

ESSAY

Energy as Alien

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Energy is so familiar to us that it is almost banal to think about electricity sockets and plugs, batteries and bicycle lights. Yet so much of our energy infrastructure is invisible: the cables buried in the walls and earth, the power stations that transform fossil fuels into electricity, the standards and metrics, all of which ensure your phone charges instantly when you plug it in. When our energy infrastructure is working well, it is invisible to us, and so it feels banal to think about it.

Yet, something is changing. In our landscape there are growing numbers of wind turbines, solar panels, and geothermal pipelines, and in our seas there are a growing number of wave energy devices. These renewable energy technologies are often unfamiliar, disconcerting, contested and therefore more visible. Along with electricity pylons (which were unfamiliar a few generations ago), these new and unfamiliar energy entities are 'breeding' on our land and in our seas. Their unfamiliarity troubles many people. They do not seem to fit. So how can we form a less troubled relationship with these entities and make them part of our energy infrastructure?

'Aliens' in science fiction stories may be different from us, but they often have something that intrigues us—a quality that humans in these stories learn to care about. For example, Frankenstein's monster is perhaps one of the oldest imagined aliens. The monster is comprised of bits and pieces of people and technology mixed together. Its relationship with its maker is ambivalent, and it has an uncertain future. Through Mary Shelley's novel, we as readers learn to care for this lonely monster. Renewable energy technology is also uncertain and contested, comprised of people and technology.

Its place in society is still being determined and its long term costs and benefits are still to be fully known. It is a monster and alien in the sense that we are not even sure what 'it' is.

In our university research project, 'Marine Renewable Energy as Alien,' we use the figure of the 'alien' to think about the difference between familiar and invisible, and unfamiliar and visible, energy infrastructures. We are concerned with how renewable energy technology is being integrated into our existing electricity infrastructure, and how it might be otherwise. We interviewed a senior manager at a Danish electricity company. He said to us, "You ask about what makes renewable energy alien. Well, all energy is alien." He gave a reason for this sense of alienness, "We have burned coal for more than 100 years, and not even people who had physics in high school can explain what a 'kilowatt-hour' is. But as the cost of energy increases, one must begin thinking about it."

We agree with him that, as citizens and consumers, we need to think more about the costs of energy. Today, the cost of energy is multiple: both economic and environmental. It is climate-changing. Renewable energy is a move to reduce those costs. But it is not simply a matter of swapping coal for wind or waves—it's more complicated. The uncertainty we have spoken of means there is an opportunity for us to respond, to participate, and to be moved by energy as consumers, citizens, and human beings. We should not be alienated by our energy nor see it as only a matter for physicists, as in the example with the kilowatt-hour.



The invisible infrastructure of electricity: an undersea electricity cable. Copyright: Laura Watts.

In our research project, we see the alienness of renewable energy as a good thing. If renewable energy is alien, it is no longer invisible, and the uncertainty it creates—its fuzziness—is something positive. As with Frankenstein’s monster, we can learn to care for renewable energy because of its fragility and uncertainty, not despite it. Uncertainty can lead to an openness and to new ideas—a situation in which energy infrastructure can be imagined otherwise. It means that there is room for exploring new possibilities for a relationship with renewable energy, perhaps even a caring one. The Land art Generator Initiative can help us all notice energy and its infrastructures. LAGI is a site for exploring how to grow new relationships between humans and energy technologies.

By exploring renewable energy as alien we can explore its possible domestication. Knowing how we relate to energy infrastructure, as alien or as family, is a way forward for sustainable infrastructure re-design, and public participation in that process. Read more and tell us about your own ‘alien’ energy experiences at www.alienenergy.dk or via the ‘Alien Energy’ facebook page.



‘Alien’ in the sea: a wave energy generator being installed at the European Marine Energy Centre in Orkney, Scotland. Copyright: Alistair Peebles



‘Alien’ energy: the cooling towers of a geothermal energy power plant in Iceland. Copyright: James Maguire.