.

This led to an initial surge in distributed solar energy applications, mostly at the household level, supported by government policy that had removed virtually all import taxes and duties on renewable energy and energy efficiency appliances. Also, very important was the initial adoption of a net metering policy which enabled a fairly rapid return on solar energy investments for property owners deploying solar photovoltaic technologies.

In 2014, with the coming into office of a new administration, an even more aggressive policy towards support for renewable energy and particularly solar energy was adopted. The first fruit of this was the enactment of the Renewable Energy Act 2015, modeled on a draft prepared by the OECS Commission with support from the Caribbean Development Bank, which provided a modern legislative framework for renewable energy in Antigua and Barbuda and constituted the most substantial change to regulation of the country's electricity sector since the 1970s.

Concurrent with this was the initiation in 2015 of a 10Mw utility scale solar energy project encompassing a 3Mw plant at the VC Bird International Airport, a 4Mw plant in the south east of the island, 1.3Mw of grid tied plant scattered across various government buildings and facilities on Antigua, and 1.7Mw to be deployed at the national stadium. The next phase of the project involves the initiation of an 11.5 Mw battery storage system intended to ensure grid stability.

At the same time through the initiative of the Environment Department, a number of solar energy applications were also sourced as a part of a national climate adaptation effort. These have focused on placing solar photovoltaic systems with both stand-alone and grid tied capability onto essential service infrastructure such as health clinics, Police stations, and schools.

Solar energy presently constitutes 13% of energy capacity in Antigua and Barbuda including an estimated 2Mw of private distributed solar photovoltaics.

The passage of Category 5 Hurricane Irma in 2017 had a devastating impact on Barbuda, destroying and severely damaging housing and infrastructure on the island and destroying the solar facility then under construction. The Government of Antigua and Barbuda is collaborating with the Government of the United Arab Emirates (UAE) and other partners in implementing an innovative climate resilient green energy electricity hybrid solution for Barbuda. The project will see the installation of a completely new electricity power station, a 720 kWp solar photovoltaic facility, and an 863 kilowatt-hour (kWh) battery storage solution that will store and stabilize electricity from the solar plant. This will allow the renewable energy capacity to meet 100% of current daytime power requirements. Additionally, a total of 800kW of diesel generation capacity is also provided and will ensure resilience and electricity supply at night and other periods when solar power may not be available. Commissioning and hand-over of the hybrid electricity plant is scheduled for June 2021 providing Barbuda with a state-of-the art hybrid energy system.

Financing to support solar energy development has come from a variety of private and public sources. Distributed applications for domestic and commercial purposes have largely been financed through local commercial banking institutions. Financing for the 10Mw project has been secured through the country's Citizenship by Investment Program. Multilateral and bilateral financing sources have been critical to the solar energy plants supporting climate adaptation. A key component of the effort to promote solar energy use has been an early and continuing focus on technical capacity building. This dates back to 2013 when the national Utility collaborated with the Ministry of Energy to train and certify a number of technicians to ensure safe installation and operations. This emphasis has continued through both public and private sector training efforts with the most recent being in 2020 when 20 trainees participated in an OECS Commission sponsored training program.

Notwithstanding the progress made, various obstacles remain towards adoption of solar energy. Foremost of these remains the capital costs associated with the transition to renewables, both at the utility scale involving costly upgrades to the electricity grid, and for the consumer with capital costs and return on investment costs continuing to constitute financing barriers. The 2017 Barbuda Hurricane Irma experience also points to the inherent vulnerability of open field systems and the need to adopt hybrid energy systems with sufficient agility for adapting to extreme climate events. However, the future for solar energy in Antigua and Barbuda and the OECS is an optimistic one as this technology rapidly becomes the least cost option for electricity production as well as having other economic and environmental benefits. Recent surveys in Antigua and Barbuda show strong public support for the technology and there is already an important cadre of local enterprises capable of providing high-level capability in the technology.

Regional coordination and leadership in accelerating and leading solar energy remains an important driver in facilitating this transition and will be critical to ensuring that the OECS, as a single market and community, is able to take full advantage of this natural resource and the emerging technologies within the context of a rapidly changing global energy scenario.



