

**GOVERNMENTALITY, 'COMMUNITY'**  
**AND NETWORKS: INSIGHTS INTO**  
**RENEWABLE ENERGY FOR THE FUEL-**  
**POOR FROM THE MEADOWS OZONE**  
**PROJECT**

**Policy Summary**

**MSc Dissertation – University of Oxford**

**Steven Altmann-Richer**

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**Governmentality, 'Community' and Networks: Insights into Renewable Energy for the Fuel-Poor from the Meadows Ozone Project**

**Policy Summary**

**Background**

1. In recent years, there has been a growing consensus that policies to mitigate climate change - for example encouraging renewable energy generation - should not adversely affect vulnerable groups (Hulme 2009), such as the fuel-poor. However, conventional wisdom holds that the fuel-poor are unlikely to benefit from technologies to mitigate climate change; it is generally claimed that those on low incomes, which the majority of the fuel-poor tend to be, have low willingness and low ability to act on environmental issues (Defra 2007). As a result, there is a serious risk that groups like the fuel-poor will be increasingly excluded from efforts to mitigate climate change and the benefits that these efforts may bring.
2. UK energy policy is directed towards alleviating fuel poverty and increasing renewable energy generation simultaneously. To leave the fuel-poor behind in a transition to renewable energy generation risks exacerbating fuel poverty (Round Table on Climate Change and Poverty 2009) as the costs of traditional energy generation from fossil fuels rise (Webb 2010). At the same time, it also risks excluding a large sector of the population from the need to increase renewable energy generation, making the overall task tougher.
3. Fuel poverty is most commonly defined as “the inability to afford adequate warmth in the home” (Boardman 1991:1). Currently, there are approximately 4

million fuel-poor households in the UK (Department of Energy and Climate Change (DECC) 2009) and the Government has set a target to eradicate fuel poverty by 2016 (HM Government 2009). By 2020, 30% of all electricity production must come from renewable sources; the figure currently stands at approximately 6% (HM Government 2009). The scale of both these challenges, at a time of rising energy prices (Webb 2010) and an ever-increasing urgency to combat climate change, should not be underestimated.

### **The Study**

4. The study took place in The Meadows, an inner-city area of Nottingham, located in the East Midlands region of the United Kingdom. The Meadows has a population of about 9,000 people, with 3,800 homes. It has a poor reputation and is synonymous in Nottingham with drugs, guns and crime. It suffers from “Multiple Deprivation,” and is ranked in the bottom quintile nationally for unemployment and in the lowest 10% for child poverty and crime (Meadows Low Carbon Communities Challenge (LCCC) Bid 2009).
5. The study investigated the Meadows Ozone Project, a multi-faceted resident-led initiative to regenerate The Meadows. The main focus of the research was on efforts to combat fuel poverty and boost renewable energy generation using investment in solar PV technology to power homes in the area. However, the project also seeks to improve energy efficiency, education, and encourage environmental innovation in the area.
6. A number of local residents set up a community energy services company (ESCO), the Meadows Ozone Energy Services Company Limited (MOZES), under the project. As one of DECC’s Low Carbon Communities; the project was awarded £615,000 in early 2010 (MOZES AGM 2010) for the installation of 55 solar PV systems on properties in The Meadows.
7. The project has an innovative financial structure to overcome the lack of capital available to most Meadows residents. In essence, MOZES uses grant money to

install solar PV systems on residents' roofs. Residents benefit from a reduction in their electricity bills, with a proportion of their electricity generated at no cost to them (estimated by interviewees to be approximately 30%), and MOZES gains an income stream of approximately £27,000 per annum (NEP 2010)<sup>1</sup> from the feed-in tariff (FiT) money that the Government pays to encourage renewable energy generation. As MOZES is owned by Meadows residents, with external investment not permitted, the FiT money accruing to MOZES is used to finance ongoing investment in additional solar PV systems.

8. Although the vast majority of solar PV systems have been granted to home owners at no cost, approximately 10 roofs have been semi-funded by residents, who then keep the full FiT payments. Overall, Solar PVs have been placed on 22 two-bedroom houses (12 local authority and 10 privately owned) and 23 three-bedroom houses (13 local authority and 10 privately owned) (Meadows LCCC Bid)<sup>2</sup>. In addition to the residential solar PV systems, solar panels have been installed at 3 local primary schools and a community garden.
9. Conclusions from the research are drawn from detailed key-informant interviews that the author conducted with ten key people in the Meadows Ozone Project. The author also attended the first MOZES Annual General Meeting in July 2010, as well as spending time walking around The Meadows and speaking informally with local residents. A small amount of financial data was obtained, and the author was granted access to anonymised data on installation of solar roofs in the area. In addition, the author had the chance to read useful background material, including a currently unpublished working paper on the evolution of the project.

### **Conclusions and Recommendations for Policy Makers**

10. On the basis of the evidence presented in the dissertation, it can be argued that through education and the integration of environmental awareness within a larger

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<sup>1</sup> At the time of writing, the project is only a few months old and therefore exact data has yet to be calculated.

