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

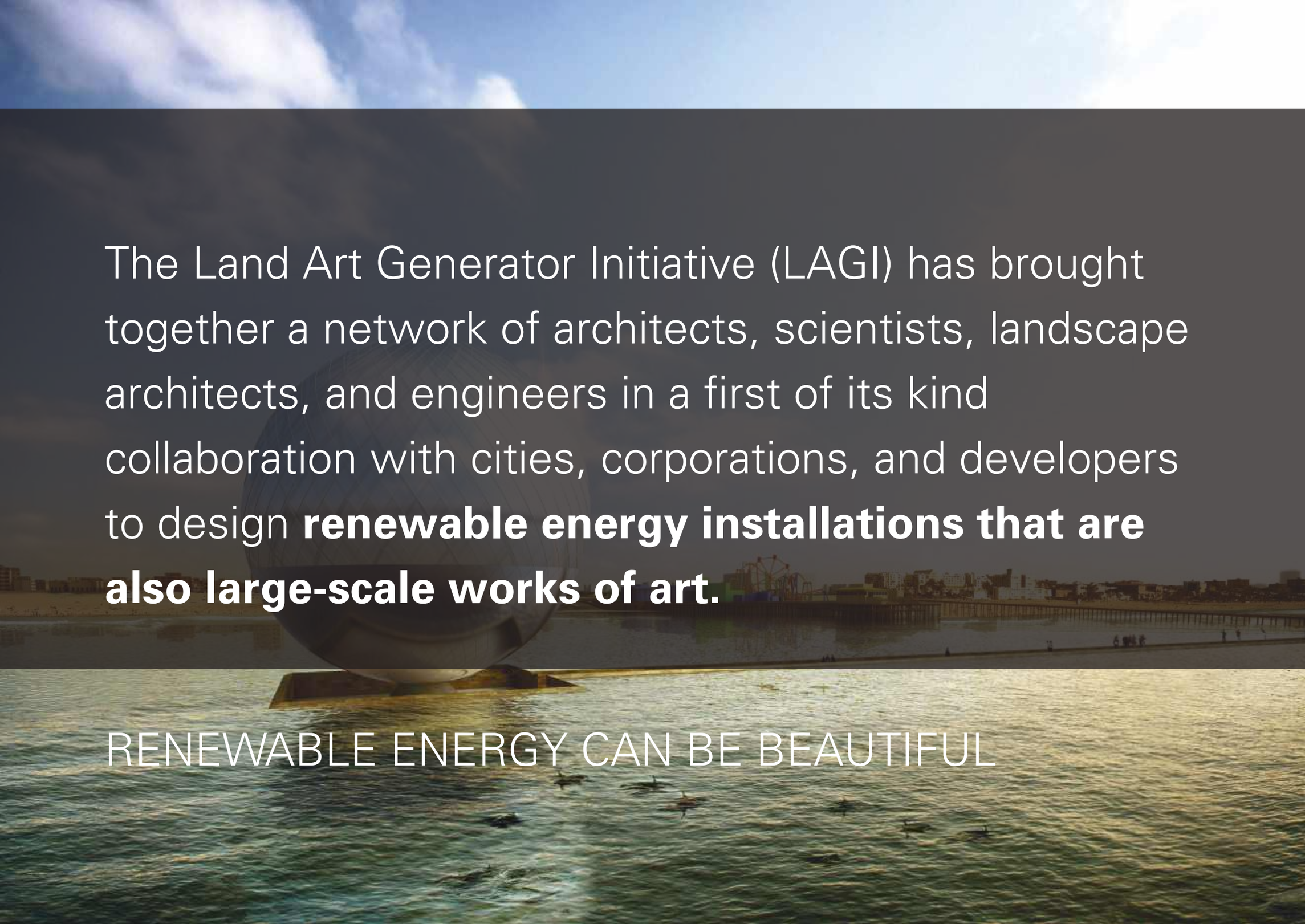
= land art generator initiative

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.