#### THE OECS PHOTOVOLTAIC TRAINING AND CERTIFICATION PROGRAMME

enewable Energy (RE), especially Solar Photovoltaic (PV), has been proven to be the most resilient energy source in recent "lockdown" times and increases resilience during and after natural disasters. PV is the fastest-growing energy source globally besides wind energy. PV prices are highly competitive relative to conventional energy sources which are harmful to the environment and climate. Furthermore, the PV industry provides booming job opportunities and is expected to continue to grow exponentially.

The Member States (MS) of the Organisation of Eastern Caribbean States (OECS) have recognized these developments and the importance of shifting to an indigenous, economic, and inexhaustible energy source. They also acknowledge the immense benefits of RE, gaining independence from expensive fossil fuel imports, and "eco-economic decoupling" of their economic growth from the increasing energy demand and pressure on the environment. The OECS Member States, including the independent countries, the British Overseas Territories and the French Departments are highly committed to embarking on a sustainable energy transition.

The availability of trained persons is an important part of the strategy for increasing the use of solar energy in the OECS. To this end, the OECS Commission, with the support of the Caribbean Development Bank (CDB), helped to enhance human resource capacities in the area of technical PV Installation through the OECS Photovoltaic Training and Certification Programme. This initiative was funded by the European Union and the UK Foreign and Commonwealth Office.

228 persons from the six independent Member States, namely Antigua and Barbuda, Commonwealth of Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and Grenadines, received training from July 2020 to January 2021. The participants were a diverse group, including female and male persons from the public and private sector, new entrants into the field of solar technology, as well as established practitioners in need of certification and people with disabilities. The training focused on PV installation and inspection. A large number of applications were submitted to the national energy ministries and selection of participants was based on an eligibility criteria. Given the huge demand for the training course, the organizing team from the OECS Commission and the CDB decided to facilitate an additional round of training in December 2020. As a result, this was the single largest PV Training and Certification Programme in the Caribbean Region to date.

The objective of the training was to enhance the capacity of PV installers in the Eastern Caribbean with a focus to correctly install PV systems and comply with international standards. The course covered the fundamental principles of the application, design, installation, operation,

and maintenance of PV systems. Topics included, identifying key benefits of specific types of PV systems, understanding safety concerns, sales and economic related topics like customers information, motivation and financial objectives, key identifying common financing options, among others, and design related topics, which included ensuring appropriate equipment, relevant codes, system sizing etc. The main focus was installation with elements of racking installation, electrical components, storage options and system commissioning procedures. Maintenance and Operation with topics like electrical test equipment, performance monitoring equipment, among others, were part of the course. The PV Systems Inspector Training course was an advanced and in-depth programme that focused on the safety and operations of PV systems for approval. It provided electrical inspectors with the capacity to examine, approve and certify the technical and safety considerations associated with grid-tied or stand-alone PV systems.

In addition to the PV Training Course, trainees were offered the opportunity to take examinations for the North American Board of Certified Energy Practitioners (NABCEP) Certification. NABCEP offers certification for professionals in the renewable energy industry and is the most respected, well-established and widely recognized certification organization for professionals in North America and the Caribbean Region. The content of the Program was aligned to prepare participants to match the curriculum and certification requirements of the NABCEP PV Associate (PVA) and NABCEP PV Systems Inspector (PVSI) certification. The NABCEP PVA exam certifies the candidates to have knowledge of the fundamental principles of the application, design, installation, and operation of grid-tied and stand-alone PV Systems. The NABCEP PVSI exam certifies the candidates and equips them with the capacity to qualitatively examine, approve and certify the technical and safety considerations associated with grid-tied or stand-alone PV systems. Throughout the OECS, PV Training and recognized NABCEP Certification industry standards in the Eastern Caribbean are intended to rise.

Ultimately, the PV Training Program and Certification will ensure the integrity of the system performance and build confidence in the reliability and utility of the PV technology, which hopefully, should lead to greater investment in such systems. This initiative will support the sustainable energy transition and the Green Economy.

The training was facilitated by Green Solutions International, St. Kitts and Nevis, Incorporated (GSI), a private training institute based in Saint Kitts and Nevis, which has successfully trained persons in the Caribbean Region in PV installations.

