

renewable
energy can be
beautiful

land art generator initiative

Copenhagen

2014 Design Guidelines

LAGI 2014
Design Site



LAGI 2014 Copenhagen invites designers from around the world to submit their ideas for what infrastructure art of sustainable cities looks like. The call is to envision public art that generates utility-scale clean energy for the City of Copenhagen.

OPENS
January 1
2014

CLOSES
May 18
2014

\$20,000
in prize money

www.landartgenerator.org

LAGI 2014
Ambassador

IDA AUKEN
Danish Minister of Environment

LAGI 2014
Team

ROBERT FERRY
LAGI Founding Co-Director

ELIZABETH MONOIAN
LAGI Founding Co-Director

LEA SCHICK
LAGI 2014 Project Manager

GRY KROGAGER LUND
LAGI Project Manager

ANNE SOPHIE WITZKE
LAGI 2014 Curator

TRINE PLAMBECH
LAGI 2014 Innovation Specialist

IDA EGEDAL HENRIKSSON
LAGI 2014 Assistant

LAGI 2014
Supporters



The Capital Region
of Denmark



The Culture and Leisure Committee
for the City of Copenhagen

land art generator initiative
RENEWABLE ENERGY CAN BE BEAUTIFUL

LAGI is a project of Society for Cultural Exchange,
a U.S. 501(c)(3) non-profit organization.

LAGI 2014 Partners



LAGI 2014 Media Partner



Ida Auken

Danish Minister for Environment and
Ambassador for LAGI 2014

Green transition is an important issue for the Danish Government, and the challenges of green transition are both complex and cross-disciplinary. The solutions are as well. Therefore, it is important to find new ways to integrate renewable energy projects into the city space. Art, architecture, and other creative projects and forms of expression are very much part of the solution to create greener living spaces and initiate a healthy, public debate.

I am proud to be an ambassador for the Land Art Generator Initiative 2014, as it gives Denmark and the world an opportunity to put focus on green transition and a greener development of our urban communities. And I am proud that it happens in Copenhagen at the same time as we are celebrating Copenhagen being the 2014 European Green Capital.

Green transition does not come easy, and openness and dialogue are key factors if we are to succeed in making the world realize the importance of a new way of thinking. It is vital that we have a dialogue, where all participants and groups of interest are represented.

It is essential that all aspects such as energy, architecture, the use of city spaces, climate change, and use of resources are considered in parallel, when we adapt and create our future cities. We must be able to discuss how we want

our cities built, what they should look like, and how we fundamentally want to live in the future. It is my hope that this competition can help to put green transition on the agenda and give room to great creativity, new solutions, and innovative ideas that will help us create a greener future and a better world.

Martin Lidegaard

Danish Minister for Climate,
Energy, and Building

Green transformation of our energy systems is high on both the Danish and international agenda, and there is a great need for development of new ideas, concepts, and solutions, showing that it is possible to transform society to a green future without sacrificing our standard of living and quality of life.

The Land Art Generator Initiative provides new and exciting proposals for how the green transition can be approached. We saw this in the previous competitions for Dubai (2010) and New York City (2012), where creative talents in the arts, architecture, and engineering together brought forth innovative ideas, concepts, and solutions that can produce green energy while being beautifully integrated with the local environment.

The Land Art Generator Initiative challenges our conventional notions of the path to a green transition, forcing participants to think outside the box and develop new ideas, concepts and solutions. I therefore see bringing the Land Art Generator Initiative to Copenhagen in 2014 as a unique opportunity to demonstrate new ways in which communities can be transformed to a new green reality. I'm sure it will inspire citizens, businesses, and cities in Denmark and the rest of the world to accelerate our green transition.

Copenhagen Carbon Neutral 2025

Text courtesy of the City of Copenhagen

Copenhagen will become the first carbon neutral capital by 2025. Extensive retrofitting of buildings, reorganisation of the energy supply and change in transportation habits are some of the many initiatives the City of Copenhagen will implement in order to become carbon neutral by 2025.

GREEN GROWTH AND LIVEABILITY

With the climate plan, the Danish capital combines growth, development, and a higher quality of life with a reduction in Carbon emissions of around 1.16 million tons.

The climate plan has been developed in close cooperation with businesses, the citizens of Copenhagen, NGOs, and knowledge institutions.

CARBON NEUTRALITY

The city will be carbon neutral when Copenhagen's carbon net emissions equal zero. That is when Copenhagen has reduced carbon emissions to a minimum, and compensated for the remainder of emissions with external initiatives (e.g. windmills).

