RACE TO RESILIENCE RACE TO ZERO

IRENA
International Renewable Energy Agency

SIDS LIGHTHOUSES

Net-zero Investment Lab:
Public and Private Collaboration on Accelerating Green Investment in SIDS

Tuesday, 30 March 2021
12:00 – 14:00 BST

Welcoming and Opening Remarks

Selwin Hart

Special Advisor and Assistant Secretary-General for Climate Action, United Nations

RACE TO RESILIENCE RACE TO ZERO

IRENA
International Renewable Energy Agency

SIDS LIGHTHOUSES

You are all **muted** to avoid background noise

Kindly ensure to limit your intervention to **5 minutes**

If you have **Questions** to the speaker, please use the **chat box**

If you encounter any technical issues, please write your issue in the **chat box**

Time	Sessions and Speakers
07:00 – 07:20	Welcome Scene Setting: Mr. Selwin Hart, Special Advisor and Assistant Secretary-General for Climate Action, United Nations Opening Remarks: Mr. Francesco La Camera, IRENA Director-General Mr. Nigel Topping, High Level Climate Action Champion H.E Diann Black-Layne, Ambassador of Climate Change and Director of Environment, Antigua and Barbuda
07:20 – 07:25	SIDS Lighthouses Initiative and Climate Investment Platform *IRENA framing with examples of successful projects, models and pipeline, especially where private finance has been leveraged* Speaker: Mr. Gurbuz Gonul, Director of Country Engagement and Partnerships, IRENA
07:25 – 07:35	Private sector finance perspective *Experience of working in SIDS, benefits, barriers etc* Speaker: Mr. Martin Vogt, Managing Director, MPC Renewable Energies

Time	Sessions and Speakers
07:35 – 07:45	Private sector developer perspective *Experience of working in SIDS, benefits, barriers etc* Speaker: Ms. Alexandra Sombsthay, Vice President for European and International Affairs, Akuo Energy
07:45 – 07:55	MDB perspective *How concessional finance can catalyse private investment* Speaker: Mr. Rohit Khanna, ESMAP Manager, World Bank
07:55– 08:55	Discussion *How public and private collaboration can accelerate green investment in SIDS* Scene setters: Dr. Kamlesh Dookayka, Research Officer, Mauritius Renewable Energy Agency (MARENA Ms. Racquel Moses, CEO, Caribbean Climate-Smart Accelerator
08:55 – 09:00	Conclusion and steps towards COP26 Speaker: Mr. Francesco La Camera, IRENA Director General

Francesco La Camera

Director General, IRENA

Nigel Topping

High Level Climate Action Champion

Diann Black-Layne

Ambassador of Climate Change and Director of Environment, Antigua and Barbuda

SIDS Lighthouses Initiative and Climate Investment Platform

Gurbuz Gonul

Director of Country Engagement and Partnerships, IRENA

Facilitating Small Island Developing States Access to Investment through the SIDS Lighthouses Initiative

Net-zero Investment Lab: Public and Private Sector Collaboration on Accelerating Green Investment in SIDS
30 March 2021

Overview of the SIDS Lighthouses Initiative

| 36 SIDS and 31 Development Partners | Framework to facilitate SIDS climate action through energy transformation |
| Addresses all elements of energy transition | Operationalises the Ambitious SIDS Climate Package and IRIE initiatives | NDC Support for 21 SIDS |

Caribbean

1. Antigua & Barbuda
2. Aruba
3. Bahamas
4. Barbados
5. Belize
6. British Virgin Islands
7. Cuba
8. Dominican Republic
9. Grenada
10. Guyana
11. Montserrat
12. St. Lucia
13. St. Vincent and the Grenadines
14. Trinidad and Tobago
15. Turks and Caicos

Atlantic, Indian Ocean and South China Sea

1. Cabo Verde
2. Comoros
3. Maldives
4. Mauritius
5. Sao Tome and Principe
6. Seychelles

Pacific

1. Cook Islands
2. Federated States of Micronesia
3. Fiji
4. Kiribati
5. Republic of the Marshall Islands
6. Nauru
7. New Caledonia
8. Niue
9. Palau
10. Papua New Guinea
11. Samoa
12. Solomon Islands
13. Tonga
14. Tuvalu
15. Vanuatu

Other Partners: Non-SIDS countries and Partner Organisations

1. Denmark
2. France
3. Japan
4. Italy
5. Germany
6. Italy
7. New Zealand
8. Norway
9. United Arab Emirates
10. United States of America
11. Association of the Overseas Countries and Territories of the European Union
12. Caribbean Electric Utility Services
13. Clean Energy Solutions Center
14. Clinton Climate Initiative
15. ENEL
16. European Union
17. Greening the Islands
18. Indian Ocean Commission
19. International Renewable Energy Agency
20. Island Innovation
21. Organisation of Eastern Caribbean States
22. Pacific Community
23. Pacific Islands Development Forum
24. Pacific Power Association
25. Rocky Mountain Institute - Carbon War Room
26. Solar Head of State
27. Sustainable Energy for All
28. Sur Futuro Foundation
29. United Nations Development Programme
30. United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and SIDS
31. World Bank

SIDS Lighthouses Initiative Priority Areas

IRENA
International Renewable Energy Agency

Support SIDS in reviewing and implementing **NDCs,** with **technical assistance** and **capacity building**

Expand from assessment and planning to **implementing** effective, innovative solutions.