photo credit: Roger Whit

LAGI 2010 **DUBAI & ABU DHABI**

LAGI 2010 at the World Future Energy Summit 2011

SUPPORT

Masdar
A MUBADALA COMPANY
مصدر
إحدى شركات مبادلة

LAGI 2012 **FRESHKILLS PARK**

PARTNERS

FreshkillsPark Alliance

NYC Parks

INSTITUTE FOR URBAN DESIGN

COAHSI Council on the Arts & Humanities for Staten Island

ZAYED UNIVERSITY

SUPPORT

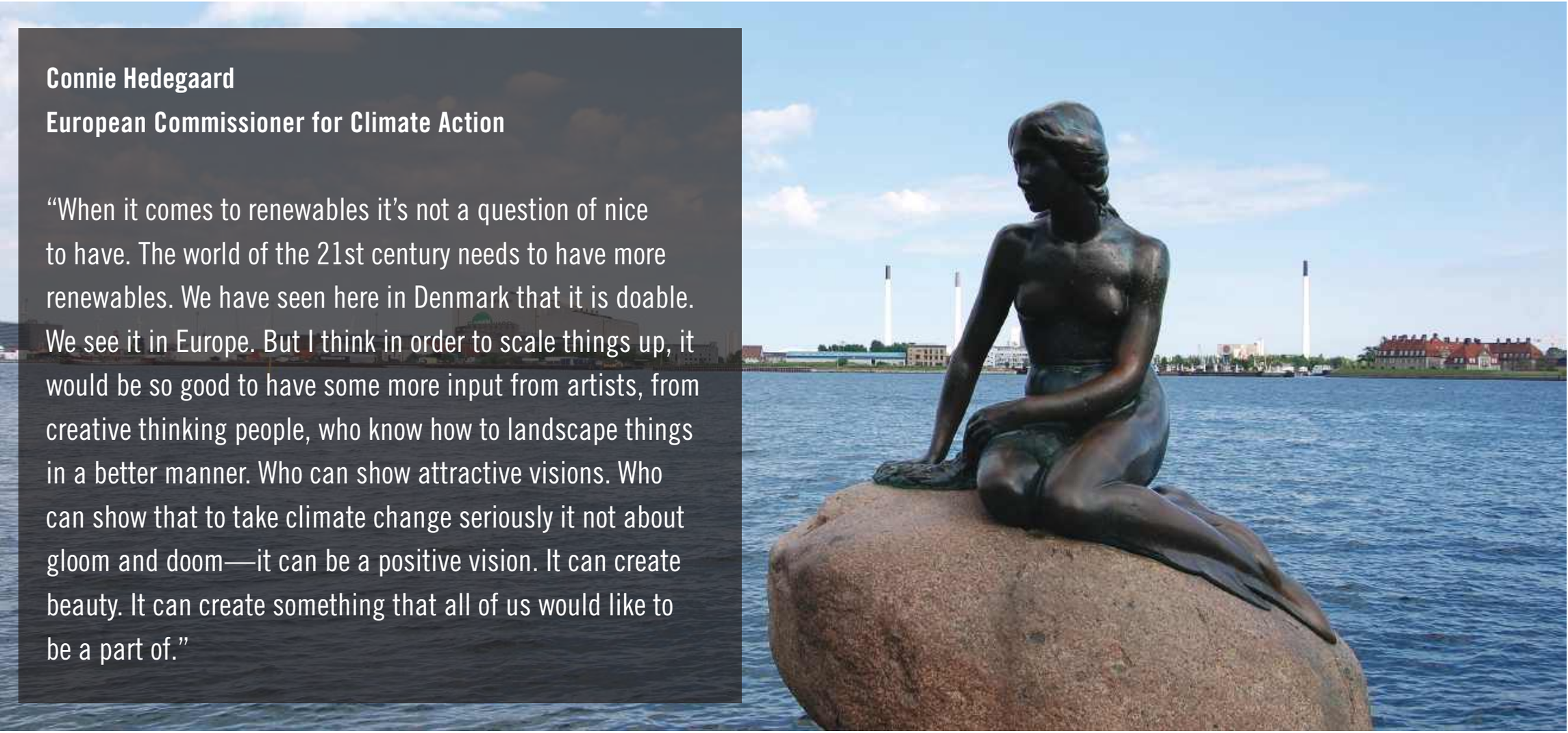
Horne Family Foundation
National Endowment for the Arts