Robert Ferry &
Elizabeth Monoian
LAGI Founding Co-Directors

We are pleased to be holding the third international LAGI design competition—this time for the City of Copenhagen. And we're thrilled to be an event partner to the celebration of Copenhagen's coveted title of 2014 European Green Capital.

While developing LAGI 2014 we had the opportunity to visit renewable energy sector initiatives throughout Denmark, including projects such as the Nordic Folk Center for Renewable Energy, the forward thinking Energy Academy on Samso Island (the island produces 140% of electrical needs from wind energy), and Wave Star (located at the Danish Wave Energy Centre test site in Hanstholm)—which is operating at 60% efficiency and rounding the corner to 80%. With all of the ambitious initiatives within and around Copenhagen, it is clear to us that this city is on target to meet its objective to become the first carbon neutral capital by 2025.

The LAGI 2014 design competition follows two editions held for Dubai & Abu Dhabi (2010) and New York City's Freshkills Park (2012), three publications, exhibitions around the world, countless outreach activities, and the exciting news that we are working towards the construction of *WindNest* in Pittsburgh, a submission by Clare Olsen and Trevor Lee to the LAGI 2010 competition.

Municipalities in Denmark—such as the four Green Cities that are participating in the LAGI Green Cities Partnership—are expressing interest in construction. We hope to see more than one “land art generator” built in this wonderful country over the coming years—beautiful contributions to Denmark's stated renewable energy goals.

We are privileged to be working with a Copenhagen based team whose vision and dedication has helped to bring LAGI to their home. A very special thanks to Lea Schick, LAGI 2014 Project Manager, and IT University of Copenhagen for hosting this edition of the LAGI competitions. We are also very thankful to Region Hovedstaden and to the Culture and Leisure Committee of the City of Copenhagen for their co-financing and support.

Additionally, we would like to thank the Danish Design Centre for generously hosting the LAGI 2014 exhibition at the Design Society.

And a special thanks to all of the jurors who have offered their time, and the elected officials in Denmark such as Ida Auken and Martin Lidegaard who have provided such wonderful and kind words of support.

Finally a word to you, the LAGI 2014 participant. As you begin to formulate your ideas of the perfect solution to this creative brief, you deserve our greatest and most sincere thanks. This project is only as good as the amazing design solutions that you generate and put forward.

Robert Ferry &
Elizabeth Monoian

What is LAGI?

LAGI was founded in 2008 with the main goal of providing a platform for the design and construction of public art installations that have the added benefit of large-scale clean energy generation. Once built, each sculpture will continuously distribute clean energy into the electrical grid at a utility scale (equivalent to the demand of hundreds or thousands of homes).

Presenting the power plant as public artwork—simultaneously enhancing the community, increasing livability, and stimulating local economic development—is a way to address a variety of issues from the perspective of the ecologically concerned artist and designer. By nature of its functional utility, the work also sets itself into many other overlapping disciplines such as architecture, landscape architecture, engineering, applied science research, industrial design, urban planning, education, and environmental science. This interdisciplinary result has the effect of both enhancing the level of innovation and broadening the audience for the work.

The entries to the LAGI competitions prove that renewable energy can indeed be beautiful and that public artwork can have an ecologically positive impact over its life-cycle. The LAGI competition design entries would stand as a positive amenity to the public spaces of any city.

About LAGI 2014

LAGI 2014 is an ideas competition to design a site-specific public artwork that, in addition to its conceptual beauty, has the ability to harness energy cleanly from nature and convert it into electricity for the utility grid of the City of Copenhagen.

The design site—Refshaleøen—at its height, was a shipyard that employed thousands of individuals. Its rich historical context and its view across the harbor to the Langelinie and the cherished statue of the Little Mermaid is sure to inspire.

The monetary award will not guarantee a commission for construction. However, LAGI is working with stakeholders in Denmark and internationally to pursue possibilities for implementation of the most pragmatic, aesthetic, and conceptually engaging LAGI designs.

The award ceremony, exhibition, and book launch will be in Copenhagen during October of 2014 at the Design Society in partnership with the Danish Design Centre. There will also be various satellite exhibitions throughout Denmark.

As in past LAGI competitions, community events will be held in collaboration with project partners, exhibitions of the top entries are being planned in various international venues, and there will be a book (published by Prestel) that documents 50 of the strongest design solutions.