Promote **all renewable sources**, including geothermal and ocean energy, and step up work on wind and PV

Support the development of bankable projects, **access to finance** and co-operation with the **private sector**

Strengthen **institutional and human capacity** in all segments of the renewable energy value chain

Expand focus beyond power generation to include **transportation and other end-use sectors**

Expand focus beyond power generation to include **transportation and other end-use sectors**

Leverage synergies between renewables and **energy efficiency**

Nexus between RE and agriculture, food, health and water – to foster broad **socio-economic development: job creation**, **gender** equality and **women's empowerment** through renewables.

Link renewable energy uptake to climate resilience and more effective disaster recovery.

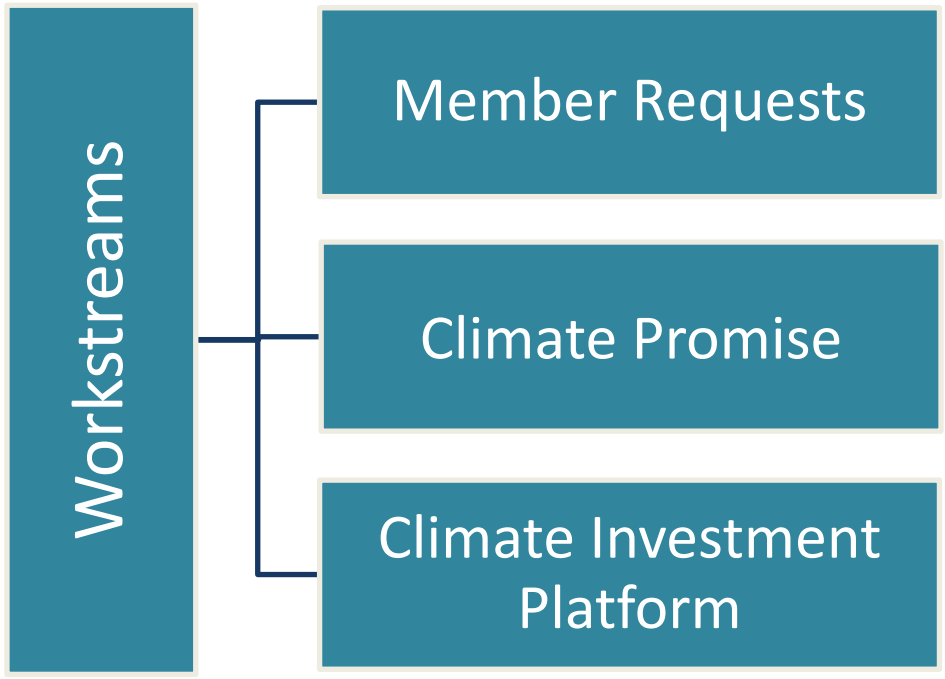
Enhance collection and dissemination of **data** and **statistics, supporting informed decision-making**

Reinforce and expand **partner engagement**, leveraging synergies with other SIDS initiatives

Boost renewable power deployment, aiming for a target of **5 GW of installed capacity** in SIDS by **2023**

IRENA-ADFD Facility: SIDS Projects

Project Facilitation Workstreams



Project Information Document

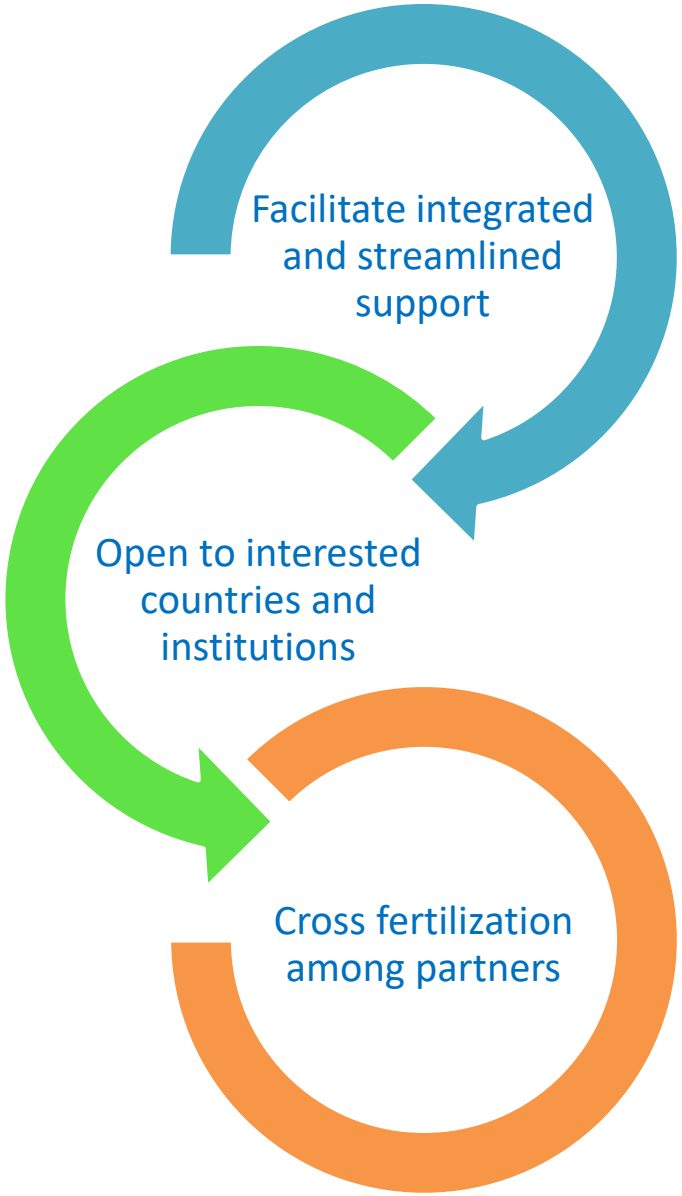
Technical Assistance

Upstream support to achieve the goal of matching climate finance with investment-ready projects.

