

# Experimenting with Energyscapes: Growing up with Solar and Wind in Auroville and on Eigg

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**Workshop III: “Accelerating Technological Sustainability  
Transitions by Overcoming Adoption and Diffusion Barriers in  
Energy Transitions”**

3<sup>rd</sup> Spring Campus of the University Alliance for Sustainability  
9-13 April 2018, Freie Universität Berlin

a: Eroded landscape of Auroville ca. 1968.

b: The 30m tall Matrimandir as viewed from atop the 3-storey Auroville Foundation building, itself now supporting one of the first grid-tied photovoltaic arrays in Tamil Nadu, and emphasizing the reforestation of the barren landscape upon which Auroville was founded in 1968.



a: Photo of original, Sarah Strauss)



b: Photo, Carrick Eggleston

The 36.3 kilowatt, 484 panel photovoltaic array providing electrical power to the Matrimandir for lighting, air conditioning, washing machines, and water circulation. (photo Carrick Eggleston)



Various photovoltaic installations in Auroville, each affected by forest shading (photos: Sarah Strauss and Carrick Eggleston)



A battery system backing up City Hall in Auroville (photo C. Eggleston)





# 2017 Renewable Energy on Eigg: Water, Wind, and Solar PV

(photo credits: Eggleston)

# BIG GREEN FOOTSTEPS

Small carbon footprints

Get four that would have selected for a reward. Here's to every that rewards the environmental and all.



# EIGG ELECTRIC

Egg is not connected to the mainland electricity supply. After decades of diesel generators, Eigg Electric provided 24 hour power for the first time in February 2008.

## EIGG RENEWABLE POWER COMES FROM

**Wind**  
Four small wind turbines, below 100m produce 20MW

**Sun**  
Two arrays of photovoltaic (PV) cells peak at 10MW

## ENOUGH FOR EVERYONE

There is a finite amount of electricity available. To ensure nobody goes short, each house has a maximum use limit at any one time of 8kW and each business 10MW.

This is enough for most homes; low energy lights, a TV, an electric kettle, a computer and a washing machine all together run on less than 8kW. Spreading our use throughout the day is easy and OWL meters tell us how much we're using moment by moment.

## MORE THAN WE NEED

Sometimes Eigg Electric produces more electricity than is needed, so we use the excess to heat community buildings. If you see a fan heater on in the waiting room or community hall, we're not wasting electricity, we're making too much!

From the renewable sources, the high voltage grid delivers electricity around the island, and transformers convert the power to domestic voltage into homes and businesses.

11km of cable was laid underground for our Grid.

Power is regulated and stored at a control building. Close by are back-up generators, for periods when renewable sources are in short supply.

# A very special GREEN ISLAND

## Follow our Big Green Footsteps

We welcome you to our island. 85 people live here (2009). Stunning geology, rich wildlife, a vibrant and sometimes violent history and a dynamic community go together to make Eigg a special place. In 1997 the community bought the whole island with the help of friends and supporters worldwide. We now have the chance to steer a course for our own future.

## Why Big Green Footsteps?

Together we decided, in 2009, to reduce our use of fossil fuels and to make the most of our island's natural assets. We are adapting our way of life to depend less on oil and coal. Renewable energy, less fossil fuels, more efficient use of what we use, insulation, transport alternatives, reducing all waste and growing as much as we can are all parts of our approach.

We are ambitious to ensure what we do here on Eigg helps to secure our future, but also that of our wider world. Without action our future is uncertain.

## Take Big Green Footsteps Back Home

We want you to enjoy exploring what we're doing for our community and our future. We also hope you will be inspired to take action yourself when you get home.

We're an island, surrounded by water, but we invite other communities to think of themselves as small islands and make changes to improve everyone's future.

We hope what we have done will inspire you to do something for your wider world. Why not follow in our Big Green Footsteps?

[www.islandsgoinggreen.org](http://www.islandsgoinggreen.org)

[www.isleofeigg.org](http://www.isleofeigg.org)

Green Eigg, 2017  
(photo credits: Strauss, Eggleston)

# Thank You!

We gratefully acknowledge the time and interest of the people of Auroville and Eigg in helping us to understand their energy transitions, and appreciate the financial support we have received to carry out this project, which include two Fulbright-Nehru Awards for research in India during 2012-13; an interdisciplinary fellowship from the Rachel Carson Center for Environment and Society in 2016-17; and a grant by the Center for Global Studies at the University of Wyoming for work on Eigg in 2017, as well as support from CGS for attending this Workshop.

Questions?

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Flow diagram showing parallel individual (short term) and municipal (long term) responses to power intermittency; individual solutions supported a local renewable power industry, but the municipal approach – while providing renewable power – resulted in lost support for the local renewable power industry.