Refshaleøen is a manmade island in Copenhagen's harbor, which until 1996 housed the shipyard Burmeister & Wain. At its height, the shipyard employed 8,000 people—an icon of Danish industrial history. A portion of the island was reclaimed in the 1870s when the port's waterways were made deeper.

Today the many shipyard workers have been replaced with a mixture of creative entrepreneurships, small crafts facilities, flea markets, warehouses, and cultural and recreational venues.

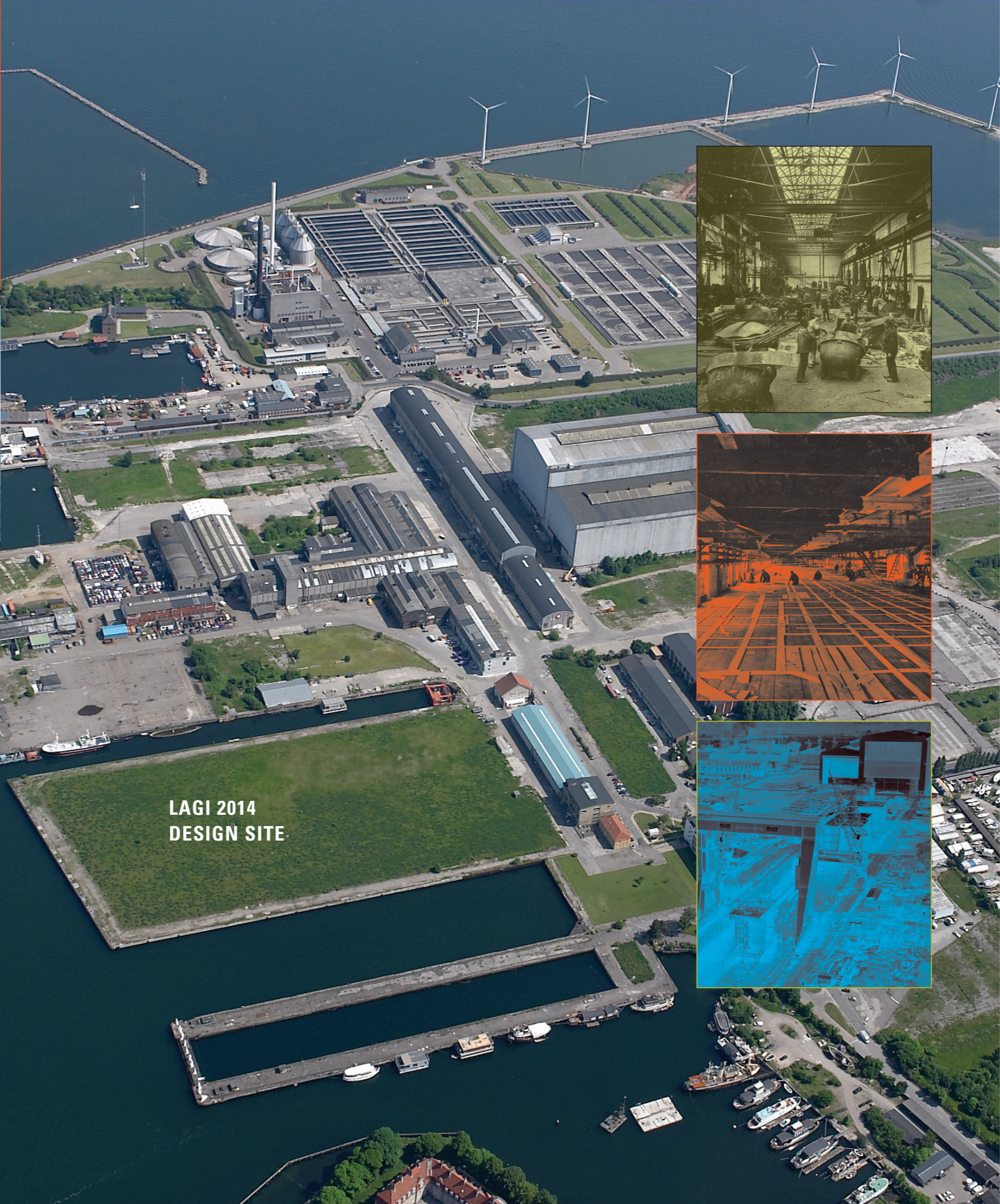


DESIGN SITE

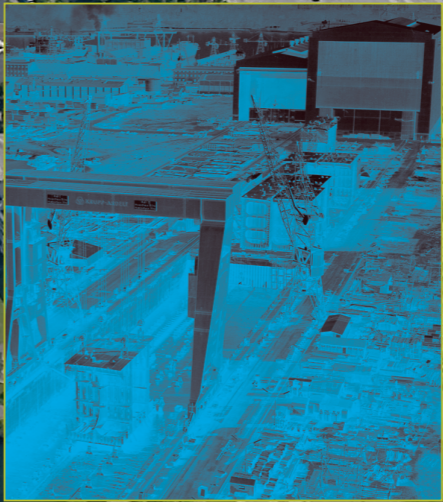
Annexes for Download

Available for download at:
www.landartgenerator.org/designcomp

- LOCATION PLAN and SITE BOUNDARY
- PHOTOS
- HISTORICAL INFORMATION
- METEOROLOGICAL DATA
- DANISH CLIMATE PLANS
- ADDITIONAL SUPPLEMENTAL INFORMATION



LAGI 2014
DESIGN SITE



LAGI 2014 Design Site: Refshaleøen

LAGI 2014 is asking teams
to design for the site at
Refshaleøen in Copenhagen.

Detailed information about the
site is downloadable from the
LAGI 2014 design competition
website:

<http://landartgenerator.org/designcomp>

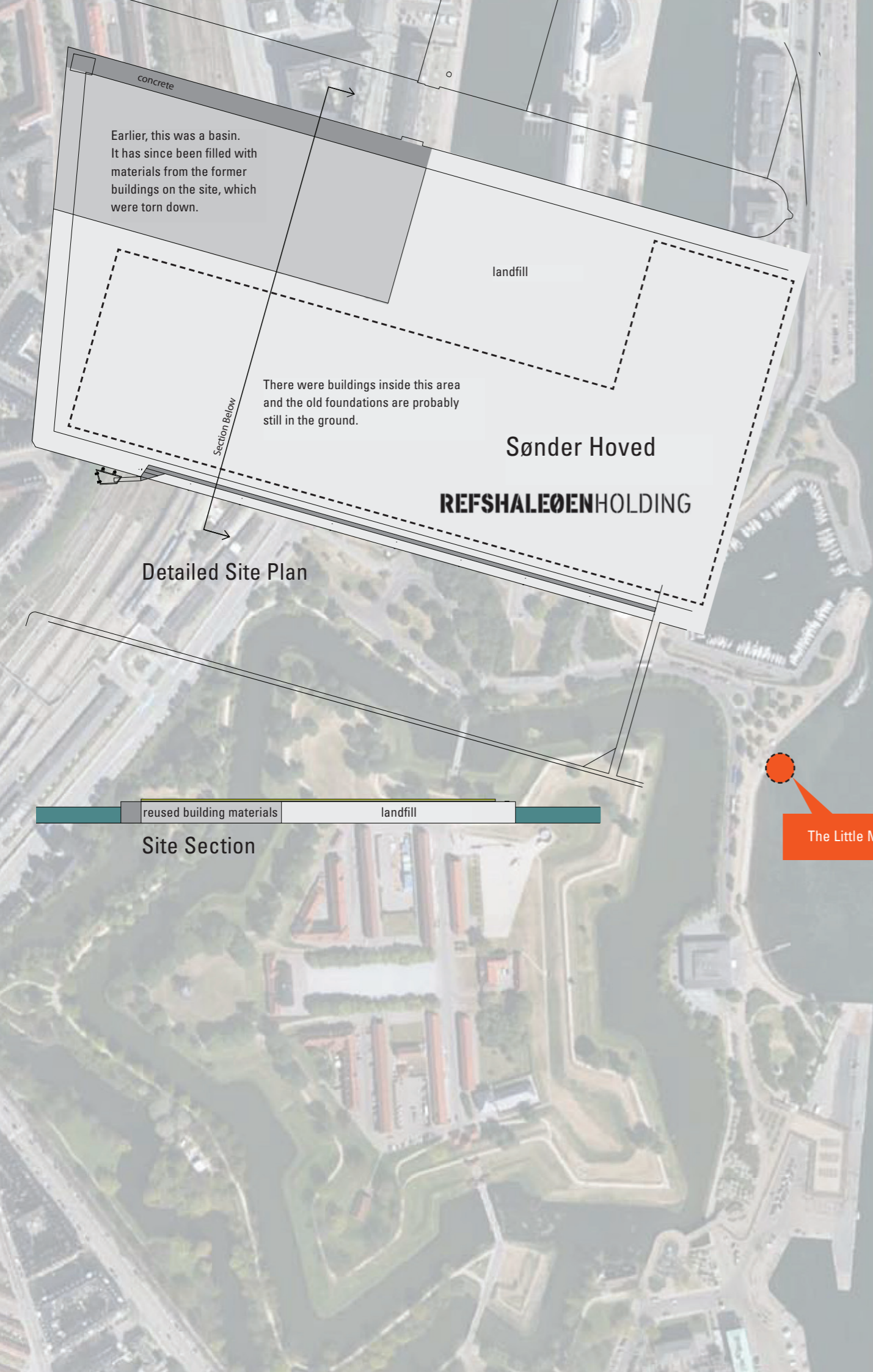
While at the designcomp website you
will also find a link to a section that is
dedicated to our Green Cities partners.