Climate Investment Platform (CIP)

Announced on the occasion of the UN Climate Action Summit (Sep 2019, New York)

Inclusive partnership to promote accelerated, transformative and scaled-up investments to support ambitious NDCs and the pursuit of the SDGs, **with the initial focus on energy transition.**



Investment Forums: Scope of Activities

Investment Forum [in Cluster X]

Enabling Frameworks for Investment

Highlighting needs to improve investment conditions

- Policy and regulation -

Project Support

Matchmaking of bankable projects and financiers

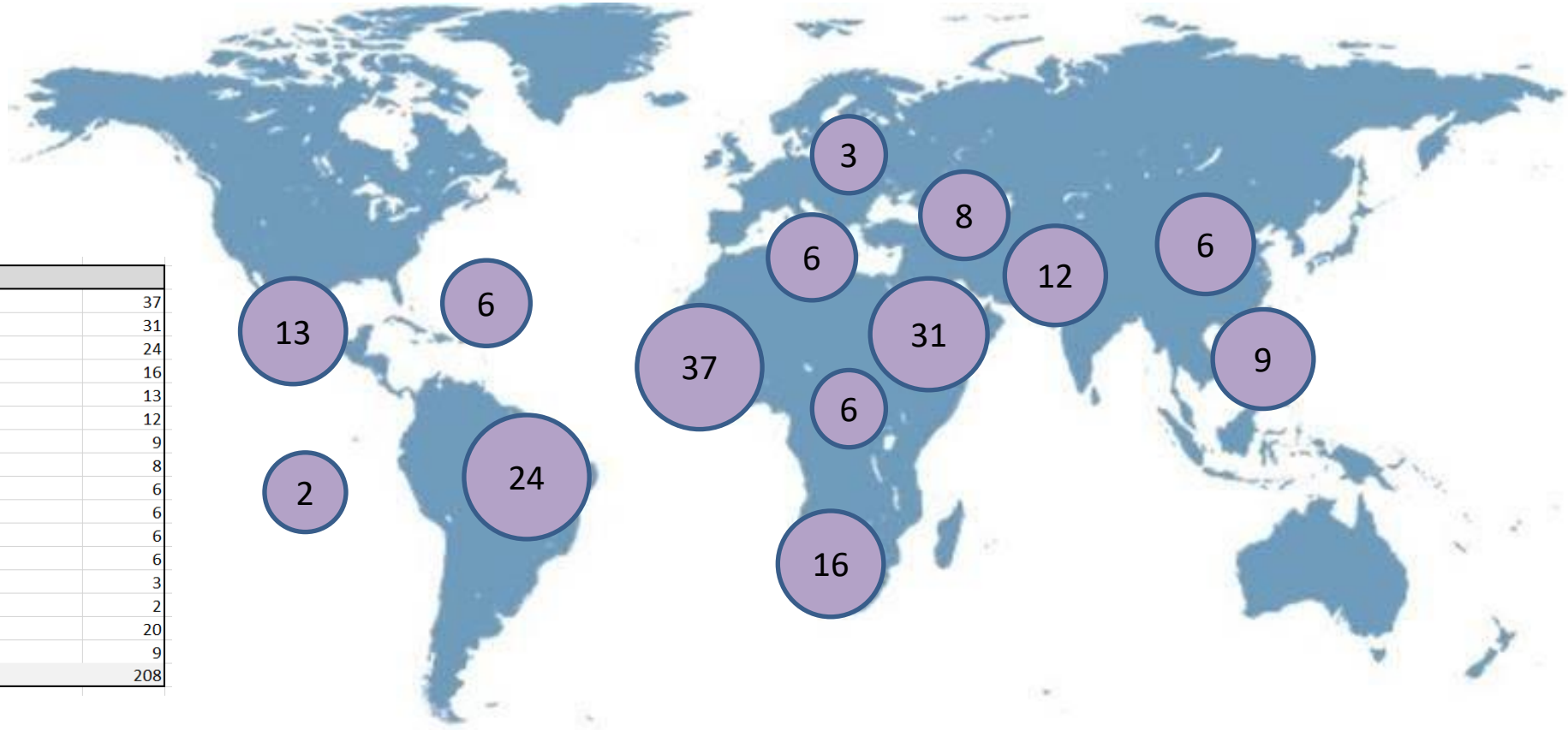
Knowledge Dissemination and Capacity Building

Strengthening competencies of regional and local stakeholders on a wide range of policy, regulatory, technical topics -- tailored to specific needs