The Program was originally conceptualized for in-person training, but due to the impact of the pandemic, face to face trainings were no longer possible. The OECS Sustainable Energy Unit together with their partners, CDB and GSI, worked assiduously to solve the challenge and modified the programme to a virtual training course. GSI developed an online training platform and facilitated the newly accepted online NABCEP Certification process. Tailor-made online guidelines were developed to introduce the new model, to give guidance on useful online learning practices, and to help to make online learning a convenient and pleasurable experience.

The OECS Commission and particularly the OECS Sustainable Energy Unit would like to thank the Caribbean Development Bank as a partner, as well as the funding partners, namely, the European Union (EU) and the United Kingdom's Foreign Commonwealth and Development Office (FCDO). Thanks to the trainees who committed their time and energy to complete the training. Last but not least, thanks to GSI as the regional implementing training provider.

We wish all graduates a successful career in the exciting Renewable Energy / Solar PV field.

Judith Ephraim & Martin Rufenach
Sustainable Energy Unit, OECS Commission





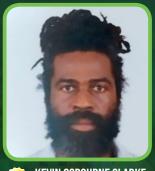
## ANTIGUA AND BARBUDA GRADUATING CLASS



ABDIEL ALLEN
COURSE: PVA



AMARAH CHRISTIAN COURSE: PVA, PVSI



KEVIN OSBOURNE CLARKE Course: PVA



IVOR DAVID COURSE: PVA



LESTER DUPIGNY
COURSE: PVA



IVAN HURST Course: PVA



ALANZO JACK Course: PVA



DARYL JACKSON COURSE: PVA



ERIC JOSEPH Course: PVA



AMORY JOSEPH Course: PVA



CHAQUAN KNOWLES
COURSE: PVA



DWIGHT LAVISCOUNT COURSE: PVA



## ANTIGUA AND BARBUDA GRADUATING CLASS







CHURCHILL NORBERT
COURSE: PVA



ROMEO REID Course: PVA



ELDEAN RICHARDS
COURSE: PVA



WINSTON.D.B.ROBERTS
COURSE: PVA



LYNDON SEBRO Course: PVA



ITA JAH SIMMONS Course: PVA



ALEX SPENCER
COURSE: PVA, PVSI



DISHON SPENCER Course: PVA



SOLÉ SPENCER Course: PVA



JAHDIEL THOMAS Course: PVA



ORET THOMAS
COURSE: PVA



## ANTIGUA AND BARBUDA GRADUATING CLASS



ROLSTON WARNER COURSE: PVA



NIAH BROWN Course: PVA



CURT FRANCIS Course: PVA



SELVYN GORDON Course: PVA



ORLAND HURST Course: PVA



DASHAWN MEADE Course: PVA



TYRONE MONROE COURSE: PVA



GARFIELD PIGOTT Course: PVA



GIRVAN PIGOTT Course: PVSI



## COMMONWEALTH OF DOMINICA GRADUATING CLASS



ANER ALEXANDER COURSE: PVA



QUINCY ANGOL COURSE: PVA



KEITH BENJAMIN Course: PVA



ESAIAS BURNETTE COURSE: PVA



DANI BURTON COURSE: PVA



KEITH-BOYCE CUFFY
COURSE: PVA



DARYL DALRYMPLE

COURSE: PVA



JODIE DANGLEBEN
COURSE: PVA



MICHAEL DAVID Course: PVA



DUNSTAN DUCREAY Course: PVA



BERLVIN GARDIER Course: PVA



ALEXIS GEORGE COURSE: PVA



## COMMONWEALTH OF DOMINICA GRADUATING CLASS







GILBERT GEORGE
COURSE: PVA



MCCULLEY ISMAEL
COURSE: PVA



FELIX JULIEN
COURSE: PVA, PVSI



LEMUEL LAVINIER
COURSE: PVSI



GRAYSON LEE
COURSE: PVA



KENNETH O'BRIEN Course: PVA



MAHALIA RODNEY Course: PVA



VAUGHN ROYER COURSE: PVA, PVSI



AMINAH SHILLINGFORD COURSE: PVA



ANDY TONGE Course: PVA



ANDEL TOUSSAINT COURSE: PVA



## COMMONWEALTH OF DOMINICA GRADUATING CLASS



IAN VALMOND Course: PVA



FITZROY WILLIAMS COURSE: PVA, PVSI



MAGNUS WILLIAMS
COURSE: PVA



RICHARD WILSON COURSE: PVSI



PVA

OKANG XAVIER Course: PVA





### **GRENADA**GRADUATING CLASS



SHELDON ABERDEEN COURSE: PVA



PAUL ANTOINE COURSE: PVA



TERAH ANTOINE COURSE: PVA



JEVON BEST Course: PVA



CURLLAN BHOLA
COURSE: PVA



CLEMENT COMMODORE (
COURSE: PVA, PVSI



EDWARD HEYLIGER (COURSE: PVA, PVS)



