



# Energy Access Capability Statement

**PRACTICAL ACTION**  
Consulting



Drawing on over 40 years of international expertise, Practical Action Consulting (PAC) provides independent and professional consulting services in the use of technology for poverty reduction to governments, NGOs, donors and the private sector.

Access to modern energy services is fundamental to enabling people to overcome poverty. PAC works with a wide range of energy technologies – conversion equipment such as solar PV and charcoal systems, as well as hydro- or wind-powered mini-grids and end-use appliances such as cook stoves – that can transform poor people's homes, livelihoods and communities.

At the national level, we seek to increase energy access through building the capacity of local organisations; facilitating markets; and assisting development of supportive policies and strategies. On the global stage we contribute a local understanding of energy issues to debates on policy, capacity and financing as part of our efforts to increase energy access to the rural and urban poor at scale.

Our international team of energy experts from across our regional offices allows us to deliver professional services to the highest standard in the following areas:

## Technical Assistance

PAC's goal is to assist delivery of sustainable energy access for poor people in developing countries.

Our expertise in this area includes:

- Participatory needs assessments and socio-economic analysis
- Design, development and field testing of energy technologies and products
- Renewable mini-grid development and implementation
- Participatory development of markets for energy goods and products
- Design of commercial and community-based business models and establishment of community-focussed energy providers
- Development and implementation of innovative financing techniques for energy enterprises and consumers
- Raising user awareness of energy service options.

Cover image: A community member carries a solar panel for the new community water pump in Turkana, Kenya (Practical Action/Andrew Heath).

**“I would like to thank you profoundly for your support in delivering the training to our new team... I think you guys did a great job. People were content, happy and inspired.”**

Willem Bron, SNV

## MEGA Micro-hydro Social Enterprise

PAC is working to establish a ground-breaking new social enterprise to provide community electricity access through mini-grid micro-hydro systems across the Mulanje district of Malawi.

In collaboration with local partners, PAC is building capacity to create an ambitious, sustainable social enterprise through support for business planning and financial modelling; technical assessments, local manufacture and installation; policy and regulation influencing; and community social and economic development.

## Building Knowledge and Skills

PAC undertakes research and seeks to leverage experience from delivery of energy projects and make it available through training and creation of knowledge products.

Our services in this area include:

- Research and analysis on energy access and its impacts to inform national and global initiatives
- Development of tools to assess energy resources and map energy markets at local and national level
- Advice and training in energy market systems analysis and development
- Tailored training on energy technology and project development for civil society practitioners, the private sector and government institutions
- Training of local entrepreneurs in production, distribution, marketing of energy goods and in energy business management
- Design and production of how-to manuals and training materials in creative online multimedia formats, linking in with our technical enquiries service, Practical Answers.

## Interactive Renewable Energy Toolkit (iRET)

PAC developed this toolkit for Oxfam and Christian Aid to assist their staff and partners to deliver energy access projects for poverty reduction worldwide. The iRET includes information on the importance of energy for poor people's lives; small-scale decentralised renewable energy technologies and practical guidelines and tools for financing and delivering energy access projects. The toolkit is available online at: [www.practicalaction.org/iret](http://www.practicalaction.org/iret)



A woman cooks using her new Healthy Hood, Nepal  
(Practical Action/ Upendra Strestha)

## Healthy Hoods project

This public-private partnership between Bosch Siemens Home Appliances Group, Practical Action and the Bundeswehr University Munich used a computer-aided design (CAD) system to enable development professionals to design customised smoke hoods to draw smoke out of kitchens and living areas in Nepal.

The project involved development of an interactive online toolkit that anyone can freely use to design a smoke hood for a particular home or building. These smoke hoods can be used with any biomass stove or fire – allowing later upgrade to more advanced cooking technologies.

PAC supported testing of different smoke hoods in Nepal to assess their effect on pollution levels in the home. The Healthy Hoods design was found to reduce indoor air pollution by 82%, and fuelwood consumption by 30%. Local metalworkers create the hoods using accessible, cost-effective, materials and finance is available through a revolving community fund. To date, over 800 smokehoods have been installed. [www.healthysmokehoods.org](http://www.healthysmokehoods.org)

## Policy Innovation Systems for Clean Energy Security (PISCES)

Within this six-year, DFID-funded, action research and policy influencing project, PAC has helped develop a sustainable charcoal sector in Kenya, using Practical Action's successful participatory market systems development (PMSD) approach.

PMSD workshop participants identified a need for better communication and understanding of the recently deregulated national charcoal policy. In response, PAC produced a Charcoal Policy Handbook a Charcoal Pocketbook and guides on sustainable wood and charcoal production techniques for charcoal producers in English and Kiswahili.

To raise awareness of charcoal policy PAC also facilitated a one-hour show on Radio Lake Victoria, a Luo language station with a listenership of three million.

[www.pisc.es.or.ke](http://www.pisc.es.or.ke)

## Poor People's Energy Outlook (PPEO)

PAC has been responsible, on behalf of Practical Action, for production of the PPEO, a high-profile and influential international publication that reports a unique perspective on energy access in developing countries, providing unprecedented detail on the experiences of energy use and deprivation of people living in poverty and advocating for an increased focus on energy access as a priority for development. The Steering Group for development of the report included World Bank, GIZ, UNDP, and UNIDO.

[www.practicalaction.org/ppeo](http://www.practicalaction.org/ppeo)

## Informing Policy

We use our local understanding of energy access to engage national, regional and international policy makers in developing policies that benefit rural and urban poor at scale.

Our experience in this area includes:

- National and district level policy development and influencing
- Designing implementation strategies which allow national policies to be understood and put into practice at community level
- Promoting understanding of energy access' benefits as part of low-carbon development strategies
- Developing frameworks and indicators for defining and measuring access to energy
- Informing product standards and quality control
- Participating in national, regional and international partnerships (such as ENERGIA, LCEDN, GACC and AEEP Forum).

**“Working with Practical Action has been truly outstanding. Whether it was the staff in the UK or the project managers in the high hills of Nepal, the experience was of top-notch professionalism, superior quality, punctuality, and intercultural understanding.”**

Sam Shiroff, BSH Home Appliance Corporation

## Take Practical Action. Work with us.

To find out how we can work together contact us: [consulting@practicalaction.org.uk](mailto:consulting@practicalaction.org.uk)

Offices in Peru, Bolivia, Zimbabwe, Malawi, Kenya, Rwanda, Nepal, Bangladesh, India, Sri Lanka, UK

[www.practicalaction.org/consulting-energy](http://www.practicalaction.org/consulting-energy)