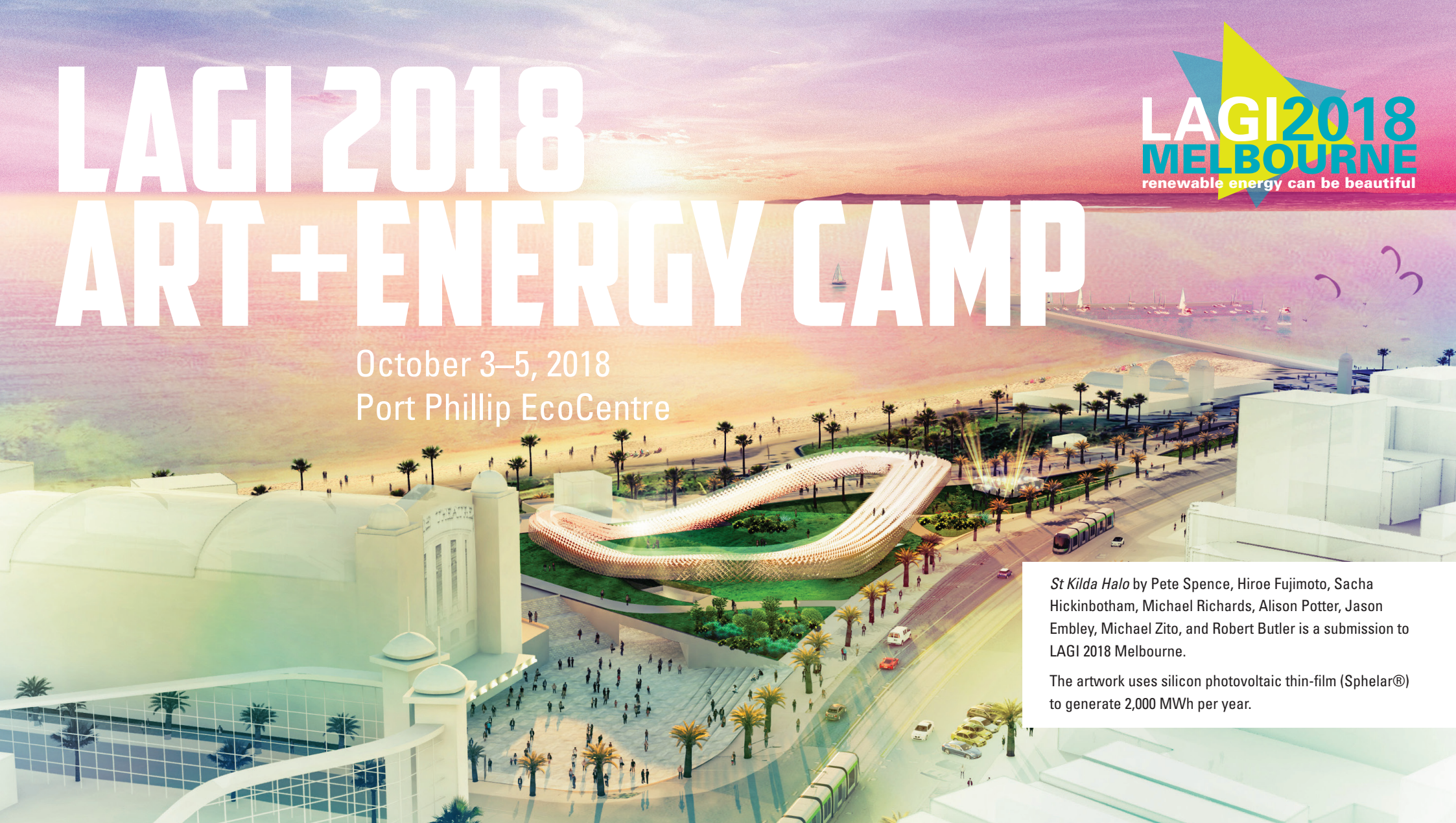


LAGI 2018 ART+ENERGY CAMP

LAGI 2018
MELBOURNE
renewable energy can be beautiful

October 3–5, 2018
Port Phillip EcoCentre



St Kilda Halo by Pete Spence, Hiroe Fujimoto, Sacha Hickinbotham, Michael Richards, Alison Potter, Jason Embley, Michael Zito, and Robert Butler is a submission to LAGI 2018 Melbourne.

