

www.landartgenerator.org
land art generator initiative

Elizabeth Monoian & Robert Ferry



BEYOND THE WAVE

Jaesik Lim, Ahyoung Lee, Sunpil Choi, Dohyoung Kim, Hoeyoung Jung, Jaeyeol Kim, Hansaem Kim

A submission to the 2014 Copenhagen Land Art Generator Initiative competition

**PUBLIC
ART** + **RENEWABLE
ENERGY** + **LIVING
BUILDINGS
AND CITIES** + **INTEGRATED
SYSTEMS**

= land art generator initiative

Tejo Power Station

Various engineers and architects

Lisbon



Thermal Power Plant with Rice Fields

Bruno Barbey

Hadong, South Korea, 2007





U.S. Airforce Solar Installation

Airman 1st Class Nadine Y. Barclay

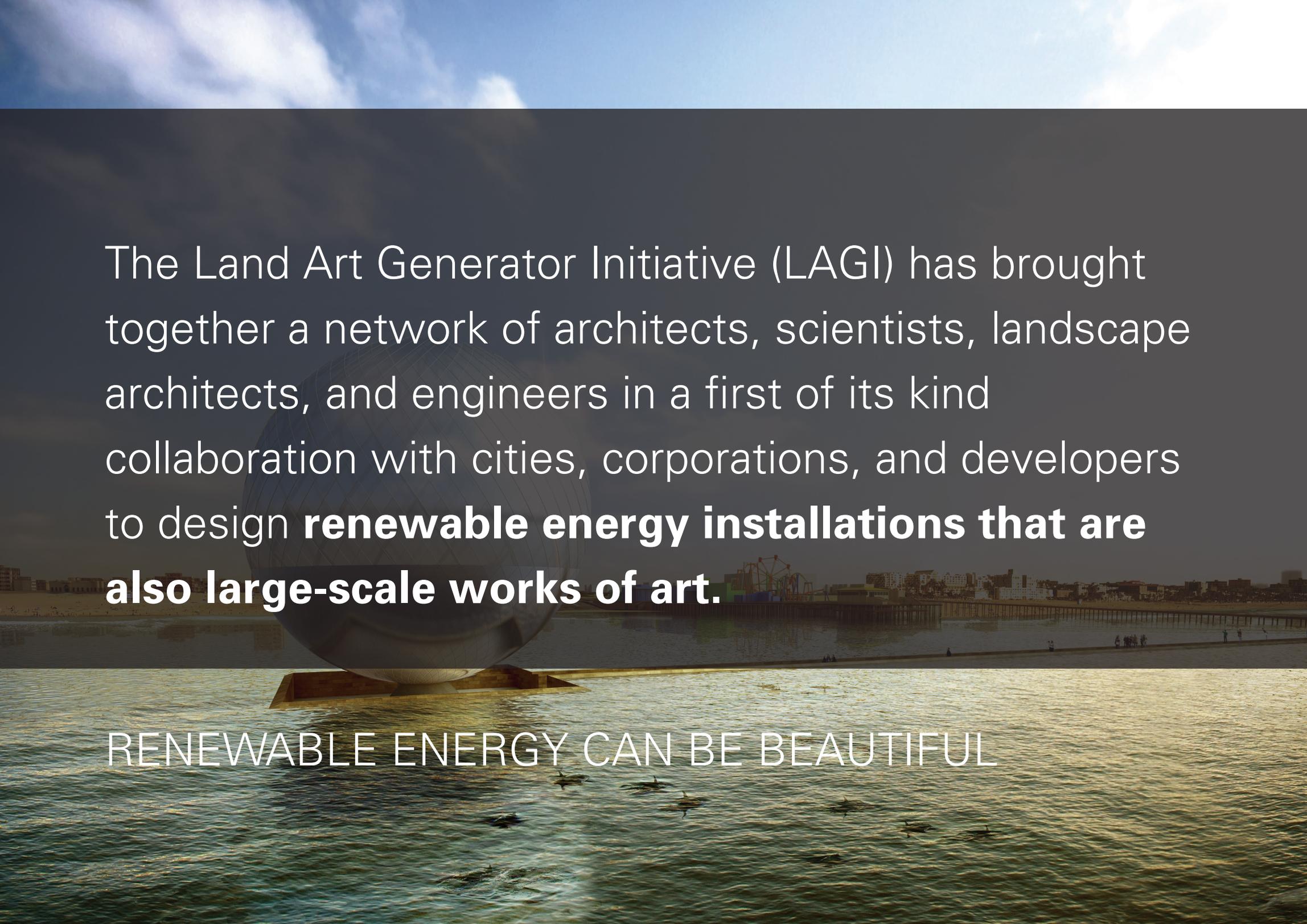
2007



Tahachapi Wind Farm

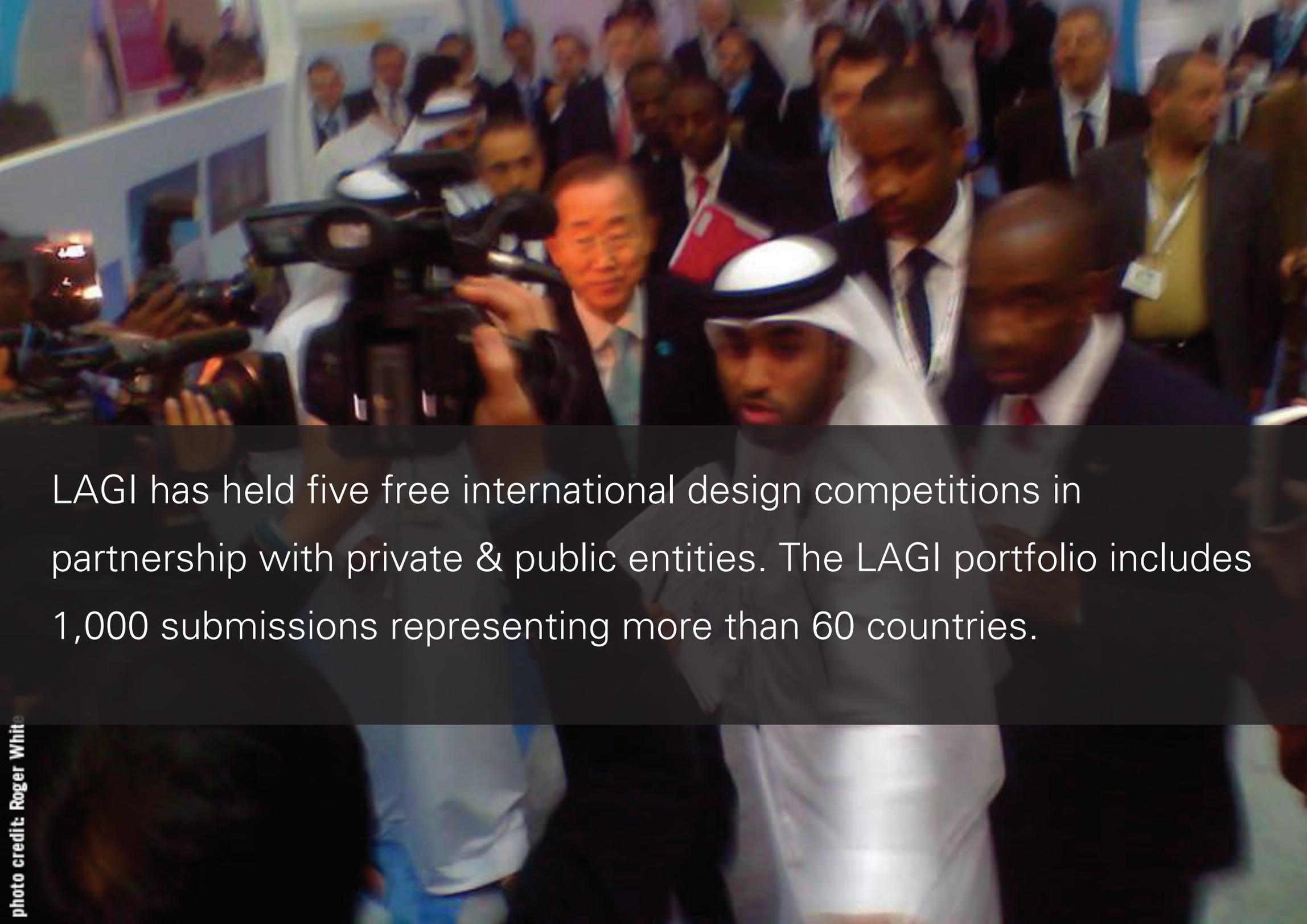
Henning Leweke

California, 2001



The Land Art Generator Initiative (LAGI) has brought together a network of architects, scientists, landscape architects, and engineers in a first of its kind collaboration with cities, corporations, and developers to design **renewable energy installations that are also large-scale works of art.**

RENEWABLE ENERGY CAN BE BEAUTIFUL



LAGI has held five free international design competitions in partnership with private & public entities. The LAGI portfolio includes 1,000 submissions representing more than 60 countries.

LAGI 2010 DUBAI & ABU DHABI



LAGI 2010 at the World Future Energy Summit 2011

SUPPORT



LAGI 2012 FRESHKILLS PARK



PARTNERS

FreshkillsPark Alliance



INSTITUTE FOR URBAN DESIGN



SUPPORT

Horne Family Foundation
National Endowment for the Arts



ART WORKS.
arts.gov

PUBLICATION SUPPORT



Furthermore:
a program of the J.M. Kaplan Fund

LAGI 2014 COPENHAGEN

Connie Hedegaard

European Commissioner for Climate Action

“When it comes to renewables it’s not a question of nice to have. The world of the 21st century needs to have more renewables. We have seen here in Denmark that it is doable. We see it in Europe. But I think in order to scale things up, it would be so good to have some more input from artists, from creative thinking people, who know how to landscape things in a better manner. Who can show attractive visions. Who can show that to take climate change seriously it not about gloom and doom—it can be a positive vision. It can create beauty. It can create something that all of us would like to be a part of.”



IT UNIVERSITY OF COPENHAGEN
REFSHALEØENHOLDING



DDC[®]
Danish Design Centre



AARHUS UNIVERSITY



The Capital Region
of Denmark



LAGI 2016 SANTA MONICA



PARTNERS



PUBLICATION SUPPORT

Elizabeth Firestone Graham Foundation

LAGI 2018 MELBOURNE



SPONSORED AND
HOSTED BY



LAGI 2018 PARTNERS



TECHNOLOGY TYPE
polycrystalline solar
panels

Conversion Efficiency
22%

Capacity Factor
15%–20%
(depending on site conditions)



Images from Wikipedia



ENERGY DUCK

TEAM: Hareth Pochee, Adam Khan, Louis Leger, Patrick Fryer

ENERGY TECHNOLOGIES: photovoltaic panels (Panasonic HIT or similar), hydraulic turbines (Kaplan, Francis, or similar 100–500 kW capacity)

ANNUAL CAPACITY: 400 MWh

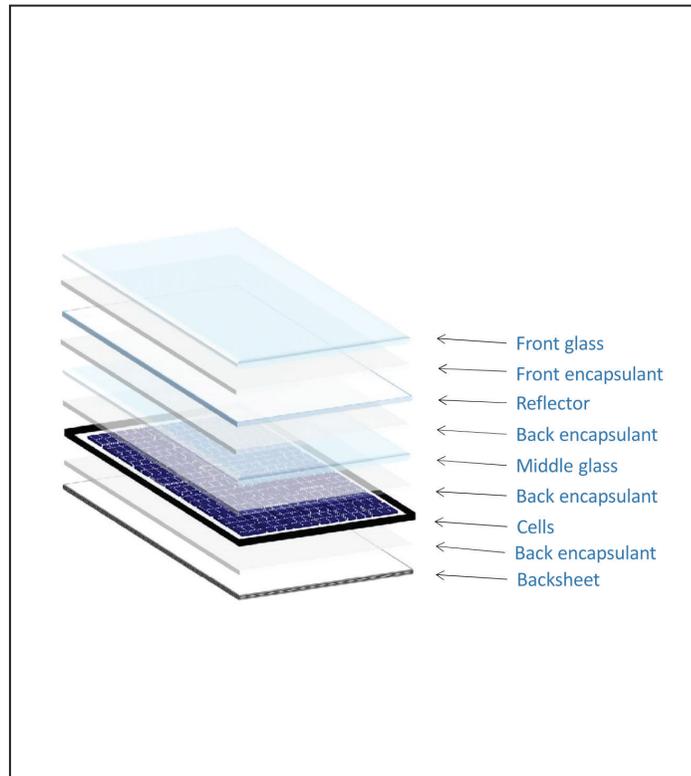
A submission to the 2014 Land Art Generator Initiative competition for Copenhagen

TECHNOLOGY TYPE

polycrystalline solar panels – color tinted

Conversion Efficiency
15%–18% (depending on type)

Capacity Factor
15%–20%
(depending on site conditions)



Solaxess coating application can create any color of solar panel with minimal impact on efficiency