Climate Investment Platform

CIP registered projects

Regional Cluster	
West Africa	37
Eastern Africa	31
South America	24
Southern Africa	16
Central America	13
South Asia	12
Southeast Asia	9
Middle East	8
Central Africa	6
Central Asia	6
North Africa	6
Caribbean Islands	6
Southeast Europe	3
Pacific Islands	2
Others	20
Multiple Locations	9
Grand Total	208



TARGET: increase **efficiency and effectiveness** of scaling up investment through facilitating development of bankable projects

Mr. Gurbuz Gonul
Director Country Engagement and Partnership (CEP)
GGonul@irena.org
IRENA Headquarters, Masdar City
P.O. Box 236, Abu Dhabi
United Arab Emirates

SIDS Lighthouses Initiative Email: Islands@irena.org

SIDS LHI Website: https://islands.irena.org

Private sector finance perspective

Martin Vogt

Managing Director, MPC Renewable Energies

IRENA | NET ZERO INVESTMENT LAB

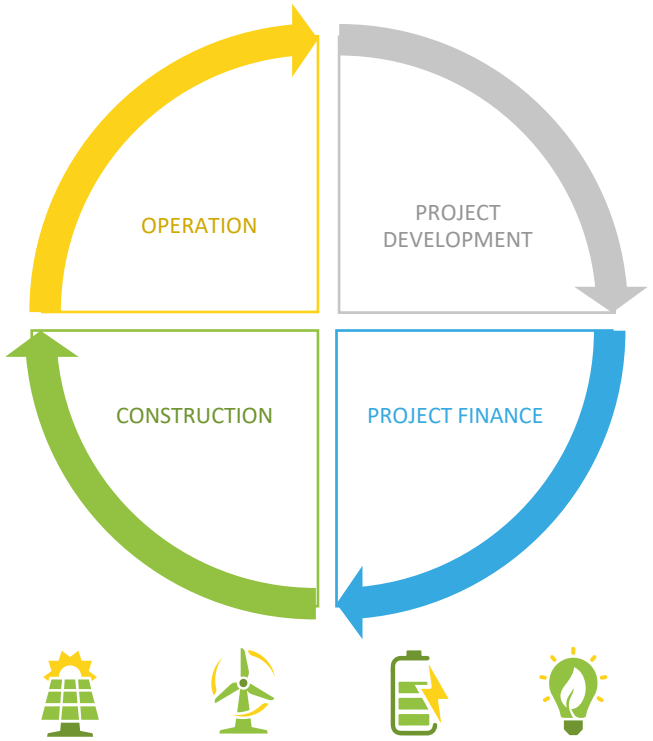
|→ 2021

PRIVATE SECTOR FINANCE PERSPECTIVE
EXPERIENCE OF WORKING IN SIDS, BENEFITS, BARRIERS

MPC ENERGY SOLUTIONS

MPC ENERGY SOLUTIONS (MPCES)

DEVELOPER, OPERATOR AND OWNER OF SUSTAINABLE ENERGY SOLUTIONS



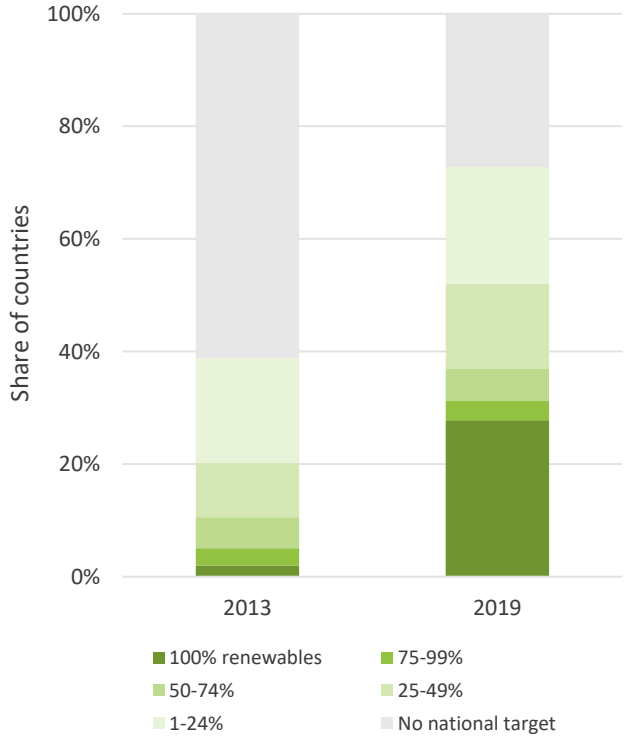
MPC ENERGY SOLUTIONS

OUR EXPERIENCE IN THE REGION

MPC ENERGY SOLUTIONS

AMBITIOUS RENEWABLES TARGETS IN CARIBBEAN

COUNTRIES WITH RENEWABLE ELECTRICITY TARGETS (2019 VS. 2013)



100%

TARGET RENEWABLES SHARE BY 2050:

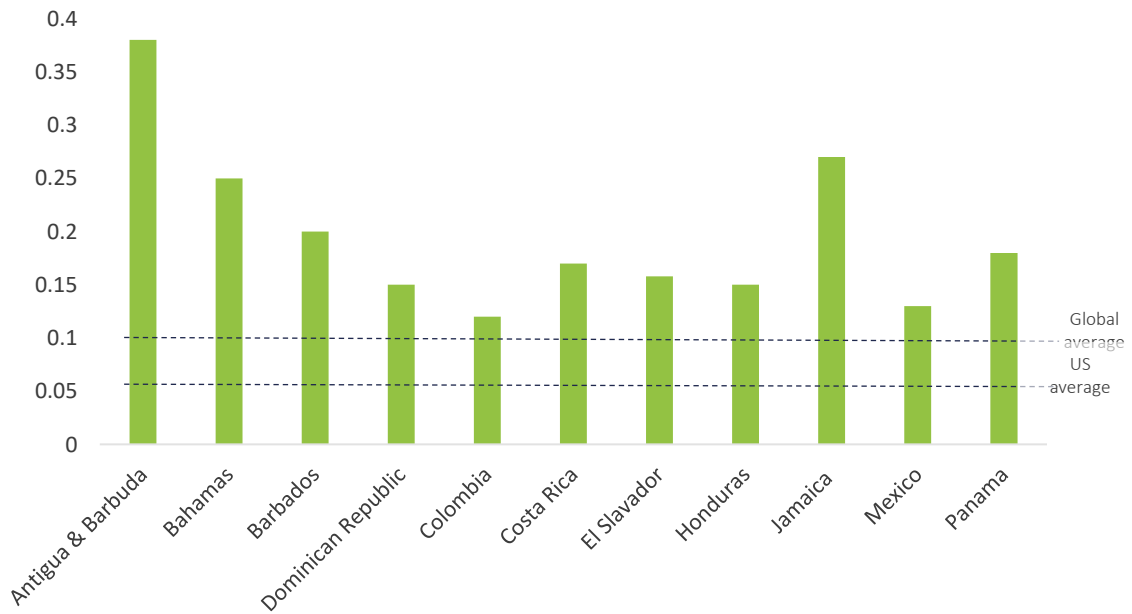
Barbados
Dominica
Dominican Republic
Grenada
…

- Over 50 countries now aim to reach 100% share of renewables by 2050
- Caribbean and Latin American countries in particular have firmly committed to renewables
- Dominican Republic, Jamaica and Colombia among countries with a 2025 target of 25% renewables

Source: REN21, Global Data 2019 / Climatescope 2018

UNLOCKING ECONOMIC GROWTH AND GREEN RECOVERY

AVERAGE ELECTRICITY RETAIL PRICES (US$/KWH)



+ Most Caribbean markets pay significant premiums to the global average for electricity
+ Highly attractive to base new capacities on renewable energy and/or hybrid projects reducing power prices in the long-term
+ Corporate demand access to low carbon, reliable and affordable power supply
+ Unlocking economic growth potential while rebuilding more resilient energy infrastructure

JAMAICA | 51 MW PARADISE PARK PROJECT

MPC ENERGY SOLUTIONS

EL SALVADOR | 6.4 MW SAN ISIDRO PROJECT

MPC ENERGY SOLUTIONS

Q&A

THANK YOU FOR YOUR ATTENTION

MORE INFORMATION:
WWW.MPC-ENERGYSOLUTIONS.COM

MPC ENERGY SOLUTIONS

Private sector developer perspective

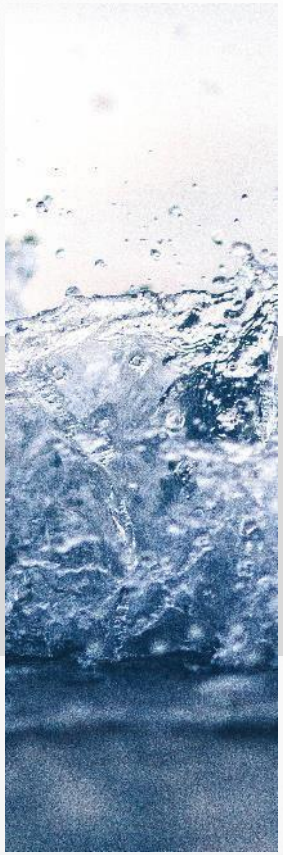
Alexandra Sombsthay

Vice President for European and International Affairs, Akuo Energy

Akuo

Islands expertise

Corporate presentation 2021



Entrepreneurs par nature

ENTREPRENEURS BY NATURE

Leading French renewable energy Independent Power Producer and Developer

2007
Creation

Independence
The 2 founders of the group remain majority shareholder and respectively President and CEO

Integrated player
Development, Construction, Financing, Asset Management - O&M

Focus on territories
Decentralized renewable energy solutions

> €270m
Consolidated revenues (unaudited figure)

> 15
Local entities worldwide

€2.6bn
Cumulative investment

> 350
Employees

1,3 GW
Electric power

95 MWth
Heat power

>50 MWh
storage

Capacity in operation and under construction

Wind | Solar | Hydro | Storage

2020 year-end

ISLANDS : ENVIRONMENTS UNDER CONSTRAINTS

- There are more than **11 000 islands** with permanent residents worldwide. Islanders represent **over 730 million**, approximately **11% of the world's population**. And yet, several islanders lack of basic day to day necessities such as stable access to electricity or to affordable and clean energy, while they are in the front-line regarding climate change impacts.

And yet, islands have the potential to be at the forefront of technological, social, economic and political innovation.