<sup>2</sup> 5 solar PV systems have yet to be installed due to technical issues.

frame of social change, the fuel-poor not only begin to care about, but may even in some cases take action on environmental issues. A key aspect of the inability of the fuel-poor to contribute to solving environmental problems is related to a lack of capital to invest in technologies like renewable energy. An investigation into how the Meadows Ozone Project uses the FiT has shown that an ESCO model can be used to overcome this lack of capital. By pooling their limited resources, and utilising the capital available from the FiT, those on low incomes are seen here as being able to act to mitigate environmental problems.

11. The two key barriers to the ability of the fuel-poor to take advantage of renewable energy are identified as: a low level of care for the environment and a lack of available capital to invest in renewable energy technologies. This is identified from Defra's (2007) analysis of how the UK might encourage pro-environmental behaviour. Defra's "environmental segmentation model" (Figure 1) divides the population into seven categories of person according to their ability and willingness to act on environmental issues. Most Meadows residents would be categorised as "Stalled Starters," with low ability and low willingness to act. This is because they cannot generally afford the capital expenditure necessary to reduce their carbon footprint through purchasing the likes of renewable energy technology, and prioritise other issues like their fuel poverty.
  
12. Based on the research, it is possible to expand Defra's (2007:8) characterisation of groups like the fuel-poor as having a low ability and low willingness to act on environmental issues. It is suggested that such a category of people be termed "Green Growers" (in keeping with Defra's terminology). Figure 2 shows Defra's diagram redrawn to include "Green Growers." The new category does not occupy a stable position on the diagram because "Green Growers" are on a continuing path to increasing willingness and ability to act on environmental issues, as the project that they are a part of continues to grow. Therefore, Figure 2 illustrates, with the use of arrows, the continuing transformation that "Green Growers" undergo during their participation in a project such as the Meadows Ozone Project.

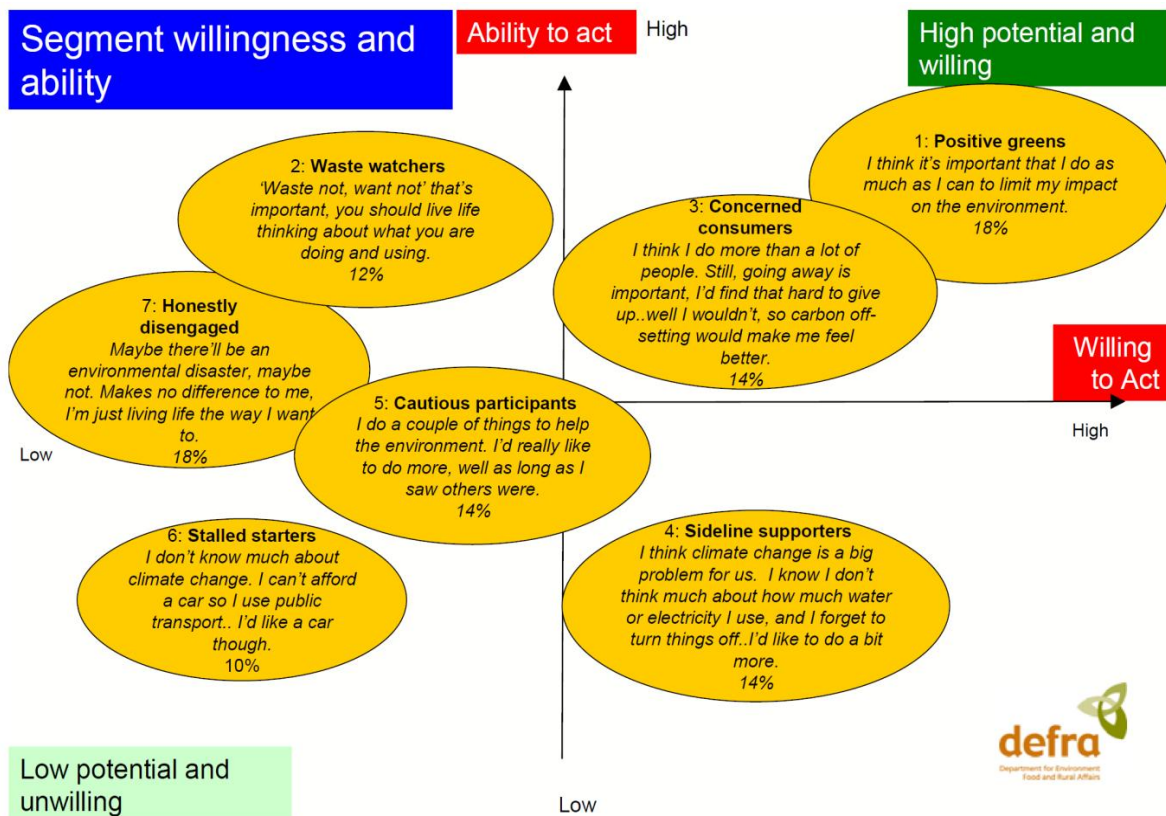


Figure 1 – Defra’s “environmental segmentation model” Source: Defra 2007:8.

