



Original research article

The ethics of energy provisioning: Living off-grid in rural Wales



Elaine Forde

Swansea University, United Kingdom

ARTICLE INFO

Keywords:

Off-grid
Ecovillages
Ethnography
Energy

ABSTRACT

The transition to renewable energy means a new energy subjectivity is emerging. The “green” energy consumer may now harness an array of socio-technical practices: prosumption, green energy sources, feed-in tariffs, Smart metering etc. This article presents data about three off-grid energy systems in the UK: a small-scale solar-PV system set up in a dwelling at an ecovillage; a mixed hydro-electric and Solar-PV system that served an off-grid household; and a large hydro-electric power system that supplied electricity to an entire ecovillage of nine households. In off-grid contexts there is frequent temporal and seasonal energy abundance, tempered by the perennial problem of how to store electricity. The synchronization of everyday and domestic practices with the rhythms of power generation thus defines an off-grid energy ethics. This article argues that the new off-grid energy subjectivity shows many characteristics of self-governance that are attributed to the emergent green pro/consumer, and can therefore provide insight into the partiality and rhetorical framing of the green energy consumer. Living off-grid is imagined by its practitioners in ethical terms, at the forefront of a timely re-configuration of industrialised societies' moral relationship with energy.

1. Introduction: practical energy ethics, or, setting a good example

“When people tell me about what protests they've been to, or what activism they've been getting up to, and they look at me and think that I don't get involved, well what I've always said is that I stay at home, *setting a good example*.”

So spoke Mervyn, one of my research participants who lived off-grid in a home that he and his partner—and a few friends—had built themselves. Although their home, hidden as it was in a remote valley in West Wales, made little discernible impact on nearby infrastructure, and it could be considered “low-impact”¹ by any standard, the family had faced a long-running legal wrangle with the local planning department and were still not lawfully allowed to live there. In spite of—or maybe even because of—the official situation, Mervyn regarded his home as a moral project, and could be regarded as a moral exemplar ([1]: 6,[2]) with a message for others. This article is about Mervyn's particular form of passive activism, a moral subjectivity that is bound up with the practice of living off-grid, and about the ethics of such everyday activism [3]. The contemporary UK environmentalist movement is characterised by the twin issues of peak oil and a transition to an oil-free economy. The notion of energy consumption derived from “green” energy sources is a key way that a new energy subjectivity is produced. The “green” energy consumer may now harness a diverse

array of socio-technical practices: prosumption, green energy sources, feed-in tariffs and other forms of incentivisation, Smart metering, energy saving appliances and so on. These practices all reinforce the ethics of “green” energy consumption. Following on from Mervyn's insight, this article explores how far and in what ways living off-grid may be said to produce a prototypical green energy subjectivity. As renewable energy technologies become ever more embedded in the energyscapes of modern capitalist societies ([4]: 12), the Smart Grid has emerged as a laboratory tasked with imagining viable energy futures. This article argues that insights about energy usage that are derived from everyday practices involved in living off-grid can challenge the primacy of state and transnational actors in defining how “green” energy usage is configured. In turn, such knowledge should be fed back into the process of imagining greener, smarter grids for the future.

2. Energy research and living off-grid: new ways to conceptualise energy ethics

As an artefact that has been writ large in the story of societies, shaping modernity and tilting the geo-political balance through its ubiquity or scarcity ([5]: 1, [6]: 3, [7]: 532), energy is as much a social substance as a purely material one. According to Rogers [8], anthropology is experiencing a third wave in energy research, fuelled by broader concerns about the interplay between energy, sustainability and climate change ([8][8]: 366]). Scholars from other disciplines are

E-mail address: e.m.n.forde@swansea.ac.uk.

¹ Low-impact is the new jargon in Wales to describe eco-building within the planning system rather than outside of it [31]).

adopting anthropological tools and ethnographic methods to make sense of those everyday encounters with energy that shape and mediate a proliferation of energy cultures, something that Strauss [4] et al. [4] note is missing from the rather hefty and multidisciplinary energy literature ([4] [4]: 15).

Social science has taken a range of approaches to the study of energy, but, in the context of oil, Rogers [8] points out two particularly influential cross-cutting analytic strands: temporality, and materiality. Whereas a materialities approach might include the ways in which humans encounter, transform, and represent various qualities and properties of energy's raw materials as a substance ([8] [8]: 365), the new materialism asks how those materials *act* to shape human worlds. The new materialism therefore offers a fruitful way of thinking that stresses that energy sources are not inanimate materials waiting to be tapped, rather their existing agencies gain potency in concert with human action [9–11].

Electricity in particular illustrates this process. Largely invisible in its everyday usage but hugely conspicuous in its absence, its infrastructure and generation can be sites of immense social tension [12]. It circulates wildly, however, as static electricity, outside of human grasp and in a rather different form to the power source many electricity consumers would recognise. The socio-technical process of making electricity available for *domestic* consumption gradually imposes a series of temporalities, from the periodic pulse of alternating current to the consumer unit of measurement “watt-time”. Such temporalities associate electricity with a rhythm and materialise electricity from potential energy to its application as a power source. Perhaps more than any other energy source, electricity is the fuel source *par excellence*, capable of producing heat, light and of fuelling appliances that cook, clean, assist with work or entertain people and, increasingly, transport people around. In harnessing, capturing and enclosing electricity, humans are negotiating the space between electricity's intrinsic rhythms and human desires. In this article I propose a qualitative difference in how electricity's rhythms are felt when an energy user lives off-grid.