Islands are rich in natural resources but often :

- Must **import fossil fuels** to meet their energy needs
- **Accessibility is a challenging dimension**
- **Land scarcity** and subject to strong competition of usages
- **Extreme weather events** such as cyclones, earthquakes or tsunamis
- **Lack of connection** to high networks power

ISLANDS' POTENTIAL IN THE ENERGY TRANSITION

Because of their diversity, islands provide specific opportunities to deploy innovative solutions.
We firmly believe that islands have the potential to become promoters of the energy transition.

CHALLENGES	OPPORTUNITIES
Geographic Insularity	Energy Independency Promoters of innovative approaches
Dependency on fossil fuels and energy imports	Access to local renewable sources as for strenghthening independance from imports
High energy prices and price volatility	Large Island Markets and high projects replicability
Non-optimized energy systems	Multiplication of regional, national and european programs and funds
Air pollution, environmetal degradation and early victims of the climate change	Energy transition as a long-term and sustainable solution

Our solutions for Islands

ISLANDS, AT THE FOREFRONT OF THE ENERGY TRANSITION

Akuo is the **global leader of renewable energy in islands**.
Our greatest asset? We understand Islands' needs to offer innovative and tailor-made solutions.

Photo © Serge Gelabert

LA REUNION ISLAND

Reunion Islands – 100% sustainable electricity by 2023
Increasingly becoming dependent on fossil fuels since 1980, the island has decided to green its energy sector. Hence, combining renewables and energy importations, La Reunion aims to have a 100% sustainable electricity mix by 2023.

Akuo's projects beyond energy generation are thus key.
With 34.6 MW of installed capacity in the island, we supply islanders with renewable energy, but also, we promote island's energy independency, sustainable farming and fishery and we create new economic and social opportunities.

Photo © Getty Images / Fernando Bandini

DOMINICAN REPUBLIC

Dominican Republic – Embracing sustainable tourism
The increasing demand for non polluted areas and sustainable tourism entailed the publication of a Roadmap for Low Carbon and Resource Efficient Accommodation in the Dominican Republic (2019) in partnership with the UN. Strong sign of the island's ambition of greening the tourism sector.

With our 51,5 MW of installed power, we contribute to provide a cleaner energy mix. For that purpose, we installed a wind farm adapted to the mountainous geography that decreases CO2 emissions and we deployed GEM solutions for non connected and isolated areas such as resorts, greening the whole tourism sector and improving island's energy independency.

- **Akuo** offers **adapted** and **tailor-made solutions** considering the specific constraints faced by Islands to foster a successful energy transition and promote renewables' integration.

- **Agrinergie®** - overcoming the lack of available land
- **Storage** – towards a more resilient and independent energy system
- **GEM®** - secure clean energy supply in off-grid areas
- **Floating Solar**- brings value to unused areas while avoiding competition for lands.
- **Anti-cyclonic Wind Farms :** tailor-made designed power plants for territories with complex geographical and climate conditions
- **AKUO COOP** – towards a more inclusive energy transition

AGRINERGIE®

Combining **clean energy** and **agricultural production** in the same area, Akuo is:

- Promoting Island energy independency
- Decreasing greenhouse gas emissions
- Solving conflicts over land uses
- Contributing to energy and food security
- Fostering business models tailor-made to the needs and conditions of each islands
- Securing farmer's income while creating new jobs

BARDZOUR

9 MWp Agrinergie® cyclone-proof greenhouses combined with **9 MWh of storage**

300 additional jobs were created during the construction phase

Unique prisoner rehabilitation program
15,000h of training for the prisoners to teach them skills critical for their future reintegration in the job market

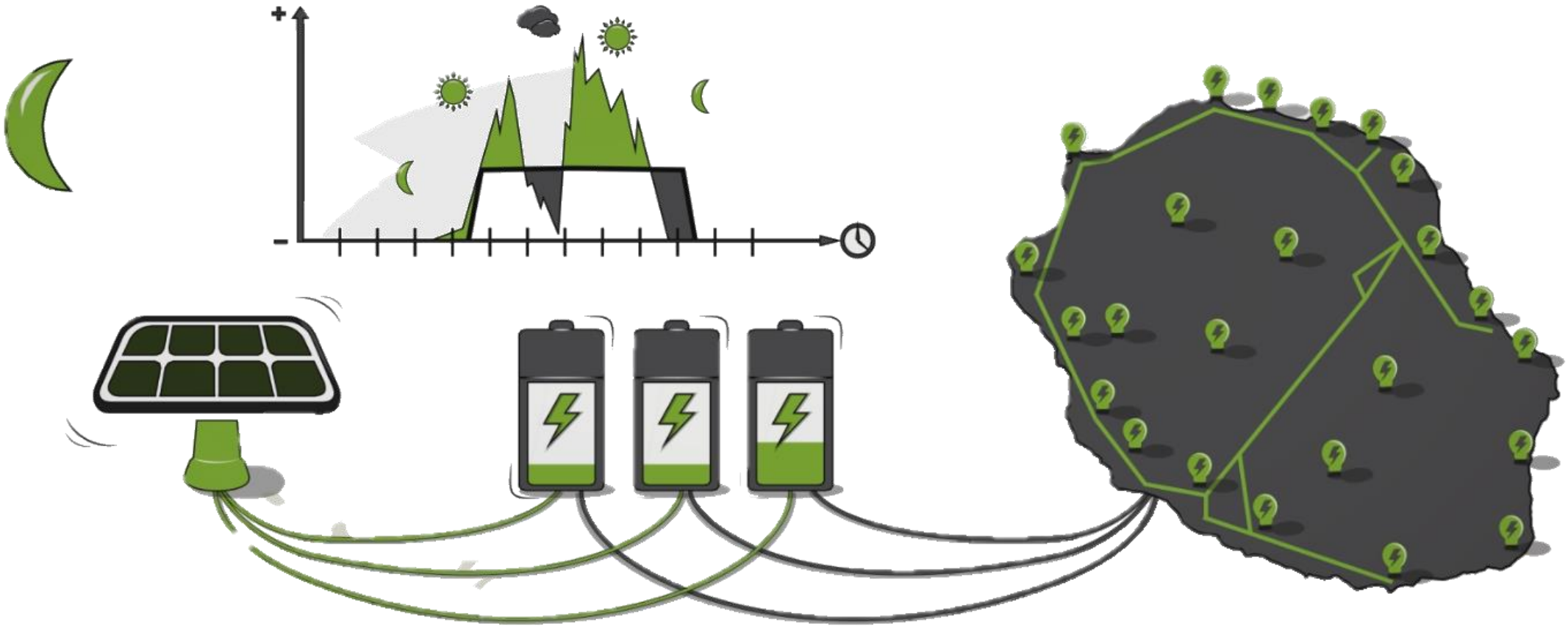
Batteries, owned and operated by Akuo, stabilize the network and the energy production.
The revenue for the electricity injected to the grid varies regarding Akuo's ability to forecast further productions.