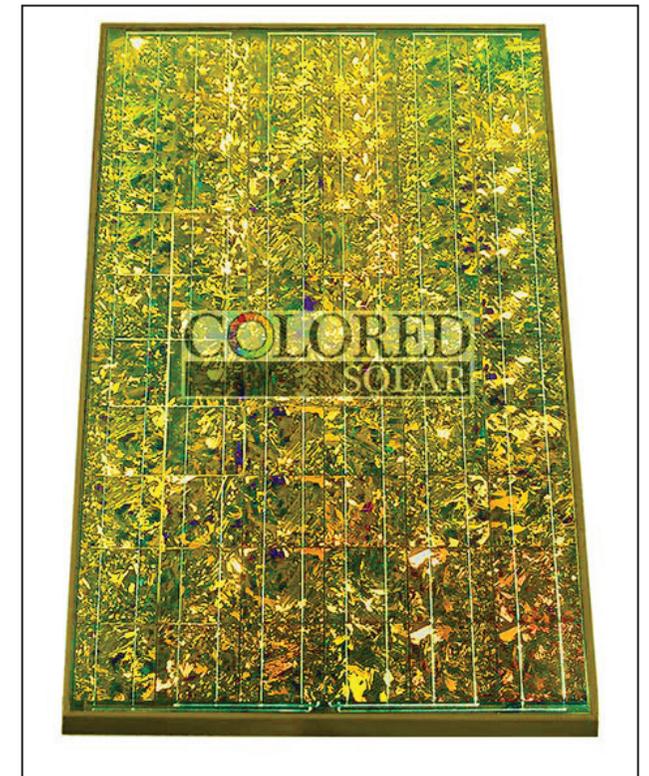


Image from Colored Solar's Product Literature

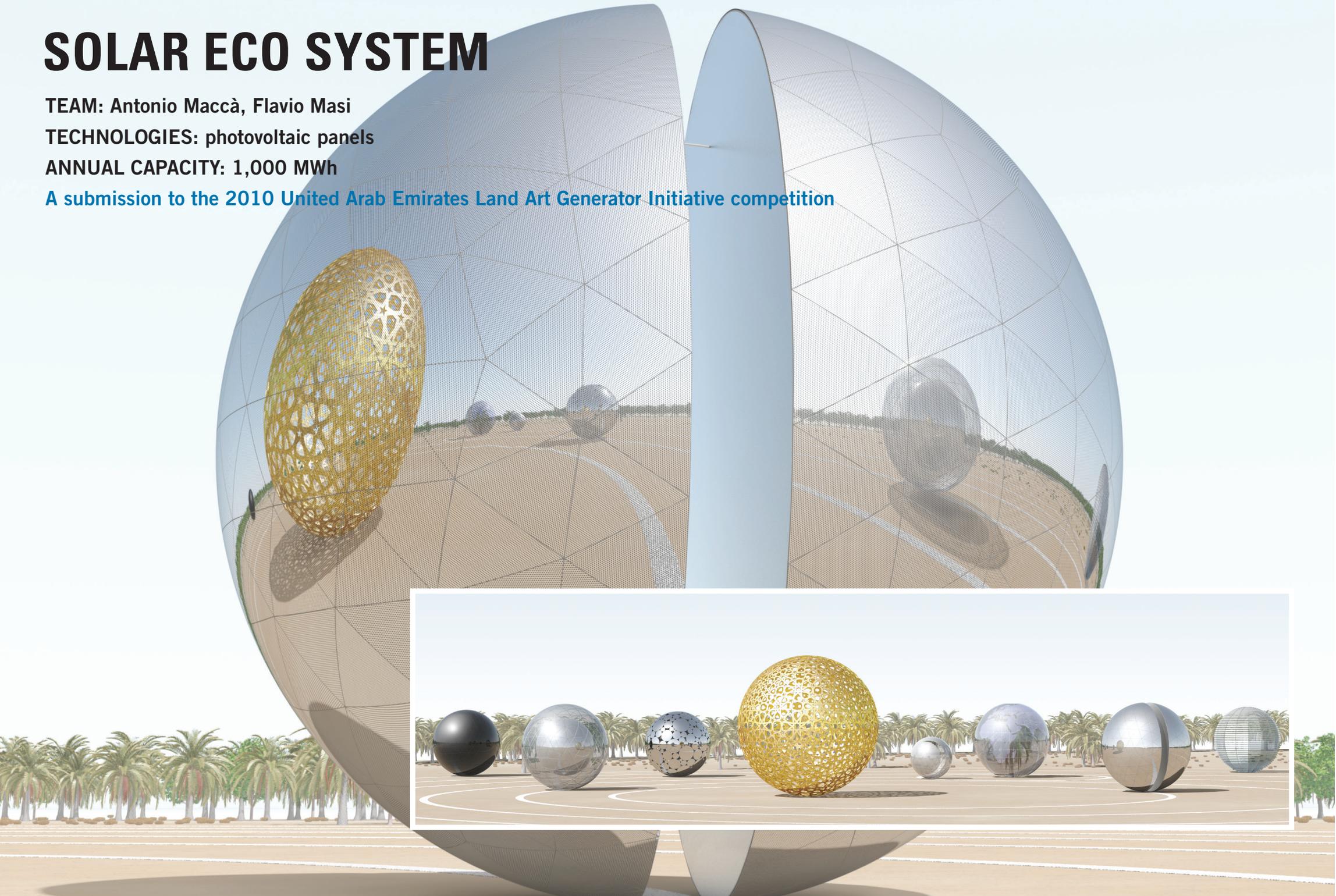
SOLAR ECO SYSTEM

TEAM: Antonio Maccà, Flavio Masi

TECHNOLOGIES: photovoltaic panels

ANNUAL CAPACITY: 1,000 MWh

A submission to the 2010 United Arab Emirates Land Art Generator Initiative competition



TEAM

Martin Heide, Dean Boothroyd, Emily Van Monger, David Allouf, Takasumi Inoue, Liam Oxlade, Michael Strack, Richard Le (NH Architecture); Mike Rainbow, Jan Talacko (Ark Resources); John Bahoric (John Bahoric Design); Bryan Chung, Chea Yuen Yeow Chong, Anna Lee, Amelie Noren (RMIT Architecture Students)

TEAM LOCATION

Melbourne, Australia

ENERGY TECHNOLOGIES

flexible mono-crystalline silicon photovoltaic, wind energy harvesting, microbial fuel cells