The four municipalities of Albertslund,
Allerød, Herning, and Kolding have
all expressed interest in pursuing
construction by working with LAGI & the
LAGI 2014 participant teams.

Although outside of the context of the
competition and not related to the LAGI
2014 design brief or jury criteria, we invite
you to visit the Green Cities section to
learn more about their initiatives.

You can also send us an email at
greenities@landartgenerator.org
if you would like your work to be seen by
one of the Green Cities.





Earlier, this was a basin.
It has since been filled with
materials from the former
buildings on the site, which
were torn down.

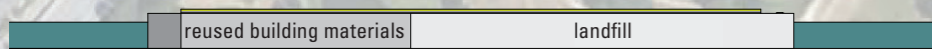
landfill

There were buildings inside this area
and the old foundations are probably
still in the ground.

Sønder Hoved

REFSHALEØENHOLDING

Detailed Site Plan



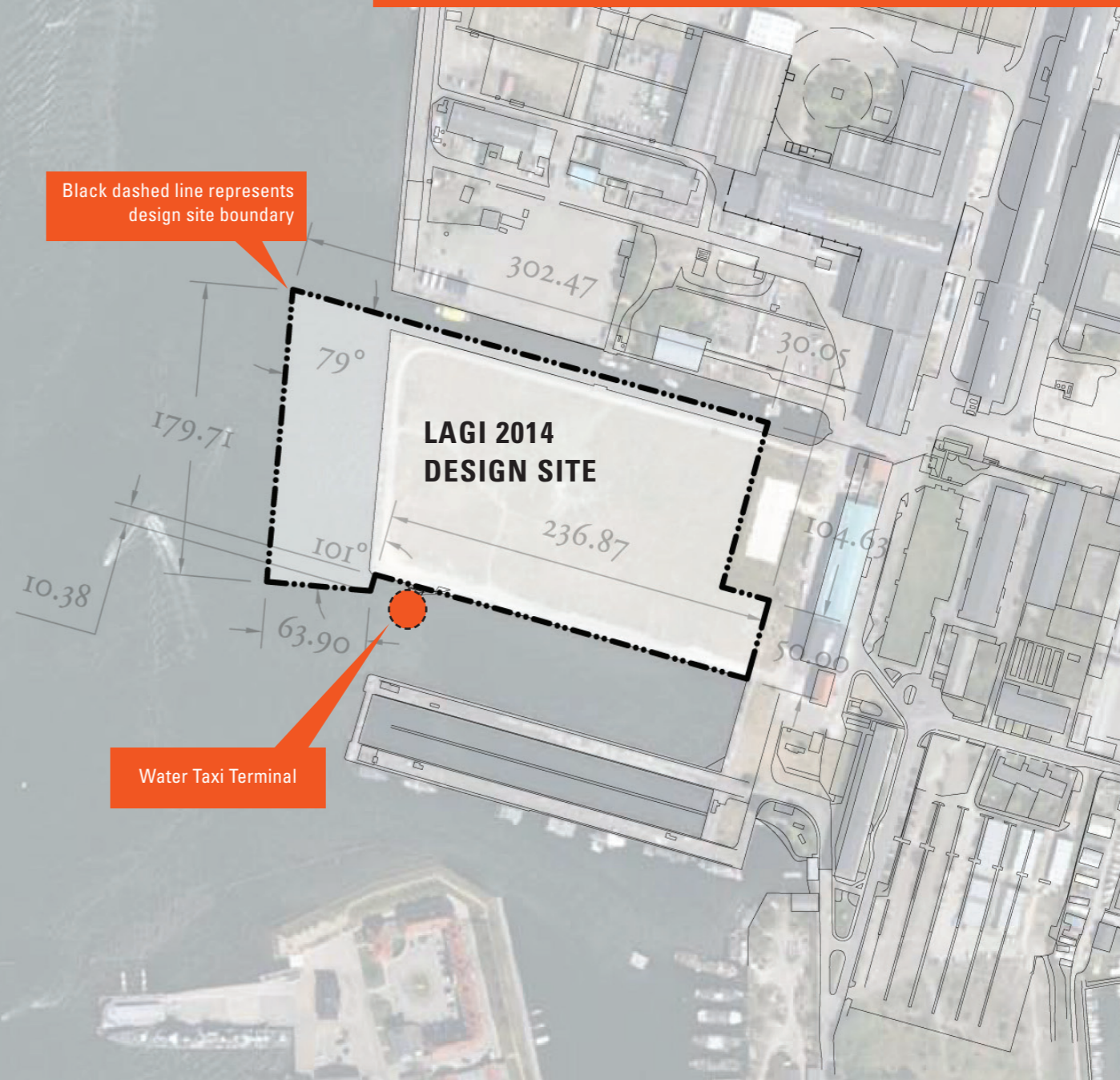
Site Section

Images courtesy of Refshaleøen Holding

The design site boundary encompasses the Sønder Hoved pier section of Refshaleøen and some of the surrounding waterways. The pier is an old landfill that is partially comprised of material from buildings that used to exist on the now empty site.

There are no LAGI 2014 design restrictions on foundation depth or type. The proposed artworks can exist anywhere within the site boundary, but must not break the plane of the site boundary at any height. The design proposals must not exceed 125 meters in height at any point (height measurement is not an average but an absolute limit).

There are some other design considerations to note. At the southwest corner of the site there is a water taxi terminal which is to remain. There are plans to develop the waterway to the south of the site with houseboats, and boat access into the channel north of the site must also be maintained. More information about the context of the Refshaleøen site is available on the competition website for download.



Black dashed line represents
design site boundary

The Little Mermaid

Water Taxi Terminal

LAGI 2014
DESIGN SITE

302.47

30.05

236.87

104.63

50.00

79°

101°

179.71

10.38

63.90

**LAGI 2014
FIRST PLACE**
winning submission will be
awarded **\$15,000**

Two members of the first place winning team will be flown to Copenhagen for the award ceremony and exhibition opening.
Accommodations and airfare will be provided.

**LAGI 2014
SECOND PLACE**
winning submission will be
awarded **\$5,000**

LAGI 2014 Design Brief

A qualified entry to the LAGI 2014 design competition must fulfill the following criteria:

- Consist of a three dimensional sculptural form that has the ability to stimulate and challenge the mind of visitors to the site. The work should aim to solicit contemplation from viewers on such broad ideas as ecological systems, human habitation and development, energy and resource generation and consumption, and/or other concepts at the discretion of the design team;
- Capture energy from nature, convert it into electricity, and have the ability to store, and/or transform and transmit the electrical power to a grid connection point to be designed by others. Consideration should be made for artfully housing the required transformer and electrical equipment within the project boundary and restricting access to those areas for the safety of visitors to the site;
- Not create greenhouse gas emissions and not pollute its surroundings. The work must not impact the natural surroundings negatively. Each entry must provide a brief (approx. 300 words) environmental impact assessment as a part of the written description in order to determine the effects of the project on the natural ecosystem and give reference to a mitigation strategy addressing any foreseeable issues;
- Be pragmatic and constructible and employ technology that can be scalable and tested. There is no limit on the type of technology or the proprietary nature of the technology that is specified. It is recommended that the design team make an effort to engage the owners of proprietary technology in preliminary dialogue as a part of their own research and development of the design entry. The more pragmatic the proposals are, the greater the likelihood will be that one of them may get built;
- Be well informed by a thorough understanding of the history, geography, details of the design site, and the broader contexts of Refshaleøen, Copenhagen, and Denmark;
- Be safe to people who would view it. Consideration must be made for viewing platform areas and boundaries between public and restricted areas;
- Be designed specifically to the constraints of the design site at Refshaleøen as shown in the Location Plan (available for download);
- Designs must not exceed 125 meters in height;
- Entries must be in English and metric scale.

LAGI 2014 Judging Criteria

The LAGI 2014 jury will make their decisions based on the following criteria:

- Adherence to the Design Brief;
- The integration of the work into the surrounding environment and landscape;
- The sensitivity of the work to the environment, and to local, and regional ecosystems;
- The estimated amount of clean energy that can be produced by the work;
- The way in which the work addresses the public;
- The embodied energy required to construct the work;
- The perceived return on capital investment of the work, judged by the complexity of the design in relation to the energy it produces each year;
- And the originality and social relevance of the concept.