Prison of Le Port, Reunion Island
Commissioning in 2014

STORAGE: KEY FOR A CLEANER AND INDEPENDENT ENERGY SYSTEM

- Islands and microgrids are often **disconnected** from continental and large grid systems.

- **Storage** improves the **reliability and flexibility** of island's grids, secures a **balanced and steady supply of clean energy** and **increases the penetration of renewable energy sources**.



AKUO – Leaders in storage solutions on islands

Entering french islands market

Today, we have **installed more than 70MWh** of storage capacity by combining our hybrid projects, GEMs and storage projects.

And most of this capacity is on islands!

52 MWh under construction in 2020/2021

Akuo EMS controls the whole grid island

Martinique
19 MWh

French CRE tender

- 12 MW/19,2 MWh
- Arbitrage
- About to be commissioned

Tonga island
5 MWh

ADB tender

- 7,2 MW/5,3 MWh
- Frequency and voltage regulation
- Commissioning mid-2021

Tonga island
24 MWh

ADB tender

- 6 MW/24,0 MWh
- Arbitrage
- Commissioning mid-2021

New Caledonia
3 MWh

Solar + Storage Plant

- Integration of renewable energy
- Ability to commit the power profile communicated the day before
- Construction about to start

INDONESIA

Rural electrification of 3 villages through Millenium Challenge Account (MCA) call for tenders

Merabu, Long Beliu et Teluk Sumbang

2 MWp of SolarGEMs®

2.1 MWh of storage GEM®

Cyclone-proof

Storage **supports the grid** and manage the generation of solar electricity

480 households

A mini-grid between the three villages was created to supply the villagers with clean energy. The 3 mini-grids are operated by a local board owned by the villagers.

Implementation of a special training to promote socio-professional integration of women into the labor market. Also, Akuo trained the villagers so that they have the necessary skills to maintain and operate a mini-grid and run an electricity board.

Grant awarded in 2016 by MCA Indonesia
Commissioning in March 2018

GEM®- CLEAN ENERGY FOR OFF-GRID AREAS

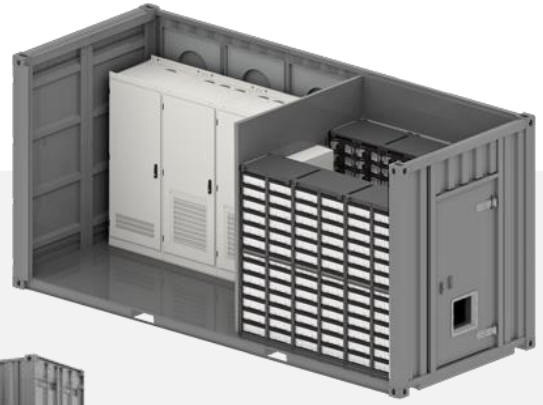
- **Solar GEM** and **Storage GEM** are containerized solutions (20 feet) for solar energy production and energy storage. **A solution for off-grid areas**, GEM® are fully operational in isolated areas, supplying with energy a wide variety of direct consumers (whether they are communities, resorts or industrials).
- Fully mobile and portable, both can be used **for long-term and short-term purposes**.

Solar GEM®

74 kWc solution, is pre-assembled and has optimized and pre-wired solar panels

Storage GEM®

0,2 to 1,5 MWh of storage in a 20-foot High Cube container.



Video

AKUO – At the forefront to develop solutions responding to the local context and challenges

FLOATING SOLAR

A floating structure supports PV modules producing renewable energy. This innovative technology brings value to unused areas while avoiding competition for lands.

Benefits: the technology can be implemented in several types of water bodies such as reservoirs, hydropower dams or mine subsidence areas. Our technology is compatible with drinking water reservoirs and is cyclone-proof.