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

ENERGY FUTURES
IT UNIVERSITY OF CPH

DDC®
Danish Design Centre

ALEXANDRA INSTITUTE

AARHUS UNIVERSITY

COPENHAGEN winter 2014
EUROPEAN GREEN CAPITAL

The Capital Region of Denmark

greencities
miljokommunerne.dk

The Culture and Leisure Committee for the City of Copenhagen

SHAWATI

LAGI 2016 **SANTA MONICA**

PARTNERS

City of Santa Monica

GREEN PUBLIC ART CONSULTANCY

U.S. GREEN BUILDING COUNCIL LOS ANGELES CHAPTER

GREEN MOAH INITIATIVE

MOAH MUSEUM OF ART & HISTORY

arts earth PARTNERSHIP

SANTA MONICA PIER

lancaster ca

SHAWATI

PUBLICATION SUPPORT

Elizabeth Firestone Graham Foundation

LAGI 2018 **MELBOURNE**

SPONSORED AND HOSTED BY

VICTORIA State Government

LAGI 2018 PARTNERS

CITY OF PORT PHILLIP

//\ CARBON \// ARTS

FED SQUARE

CLIMARTE ARTS FOR A SAFE CLIMATE

REGIONAL CENTRE FOR CULTURE

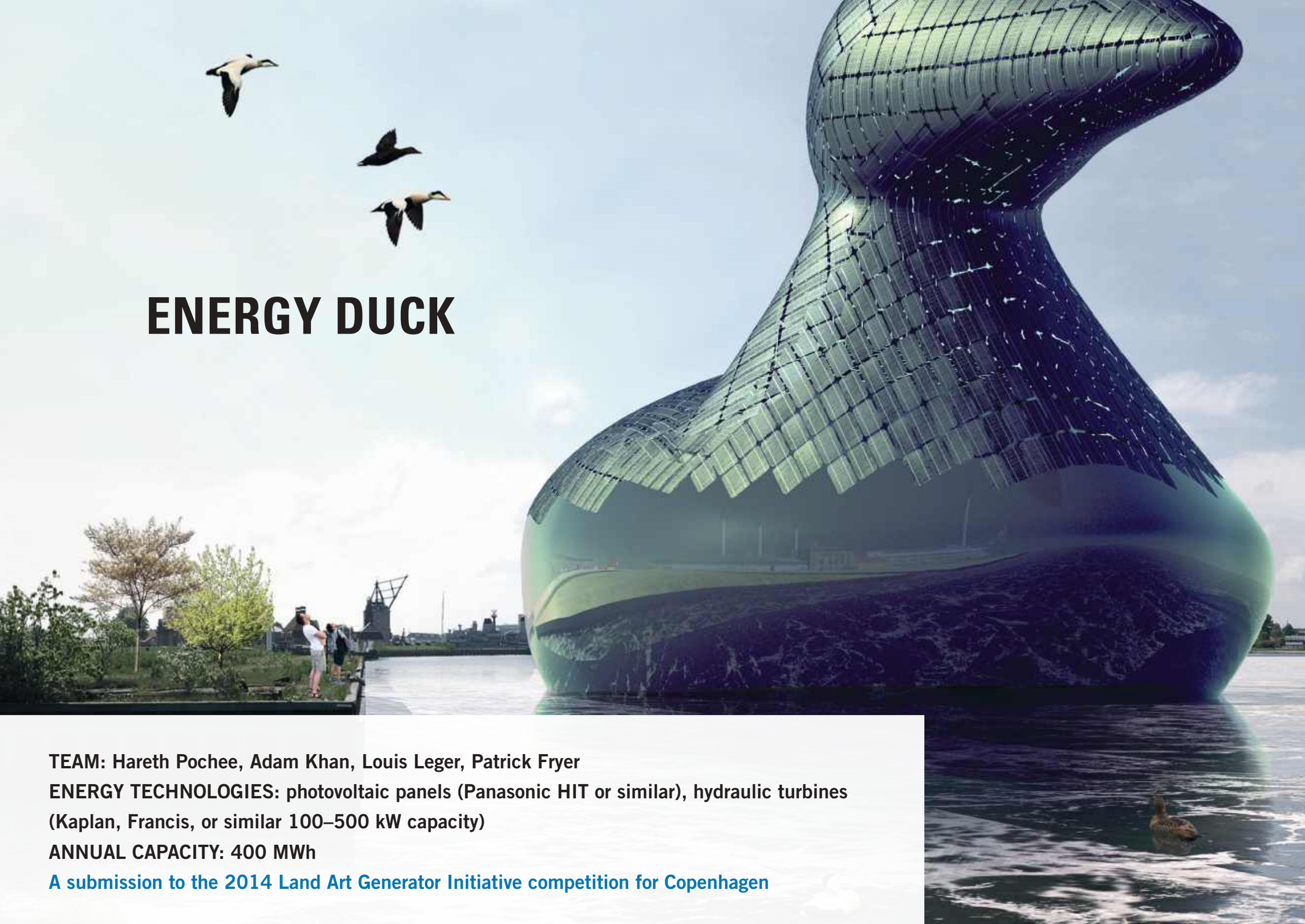
TECHNOLOGY TYPE

polycrystalline solar panels

Conversion Efficiency
22%

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

Images from Wikipedia



ENERGY DUCK

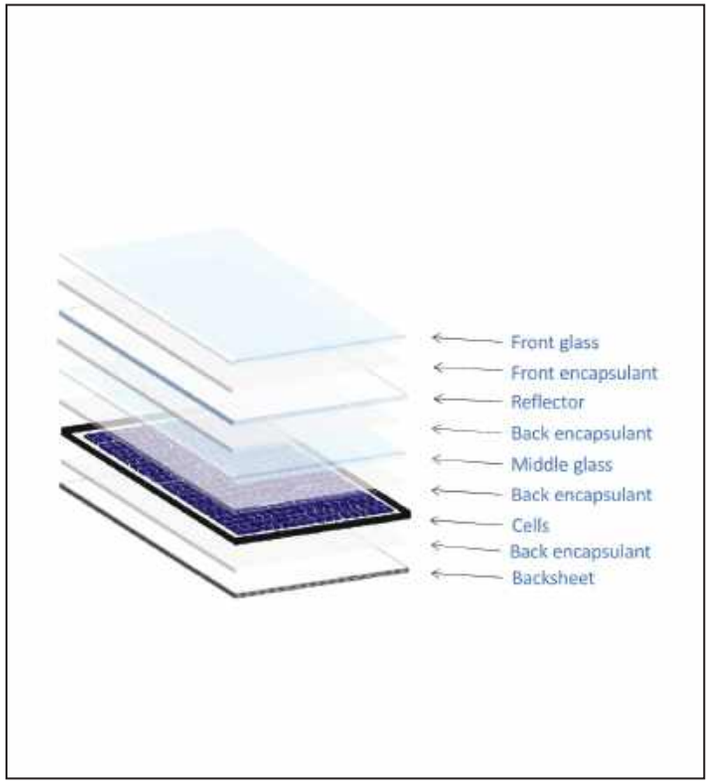
TEAM: Hareth Pochee, Adam Khan, Louis Leger, Patrick Fryer
ENERGY TECHNOLOGIES: photovoltaic panels (Panasonic HIT or similar), hydraulic turbines (Kaplan, Francis, or similar 100–500 kW capacity)
ANNUAL CAPACITY: 400 MWh
A submission to the 2014 Land Art Generator Initiative competition for Copenhagen

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

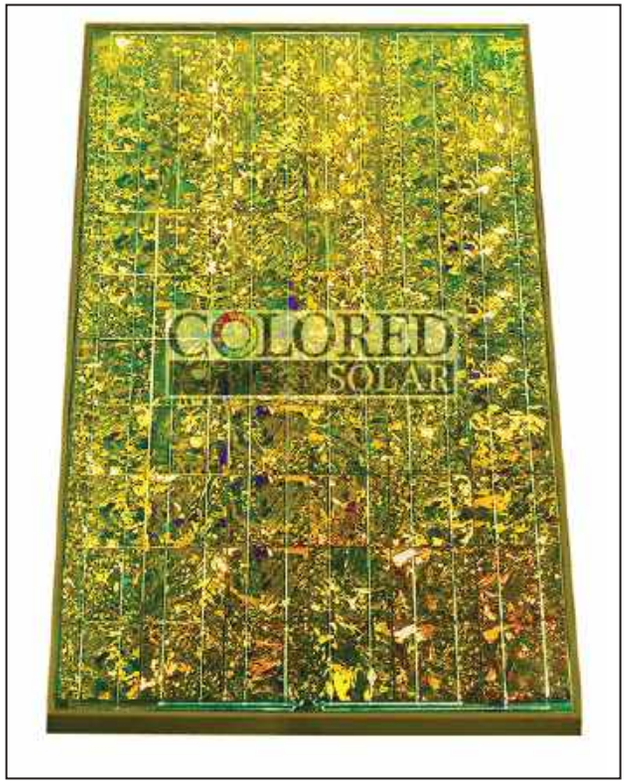


Image from Colored Solar's Product Literature

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

First Place Winner
LAGI 2018 Land Art Generator Initiative design competition for Melbourne