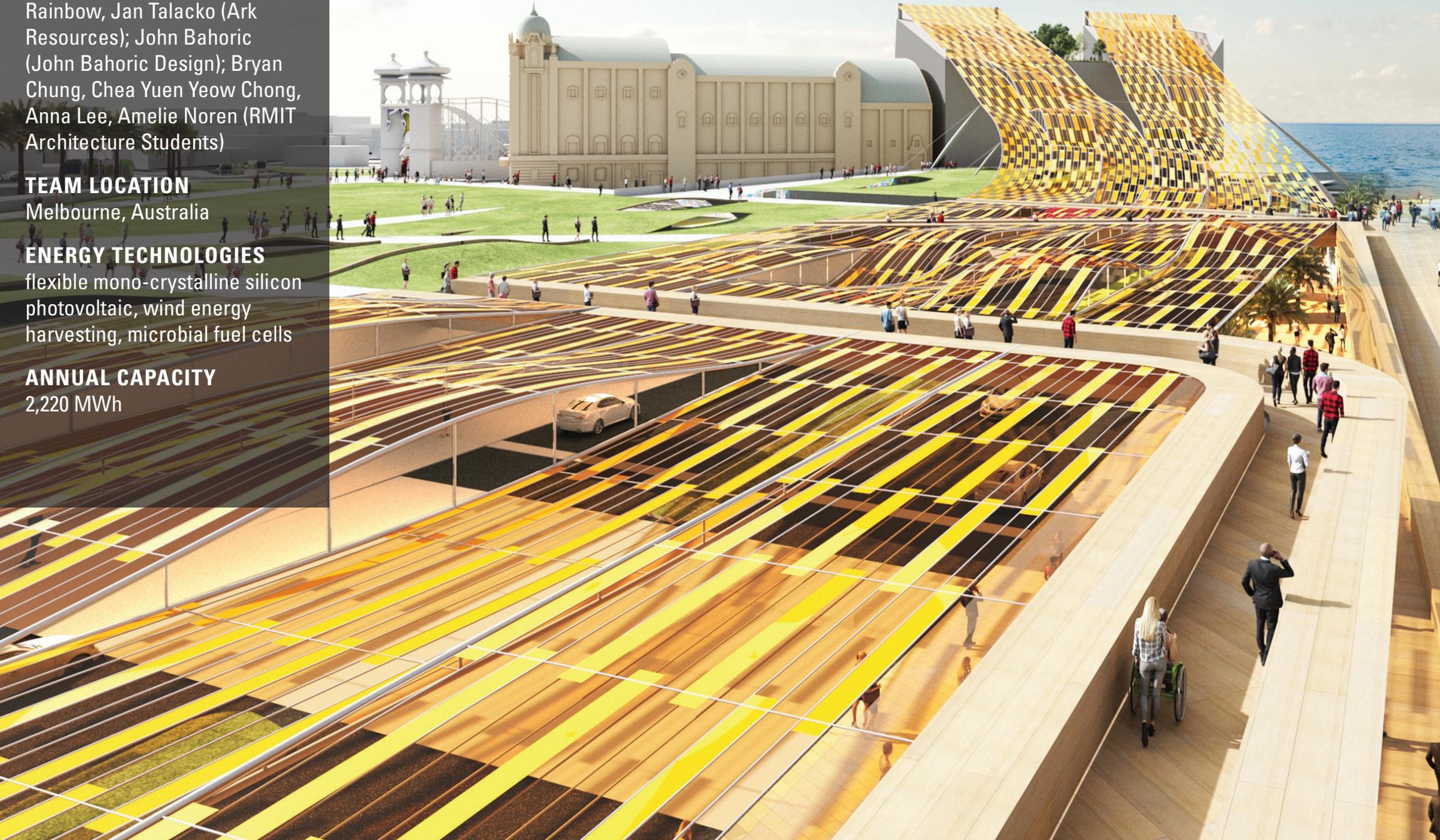
ANNUAL CAPACITY

2,220 MWh

First Place Winner

LAGI 2018 Land Art Generator Initiative design competition for Melbourne

Light Up



TECHNOLOGY TYPE
flexible thin film
(OPV)

Conversion Efficiency
8%–12%

Capacity Factor
15%–20%
(depending on site conditions)