CHRISTOPHER JOSPEH COURSE: PVA



JAVID MITCHELL Course: PVA



ANESIA PETERS Course: PVA



PAUL PHILLIP Course: PVA



VICTOR PHILIP Course: PVA



#### GRENADA **GRADUATING CLASS**



**ERSON RODEN COURSE: PVA, PVSI** 



**ERWIN RODEN COURSE: PVA** 



**ANTHONY ROSS COURSE: PVA, PVSI** 



**LANCE SIMPSON COURSE: PVA** 



**LESLIE SMITH COURSE: PVA, PVSI** 



**ALEX STAFFORD COURSE: PVA** 



KENNETH STEPHEN **COURSE: PVA** 



ANN MARIE LETT COURSE: PVA



PATRICIA BENJAMIN **COURSE: PVA** 



**ELDON D CHARLES** COURSE: PVA





SIMEON LEWIS **COURSE: PVA** 



**ROY MC KIE COURSE: PVA** 



**ALLAN MITCHELL** COURSE: PVA



**KEVIN NOEL COURSE: PVA** 





**GOSHAM SPRINGER COURSE: PVA** 



## SAINT KITTS NEVIS GRADUATING CLASS



ORRIN ALEXANDER COURSE: PVA



RHON BODDIE Course: PVA



WINSLOW BROOKES
COURSE: PVA



BERTILL BROWNE COURSE: PVA



DONNELLA EDDY COURSE: PVA



NAFTALIE ERRAR Course: PVA



STARETT FRANCE COURSE: PVA



SHELDON FREEMAN COURSE: PVA



JAVID GILBERT Course: PVA



SHALANDA GOMEZ Course: PVA



MARVIN HANLEY
COURSE: PVA



ERIM G.S HERBERT
COURSE: PVA



## SAINT KITTS NEVIS GRADUATING CLASS



SHELLON HINTZEN Course: PVA



ALEXIS ISAAC Course: PVA



JONATHAN KELLY COURSE: PVA, PVSI



ANELDA MAYNARD-DATE COURSE: PVA



YVAN MCPHAIL Course: PVA



CURTIS MORTON
COURSE: PVA



ANDY OTTO COURSE: PVA



RHONDEL PHILIP
COURSE: PVA, PVSI



SOLOMON POWELL COURSE: PVA



KENROD ROBERTS
COURSE: PVA



WINGROVE ROUSE
COURSE: PVA



HORATIO STAPLETON COURSE: PVA



## SAINT KITTS NEVIS GRADUATING CLASS



PABLO STAPLETON COURSE: PVA



JERVAN SWANSTON Course: PVA



ANDY WILLIAMS COURSE: PVA



COLLIN WILLIAMS
COURSE: PVA



WAYNE EDMEADE COURSE: PVA



RECALDO GARDENER Course: PVA



JESSE HUNKINS COURSE: PVA



ROYAN MATTHEW Course: PVA



MICHELLE MCGRATH COURSE: PVA



OLDAIN POWELL Course: PVA



GREGORY QUAILEY COURSE: PVA



DION WALTERS
COURSE: PVA



## SAINT LUCIA GRADUATING CLASS



MARCELLUS BELIZAIRE COURSE: PVA



DAVID BRISTOL Course: PVA



JACK BRISTOL COURSE: PVA



MARIO CAGLIN COURSE: PVA



CLETUS CHARLES
COURSE: PVA, PVSI



SHERVAUGHN DARCIE Course: PVA



DONA EMMANUEL
COURSE: PVA



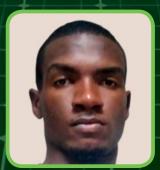
GARVIN FERDINAND Course: PVA



SHURMAN FRANCIS
COURSE: PVSI



GIVAN GEORGE COURSE: PVA



JARNIEL GUSTAVE Course: PVA



