

GLOBAL CONNECTIONS

With the productive use of renewable energy it is possible to accelerate clean energy access to rural areas. The Alliance for Rural Electrification (ARE) explains how to PES.



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1.1 billion people live without access to electricity and approximately 87% of these live in rural areas characterised by remoteness and sparse population density, where the extension of national grids is often technically difficult, costly and inefficient.¹ In contrast, decentralised electricity generation and distribution through smaller and more local systems such as mini-grids and stand-alone systems, also called off-grid systems, are in most cases the more competitive solution.

While off-grid renewable energy is used for various consumption purposes such as lighting, access to information, comfort and entertainment, it is not sufficient by itself to trigger development in rural areas: the usage of energy should be aligned in such a way that it will trigger economic development through enhancement of income generation for the local population.

Hence, the Productive Use of Renewable Energy (PURE) could be defined as “agricultural, commercial and industrial activities, powered by renewable energy sources, which generate income.”²

Triple bottom line sustainable business

The Alliance for Rural Electrification, which is the only industry partner association of the United Nation’s Sustainable Energy for All Initiative (SEforAll), with PURE, has

developed a multi-level approach which is sustainable in three ways: economically as it leads to local business’ profit, socially as it leads to empowerment, as well as health and economic benefits for local people and environmentally, as the use of renewable energy limits climate change impacts.

Local businesses in developing areas can reap the benefits of extended operating hours, mechanisation, product preservation, higher productivity, improved working conditions, communication and education. PURE also enables the diversification of the economic base by making it possible for the local community to both deepen and move beyond traditional economic activities.

PURE means that local jobs, all with different levels of qualifications, are created directly, as the renewable energy equipment needs to be installed, operated and maintained, as well as indirectly, as the access to electricity favours business creation and expansion.

A useful knock-on effect is that the increased income enhances the consumer’s capacity to pay for the energy services and invest in high-quality, reliable products.

Rural social and economic development depends significantly on the state of health of the population. Modern energy services improve health service delivery, increase

access to safe drinking water, enable clean cooking, and can make available various communication tools, e.g., radio, television, and the internet, which can be utilised effectively against diseases.

Because PURE is based on local renewable energy sources, there is little need for transporting and burning fossil fuels (except in a limited way in projects with diesel back-up), and thus less local pollution or CO² emissions.

Addressing key challenges to implement PURE on a massive scale

Despite the availability of advanced renewable energy technologies, the widespread adoption of PURE has not been achieved yet due to a variety of obstacles:

Access to finance

A key barrier is poverty, which obstructs low-income populations from investing capital upfront. In addition, it remains difficult to obtain financing for small and medium-scale renewable energy projects, which makes the high upfront investment costs of many installations challenging.

¹ SEforAll, 2015; p.42.

² AEEP & ARE, The Productive Use of Renewable Energy in Africa, 2014; p.4 (ruralelec.org/publications/productive-use-renewable-energy-africa).



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To address this issue, ARE commits to activities, such as the ARE Energy Access Investment Summit, 22-23 March 2017 and partnerships, e.g. with the OPEC Fund for International Development (OFID) and the Africa-EU Renewable Energy Cooperation Programme (RECP), which focus on financing to enable accelerated implementations of projects on the ground.

Policy and regulatory frameworks

Policy and regulatory frameworks in many countries are still inadequate to support PURE.³ It is crucial that there is at the very least a level-playing field for renewable energy markets (i.e. no subsidisation of fossil fuels) and preferably an incentivising scheme such as feed-in tariffs, clear and efficient procedures to become an independent power producer.⁴

Such de-risking measures will motivate market participants, professionals and newcomers, to engage to a larger extent.⁵ ARE therefore works closely through consultations with its members to provide industry advice to institutional partners on global and regional level.

For example, one objective of the Africa-EU Energy Partnership (AEEP) is to develop and to improve markets and their conditions for off-grid renewables to make them more favourable for investors and project developers.

Capacity building and sharing experiences

The development of skills remains a crucial challenge in local communities. First, locals should be trained to operate and maintain the renewable energy installation and thereby contribute to socio-economic development in rural areas themselves. Second, to start and run a business, it is highly valuable for budding entrepreneurs to benefit from lessons learnt somewhere else which, for example, is possible by participating in ARE rural electrification trainings.

Building on the need for capacity building, it is highly relevant to also share experiences and lessons learnt towards the development policy and institutional players. To facilitate sharing of experiences, ARE in cooperation with RECP acts as a central hub for networking, knowledge and intelligence on rural electrification. Off-grid match-making hub ARE is proud to represent 110+ committed Members, who provide RET and business solutions on the

³ Bloomberg New Energy Finance, Climatescope 2015.

⁴ ARE-EUEI PDF-RECP-REN21: Mini-grid Policy Toolkit 2017; p.9 (ruralelec.org/publications/mini-grid-policy-toolkit).

⁵ ARE-GIZ-id-eee/HNU: Risk Management for Mini-grids, 2015.

ground worldwide. With its concept of Productive Use of Renewable Energy (PURE), ARE creates a win-win situation for communities by combining international expertise and investment power with local contents and skills development.

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About the Alliance for Rural Electrification (ARE)

Established in 2006, the Alliance for Rural Electrification (ARE) is the only global business association that represents the whole decentralised renewable energy sector for rural electrification in developing and emerging countries.

To find out who is active in your country, please use the ARE Match-Making Platform helping tool: ruralelec.org/matchmaking-platform



Marcus Wiemann, Executive Director of ARE, is responsible for the management and direction of ARE, as well as the managing liaisons with partners and development organisations and institutions. He is a member of numerous steering committees and working groups, who are active in the field of rural electrification.

Marcus is 46 years old and was born in Dortmund, Germany. He holds diplomas in Economics, International Relations/Developing Countries and Environmental Economics from the Universities of York and Trier.

Marcus has a professional background in the finance and energy sector and also in consultancy, advocacy and project management.

Before Marcus joined ARE in 2013, he set up and led representative offices in Brussels for Verbundnetz Gas AG, EWE AG and for the International Association of Gas and Oil Producers (OGP).