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“Solidarity in a competing world —
fair use of resources”

A Comparative Analysis: Impacts and Sustainability of Rural Small Wind Electrification Programmes

PHILIPP SCHAUBE¹, JON SUMANIK-LEARY², LUCIANA VANESA CLEMENTI³

¹*Wuppertal Institute for Climate, Environment and Energy, Future Energy and Mobility Structures, Germany*

²*Loughborough University, Low Carbon Energy for Development Network, United Kingdom*

³*National University of Central Buenos Aires, Center for Latin America Social Studies, Argentina*

Abstract

This paper offers a comparative analysis of two small wind electrification programmes targeted at remote sheep farming households in two of the windiest regions of the world, Argentine Patagonia and the Falkland Islands/Islas Malvinas. In Argentina the research was carried out in different districts of the province of Chubut: Tehuelches, Paso de Indios and Rawson. Chubut is a province in southern Argentina which rural areas are characterised by a significant presence of indigenous communities, a very low population density rate and a lack of social infrastructure and facilities, due to the long distances between settlements. Within the Chubut region following the latest statistical records currently approximately 1.490 households do not have access to electricity. Despite comparable environmental conditions and local livelihoods, the impact of these two electrification programmes in the Argentine Patagonia and the Falkland Islands/Islas Malvinas was vastly different. A socio-technical systems approach was adopted to gain a deeper understanding of the local context and development dynamics. This study identifies the critical success factors that have contributed to these two distinct outcomes, drawing out those that can inform the design of future initiatives. The research is based upon a series of semi-structured interviews with key stakeholders (households, community leaders, maintenance providers, programme designers, small wind turbine manufacturers and national small wind experts), observational field visits (to remote farms, service centres and local authorities) and the review of project reports. Taking a user centred approach that tailors each energy system to the needs of that particular household and establishes ownership was found to be one of the most important considerations, alongside consistent institutional support, a strong and accessible service network and the successful integration of maintenance practices with the local way of life.

Keywords: Argentina, Falkland Islands, Islas Malvinas, rural electrification, small wind