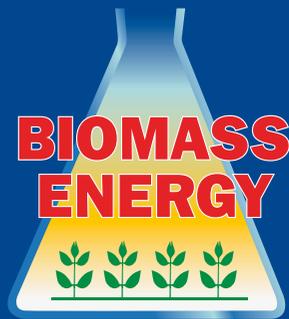
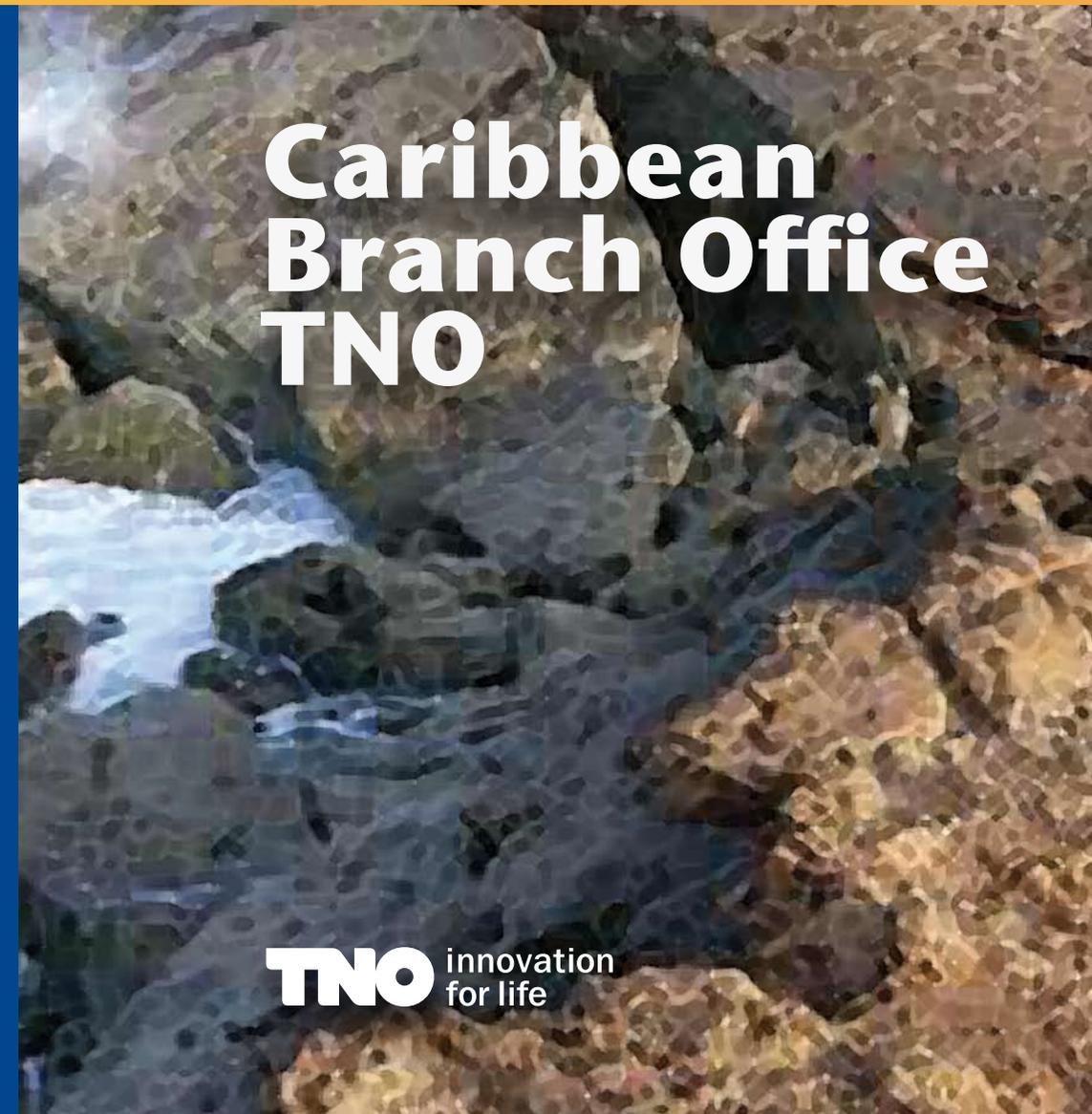