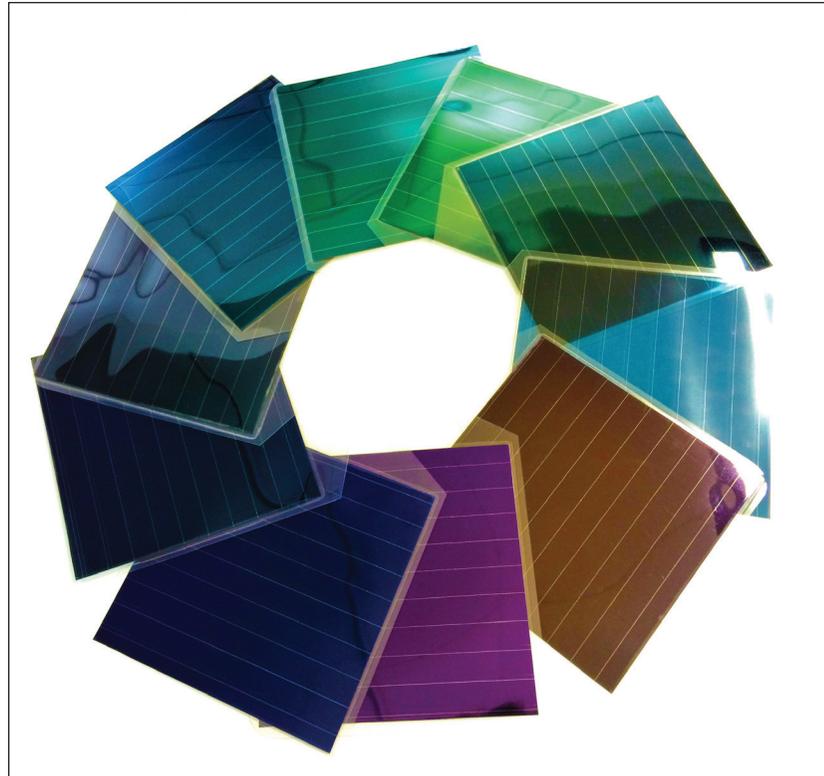


Image courtesy of Heliatek

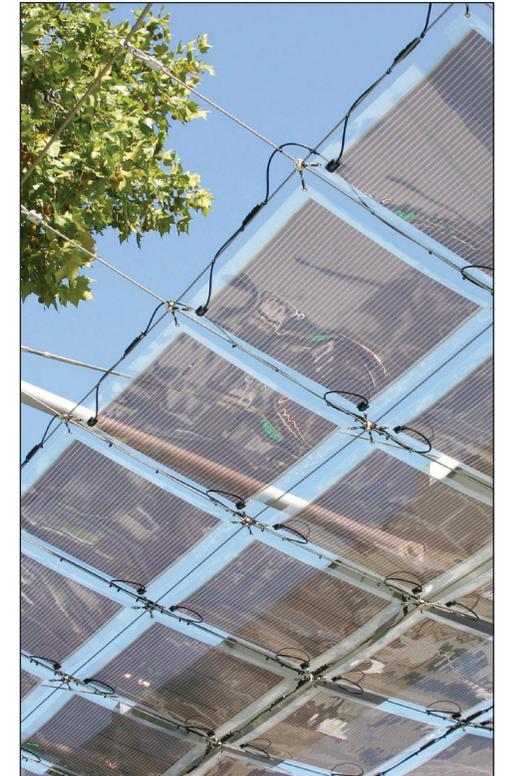
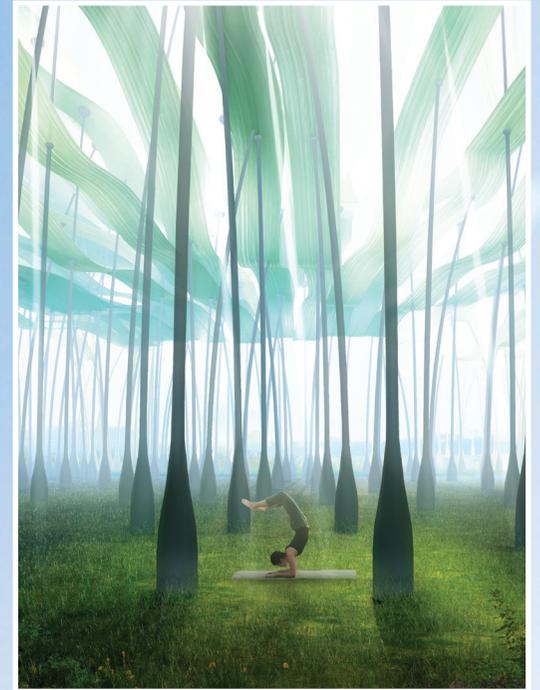
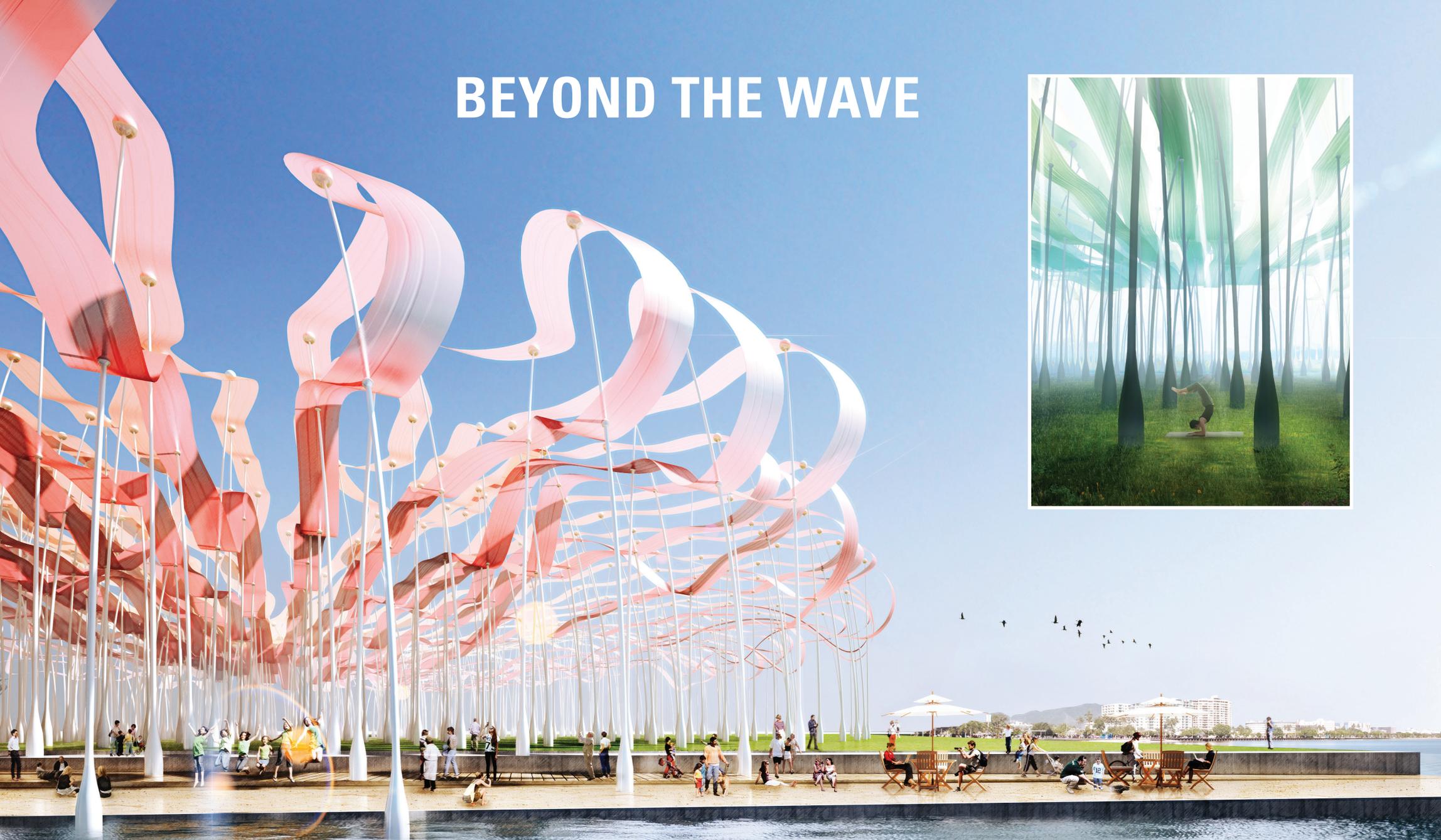


Image courtesy of Belectric OPV (Solarte™)

BEYOND THE WAVE



TEAM: Jaesik Lim, Ahyoung Lee, Sunpil Choi, Dohyoung Kim, Hoeyoung Jung, Jaeyol Kim, Hansaem Kim

TECHNOLOGIES: organic thin film

ANNUAL CAPACITY: 4,229 MWh

A submission to the 2014 Copenhagen Land Art Generator Initiative competition