JASON HILAIRE Course: PVA



## SAINT LUCIA GRADUATING CLASS



KURT INGLIS
COURSE: PVA



TRICIA JAMES
COURSE: PVA



SHANE JEAN Course: PVA, PVSI



EARLAN JN BAPTISTE
COURSE: PVA



BENISE JOSEPH COURSE: PVA



RANDALL JOSEPHY
COURSE: PVA



IRVIN LAMBERT Course: PVA



SHANIA MANGAL Course: PVA



ARNOLD MITCHELL COURSE: PVA



DYLAN MONTOUTE Course: PVA



JOHN PAUL Course: PVA



EARL PHRONESIS Course: PVA



## SAINT LUCIA GRADUATING CLASS



HENDIA RANDOLPH Course: PVA



SAMUEL DOSSERIE Course: PVA



LYANNE ELIBOX Course: PVA



RICARDO JAMES Course: PVA



ANTHONY JOHN Course: PVA



MILTON JOSEPH Course: PVA, PVA



LEROY JOSEPH Course: PVA, PVSI



JOASH MARQUIS Course: PVA



STEPHEN PINILL Course: PVA



#### SAINT VINCENT AND THE GRENADINES GRADUATING CLASS



RICARDO ADAMS
COURSE: PVA



KELROY ANDRE ALEXANDER
COURSE: PVA



BREZEL BURGIN COURSE: PVA



DANIEL CAMPBELL Course: PVA



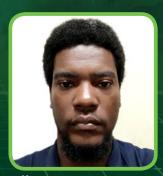
SHEMON CHAMBERS COURSE: PVA



JONATHAN CHANG COURSE: PVA, PVSI



CONRAD CHARLES
COURSE: PVA, PVSI



ASHAKA CONLIFFE
COURSE: PVA



MOWATT CRUICKSHANK COURSE: PVA



MELISSA DE FREITAS
COURSE: PVA



EDWIN DURRANT COURSE: PVA, PVSI



KEVIN FINDLAY
COURSE: PVA



#### SAINT VINCENT AND THE GRENADINES GRADUATING CLASS



LERON FRANCE Course: PVA



JOSETTE GREAVES COURSE: PVA



MELISSA GRECIA Course: PVA



ROMANO GUY Course: PVA



RAHEEM HALL Course: PVA



KARIM HAZELL COURSE: PVA



MERWINSON JACK COURSE: PVA



LONZEL JONES
COURSE: PVA, PVSI



SYLVANUS LAIDLOW COURSE: PVA



RASHEED MCLEAN Course: PVA



LESMON POPE COURSE: PVA



KEVIN PROVIDENCE Course: PVA



#### SAINT VINCENT AND THE GRENADINES GRADUATING CLASS







KYLA ROBINSON COURSE: PVA



MARLON JEROME SIMON COURSE: PVA



AGOSTINI SOLEYN
COURSE: PVA



CHAZ WILLIAMS
COURSE: PVA



SHANNA WILLIAMS Course: PVA



VERNEL YOUNG Course: PVA





SHAQUILLE DEFREITAS Course: PVA





SHARIKA TESSA MANDEVILLE Course: PVA



VICTOR MEADE Antigua and Barbuda Course: PVA, PVSI

#### Why were you interested in doing this PV training?

As an electrical engineer it is very important that one continue to learn and train in all things electrical and keep on the cutting edge of technology. Therefore, when I heard of this Photovoltaic Training and Certification course I immediately jumped at the opportunity to register.