**13. Policy Recommendation 1: Fuel Poverty and Renewable Energy** - It is recommended that renewable energy is henceforth included within the Government’s toolkit for tackling fuel poverty. The research has shown that renewable energy is successfully contributing to alleviating fuel poverty in The Meadows, and the Government should therefore expand the focus of its fuel poverty alleviation programs to reflect this. Taking such an approach would also enable the Renewable Heat Incentive’s potential to be actualised in the future.

**14. Policy recommendation 2: Project Replicability** - Through researching the Meadows Ozone Project, a structure has been identified that successfully takes advantage of the benefits renewable energy can offer in terms of alleviating fuel poverty. However, expertise and initial capital are required to replicate this model, both of which are unlikely to be found in most fuel-poor areas. As a result, it is recommended that the Government provide a resource from which fuel-poor areas can obtain the necessary knowledge to replicate the Meadows Ozone

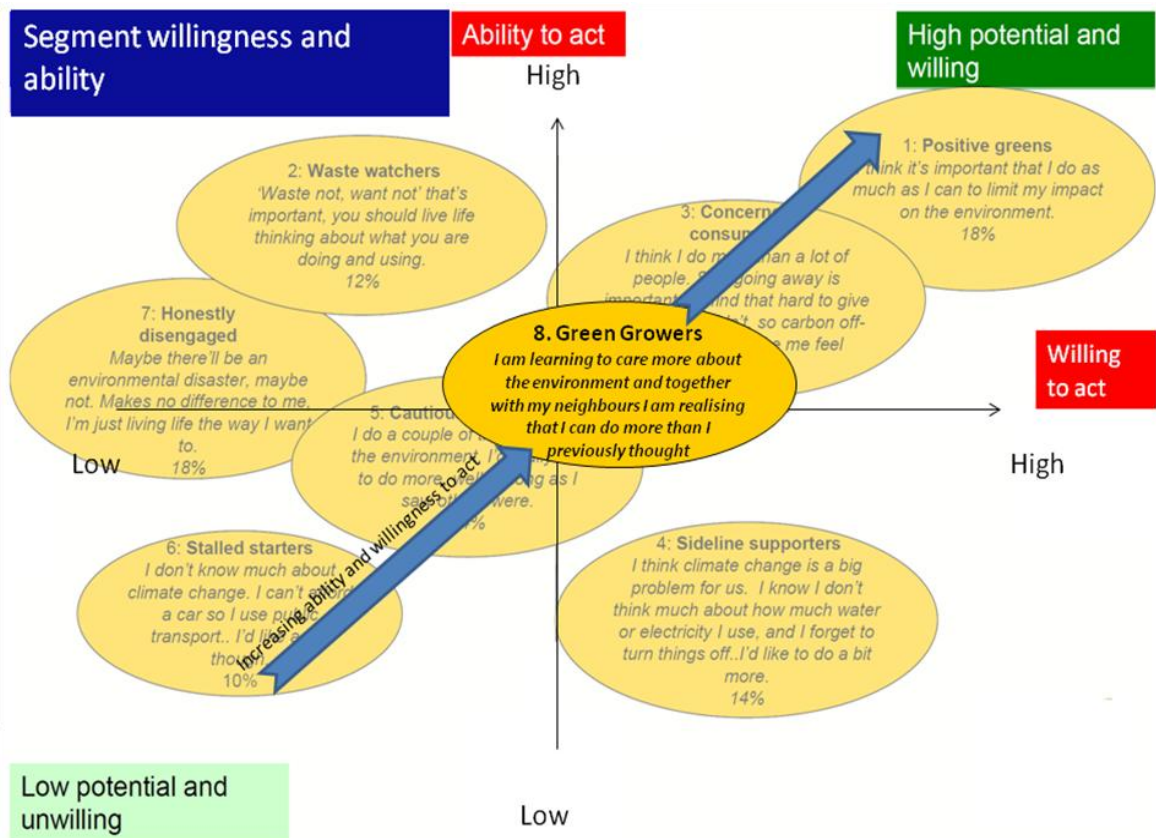


Figure 2 – Diagram of where the “Green Growers” category, established on the basis of the research and analysis done here, fits on Defra’s (2007:8) “environmental segmentation model”. Adapted from Defra 2007:8.

Project. This could be an online resource that makes available documents like a legal framework to set up an ESCO, and should also consist of a small team of individuals to personally support fuel-poor areas. In addition, the provision of a relatively small sum of funding up-front would enable a project to grow organically using the FiT, and would therefore provide a worthwhile long-term investment.

15. **Policy recommendation 3: Seeding “Green Growers”** - The research has shown that the fuel-poor can now be considered “Green Growers” rather than “Stalled Starters” (Defra 2007) on environmental issues. It is recommended that the Government acts to utilise the potential of “Green Growers” to encourage pro-environmental behaviour within groups like the fuel-poor. Targeted programmes of education, framed around social change and local issues are likely to be effective in this regard.

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*A full reference list for the dissertation, including academic background, can be found in the main dissertation report.*