The artwork uses silicon photovoltaic thin-film (Sphelar®) to generate 2,000 MWh per year.

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PARTNERS



land art generator initiative
RENEWABLE ENERGY CAN BE BEAUTIFUL

LAGI 2018 ART+ENERGY CAMP AGENDA

DAY 1

10:00–10:30

Meet and Greet Brunch

Talk about renewable energy technologies and form project teams.

10:30–11:30

LAGI Background Presentation

What is the Land Art Generator Initiative and why was it founded?
Importance of design + culture for success of the energy transition.
Examples of past LAGI design entries by technology type.

11:30–12:00

Art+Energy Matching Card Game

Groups of 5–6 are formed by creating groups representing as varied a set of “technologies” as possible. Students familiarize themselves with other energy technologies through game play.

11:30–12:00

The Design Site: St Kilda Marina

Learn about the history of the marina and discuss its future with a representative of the City of Port Phillip planning department.

12:00

Lunch

12:30–15:00

Design Site Visit

Walk to design site: St Kilda Marina

15:00–16:00

Wrap-up and Assignment: Keywords and Concepts

DAY 2

10:00–10:30

Brunch

Shared reflection on experiences, notes, and sketches from walk.

10:30–12:00

Open Design Session

Starting with quick 5-minute or less gestural sketches and working towards more elaborate drawings, teams use images of the design site, keywords, and concepts to establish an initial design direction.

12:00–13:00

Working Lunch

Feedback from LAGI and EcoCentre

13:00–16:00

Open Design Session

Teams begin to work together on building a model on top of a scale site plan base drawing. Small-scale flexible thin film and LED lights illustrate function.

DAY 3

10:00–11:30

Brunch

Written narratives, energy capacity estimates

11:30–12:00

Lunch

12:00–14:00

Practice presentations and peer-to-peer feedback

14:30–15:30

Final presentations

15:30–16:00

Tea and scones

OBJECTIVES

- Examine and comprehend the potential relationships between art in public space and distributed energy generation
- Identify, describe, and analyze the ways in which electricity is generated and consumed
- Understand the benefits of interconnected micro-grids and on-site renewable energy + storage
- Learn about the history of land art and large-scale urban installation art
- Examine the social value and economic development impact of high-profile public artworks
- Learn about different types of renewable energy generation technologies
- Apply aesthetic decisions pertaining to color, line, and form in the conceptualization of new aesthetic machines for energy generation
- Understand the difference between peak capacity and productive output for different renewable energy technologies
- Apply capacity factor to determine estimated annual outputs based on nameplate capacity

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TECHNOLOGY

You can propose to integrate any type of renewable energy technology into your public artwork. Those interested in integrating solar power will have the option of using functioning solar technology.

In addition to sketching, drafting, and physical modeling resources, you will have two shapes of flexible thin film solar cells (with leads already soldered) that you can integrate into your final scale model and wire to small LED lights in order to illustrate electricity production.

Modeling materials:

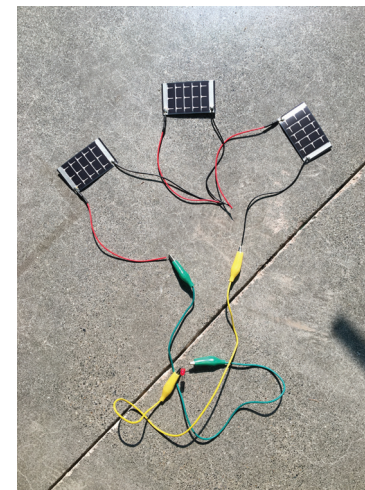
- variety of colors of construction paper and felt/fabrics
- acrylic translucent sheets
- straws, pipe cleaners, dowels, tongue depressors, etc.
- hot glue gun, tape, and other means of holding it together

Electrical materials available for integration into models:

- flexible thin film solar cells: 3v x 25ma = 75mWp
- flexible thin film solar cells: 3v x 22ma = 66mWp
- 12v LED lights
- small voltage meters
- wire leads with alligator clips for easy connections



Some of the materials available for modeling



Connecting solar modules in series to light red 12v LED



Solar modules woven into pink sail structures and illuminating green LED

1

ENERGY: Your artwork must be designed as a three dimensional form that uses renewable energy technology as a primary media for creative expression. In your written description tell us what technology you've integrated and why.