Target market: mining areas.

Island Flasghip project: Mignot in Martinique

OMEGA 1: Biggest floating solar plant in Europe, installed in a quary lake in the south of France. 23 GWh of annual energy yield.

MIGNOT

1st awarded floating solar project by a public call for tenders in **Martinique** (April 2020)

3,3MWp of **floating solar** combined with a **7 MWh storage** facility

Martinique

AKUO – At the forefront to develop solutions responding to the local context and challenges

WIND FARMS IN CYCLONIC AREAS

Convinced that with a **flexible and inventive approach**, renewables can be adapted to all type of geographical context, AKUO has developed **wind farms in mountainous and cyclone's hit areas characterized by their extreme climatic conditions.**

Through the selection of **high-tech turbines** that guarantee the maximum output and resistance, combined with a **modern plant design** that consider weather variability, AKUO energy is able to provide with clean energy rural, island and isolated communities.

Island Flagship project: Pecasa in Dominican Republic

PECASA

Wind parc of **50 MW**

The power supply per year is equivalent to the consumption of **151 636 households**

Dominican Republic
Commissioning in 2019

Akuocoop – towards a higher acceptability of renewables in islands

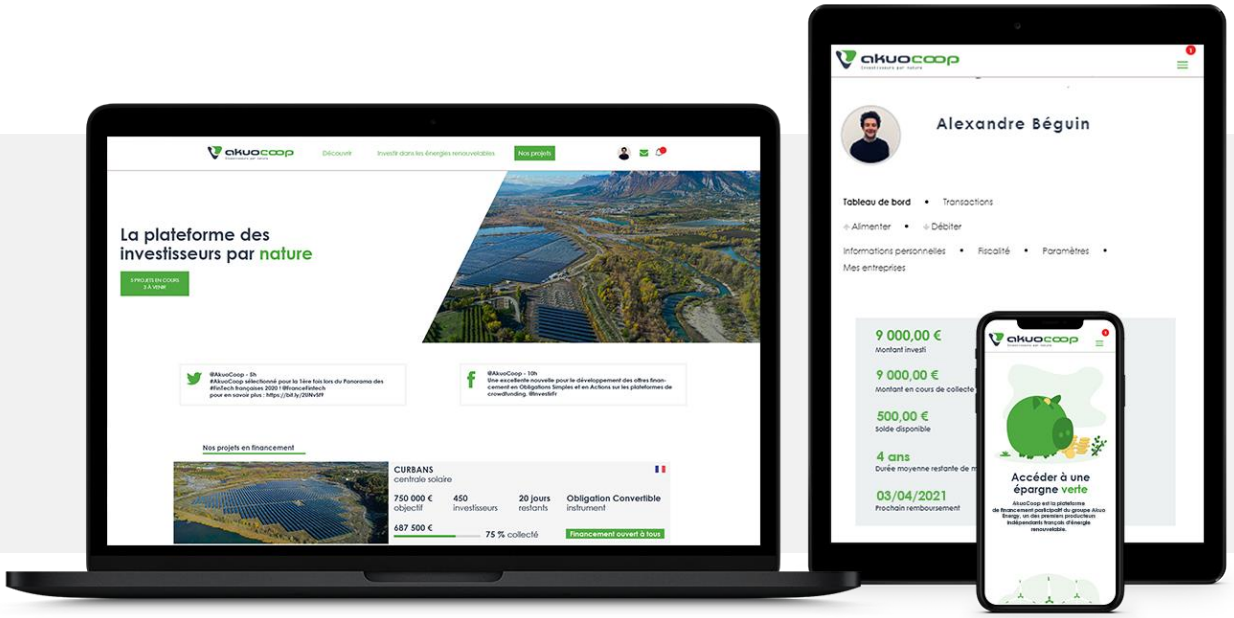
AkuoCoop is Akuo's **crowdfunding platform for renewable energy projects.**
At Akuo Coop, we work to bring citizens into the governance of renewable energy projects in order to increase their acceptability and territorial engagement, while creating positive economic fallouts for the territories and the local populations. Also, Akuo Coop brings together businesses, companies, stakeholders and citizens to invest in the energy transition and allows citizen's who wants to make the transition real to take part of the process.

Also, we ensure that :

You have access to simple and secure low-risk investments that truly promote the energy transition

All projects are approved by an independent investment committee

+ **4000** members
+ **7 million €**
13 projects financed
2 in islands
- **Focola** - 317 000€ collected (90%)
- **Kwita Wije** – 770 000€ collected (100%)



MDB perspective

Rohit Khanna

ESMAP Manager, World Bank

Discussion

Kamlesh Dookayka

Research Officer, Mauritius Renewable Energy Agency (MARENA)

Discussion

Racquel Moses

CEO, Caribbean Climate-Smart Accelerator

Conclusion and steps towards COP26

Francesco La Camera

Director General, IRENA

Closing Remarks

Selwin Hart

Special Advisor and Assistant Secretary-General for Climate Action, United Nations

The **slides** will be shared via email after the end of the webinar

A **recording** of the webinar will be available on demand on *irena.org/events* website within 48 hours

THANK YOU FOR JOINING US!

islands@irena.org

https://www.irena.org/
https://islands.irena.org/