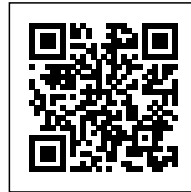




**Daan Roosegaarde**  
Icoon Afsluitdijk

## ICOON AFSLUITDIJK: LIGHTING AT ZERO CONSUMPTION

*Posted on November 28, 2017 by editorship*



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Icoon Afsluitdijk: Lighting at zero consumption  
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Icoon Afsluitdijk, the design innovation program by Dutch designer and innovator Daan Roosegaarde and his team of experts, was officially launched in the presence of Michèle Blom, Director General of Rijkswaterstaat. The legendary 32-kilometre dike built by hand and realised in 1932 protects the Netherlands from water and is a unique place in the world. After 85 years of intensive use, it is now time for a large-scale renovation. Commissioned by the Dutch government, Roosegaarde's Icoon Afsluitdijk contributes towards strengthening the iconic value of the Afsluitdijk. From today onwards, all of the designs on exhibit for Icoon Afsluitdijk are open to all and free to visit after sunset. Windvogel and Glowing nature can be seen through 21 January 2018; Gates of Light is a permanent installation.



*"The Afsluitdijk is a national symbol of our past and future relationship with water. The designs of Daan Roosegaarde emphasize the culturally historic value of the Afsluitdijk as an international business card for Dutch hydraulic engineering, innovation and Dutch Design. I*

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*highly recommend a visit to this very special place."*

*Michèle Blom*

*"The Afsluitdijk represents a part of Dutch daring and innovation. We live with water, we fight with water, and we endeavour a new harmony. The Afsluitdijk is the Madonna of our waterworks. By adding a subtle layer of light and interaction, we enhance the beauty of the dike and form new links between man and landscape, darkness and light, poetry and practice. To see the dike as a 32-kilometre Zen-line in the water is a unique experience that more people should see."*

*Daan Roosegaarde*

*"A people that live, build on their future." These words have stood on the Afsluitdijk Monument designed by Willem Dudok since 1932. A text that stood, then, for the great accomplishments of a small country is now a source of inspiration for Roosegaarde. Through three designs, Icoon Afsluitdijk exhibits the power of nature as a source of energy and light, and he exemplifies a futuristic green landscape.*

*The works of Icoon Afsluitdijk*

## **GATES OF LIGHT**

The new futuristic entrance to the dike "Gates of Light" brings 60 monumental floodgates from 1932 back to their former glory. The structures, which were originally designed by Dirk Roosenburg – the grandfather of Dutch architect Rem Koolhaas – have been fully restored. The light of car headlights is reflected through small prisms on the surface of the floodgates so that the distinctive contours of the structures are lit up. If there are no cars on the road, there is no light on the structures. This way of using light requires no energy and does not create light pollution. The inspiration for the use of retroreflection came from research on the reflection of light on butterfly wings. The luminous lining on the monumental complex provides for a dynamic entrance, as though motorists are driving through a science fiction film. It is a concrete example of a futuristic and energy neutral landscape in line with the governmental policy to have all national roads in the Netherlands energy neutral by 2030.

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## **GLOWING NATURE**

Glowing Nature expresses the beauty of the nature on the Afsluitdijk through a unique encounter between man, biology and technology. This interactive, mysterious exhibit features live bioluminescent algae, one of the oldest microorganisms in the world. Only under the perfect conditions, and with the right amount of maintenance and care, do the single cell algae give off a prolonged natural light when they are touched. The algae are also a building block for our circular economy. In this way, we learn new energy and light solutions for the future from nature, for



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example for public lighting. The exhibit is to be seen exclusively in the historic bunkers on the Afsluitdijk.