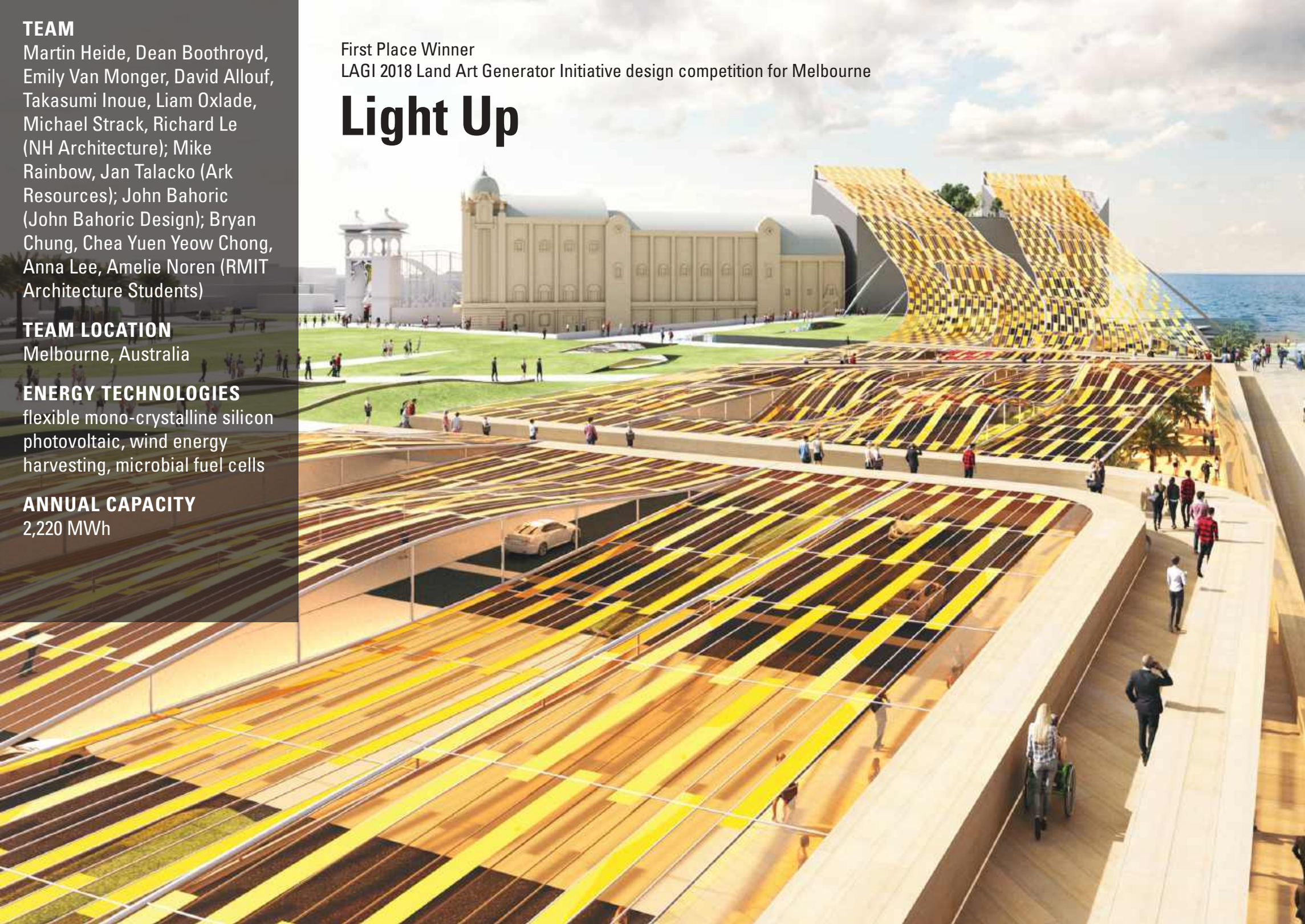
Light Up

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



TECHNOLOGY TYPE

flexible thin film (OPV)

