



Module 5

Implementation of productive use promotion activities

Modules 5.1 to 5.4 provide detailed guidance for implementation of a number of feasible productive use promotion activities, namely those that respond to the most frequently observed productive use bottlenecks. There is no preferential sequence for implementation of *Modules 5.1 to 5.4*, as this depends on the specific programme context and what steps are relevant or not.

Module 5.1: Energy services

In brief

In most cases, energy service providers and power utilities have an intrinsic interest in enhancing uptake of productive use of electricity, as increases in electricity demand in sparsely populated rural areas can improve the viability of underused lines and systems, and generate additional revenue. As outlined in previous modules, energy service providers can and should take an active role in all steps in the productive use programme cycle.

Practical Tasks

Task 5.1.1

Raise awareness of productive uses among energy service providers

As a precondition it is necessary that energy service providers are generally aware of the importance of productive

use promotion. Additionally energy service providers are capable it is beneficial when service energy providers can quantify the additional possible revenue that productive use promotion can offer. Productive use programmes may intervene to **make information available** to the energy service provider **on the electricity consumption of certain electrical appliances and the related business potential for customers**; a short collection of electricity-based business profiles, including calculations of their typical electricity consumption per month, can be an effective tool.

Task 5.1.2

Encourage energy service providers to act as technology facilitators

The established customer relations functions of the utility can be used to **disseminate information** on high-quality and energy-efficient electrical appliances and on **recommended suppliers**. Utilities could also become a **distribution channel** for such equipment themselves. This makes sense in particular for equipment of very generic productive use potential, like lighting and ICT equipment, or for agricultural machinery like pumps and irrigation equipment. For example, energy service providers can establish contractual relationships with equipment vendors, acquire demonstration models, and present these to their customers on suitable occasions, e.g. when connections are installed or rate charges collected. In order to retain high customer satisfaction, such service providers will have an intrinsic interest in ensuring that only good quality equipment is selected for promotion. These energy service providers could also act as a **first contact point for after-sale services** for the electrical appliances distributed in this way.



TOOLS AND INSTRUMENTS

Task 5.1.3

Consult with energy service providers on options for supportive tariff systems

Electricity demand patterns in many rural and urban contexts call for a system of differentiated tariffs for clients of different demand volumes. Special **reduced tariffs for commercial users** can be an effective element of productive use support. Building on experiences with differentiated productive use-friendly tariff systems, productive use programmes can offer special consulting services for designing a productive use-friendly tariff system appropriate for the given electricity demand patterns.¹⁰

Outcomes of Module 5.1

- ▶ Increased awareness of the potential benefits of productive electricity uses among energy service providers
- ▶ defined role for energy service providers in disseminating information on and/or marketing electrical equipment for productive uses
- ▶ options explored whether a credit facilities for productive use equipment offered by energy service providers makes sense
- ▶ options explored for introducing a commercial tariff systems.

¹⁰) Tariff systems can also be designed in ways that help promote energy efficiency, particularly among commercial users. If environmental sustainability is part of the concrete productive use programme objectives, potential for applying this lever deserves further attention.

Readily usable tools and instruments

For involving the energy service provider in various steps of the PU programme

NRECA International, Guides for Electric Cooperative Development and Rural Electrification. Module 9: Productive Uses of Electricity.

Provides concrete steps for electric cooperatives and companies to design a productive uses of electricity program, as a basic tool to move towards greater sustainability.

<http://www.nrecainternational.coop/resources/Publications/Documents/GuidesforDevelopment.pdf>



Module 5.2: Raise awareness of productive electricity uses

In brief

Access to electricity offers rural communities a completely **new range of options for economic activities**. Assuming that people in new access areas are to a large degree *electricity illiterate*, **educational outreach to inform inhabitants about safe, efficient and profitable utilisation of electricity** may be vital. The need for awareness raising about productive use opportunities depends typically on the degree of remoteness of newly electrified communities, and on the people's exposure to enterprises that already use electricity.

Awareness raising campaigns for productive electricity use can take different forms:

1. **sensitisation** to options for using electricity beyond light, phone charging and TV/radio, targeting the **general public**
2. **specific** awareness raising about a particular technology, targeting a specific group of **business owners or farmers** (e.g. the use of electric sewing machines and electricity-based irrigation systems, etc.)
3. awareness raising targeting **key decision makers** (e.g. local authorities, heads of business associations, MFI staff and energy service providers) on productive use opportunities and their expected economic and social benefits.

