Zakito District Cooling
Participation proposition for Van Oord
Zakito District Cooling and Deep Seawater Industry

A possible new economic pillar for island nations
Characteristics of deep seawater

- The deep seawater (ca 850m)
- The deep seawater which originates from the North Pool take ca 400 years to reach Curacao and 2000 years to reach Hawaii, and is thus free of our resent surface pollution.
- Contrary to surface water, deep sea water temperature remains fairly constant between 5-6 Celsius.
- Because the sun light does not reach the depths of the ocean, photosynthesis does not take please, leaving nutrient rich water ideal for aquaculture.
- The amount of bacteria and organic matter is also considerably lower that in the surface water, and thus very sterile.
- These unique properties open the possibilities for various business opportunities, which can create value from the water of the deep sea.
- Deep Seawater platform is finalizing the SBI Policy plan for the government.
- Initial project could be the Deep seawater Industry at Isla West in combination with Eco Industrial Park (and Living Lab)
Zakito District Cooling

Naturally cool™

Key Figures:
- A reliable, hurricane and tsunami proof, sustainable.
- Reducing the energy consumption and CO2 emissions for cooling by more than 95%
- Cheaper and stable (non-volatile) cooling cost
- HFC phase down: 100%
- Increases asset value of the properties (Zakito Vision) and enhances opportunity for corporate branding (like LEED)

General Information
- Intake sea pipe Length 6.5 km Dept 850 m, Diameter 1000 mm
- Capacity 3,000 TR (10 MWth)
- Production based on naturally cooled deep sea water, a distribution network piping system to hotels and the hospital
- Intake temperature 6 degree C
- Total investment: ca. 50MUSD
- Currently on hold due to the Covid pandemic and resulting challenges
- Plans start of construction in 2022 subject to financial closure
Deep Seawater Industry
A possible new economic pillar for island nations.

- Agriculture (greenhouse)
- Aquaculture
- Algae/seaweed production,
- Pharmaceutical and cosmetics
- Research & Development
20 year Macro-economic effects of ZakitoDC and spinoff Deep Seawater Industry

- Savings for clients
- Fuel import reduction
- Cross Subsidy reduction

Effect ZDC: USD 86 M

Effect DSI: USD 2,000 M
Permanent jobs: 400

Investment ZDC: USD 50 M

Investment infrastructure DSI: USD 10 M

Pearl culture
Algaculture/Seaweed production
Water bottling
Pharmaceutical: minerals and orotins
Research & Development: Campus
(Agriculture (greenhouses; aquaponics/hydroponics)
Aquaculture (shrimps; fish)
Algae and seaweed production
Spa treatments
Medical baths
Opportunities and Needs for realisation

- Status ZDC and DSI:
  - ZDC: Permits attained, Support of the local government, Design and Procurement finished, Clients committed interest,
  - DSI platform established and Draft DSI Policy plan ready.

- Opportunity for Curacao:
  - ZDC reduces Energy consumption and CO2 for cooling by ca. 98%
  - Construction ZDC and DSI can be parallel and ZDC can be operational 24 months after FC.
  - Job creation:
    - Short term (ZDC construction) 100,
    - Long term (DSI) ca 400-600 permanent jobs.
  - Indirect macro economical benefits (20 years) for Curacao:
    - ZDC ca. USD 80M (Curacao Medical Center will save ca USD 0.5M annually)
    - DSI ca. USD 2,000M
  - Curacao as centre of excellence for the Caribbean

- Potential for Consortium:
  - Coastal Areas and Island Nations World Wide
  - Already ca 2 billion USD regional Caribbean market.

- Why is the project not reaching FC:
  - Banks/Investors perceive Curacao, hospitality Clients (Covid) and scale of the project as high risk.

- What’s Needed to start construction of the project:
  - Government Guarantees (Garantie Ondernemingsfinanciering, Groeifaciliteit, Groeifonds) or Bridge financing for investors/partners for the time it takes to get all clients connected (volloop risico).
Thank you!

Questions?
The Zakito District Cooling system and the subsequent potential for a Deep Seawater Industry, an insurance for our future energy and food supply, now and for generations to come.