ANSWERS TO FREQUENTLY ASKED QUESTIONS

LAGI 2014 is open to everyone
(students, professionals, and others).

There is no fee to enter.

We strongly believe in creating an
open and accessible platform for
creativity and innovation.

We encourage interdisciplinary
teams comprised of artists,
architects, landscape architects,
engineers, scientists, designers, and
others. However, we also recognize
that great solutions can come from
individuals working alone or in
smaller teams.

**All competition questions
must be addressed to**

lagi@landartgenerator.org

LAGI 2014 Submission Requirements

GENERAL CRITERIA

The entry must not have been used in any other
context, and it must not have been previously
published or exhibited anywhere in the world.

The design must be kept confidential and anonymous
until the results of the competition are announced.

Designs that have already been made public, are
found to plagiarize any existing design, that may
harm public safety, or that are found to infringe
on the intellectual property rights of others will be
disqualified.

If any award-winning submissions are found to fall
under any of these categories later, the award will be
cancelled and the prize money withdrawn.

There are no restrictions on team size and/or makeup.
It is recommended (but not mandatory) that the team
be comprised of interdisciplinary members so as to
arrive at the most well conceived result. An ideal team
might consist of an artist, an architect, a landscape
architect, an electrical engineer, and a renewable
energy scientist.

Anyone is eligible to enter the LAGI 2014 design
competition. There is no fee to enter.

See Terms & Conditions for more information.

DEADLINE

Submissions will be accepted until Sunday
May 18, 2014 at 23:59 (11:59 pm) GMT.

REGISTRATION

Register your team by creating an account at:

landartgenerator.org/designcomp

Under Log In, click Register.
Enter your username and email address.
You will receive a password and confirmation
via email.

We recommend that you register the first time
you visit the site. This way you will stay informed
of all LAGI 2014 competition updates via email.

If you encounter any difficulties, please email
lagi@landartgenerator.org.

FORMAT

- Exactly three (3) A1 size layout boards (PDF only).
A1 size is based on the international ISO 216
standard (594mm height × 841mm width).

Each layout board may not exceed 8MB file size.

Nowhere on the layout boards or written description file can
there be any personal identifying information. The jury will
see these boards and we must maintain anonymity of the
entries. You can show your 8-character code on your boards,
but this is not required.

Layout boards must all be landscape in orientation
(for consistency in jury review).

- One (1) DOC, DOCX, or TXT format file containing:
 - a 1,200-word maximum written description
(do not include any information within the
written description file that could identify who
the team members are)
 - technology used in your design
 - estimate of the annual kWh (kilowatt-hours)
generated by your design
 - dimensions and list of the primary materials
used in your design
 - a 300-word maximum environmental impact
statement
- Three (3) to eight (8) JPG (300 dpi) image files
(without text) or simple diagrams. These should
be the same images used in the layout boards.
Images can be any orientation and dimension, but
must not exceed 20MB each in file size. *The purpose
of these image files is to facilitate the production of the
book with Prestel Publishing. The top 50 submissions will be
published in this book for release in fall of 2014. Please note
that we might contact you for more images for the purposes
of publication and exhibition. CMYK images are preferred, but
not required.*
- Language must be English.

*We recommend that you come up with a title for your artwork in
the written description, but it is not required.*

For examples of layout boards, you can visit:

landartgenerator.org/LAGI2010

landartgenerator.org/LAGI-2012

where you will find a portfolio of submissions from
past LAGI design competitions.

HOW TO SUBMIT YOUR ENTRY

- Teams may submit only one entry to the
competition. Individuals may not be on more than
one team.
- Be sure that no personal identifying information
is visible on any of your layout boards, written
description, or JPG images.
- Name each file with an 8-character code of your
choosing, then underscore, and then the number
of the layout board or image. It is very important
that you follow this file-naming convention.
Otherwise your entry will risk disqualification.

examples

11BB3344_1.pdf, 11BB3344_2.pdf, etc.
for your layout boards

11BB3344.doc
for your written description

11BB3344_1.jpg, 11BB3344_2.jpg
for your text-free images or diagrams

(do NOT use the example code above)

- Go to: landartgenerator.org/designcomp
and log in. You will be required to log in before you
can access the upload page.
- Click “Upload Submission”
- Upload your files using the online form.