TECHNOLOGY TYPE

concentrated solar
power thermal
(CSP)

Conversion Efficiency

20%–30%

Capacity Factor

20%–35%

(depending on type and site conditions)



Beam-down point-focus CSP heliostat array at Masdar

Image courtesy of Lens Online from an interview with Marwan Basem Mokhtar

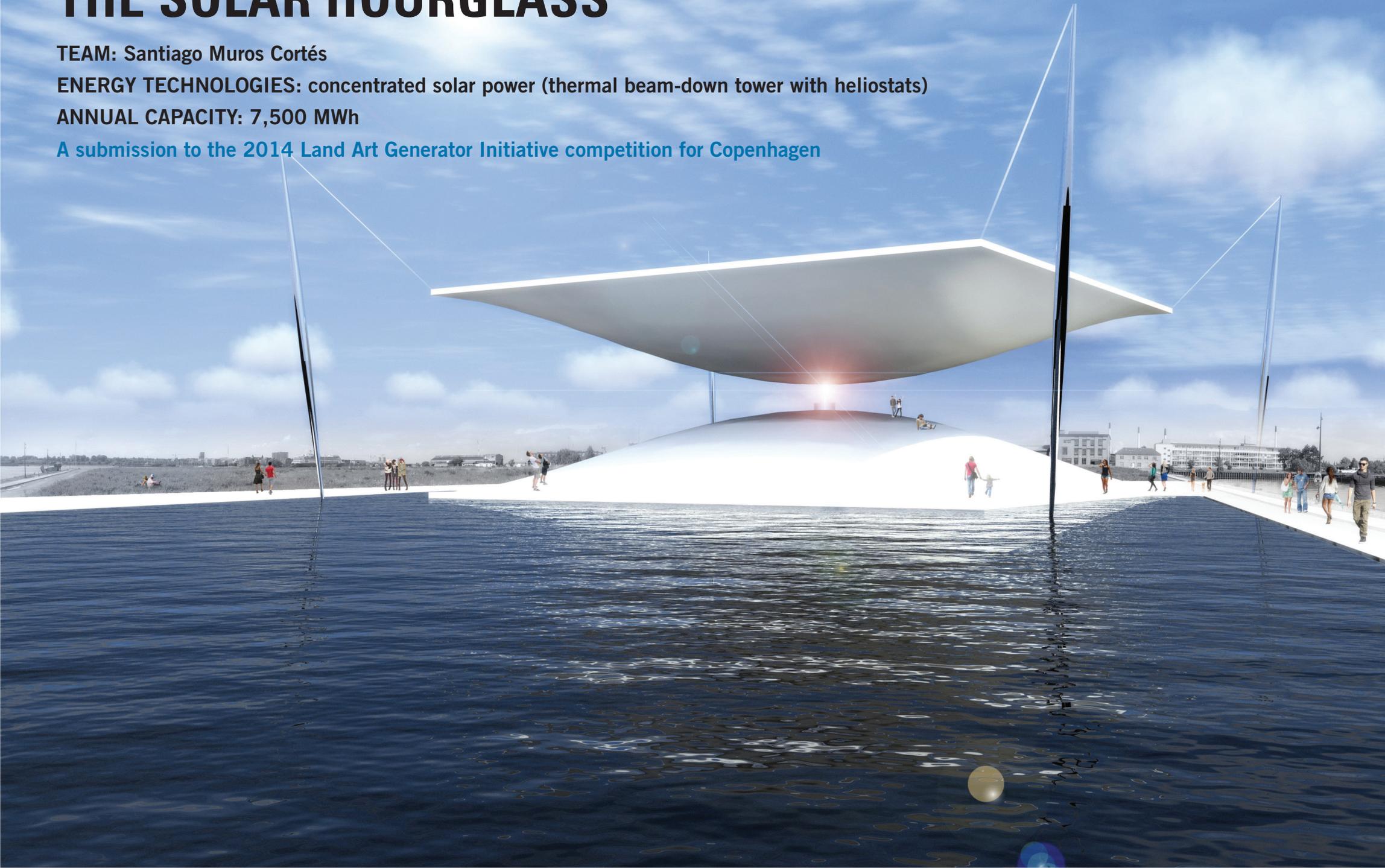
THE SOLAR HOURGLASS

TEAM: Santiago Muros Cortés

ENERGY TECHNOLOGIES: concentrated solar power (thermal beam-down tower with heliostats)