GUIDELINES

2

CONTEXT: How will your artwork fit onto the existing design site? Does it complement the view of the Port Phillip Bay horizon? Does it work with the western sea wall and pedestrian paths? How will people interact with it? Do you want them to climb on it? Can they participate in energy generation? What does it look like from a distance? Illustrate how large your artwork is by placing people, surrounding buildings, and recognizable objects into your drawings. In your sketches, show some key dimensions. Make sure that you stay within your chosen site boundary area.

3

STORY: Develop a message that you want to communicate to the people who will come to see your artwork (we'll call this your "concept"). Your message or concept can be absolutely anything you can imagine. It could relate to history of the place, an issue important to you, a reflection of nature, or a fictional story. Tell us about it in your written description.

4

ECOLOGY: How will your artwork relate to the natural world? Think about where the materials came from that you would use to build your full-scale artwork. Does your artwork disturb habitat of any animals, birds, or insects? Or does it provide new homes for wild creatures? Put some of these thoughts down in your written description.

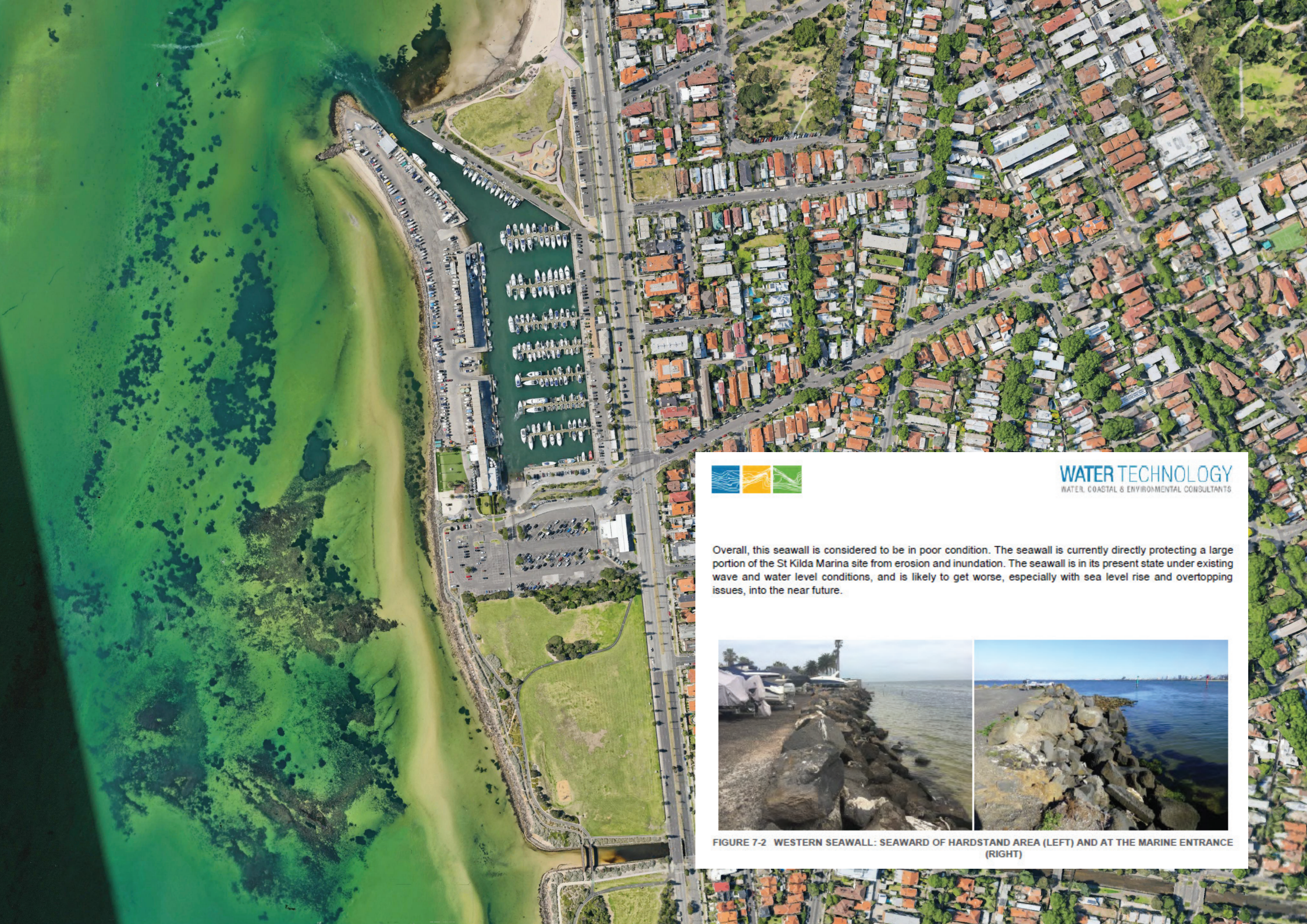
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DESIGN SITE