Conversion Efficiency
8%–12%

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

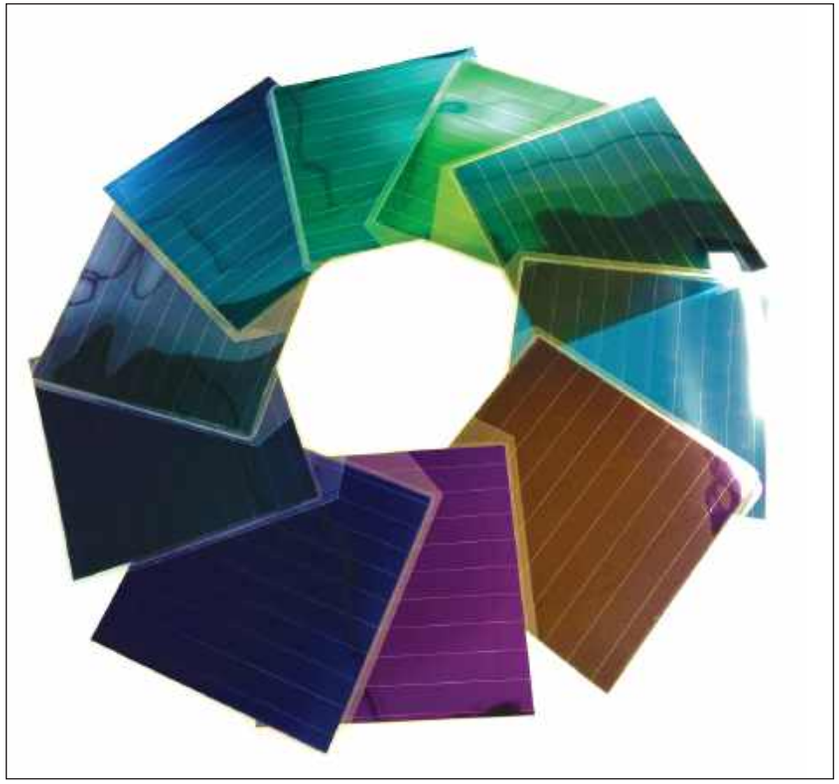


Image courtesy of Heliatek

Image courtesy of Belectric OPV (Solarte™)