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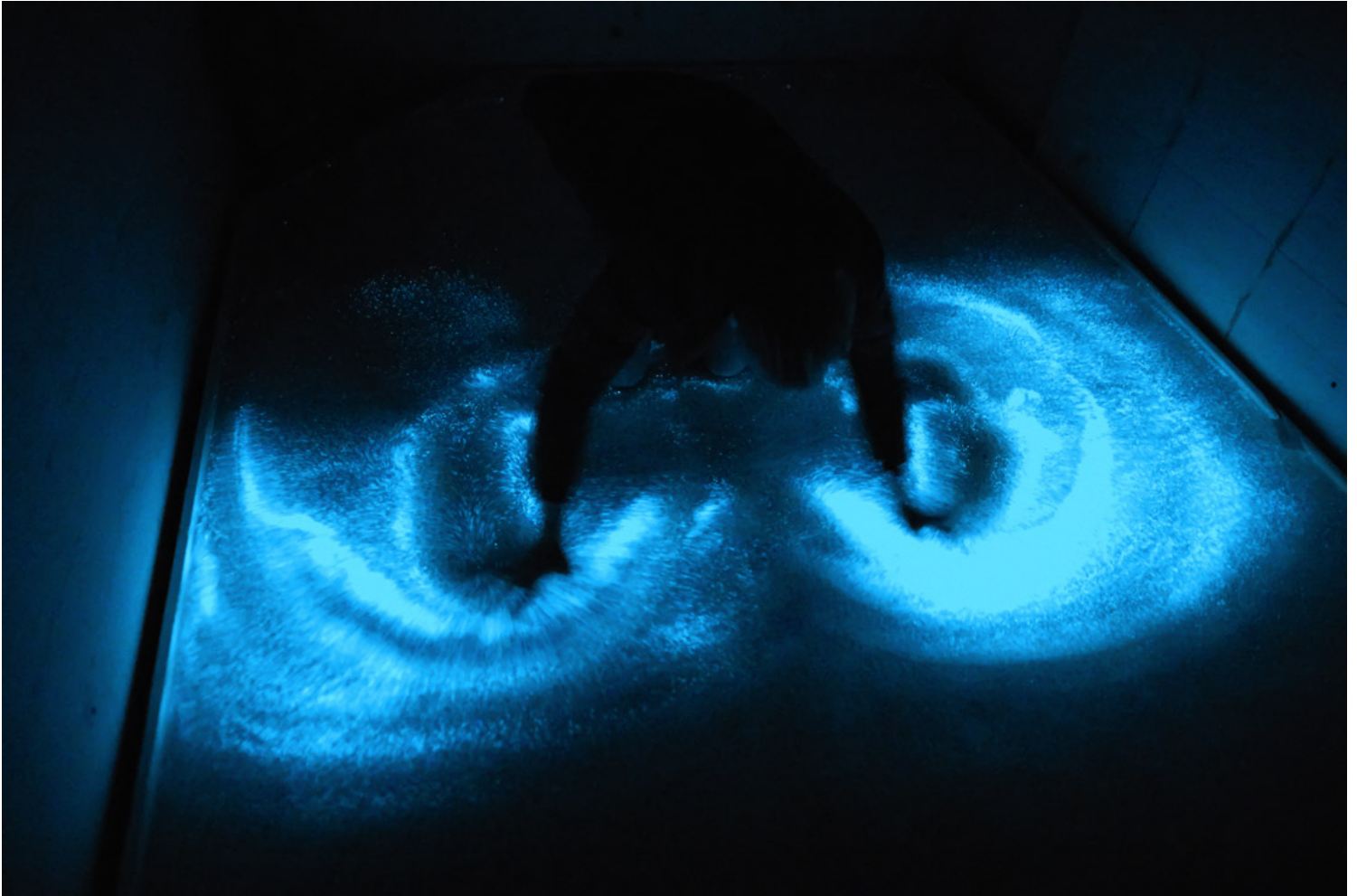


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## **WINDVOGEL**

Smart kites with specially designed light lines, they have the potential to generate up to 100 kW, which could provide enough energy for 200 households. The project is a tribute to the astronaut Wubbo Ockels, who passed away in 2014, and who wished to bring this invention to the Afsluitdijk. Now, Roosegaarde brings his dream to life with a combination of pragmatism and poetry. In cooperation with a team of designers and technicians, smart kites can stay aloft for prolonged periods in search of the optimum wind. A line connects the kite to the ground station. By using the

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optimum wind, the kite line moves back and forth, producing power just like the dynamo on a bicycle. Roosegaarde designed the kite lines with specially developed glass fibres that are strong and light, creating a poetic dance of light-emitting lines. WINDVOGEL is tested on the dike as a concrete example of green energy; Windvogel generates a unique image of vertical lines upon the horizontal line of the Afsluitdijk.



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