Practical tasks

Task 5.2.1

Define the target group

In order for a productive use awareness campaign to be effective, it is vital to precisely define and characterise the intended target group so that **messages and communication channels can be adapted** accordingly:

If the programme seeks to trigger start-ups of a certain type of business, the following should be considered when defining the target group:

- ▶ Is the productive use activity especially suited to be taken up by women or by men? By members of a certain ethnic or religious community? By a special age group?
- ▶ What level of education is needed to successfully manage this kind of business?
- ▶ Which skills are needed? Which existing artisans or business people have similar skills?
- ▶ Does the activity demand a great deal of entrepreneurial spirit, and would it only be appealing to young and/or highly dynamic community members who are prepared to take risks?
- ▶ Can the productive use business be pursued as a part-time activity?
- ▶ Would it be carried out in private premises, or does it require special workshop facilities?
- ▶ How much start-up capital is needed, and what share should be covered by the entrepreneur's private savings?



Task 5.2.2

Define the desired messages

The key messages to be conveyed in a productive use awareness campaign should be well thought-through and designed in a way that they are most **relevant** for the target audience. The following elements should not be missing when introducing productive use ideas and seeking to catch attention:

- ▶ **potential economic benefits** (ideally presented in the form of **example calculations** of costs, revenues and profits of hypothetical or existing businesses)
- ▶ additional **social and economic co-benefits** (local employment, new services, local value added to local products)
- ▶ the level of investment needed for equipment, machinery and appliances
- ▶ evidence and examples of how the productive use business idea has worked in other locations
- ▶ Sources where the desired equipment and machinery can be purchased.

Participants should also be informed about any **planned training sessions**, demonstrations, or other activities for disseminating information to follow under the productive use programme.

Task 5.2.3

Select appropriate communication channels

Awareness raising strategies must be **tailored** to the target audience's preferred ways of receiving information, i.e. appropriate communication media and channels as well as competent and appropriate communicators must be

chosen, and the campaign must be sensitive to the language skills and literacy levels of the intended audience. Productive use opportunities should also be presented in such a way that makes them as **tangible** as possible for the audience. Some proven awareness raising models in rural contexts include:

- ▶ **specific productive use community meetings or workshops** to discuss productive use options, possibly with experienced entrepreneurs as special guests
- ▶ integrating discussions on productive electricity use into **meetings of community-based institutions** (such as women's self-help groups, savings groups and farmers associations)
- ▶ **road-shows** of technical equipment (e.g. lighting devices, sewing machines, etc.), demonstrations of equipment at village markets, e.g. through use of **mobile demonstration units**
- ▶ **productive use information centres** where electrical equipment is demonstrated and experts advise visitors
- ▶ **presentation** of productive use ideas at meetings of cooperatives and business associations
- ▶ **exposure visits** to existing productive use enterprises
- ▶ joint **visits to urban markets** to learn more about electrical equipment and machinery
- ▶ **distribution of pamphlets** (short, single-topic hand-outs) to business owners
- ▶ **posters** displayed on the walls of shops, etc.

At any awareness raising event, contact data from interested participants should be gathered if possible to facilitate organisation of follow-up activities.



One very effective technique is to involve established community authorities in awareness raising events as moderators, hosts or speakers, as this raises confidence among community members in the ideas presented on productive use of electricity.

Outcomes of Module 5.2

- ▶ Increased awareness of productive use opportunities throughout the community
- ▶ better knowledge among interested (future) entrepreneurs about the benefits and requirements of productive electricity use
- ▶ increased awareness of productive use among local authorities and potential partners (MFI, providers of business development services, training institutes, etc.).

Box 5 Assign awareness raising activities to a qualified implementing partner

All tasks under *Module 5.2* should be delegated to a single organisation that will progressively develop a good relationship with the target communities and those individuals who are interested in engaging in productive use-based business activities. NGOs, locally rooted consultancies, or government agencies whose core activities are also based on community work are good candidates for implementing partners. In any case, these partners should seek to harness the established structures and networks of existing CBOs and village groups for all awareness raising activities.

TOOLS AND INSTRUMENTS

Readily usable tools and instruments

CEFE International is a comprehensive set of entrepreneurship training instruments using experiential learning methods; it can be used to enhance the imagination and sensibility of potential business persons to start a new business or enlarge existing businesses with electricity. www.cefe.net

NRECA Guides for Electric Cooperative Development and Rural Electrification. *Module 9: Productive Uses of Electricity.*

Provides concrete steps for electric cooperatives and companies to design a productive uses of electricity program, as a basic tool to move towards greater sustainability. The guide makes reference to NRECA experience on raising awareness on PU through mobile demonstration units and other methods. www.nrecainternational.coop





Module 5.3

Provide technical assistance to MSMEs

In brief

Technical skills, such as (i) product know-how to make **informed decisions for purchasing** electrical equipment and (ii) **skills to operate and maintain** such equipment, pose major bottlenecks for uptake of productive electricity use in the rural MSME sector. Technical assistance to business owners and start-ups is therefore a key element of any effective productive use promotion strategy. The scope and intensity of technical capacity building obviously depends much on the level of technical sophistication of the community where productive use of electricity is being promoted.