ANNUAL CAPACITY: 7,500 MWh

A submission to the 2014 Land Art Generator Initiative competition for Copenhagen



WINDSTALK



TEAM: Concept and Design Atelier dna: Darío Núñez Ameni & Thomas Siegl; Narrative and Poetics Gabrielle Jesiolowski; Structure and Engineering; ISSE Innovative Structural and Specialty Engineering: Radhi Majmudar PE; Ecology and Renewable Energy Strategy eDesign Dynamics: Ian Lipsky
ENERGY TECHNOLOGY: piezoelectric discs, linear alternator
ANNUAL CAPACITY: 20,000 MWh

[A submission to the 2010 Land Art Generator Initiative competition for United Arab Emirates](#)

A submission to the 2016 Land Art Generator Initiative design competition for Santa Monica



TEAM

Khalili Engineers

TEAM LOCATION

Vancouver, Canada

ENERGY TECHNOLOGIES

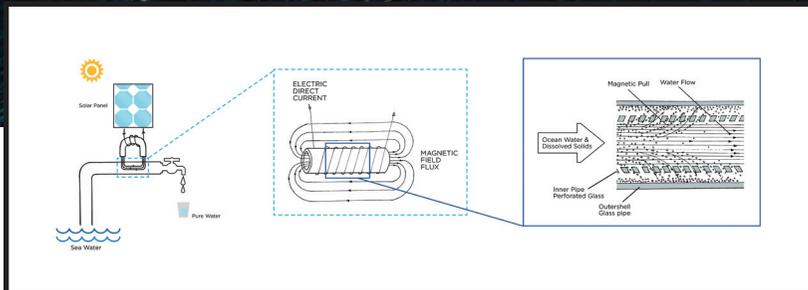
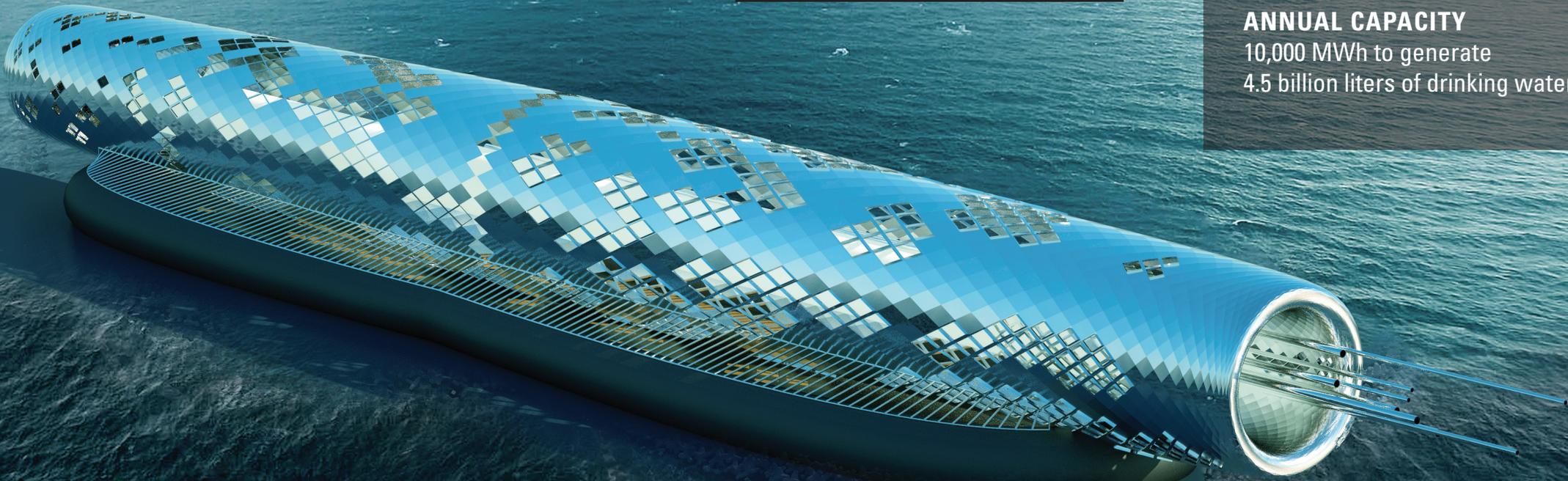
photovoltaic panels

WATER TECHNOLOGIES

electromagnetic desalination

ANNUAL CAPACITY

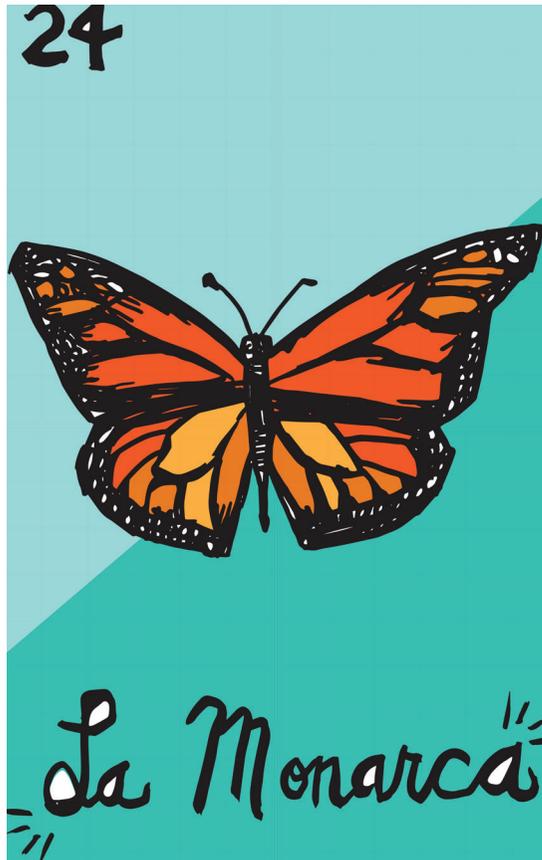
10,000 MWh to generate
4.5 billion liters of drinking water



The Pipe

La Monarca

A **SOLAR MURAL** ARTWORK



Artwork by Cruz Ortiz

PARTNERS



SUPPORTERS



ART + ENERGY CAMP (2015)

People think Homewood is a bad place to be, but the kids and builders are making a solar panel artwork so that people will not judge Homewood because of some other stuff that happens. We are opening a door of opportunity for Homewood and as a community we are trying to make Homewood a better place.