St Kilda Marina

The design site is St Kilda Marina. The 50 year lease to Australian Marinas will expire on 30 April 2019, at which point the site will be available for regeneration. The City is in the process of securing a new lease arrangement, which will bring a new masterplan that is the outcome of an extensive community engagement effort. This workshop is an opportunity for you to share your vision for the future of the site.





WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

Overall, this seawall is considered to be in poor condition. The seawall is currently directly protecting a large portion of the St Kilda Marina site from erosion and inundation. The seawall is in its present state under existing wave and water level conditions, and is likely to get worse, especially with sea level rise and overtopping issues, into the near future.



FIGURE 7-2 WESTERN SEAWALL: SEAWARD OF HARDSTAND AREA (LEFT) AND AT THE MARINE ENTRANCE (RIGHT)



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SITE BOUNDARY



1 Primary Design Site
Your artwork must exist
somewhere within this area.

2 Secondary Design Site
You may propose that your
artwork extend into this area,
but it is not necessary to do so.
(we won't be able to walk this part of the site)

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OBSERVATION FORM

TIME _____

DATE _____

PLACE _____

ROUTE _____

Describe the design site (how does the space make you feel, colors, textures, scents, sounds, etc.?).

Describe the habitat.

Describe the vegetation.

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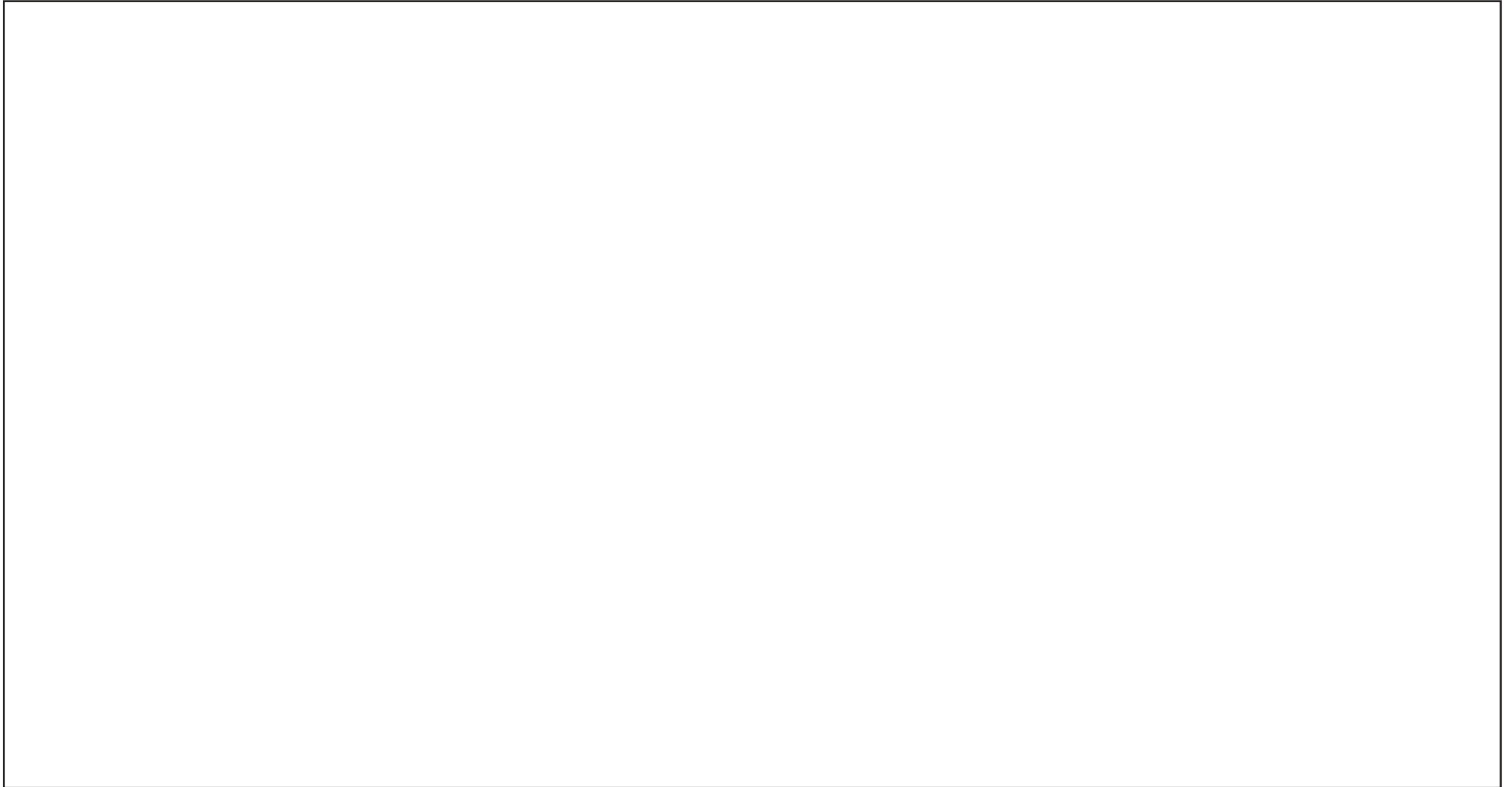
OBSERVATION FORM

What kinds of human activities exist on the design site?

What kinds of animal activities exist on the design site?

What kinds of natural elements exist on the design site?

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SKETCHES



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NOTES

A large, empty rectangular box with a thin black border, occupying the majority of the page below the header. It is intended for the user to write their notes during the event.

REFLECTION AND PRESENT YOUR WORK