Practical tasks

Task 5.3.1

Assess technical training needs among the target group

The very first step towards designing an effective technical assistance strategy is to assess the knowledge and skills gaps of the target group (building on the analysis of key bottlenecks undertaken in *Module 3*). This can be done in an interactive **workshop** or through discussions or qualitative **interviews** with a representative selection of entrepreneurs, carried out by a technical expert. The assessment should

also be sensitive towards special technical training needs among certain groups, e.g. women with little previous exposure to electrical equipment.

Task 5.3.2

Define a training strategy and identify partner institutions

The training strategy should be determined in a way that maximises outreach to the target group while capitalising on and strengthening existing technical skills and utilising programme resources as efficiently as possible. Broadly defined, there are four different modular options for a technical assistance strategy:

1. **working directly with individual entrepreneurs** through technical training workshops, on-the-job coaching, and visits to trade fairs for electrical equipment guided by a technical expert, etc
2. working through **technical training institutes or vocational schools** by supporting their efforts to offer special courses, integrating teaching content relevant to productive use into the curricula of existing courses and enhancing the technical capacities of teachers
3. working with **equipment vendors** to improve their product portfolio, customer services and operating manuals for electrical equipment
4. improving other **technical advisory services** accessible to productive use entrepreneurs.

All elements of the technical training strategy should ideally be developed and provided through **established training institutes, vocational schools or local technical experts**, including equipment vendors, qualified NGOs and research



institutes. This will ensure that course content and teaching methods are tailored to local contexts and target groups, and also that local technical capacities for productive use are strengthened in the long run. **Business associations, unions and chambers** as well as **government extension agencies** are also potential partners for organising and implementing technical training for productive electricity use.

In many cases it will be prudent to follow up on group training with individual **visits by technical experts** to workshops with the aim of further supporting entrepreneur efforts to put acquired skills into practice. Another option is to divide training participants into **self-help groups** who visit each other mutually and provide peer advice as follow-up to training.

Task 5.3.3

Design technical training courses

The technical training will typically need to cover the following issues:

- ▶ advising on **where** to purchase equipment
- ▶ criteria for **selecting and purchasing electrical equipment** (performance, quality, energy consumption, etc.)
- ▶ information on **warranties, maintenance servicing and provision of spare parts**, etc., that customers should expect to form part of the product package

- ▶ correct **installation** of equipment and associated requirements (protective devices, earthing, ventilation, etc.)
- ▶ **proper use and maintenance** of equipment, including necessary safety precautions and energy-efficient operation.

Outcomes of Module 5.3

- ▶ Enhanced technical skills among MSME business owners and employees relevant to productive electricity use
- ▶ enhanced capacities among training institutes relevant to productive electricity use
- ▶ productive use-specific training curricula and a set of proven training methods.





Box 6 Business training and other business development services (BDS)

Successful uptake of productive electricity use often builds on good business management capacities among entrepreneurs. Business start-ups need to develop basic entrepreneurial capacities such as informed risk-taking, and business management skills such as bookkeeping, marketing and supply management, etc. For existing businesses, advanced management capacities are often needed to ensure that uptake of electricity use actually translates into profit gains. This is because significant investment in equipment may be required, **financing institutions** ask for detailed business plans, operations with electrical equipment may be **more complex** and need different **staff management** approaches, and **new marketing strategies** must be developed to sell larger volumes of output or higher quality products.

Various programmes and established institutions offer business management and entrepreneurship training and other BDS, including mentoring programmes and counselling services for MSME. Productive use programmes should seek to collaborate with these undertakings and aim to ensure access to relevant business management training for productive use entrepreneurs. Another option is to adapt the content of business training offered by other programmes and institutions to explicitly address some of the management challenges specific to productive use of electricity.