Terrell Williams (age 11)

“Renaissance Gate” means to me that once you walk through it you will come into a completely new Homewood. A new community without fear, without poverty, and without violence.

Jordan Blackwell (age 14)



ART+ENERGY CAMP 2015 WAS A PROJECT OF
Land Art Generator Initiative
Conservation Consultants, Inc.
Homewood Renaissance Association

WITH GENEROUS SUPPORT FROM
Heinz Endowments
Google Community Grants Foundation
RK Mellon Foundation
Three Rivers Community Foundation

ART + ENERGY CAMP

4–6 weeks

Field trips

Lessons in energy science

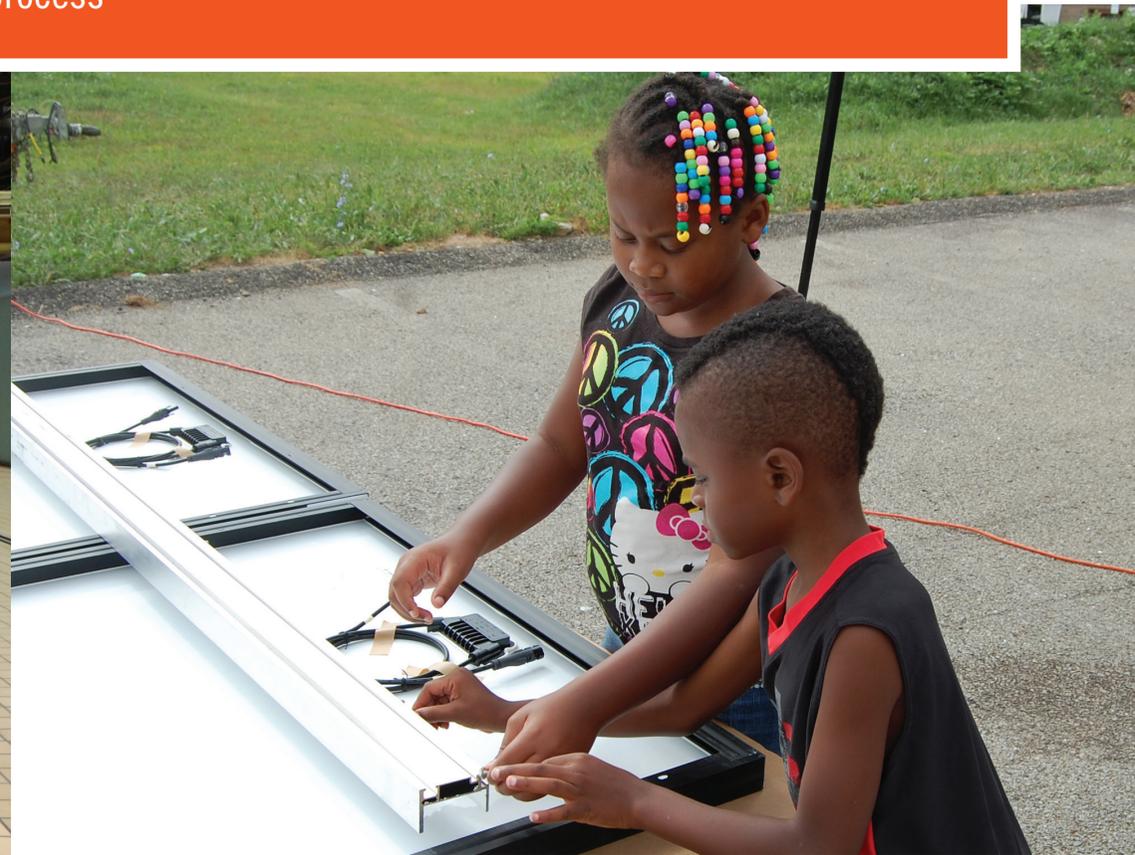
Lessons in energy justice +
energy democracy

Design process

Guest presentations

Hands on with construction of a
renewable energy artwork

Final outcome:
a built solar sculpture



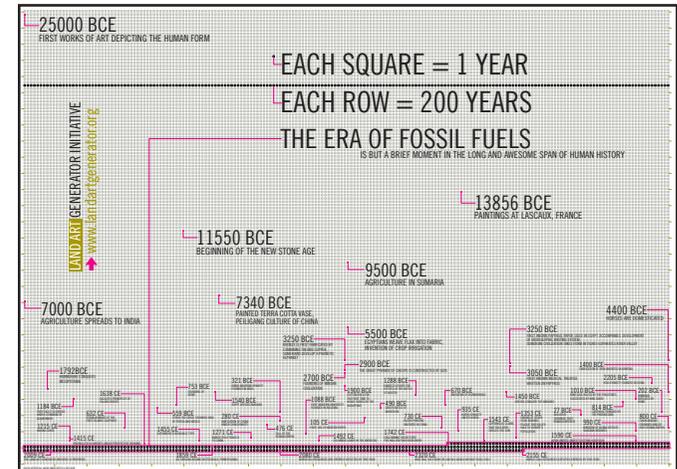
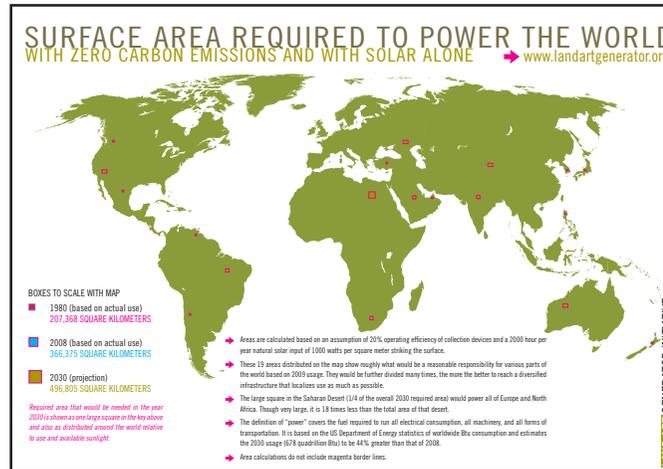
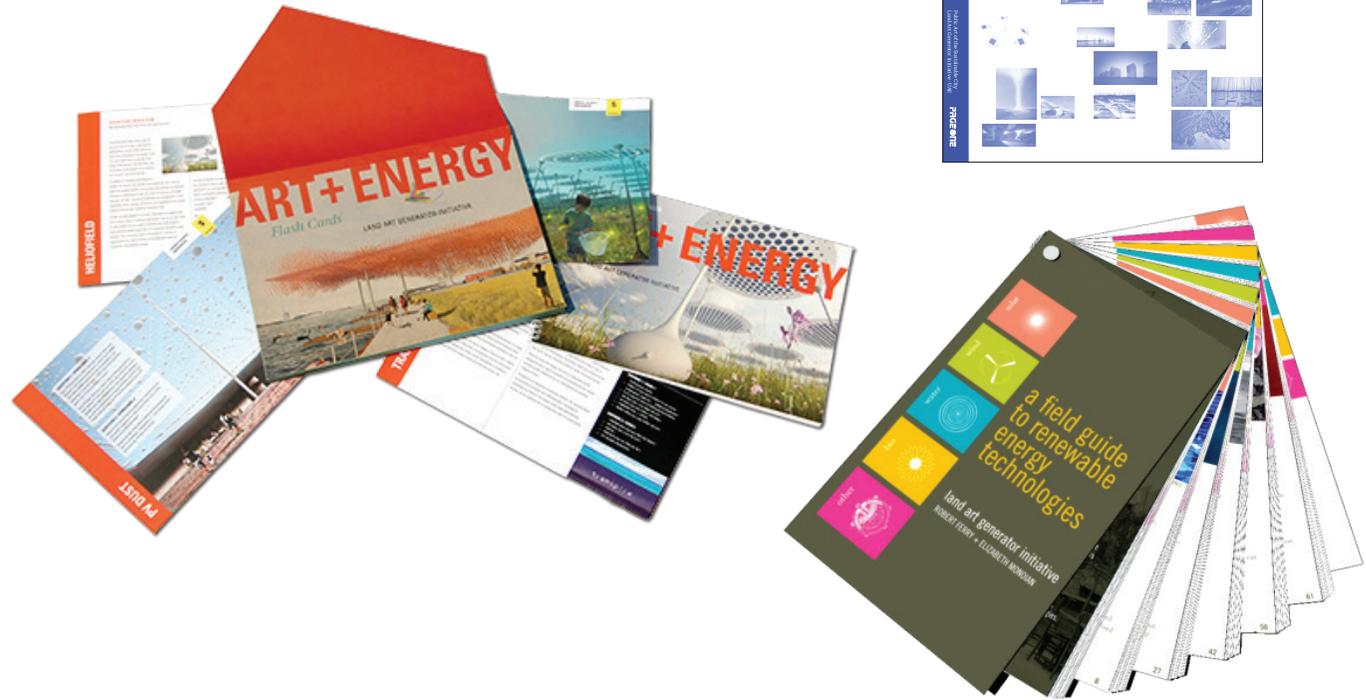
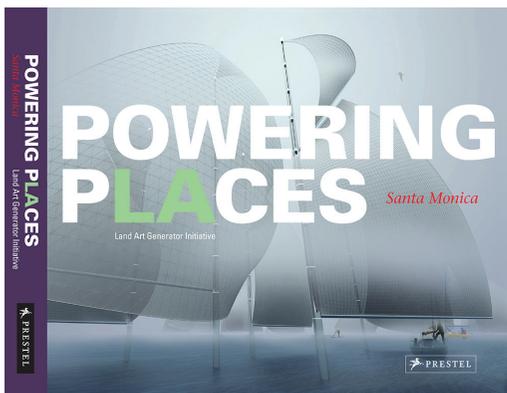