DESCRIPTION

Reflect on your experience of designing a “land art generator.” Write your creative statements, and calculate the energy output of your artwork.

GOALS

1. Reflect on the design process and workshop experience
2. Articulate aesthetic concepts
3. Demonstrate a link between language and design
4. Calculate energy output figures for your land art generator

What is the best way for you to talk to others about your design? Perhaps you would like to explain how you derived the form of your artwork or why you chose to focus on one part of the site over another. How do you want people to experience your artwork when they visit it? Maybe the best way to talk about it is to tell a short story, or to make reference to the writing of others (if so, make sure to provide a proper citation). Be poetic and get creative.

Using a separate sheet of paper, answer the six questions below.

1. Think back to when you began to research and come up with your first ideas. What was your biggest inspiration?
2. What are the first five words that come to mind when you think about your artwork?
3. Using the five words that you listed above, write a short paragraph that tells the story of your artwork. In the paragraph, explain how your concept relates to the context of the site.
4. Write three sentences that best describe what people will experience when they visit your artwork.
5. What renewable energy technologies does your artwork include? How are they integrated? Does their function rely on interaction with people? With nature?
6. Think of three ways in which your artwork will have an impact on the natural environment. Are you digging foundations in the sand to provide a structure for your artwork? What is living in the sand? Does your artwork extend out into the water? What is living there? For each of the three impacts, write a sentence about how you could minimize the effect on the environment and what regular maintenance might be required to counteract any negative effects.

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REFLECTION AND PRESENT YOUR WORK

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