Government of Aruba



Government of Aruba

**TNO** innovation for life



**Caribbean  
Branch Office  
TNO**

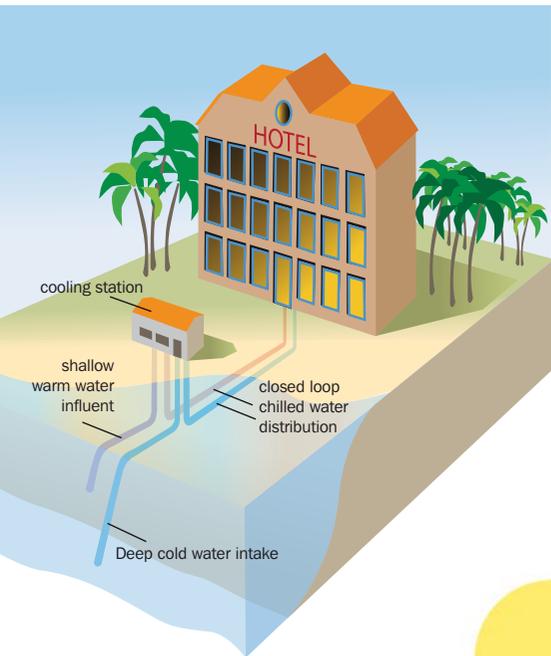
**TNO** innovation for life



# Caribbean Branch Office TNO, for sustainable energy



Aruba, under the leadership of Prime Minister Mike Eman and the Government installed in November 2009, is aggressively promoting the use of renewable energy, most notably solar, wind and water-cooling. Outside energy dependence, price stability is of great concern. Energy expenditure has more than doubled over the last decade for Aruban families and now makes up over 20% of the consumer price index (compared to 10% for the USA). With rising energy cost, this will become unsustainable. With over 5000 wind and 2000 solar hours, Aruba holds great potential for sustainable energy generation. Currently, Aruba derives approximately 18% of its electricity needs from wind, and it intends to double this within five years. The Government also is pursuing several projects in solar, and is studying the possibilities for cooling with seawater. Aruba is taking a leadership role in the region for promoting the use of sustainable energy, and in September 2010 hosted its first Green Aruba energy conference with Al Gore as the keynote speaker. Aruba offers reliable governance and institutions grounded in the Dutch tradition with a Caribbean flavor. This combination makes Aruba an ideal base of operation for private business and research institutes interested in doing business in the Caribbean and South-American region.



Source: Hogeschool Rotterdam

## Caribbean Branch Office TNO

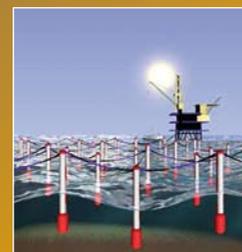
Aruba wants to make the transition to a renewable energy supply as fast as possible. For this, Aruba has signed a MoU with TNO, the not-for-profit Netherlands Organization for Applied Scientific Research. TNO is supporting Aruba with applied technology research together with (local) companies, government and universities. Among others, use of solar and wind energy as well as deep-sea cooling are important topics. The TNO office will focus on field lab facilities for solar and wind based energy systems and low energy water systems (production and waste to energy). It will provide educational and training opportunities for Aruban residents, international students and professionals. It will form a cross-road for Europe and the America's.

## The Dutch Kingdom and the America's

The office will leverage Aruba's position as a member of the Dutch Kingdom and a recognized European Overseas Country Territory (OCT) to pursue matching funding for its activities. It will build on its relationships with Dutch as well as American research institutes. Aruba and TNO are already working together with the Delft University of Technology, one of the top engineering and research universities in Europe. In addition to a top flight European university, the office will also establish partnerships with American universities with compatible research interests in renewable energy. There will be a technical educational component in partnership with technical colleges from The Netherlands (such as Rotterdam and Hanze) to provide Dutch and Aruban students with



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an opportunity to gain experience in real live cutting edge test facility projects. Finally, there will be a professional development component targeting energy professionals responsible for designing, building and maintaining sustainable energy systems.

## Independent Field Lab

The branch office will be funded through a combination of sources. Aruba will provide support by making unique field lab facilities available and stimulating pilot projects. EU and Dutch funding will be leveraged to develop a strong research and educational program. Private funding will be attracted for demos, pilots, testing & certification of technology for the North and South American

**TNO is an independent innovation organisation that makes a significant contribution to the competitiveness of companies and organisations, the economy and quality of society as a whole. To create innovations that sustainably boosts the competitiveness of industry and wellbeing of society. In 2011 TNO introduced a new strategy that sees the expertise divided across seven themes: built environment, energy, healthy living, information society, mobility and transport, industrial innovation, and defence, security and safety. Some 4400 highly qualified researchers at TNO generate annual income of 563.8 million euros (2010 figure).**



markets. The activities of the branch office will be coordinated by a non-profit entity. The office will build on a number of efforts that are currently in development and offer a real life test lab. The island setting and climate lends itself for testing the application of smart-(micro) grid technology at the residential scale and application of local decentralized energy systems such as solar panels, small wind turbines and the like. Waste to energy, water-reuse and low-energy desalinization are also of interest. Transition energy resources are another focus area. Aruba is home to a refining facility. This facility will be shifting from oil to cleaner natural gas as a low carbon transition fuel. This offers opportunities for development of new processes and technology reducing greenhouse gas emissions.

## Green Aruba

Aruba strives to become known as the sustainable Caribbean destination showcasing cutting edge sustainable energy technology, offering an international training ground for our next generation of sustainable energy professionals. The end result will be both good for Business, good for Aruba and good for the Planet. Aruba, not only the Happy but also the Green Island.

## Contact

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