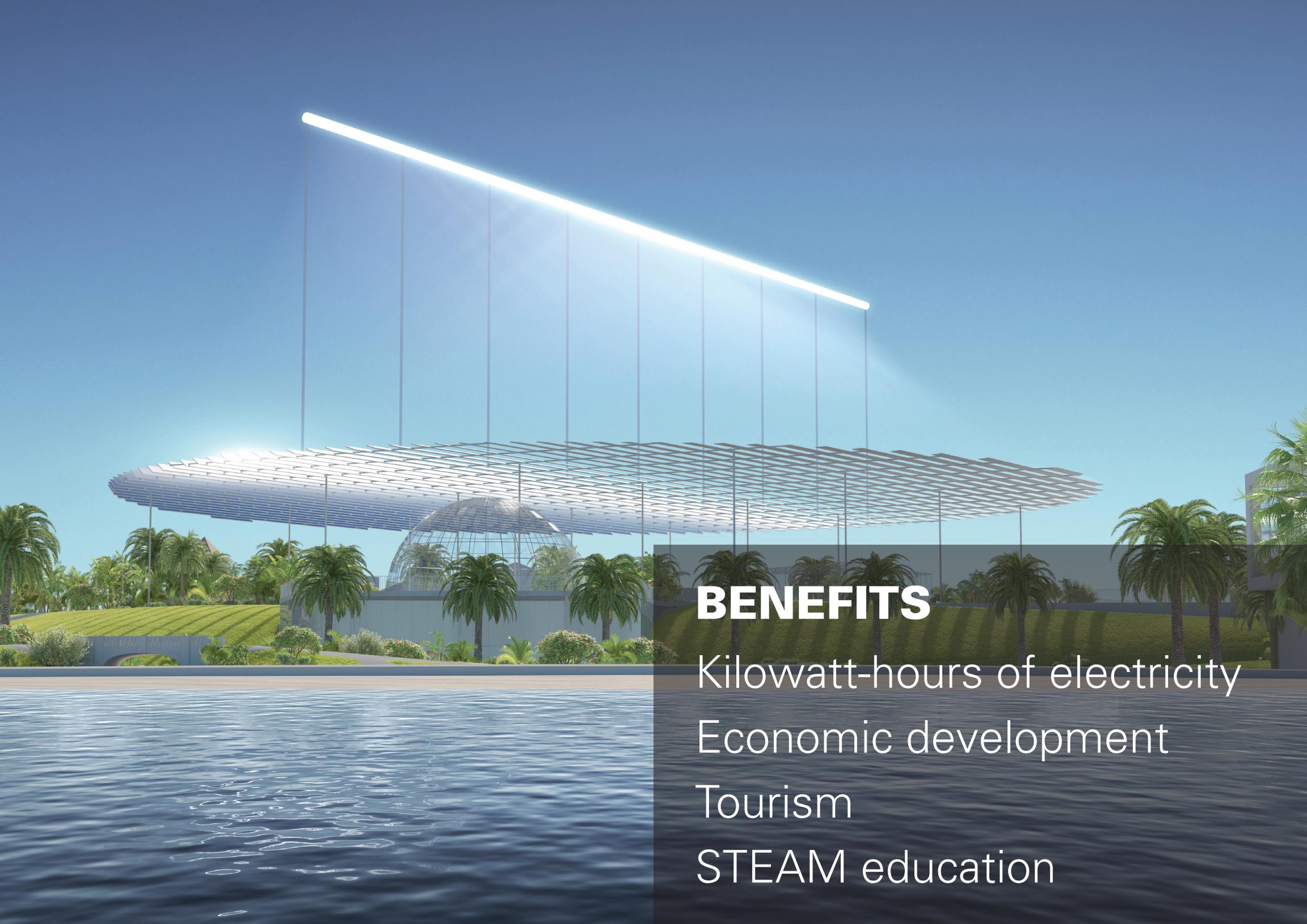
AESTHETICALLY & CULTURALLY
RELEVANT RENEWABLE ENERGY SYSTEMS

Designed by the
Maasai Women of Olorgesailie Kenya

LAGI + OMWA + Idia'Dega = MAASAI SOLAR

Selected LAGI Educational Materials





BENEFITS

Kilowatt-hours of electricity

Economic development

Tourism

STEAM education

Economic Benefit of Public Art

Olafur Eliasson, NYC Waterfalls *(not a Land Art Generator)*

\$15.5 million to install.

According to the NYC Economic Development Corporation Brought an estimated
\$53 million in incremental spending over four months



Land Art Generator Initiative

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LAGI FOUNDING DIRECTORS

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