Using ethnography I have approached energy research from the starting point of everyday experience. Whether studying who uses it, how it is used, how it is produced or how it is supplied, ethnographic research into energy accepts that energy usage is above all a social process. It is fitting that energy researchers should use ethnography, as it seeks to make visible what is largely invisible in people's everyday practice. Focusing on energy ethics compounds the issue of visibility. Ethical codes are often also embedded in the realm of unspoken knowledge: As discussed in the Introduction to this special issue, ethnography provides the tools to make this knowledge visible.

My particular research focus, and the research that informs this paper, asks what practices are entailed in living off-grid in contemporary Wales, one of the UK nations. At a moment when scholarship is bringing the long-standing conceptual power of infrastructure into conversation with a rather newer focus on how material infrastructures and the networks through which they are mobilised become ethnographic subject-objects [13], anthropologists have been busy conceptualising the myriad grids that seem to follow, envelop and signify human life in the anthropocene. The notion of an ethnographic subject-object hints at the analytic indivisibility between natural, social and discursive aspects which constitute materials. For example, much more than a purely technical arrangement, electricity grids, in particular, have been interpreted in sociobiotic terms as conduits for “electric social life” [14]. Grids have therefore been described as conductive frameworks that draw our gaze further towards the material exchanges that flow between unbounded subject-objects ([15]: 549). With this in mind, this article argues that it is vital to distinguish a qualitative difference between living either on- or off-grid.

Vannini and Taggart's research in Canada led them to define “off-grid” as a way to refer to homes which are not connected to either the electricity or natural gas grids (2014: 188). By that token, living off-grid (at least, partially) is a much more prevalent situation than living on-

grid. Sovacool [16] notes that more people than ever before are living without electricity ([16]: 1) and a number of other scholars research developing world contexts and the impact of—oftentimes precarious—access to new forms of energy [17,18]. I favour a broader conceptualisation of off-grid that is neither rooted entirely in natural, social or discursive categorisation. I suggest a broader interpretation of “off-grid” which describes a structural and infrastructural disconnection from the material, political and symbolic grids of social life, an analytic tool which acknowledges that in practice many people occupy a liminal space between these polarities of relationship with grids. I suggest furthermore that it is useful to differentiate the more deliberate practice of living off-grid in a context where this is just one of many possible relationships to grids, from the position of living off-grid in contexts where there is no option. This is typical throughout the global south but also a factor of infrastructural inequality in some pockets of rural areas, such as in my research field. For clarity, my research engages with people living off-grid deliberately, and examines the range of reasons why they *can* do so. This gives rise to the question of what is the grid? Given my conceptualisation of off-grid, the grid must be seen as a socio-technical infrastructure, however one where energy users' agencies are muted by both the physical location of grids, and the political-economy of the power sources that deliver energy to them.

Even in industrialised countries such as the UK, and certainly in rural or remote regions, access to major infrastructural grids can not be taken for granted and various alternative grid configurations have emerged. At a collective scale, micro- or local- grids can be particularly effective mediators between national and domestic infrastructure, but also highlight deeper structural inequalities. Watts [19] describes the Orkneys as “Energy Islands”, locations whose topography and weather compounds their remoteness and makes everyday life unpredictable, yet which boast a bountiful supply of wind and tidal renewable energy sources. Watts' “Electric Nemesis” describes how the Orkneys produce too much power for the existing infrastructure—designed to give power, not to receive it—to manage. Upgrades to the system are not forthcoming due to the structural inequality between the partly politically devolved UK nations and central government.

Energy usage is a culturally defined set of activities which contain moral notions about the relationships that people and societal institutions have with energy. Energy ethics are thus variable, not only cross-culturally, but also at different stages of a person's lifecourse [20], see also Groves this issue). To this end, Sovacool [16] provides a definition of energy justice based on an eight-point framework of principles that range from categories such as inter- and intra-generational equity, to affordability ([16] [16]: 12). That energy usage should have an ethical dimension is implicit, the question remains as to how these ethics are applied, put into practice and performed. If a normative ethics of energy provisioning is primarily constituted through consumption, then living off-grid, as well as offering a particular solution to infrastructural inequality, suggests an alternative energy ethics. In the domestic sphere energy sources are largely rendered invisible by the practices of everyday use [21]. This invisibility elides the fact that energy ethics are not solely constituted through consumption practices: energy production involves a supply chain that users have very little say over. Switching to a “green” or “clean” energy tariff is one of the few ways energy users can exert influence. By contrast, living off-grid leads people to adopt a range of socio-technical practices which upturn a normative energy ethics constituted through consumption. Off-grid energy provisioning involves far shorter supply chains in obtaining energy and the ability to reject the fossil fuel industry almost entirely.

Luque-Ayala [22] suggests that by setting up off-grid and small-scale renewable energy systems, energy users themselves become a constituent part of the energy infrastructure. This sort of energy-consuming subject is central to the functionality of the emergent Smart Grid and the broader notion that domestic users play a crucial role in the sustainability of extant energy infrastructures. It is the sort of off-grid spaces that Watts and I describe which are productive conceptual

Download English Version:

<https://daneshyari.com/en/article/6463736>

Download Persian Version:

<https://daneshyari.com/article/6463736>

[Daneshyari.com](https://daneshyari.com)