BEYOND THE WAVE

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

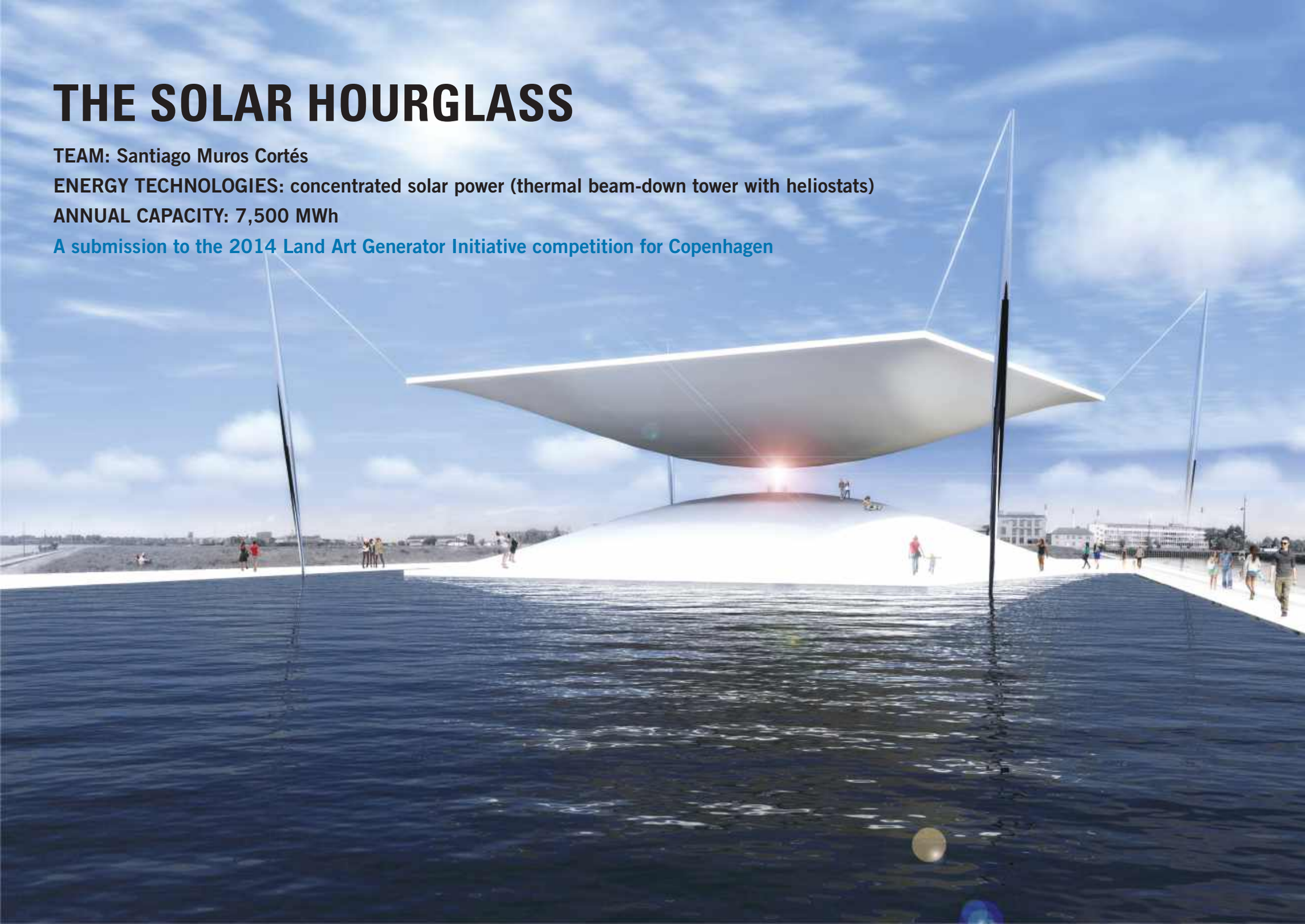
THE SOLAR HOURGLASS

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

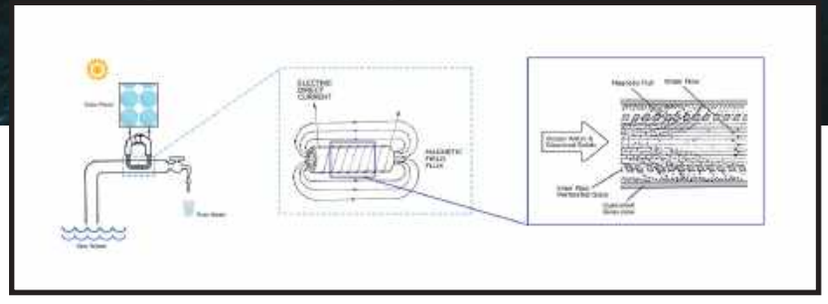
TEAM
Khalili Engineers

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

EPIcenter

land heritage institute

LISC San Antonio

land art generator initiative
RENEWABLE ENERGY CAN BE BEAUTIFUL

MISSION SOLAR ENERGY

OCI

OCI solar power

SUN ACTION Trackers

SUPPORTERS

Texas Commission on the Arts

ART WORKS.

National Endowment for the Arts
arts.gov

Alice Kleberg Reynolds Foundation

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.

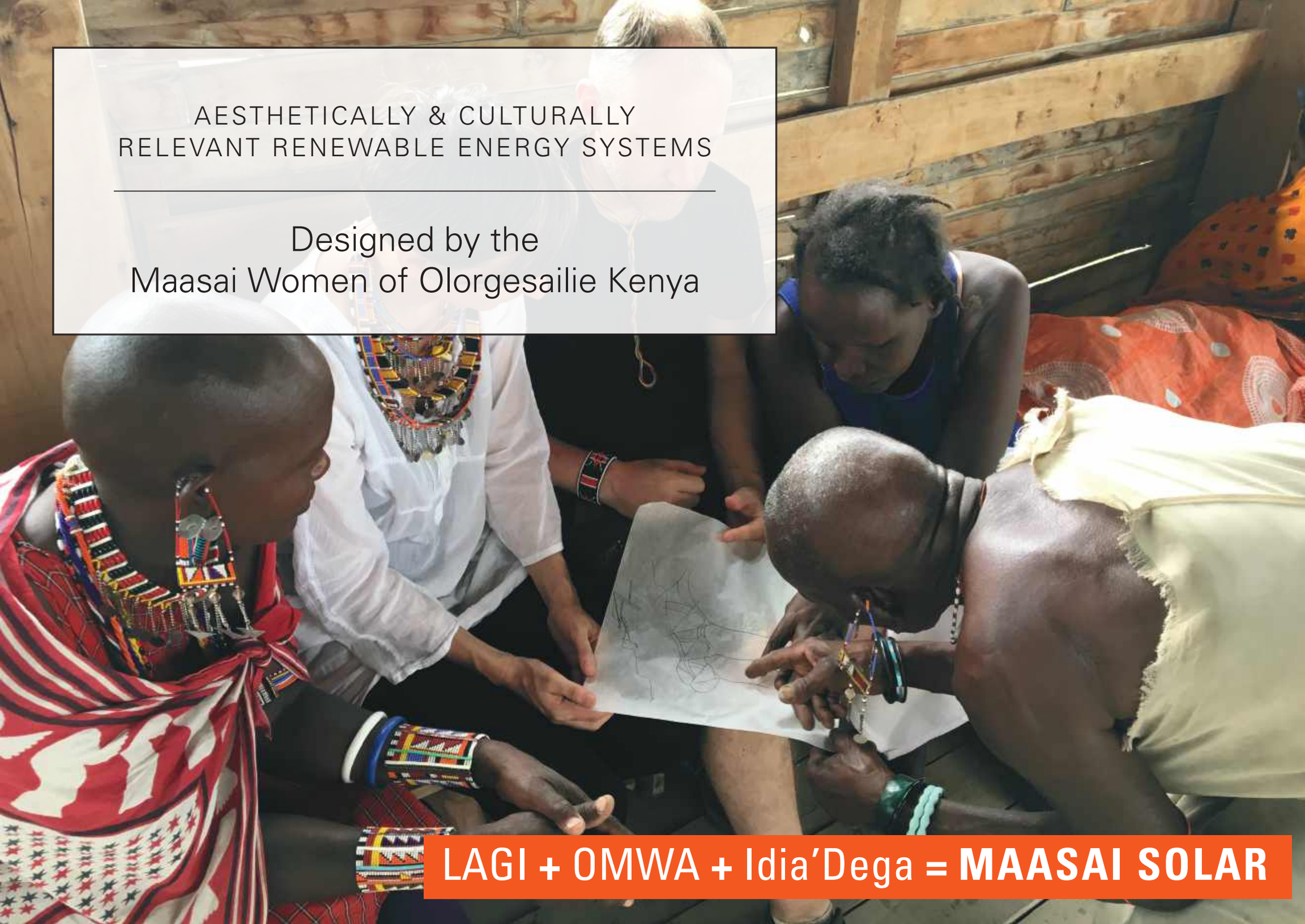
Jordan Blackwell (age 14)