Established institutions and proven methodologies for business management training tailored to the needs of MSME include:

- ▶ **International Labour Organization (ILO)**, under its Small Enterprise Development Programme, has developed several training tools for business and entrepreneurship training services, with long-standing implementation experience in a large number of partner countries.
- ▶ **e.g. ILO Start and Improve Your Business (SIYB)**, comprising of four sequential training packages: 1. “Generate your Business Idea” (GYBI), 2. “Start Your Business” (SYB), 3. “Improve Your Business” (IYB), 4. “Expand Your Business” (EYB).
www.siyb.org.vn/English/whatsnew.htm
- ▶ **CEFE (Competency based Economies through Formation of Enterprise)** is a comprehensive small business training network with more than 20,000 certified trainers in more than 100 countries. In most countries there are private consulting companies or government SME promotion agencies which offer national ToT courses or entrepreneurship courses for micro and small businesses—existing as well as potential. CEFE training instruments are action-oriented and based on experiential learning methods, aiming to enhance the business management competencies of a wide range of target groups (including semi-literate business persons). Typically CEFE trainings last for 5-days.
www.cefe.net



TOOLS AND INSTRUMENTS

Readily usable tools and instruments

- ▶ **EMPRETEC**, an integrated SME capacity-building programme of **UNCTAD** launched in 1988, has developed an Entrepreneurship Training Workshop (ETW), using an experiential learning method aimed at supporting behavioral change; it identifies and reinforces personal opportunities through a process of self-assessment. A typical EMPRETEC training lasts 2 weeks and can be held for various target groups, including semi-literate people. An important element is a careful selection of individuals with entrepreneurial spirit and ambitions. The EMPRETEC programme is implemented in 32 countries with business support centres and local certified trainers. www.unctadxi.org
- ▶ **INSABA** Business Planning Manual “Getting it Right”, comprising the following toolkits: 1. Pre-screening tool; 2. Market study tool; and, 3. Feasibility study Tool. www.insaba.org/images/stories/insaba%20del.2.1.1%20business%20planning%20toolkit.pdf
- ▶ **GIZ Senegal PERACOD** (2010), Stratégie de développement des usages productifs en milieu rural (French), provides a detailed outline of the business training *Gerez Mieux votre Entreprise* (GERME) and a business game that helps participants understand typical business management challenges and introduces simple management tools.

NRECA Guides for Electric Cooperative Development and Rural Electrification. Module 9: Productive Uses of Electricity.

Provides concrete steps for electric cooperatives and companies to design a productive uses of electricity program, as a basic tool for to move towards greater sustainability. Provides detailed guidance on developing a technical assistance strategy for MSME who use electricity, including equipment selection, installation and maintenance.

www.nrecainternational.coop



Module 5.4

Facilitate access to financing

In brief

Next to technical skills, access to financial resources for the initial investment in equipment is often a bottleneck for enterprises seeking to take up electricity. MSMEs often lack access to formal financing mechanisms, because financial institutions have insufficient outreach to rural communities and are apprehensive of the high transaction costs associated with working with small clients. Another reason is that rural business owners often have limited legal documentation and collateral, e.g. of business registration and asset ownership, and therefore lack credit worthiness. Hence, productive use promotion should in many cases contain a component for facilitating access to financial services.

Practical tasks

Task 5.4.1

Assess the hurdles to loan applications at the client-level

As a first step, the barriers that impede business owner efforts to obtain loans should be assessed. Typical bottlenecks are:

- ▶ high level of risk aversion that hampers willingness to make investments
- ▶ lack of awareness and knowledge of existing financial services
- ▶ lack of trust in formal financial institutions

- ▶ difficulties in meeting the formal requirements obtaining loans (preparation of a business plan, accounting practices, etc.)
- ▶ lack of collateral.

Task 5.4.2

Take stock of existing regional and national MFIs and micro lending programmes

The next step is to assess the existing MFI landscape, including **commercial and public MFIs, microfinance schemes run by NGOs or government agencies, community-based savings and loan groups and credit cooperatives**, to find out whether they are accessible to the target group, and whether the loan products they offer are appropriate for **productive use investments**. Notably, repayment periods of at least one year, more typically two years, are warranted for productive use investments, as it can take time until the associated changes in production processes translate into profits, and until new or higher quality products have found their ways to the market. If programmes intend to cooperate with small MFIs, e.g. for the purpose of establishing new loan products, they should carefully select their cooperation partners based on assessment of their management and financial situation.¹¹

Qualitative expert interviews with senior MFI staff are here the most effective assessment approach.

¹¹) The GIZ Financial System Development (FSD) Programme in Uganda has established a *light 'due diligence tool for assessing savings and credit cooperatives (SACCOs)*.