#### How would describe your experience with learning in a virtual mode with the OECS PV training?

Having completed the course and receiving my certificate I am extremely elated. Traditionally I am accustom to learning in a face to face classroom setting, however the virtual class setting has been interestingly convenient experience as it allowed me to integrate learning into my day to day life. That is I was able to schedule a time during my daily activities without leaving home/ work. Also with the Covid-19 pandemic the virtual setting was timely. One would have liked to have the benefit of hands on experience when it came to the practical part of the training but this too worked out well as the facilitator, Randy Dunton, made this part of the learning experience straightforward and easy.

#### What is your vision for the solar industry in the OECS?

As I look in the rear view mirror I see a future in which the sun's vast energy will be harnessed to provide all the energy we need here in the Caribbean. I certainly would like to see the governments within the OECS region embrace solar energy as our prime source of energy. As the solar industry continues to develop there will be increased opportunity for employment and economic growth. I am very excited for the future of the solar industry here in the region.



ANDEL TOUSSAINT
COMMONWEALTH OF DOMINICA
COURSE: PVA

#### Why were you interested in doing this PV training?

I work at the Electrical Division in the Ministry of Public Works and The Digital Economy and I was selected among other colleagues to do this course.

I was willing to do the course because this is my field and I've always been interested in renewable energy. I also believe renewable energy will be vital in the years to come and will be more widely used than fossil fuels.

#### How do you see this training assisting you in the future?

This training has certainly given me a solid foundation in solar photovoltaics, particularly in the area of safety and installation techniques to ensure maximum performance of the system.

#### What is your message to the organisers of the training project?

The organizers did well considering the virtual program was a new format for everyone. The lessons put together by Mr. Dunton were very informative and provide a good foundation for anyone just entering the solar industry.



CHAZ WILLIAMS
SAINT VINCENT AND THE GRENADINES
COURSE: PVA

#### What is your vision for the solar industry in the OECS? How would you like to see it grow?

With the automobile industry making a significant move towards electric and hybrid vehicles, electricity will be in greater demand. It would be magnificent to have this demand met with renewable solar energy. Essentially, we would have our vehicles powered by the sun. In turn, it would significantly reduce the reliance on fossil fuels needed for transportation.

#### What do we need to support the growth of the solar industry in the OECS?

The Solar industry has been growing exponentially in recent years with more people understanding and appreciating the benefits. However, in the OECS, additional expertise is needed to address technical issues relating to interconnection and RE penetration on small island utility grids. Additionally, progressive policies and measures are required to further promote and incentivise the uptake.

#### How can young persons help to advance sustainable energy in our region?

Young persons will play an integral role in advancing sustainable energy. Through identifying the various barriers, their focus should be geared towards acquiring the knowledge and skillsets needed to overcome them. There will be those who would contribute to policy-making and others to technology development.



BENISE JOSEPH SAINT LUCIA COURSE: PVA

#### Why were you interested in doing this PV training?

Working in the Energy Field as an Energy Officer, I have been involved in designing a number Solar PV Projects and supervising the installation of these projects. This training provided an opportunity to be better informed of the needs in the sector, some of the difficulties that installers may encounter, problems experienced with PV design and most importantly safety requirements for installations. The need to have a better understanding of all these mentioned above and more, encouraged me to undertake this course.

#### What was the best aspect of virtual learning?

As a mother and professional, the virtual learning allowed me to set my schedule to undertake the training, that is what I enjoyed the most about this virtual learning sessions. I was allowed the liberty to fit in my learning/training periods during the times that did not interfere with my normal work and parenting.

#### Why would you recommend other women get trained in PV installation?

I would recommend that women get trained in PV installation. I think it is always good to learn and especially if you are involved in the electrical or engineering field it is good to understand PV installation and get involved in the installation of PV systems. This field is becoming ever so important in the Caribbean region and is a good opportunity for women in the technical field to become trained.



JERVAN SWANSTON SAINT KITTS & NEVIS COURSE: PVA

#### Having undergone the training, do you feel more empowered to work and contribute to the solar industry in the region?

In 2016, I enrolled in a Master Degree with a concentration on Energy. This was largely due to the fact that countries in the region are all moving towards going green. Solar Energy will no doubt be ahead of any other form of renewables in the Caribbean as the sun is always with us. I graduated last year in 2020. The PV Course therefore was a welcomed program at the time it was offered. This training further enhanced the limited knowledge I had and propelled me further now to the direction of installation as it provided in depth knowledge necessary in applying the trade.