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

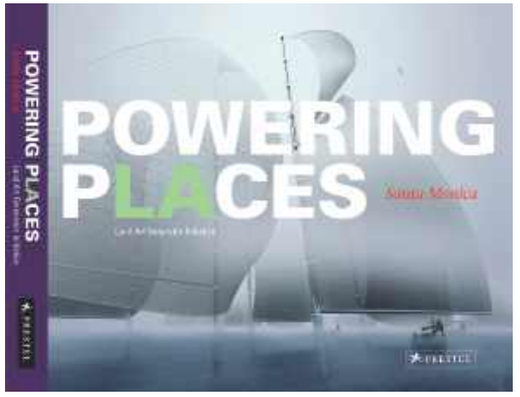


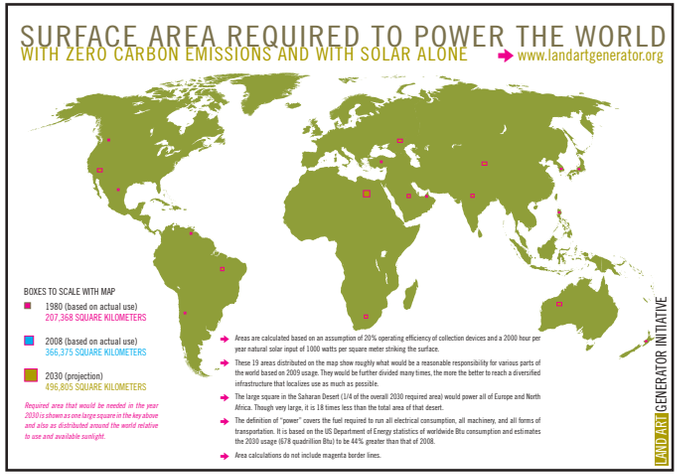
AESTHETICALLY & CULTURALLY
RELEVANT RENEWABLE ENERGY SYSTEMS

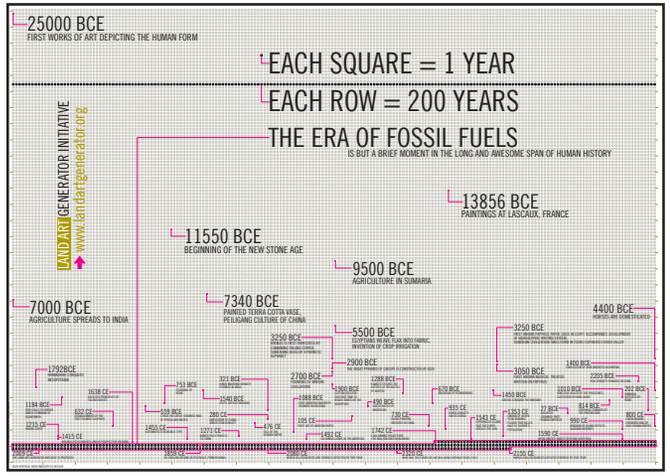
Designed by the
Maasai Women of Olorgesailie Kenya

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

Elizabeth Monoian & Robert Ferry

LAGI FOUNDING DIRECTORS

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