Locate each of your PDFs, JPGs, and your text file
on your local computer by clicking “Browse” in
each upload field. Click the “Upload” button and
then proceed to the next field.

Make sure that your email address and all
other team information is correct, and that all
required fields are completely filled in. This is the
information we rely on for publications.

- Please be patient while each file upload is in
process and do not navigate away from the page.
- When finished, you will have the opportunity to
continue to a confirmation page where you will
find links to all of your files as well as a summary
of the team information that you have provided.
You will also receive an email with this same
information.

LAGI 2014 Schedule

JANUARY 1	LAGI 2014 competition opens
JANUARY 1 – MARCH 1	Open question & answer period <i>Answers will be posted to the LAGI website. All questions must be addressed to lagi@landartgenerator.org</i>
MAY 18	Competition closes at 23:59 (11:59 pm) GMT
JUNE	Selection & jury process
JULY	Winners & shortlist contacted
OCTOBER	Award ceremony, exhibition, and book launch held in partnership with the Danish Design Centre at the Design Society in Copenhagen

LAGI 2014 Jurors

CONNIE HEDEGAARD

European Commissioner for Climate Action

MARTIN LIDEGAARD

Danish Minister for Climate, Energy and Building

TINA SAABY

City Architect of Copenhagen

LARS AAGAARD

Director, Danish Energy Association

JASON F. MCLENNAN

CEO, International Living Future Institute

NILLE JUUL-SØRENSEN

CEO, Danish Design Centre

KENT MARTINUSSEN

CEO, Danish Architecture Centre

CHRISTIAN HERSKIND

CEO, Refshaleøen Holding A/S

STEEN CHRISTIANSEN

Mayor, Albertslund Municipality

STIG L. ANDERSSON

Founding Partner, SLA;
Creative Director, Professor

ELSE MARIE BUKDAHL, DR. PHIL.

Danish Art Historian, Ålborg University

AGNETE FOG

Chairman of Green Cities 2014–2015

SHARON CHANG

CEO and Founder, Yoxi; NYU Trustee

CHRIS FREMANTLE

Co-Producer, Public Art Scotland

MATTHEW ROSENBERG

Founding Partner, M-Rad
2nd Place Winner LAGI 2012

MICHAEL SINGER

Principal, Artist and Designer,
Michael Singer Studio



Regenerative Infrastructures
is the LAGI 2012 publication.
(Design by Schifino Design)

The LAGI 2014 book featuring the top
50 submissions will be released in
October 2014 by Prestel Publishing.

The Design Society in Copenhagen is the
primary exhibition space for LAGI 2014, in
partnership with the Danish Design Centre.



Image courtesy of Sendelbach



LAGI 2014 Terms & Conditions

The Land Art Generator Initiative competition is a project of Society for Cultural Exchange, a U.S. 501(c)(3) non-profit organization. The award money is a cash payment to the winning team and is not related to costs of construction of the work. There is no guarantee of any of the projects being constructed.

Participants cannot reveal the identity of any LAGI 2014 design submission or share any images or ideas pertaining to any LAGI 2014 design submission to any member of the LAGI 2014 jury, LAGI 2014 competition partner organizations, or LAGI 2014 administrative team. By submitting a proposal, each competitor automatically affirms compliance with the competition requirements, rules and guidelines and agrees that any violation will result in immediate disqualification from consideration

The submitted design remains the property of the participant. Participant shall be credited either by collective team name or by individual names at their discretion in publications and exhibits.

By participating in the competition, all participants authorize Society for Cultural Exchange to publish and exhibit all the designs (including project data submitted)—waiving compensation—at exhibitions and events and/or to use them in and promote them to any publications.

By submitting a design, the participant agrees to provide Society for Cultural Exchange with the right of first refusal to the exclusive use of the design for the purpose of exhibition, publishing, and promotion.

The participant agrees to allow Society for Cultural Exchange to use the submitted design in discussions and negotiations with developers, planners, funders, and municipalities in an effort to have the design constructed.

In the event that Society for Cultural Exchange exercises the option to use the rights for production (construction of any qualified entry) on an exclusive basis and without time limitations, Society for Cultural Exchange shall enter into an agreement with the design team, the terms of which shall be determined entirely by that agreement.

Complete Terms & Conditions can be found at:
landartgenerator.org/designcomp

Robert Ferry & Elizabeth Monoian
lagi@landartgenerator.org
+1 509 961 6237
www.landartgenerator.org

All competition questions
must be addressed to
lagi@landartgenerator.org