#### What is your message to the organisers of the training project?

The Program was really timely and should be put on more often. A number of persons are now showing interest in the field since our group took the course.

#### What other energy related areas would you like to pursue training?

As the region is moving towards Electric Vehicles, the care, service and maintenance of such will be welcomed. Wind and Wave Energy along with different forms of energy storage are also areas that I would like to see additional training offered.



LESLIE SMITH Grenada Course: PVA

#### Why were interested in doing the PV Training?

Solar PV training is a priority area for Government under the National Sustainable development goals; therefore, Government has to develop its own capacity to promote any initiatives that will facilitate the uptake of Solar PV in its long-term development plan

In Grenada and in the sub region, there is very limited capacity of skilled professionals. This therefore is an opportunity to strengthen and enhance the country's capacity adequately handle this technology.

To be better able to serve persons with intention of getting involved in Solar PV with up-to-date information that would guide their decision-making process and to be better able to explain the technical issues related to solar PV.

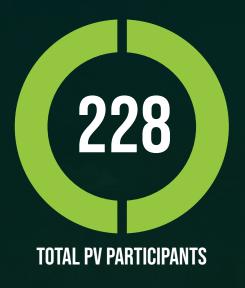
#### What other energy related areas would you like to pursue training?

- 1. Certified energy managers training
- 2. sustainable energy building design
- 3. Investment Grade Calculation for Renewable Energy and Energy Efficiency Projects

#### What is your vision for the solar industry in the region?

- There is a need for more ambitious actions to facilitate the proliferation of RE application in the sub region. This can be done through the establishment and implementation of support policies and accompanying fiscal incentives to offset the relatively high upfront cost.
- 2. My vision is to seem a larger amount of residential and commercial properties taking advantage of our solar resource.
- 3. In the area of electricity generation, because of the relatively small size of the OECS member states, almost all of the electricity generation should be from renewable energy sources with appropriate energy storage to offset the intermittent nature of some of the resources.

#### **INTERESTING FIGURES AND STATS**













HIGHEST NABCEP EXAM SCORE



SUCCESSFUL NABCEP EXAMS



## IMPORTANCE OF STANDARDS AND REGULATIONS FOR THE GROWTH OF THE SOLAR PV SECTOR

BY SKEETA CARASCO, REGULATORY ECONOMIST, NATIONAL UTILITIES REGULATORY COMMISSION (NURC), SAINT LUCIA

Clobally, the share of renewable energy in electricity generation continues to increase despite the slowdown resimplemented to reduce the spread of COVID-19. Whereas

in installations resulting from measures implemented to reduce the spread of COVID-19. Whereas this continued growth trajectory in solar photo voltaic (PV) installations has been largely driven by reductions in prices of the associated technology, government policy including the adoption of standards and regulations have catalyzed the growth of the PV sector around the world. Standards and Regulations are important to the growth of the PV Sector because they promote greater acceptance of solar PV by utilities, provide greater confidence to investors and ensure safety.

Standards and Regulations lead to greater acceptance of solar PV by utilities and corresponding growth in the PV sector. In many countries, utilities display a posture of caution in matters related to the growth of customer led distributed generation. This caution can however be minimized if standards and regulations are implemented to address issues such as interconnection requirements, pricing and dispute resolution. These are typically addressed within a regulatory framework where an independent utility regulator is empowered by statute to address such matters. The technical issues are often addressed in Grid Codes which prescribe standards for any player desirous of connecting to the grid. Pricing and compensation issues are addressed by legislation, regulations and price determination powers of utility regulators. Customer-related matters are often addressed by legislation, regulations, customer codes and powers of utility regulators to address disputes between utilities and other parties such as independent power producers. All of these mechanisms provide utilities with greater confidence regarding the safety and reliability of their services and business continuity which can lead to more growth in the PV sector.