Task 5.4.3

Define measures for improving access to loans for productive use investments

The most appropriate entry points for productive use programmes to facilitate access to financing will emerge as outcomes of *Tasks 5.4.1* and *5.4.2*. Possible activities for improving access to financing for productive electricity use can include:

- ▶ Integrate **awareness raising about formal credit options** into technical and business management training and productive use workshops for entrepreneurs.
- ▶ Strengthen business owners' **collateral** by facilitating the formalisation and registration of business activities and capital assets.
- ▶ Raise **awareness among MFI managers** on the profit potential of productive electricity use, e.g. using sample business plans, and **focus** on the specific needs of productive use entrepreneurs.
- ▶ Invite **MFI staff to participate in business plan preparation workshops** with potential borrowers, and facilitate meetings between MFI staff and business associations.
- ▶ Assist MFIs in developing **new credit lines** that are particularly suitable for productive use investments, e.g. with repayment periods of 12 months and more, and eligibility of purchased electrical equipment as collateral.
- ▶ If no professional financial institution is interested in lending for productive use investments, other potential partners and options should be investigated for setting up a fund for productive use of electricity (such as a **community-based or NGO-managed revolving fund for productive use undertakings**).

- ▶ Provide **partial risk guarantees for productive use investment loans** (covered by donor funds or qualified entities).
- ▶ Advocate within the scope of national and regional level policy dialogue for action to create a more enabling regulatory environment and enhance government support for productive use loans.

Box 7 Loans for productive use investment provided through Zimbabwe's Rural Electrification Agency (REA)

The post-independence Zimbabwean Government has given high priority to rural infrastructure development programmes, which included the rural electrification programme. However, achievement of expected returns on rural electrification was being threatened by low uptake rates. In response to this, a Rural Electrification Agency (REA) was established in 2002 to support income-generating activities for small and medium-sized enterprises (SME) in order to increase electricity demand in rural areas and stimulate small-scale commercial and industrial development. One key service provided by REA is to offer loans for electrical equipment and machinery, such as grinding mills, irrigation equipment and welding machines, which are ordered by SMEs and delivered to the production site by REA. REA is funded by a levy on all electricity bills starting at 1% in 2002 and rising to 6% in 2007, which is supplemented through government fiscal allocations.

Find more information on these efforts at:

www.rea.co.zw



Task 5.4.4

Monitor and evaluate productive use loan performance

Productive use programmes should carefully monitor and evaluate the impacts of micro lending facilities that have been established or improved. This is particularly important given that **little experience and few success stories exist to date** on good practices within the scope of financial support for productive use activities.

Outcomes of Module 5.4

- ▶ Improved access to financing for productive support investments for MSMEs
- ▶ improved understanding among MFIs of the potential benefits of productive electricity use
- ▶ enhanced capacities of MFIs to work with micro and small enterprises
- ▶ sound business plans for financially viable business models that may be used as examples in other contexts.

Box 8 Success factors for productive use development beyond the operating range of energy programmes

Experience shows that lack of basic physical infrastructure (such as access roads, ICT facilities and water infrastructure) can in some cases be a key factor inhibiting uptake of productive use. For example, the availability of water resources may be the single most important precondition in the agricultural sector. Similarly, network expansion and local presence of mobile phone providers may constitute the essential requirement for development of mobile phone charging businesses. If new productive use products – i.e. advanced quality products or higher product volumes that cannot be sold locally and must be exported to other regions – do not find their way to markets, or if entrepreneurs have limited access to information on market opportunities and prices, the impact of productive use promotion will be limited. Development of infrastructure and other complementary services provide a more indirect lever for driving productive use development, and go beyond the scope of productive use programmes. Nevertheless, if infrastructural bottlenecks are identified that hinder productive use development, productive use efforts can seek to shape ongoing infrastructure programmes to maximise benefits that favour productive uses.



TOOLS AND INSTRUMENTS

Readily usable tools or instruments

April Allerdice and John H. Rogers (2000), **Renewable Energy for Microenterprise**. This guide is targeted to the many types of microfinance institutions (MFIs) and microenterprise support organizations that are interested in improving the profitability of their members' microenterprises through renewable energy (RE) technologies. In addition, RE suppliers and technical organizations can use this guide to strengthen efforts to incorporate microfinance institutions and practices into rural electrification programmes.

www.eldis.org/assets/Docs/28780.html

BRAC (Bangladesh Rural Advance Committee)

www.brac.net

The approach of BRAC differs from that of other microfinance institutions – it utilise a credit-plus approach where loans are accompanied by various forms of assistance for the borrowers, such as skills-training, provision of higher quality inputs and technical assistance as well as marketing for finished goods. BRAC organise members into village organisations of 30- 40 women. The members are encouraged to use credit facilities to start new enterprises or expand existing ones and as they increase their business, they progressively graduate to larger loans.