Moreover, Regulations and by extension a sound Regulatory Framework are important to PV sector growth because they create an environment of certainty and predictability which gives confidence to investors who generally aim to minimize risk and maximize returns. Therefore, an environment with regulations implemented by an independent utility regulator provides a greater degree of certainty that investments will yield fair returns.

Standards are also critical for ensuring the safety of PV systems which leads to consumer confidence and sector growth. The adherence to standards during the purchasing and installation of system components such as inverters contributes greatly to the performance of the system and its overall safety. This provides owners with confidence that their installations will likely cause no harm to their person or property. No individual or entity wants to invest in something that can be a hazard and therefore the confidence from knowing that these systems are safe can promote PV uptake and sector expansion.

Standards and Regulations provide greater confidence to utilities, investors and customers leading to overall growth of the PV sector. The role of the Regulator in this dynamic renewable energy environment is to ensure that these standards and regulations are strictly adhered to by all players. We should therefore all play our part in designing and adhering to standards and regulations that can grow the sector.

# SOLAR CHALLENGE THE EASTERN CARIBBEAN CHALLENGE Trace to the sun!





#### The OECS, Climate Change and Climate Action

The OECS region is particularly vulnerable to climate change. Members States are striving to build climate resilience and to transition to low-carbon economies, with some seeking to implement and enhance their Nationally Determined Contributions (NDCs) and others pursuing complementary strategies.

Despite their negligible greenhouse gases (GHG) emissions, Member States aspire to demonstrate leadership by pursuing aggressive emission reduction targets. Ahead of the 26th Conference of Parties to the United Nations Framework Convention on Climate Change (COP-26), Parties to the Paris Agreement, including those in the OECS, have taken steps to revise their Nationally Determined Contributions (NDCs) with a view to increasing their climate ambition through, in particular, the increased use of renewable energy.

Notwithstanding, OECS Member States have to date faced significant challenges in leveraging the resources required to implement their NDCs and complementary climate change strategies and plans, with the onus of mobilising these resources borne almost solely by national governments.

#### The Caribbean NDC Finance Initiative

The Caribbean NDC Finance Initiative (NDCFI), a joint initiative of the OECS Commission and the Government of Saint Lucia, was established in 2017 with political support from the UNFCCC, and under the auspices of the NDC Partnership. The NDCFI seeks to, among others: address bottlenecks in project development, increase the availability of investible projects; and improve access to finance for projects that accelerate NDC implementation and build resilience.

#### The Eastern Caribbean Solar Challenge

In an effort to support NDC implementation and wider climate action in the Eastern Caribbean, the NDCFI has embarked on a bold and exciting new renewable energy initiative. The Eastern Caribbean Solar Challenge: "Race to the Sun" aims to engage governments, the private sector, development partners and households in a united effort to increase the diffusion of solar electricity and heating across the region by the end of 2023, in the first instance.

#### Aim

Increased deployment of renewable energy technologies in support of national, regional and global goals to increase climate resilience and towards keeping global temperature increase within 1.5°C.

#### **Objectives:**

- Raise awareness about renewable energy options and promote opportunities to take action that demonstrate energy leadership
- Galvanize action towards the Eastern
  Caribbean's efforts to transition to a
  Low-Carbon Economic Zone

#### Why Solar?

- Solar is an increasingly viable and price-competitive alternative source of energy
- It is scalable from household to grid scale, allowing for wide engagement at all levels
- It provides clear visibility for climate action taken, and produces measurable results.
- Hurricane-proof solar installations can promote both climate mitigation and enhance resilience.
- Solar creates green job opportunities for Energy Service Companies and individual installers

#### How the Eastern Caribbean Solar Challenge works

The Challenge harnesses the efforts governments, the private sector, private citizens/households and development partners towards increased xx of solar.



Private sector investment in small and medium solar installations on private and public facilities.

Financial and related incentives to facilitate investment in solar

Public sector policy, legislative and fiscal measures to support and facilitate the deployment of solar in the Eastern Caribbean

Household-level investments in solar electricity and heating.

Increased
Diffusion
of Solar in
the Eastern
Caribbean

Development partner contributions towards solar installations in public facilities

The Eastern Caribbean Solar Challenge will be formally launched in the near future.

For more information, please e-mail cdrunit@oecs.int.