



# **Energy and Environment Partnership with the Mekong Region (EEP- Mekong) – Phase 2**

## **Result Based Financing (RBF) Approach**

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## I. What is Results-Based Financing (RBF)?

### a. Criteria and types of RBF

#### *i. Context*

Payment by Results is an umbrella term used to describe a whole range of proposed and active instruments that are often put into two categories: i) Results-based aid (RBA), where a donor provides funding to a developing country government for the achievement of pre-determined results; and ii) Results-based financing (RBF), where a development country government or donor agency provides incentives (to private or state companies or other delivery agents) for the delivery of pre-determined results. While there is some good recent experience with using payment by results approaches in other sectors, experience in the energy sector is relatively limited and is focused primarily on output-based aid (OBA).

Reflecting this, the rest of this document will refer solely to **RBF**.

#### *ii. Characteristics of RBF*

RBF instruments are characterised by the following principles:

1. Disbursement of funds is **contingent on the delivery of pre-determined results** (outcomes or closely related outputs).
2. As far as possible, results are **broadly defined to allow for product or service innovation** – i.e. the service provider should be free to determine the best way to deliver the desired result.
3. **Verification** acts as the trigger for disbursement.
4. Incentives are **non-discriminatory**, in that all eligible<sup>1</sup> service providers are able to participate on a competitive basis.

#### *iii. Types of RBF*

1. Examples of results-based financing instruments include:
  - **Advance market commitments (AMCs)**, whereby a fixed quantity or price is offered for a product or service over a relatively short period of time in order to stimulate a market response;
  - **Conditional cash transfers (CCTs)**, an instrument that has been used primarily to transfer cash to poor households on the condition that they “make pre-specified investments in the human capital of their children” (Fiszbein and Schady 2009), but which could potentially be used outside the social development sector to encourage certain social behaviours, such as adoption and use of an improved cook stove;
  - **Inducement prizes**, which are usually ‘ex-ante’, one-off incentives that are awarded against pre-determined criteria in order to spur innovation towards a pre-defined technological, commercial or social goal (DEW Point 2011);
  - **Performance-orientated transfers** (also called ‘output-based grants’), which are used by governments to drive the delivery of results by state or local governments, or by public

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<sup>1</sup> Eligibility may, transparency provided, be restricted to pre-qualified providers or products to ensure quality standards.

utilities through transfers that “place conditions on the results to be achieved while providing full flexibility in the design of programs and associated spending levels to achieve those objectives” (Shah 2006);

- **Vouchers**, which are an alternative way of providing capital or revenue incentives for a particular product or service by directly stimulating consumer demand.

## **b. Example of possible RBF scheme**

### *i. Solar Home Systems (SHS) in Bangladesh*

In Bangladesh a results-based financing programme was developed by the IDCOL. Within the programme a subsidy of 50 USD is paid for every quality-certified SHS that is sold by a participating company. The subsidy reduces over time to 10 USD and eventually phases-out.

### *ii. Biogas Digesters in Vietnam*

## **II. Results-based financing in the EPP Mekong Programme**

### **a. Rationale**

The EEP Mekong supports access to energy projects in eligible countries and pays an incentive to private entrepreneurs to expand their business in new areas. This business expansion implies additional transaction costs which shall be covered by the EEP Mekong. The programme will not cover costs of projects that are within the usual business environment of the applicant's sector. In any case the funding comes as a results-based funding, i.e. the selected applicants agree with the EEP Mekong on results of the proposed project (e.g. a number kWh generated, a number households connected to electricity, a number of m<sup>3</sup> biogas produced) and only after the result (or part of it) was reached and verified the EEP Mekong contribution is paid to the successful applicant.

### **b. Mechanism**

All project developers have to clearly indicate which of the results in their proposal will trigger the EEP incentive. Eligible results for results-funding are:

- a) Increased access to sustainable energy services (number of households / business supplied with sustainable energy)
- b) Increased renewable energy generation or energy saving (kWh generated from renewable sources or saved by energy-efficient equipment)

A combination of both types of results is possible. Other results can be proposed but need approval.

The incentive will be paid during the project period (max. 24 months for CFP 5). Each result will be verified by an independent verification agent and after the verification the incentive will be paid on a regular basis (e.g. every quarter of a year) directly to the project developer based on the results achieved during the respective period of time. In their proposal all applications have to define how the maximum co-funding is divided to the results.

**Example A:** Company A sells Solar Home Systems (SHS) and wants to expand its business to rural areas. Therefore it has developed a business plan, done a market study and has secured financing for this project. The company seeks to invest 300,000 Euro over 18 months in this plan (e.g. in new staff, opening a branch office, promotion, special offers for new clients...). It aims at selling initially 6,000 SHS and applies for EEP co-funding. According to the CfP document the company is eligible for up to 180,000 € results-based co-finance of EEP Mekong. Thus after approval the company first has to start investing the 300,000 € on its own risk and cost (there is no advance payment from EEP Mekong). After the company has sold SHS it claims 30 Euro for each system sold ( $180,000 \text{ €} / 6,000 \text{ SHS} = 30 \text{ €/SHS}$ ).

In case the company fails to sell the planned 6,000 SHS the incentive will only be partly paid. E.g. if only 2,500 SHS are sold during the 18 month project period, company A receives only 75,000 €.

**Example B:** The Company B seeks to build and operate a micro hydropower mini-grid for 1.2 million Euro. A feasibility study has shown the viability of the project connecting 700 households to this grid and selling a total of 800,000 kWh in the first year of operation. According to the calculation above the company B is eligible for a maximum of 560,000 EUR of EEP's results-based co-finance. The company proposes a RBF project to the EEP with two results that shall trigger the incentive: a) the connection of a household to the mini grid and b) a sold kWh. It proposes to receive 600 EUR for each household connected to the grid as well as 0,175 Euro / kWh sold to their customers during the first year of operation.

### c. Advanced determination of the RBF incentive amount

The level of the incentive shall not generate windfall gains, but attract sufficient market actors to have a competitive scheme. As outlined above the EEP seeks to cover only additional transaction costs which are initially high due to small sale numbers and high costs for marketing for new projects/ in new areas etc. The concept of Fully Loaded Unit Costs (FLUC(t)) takes this into account. The incentive is defined as a *viability gap*, which is the difference between FLUC before and after the project.

#### **Example: Credits for access to sustainable cooking energy**

A community bank in East Africa wants to introduce a new credit product for biogas digesters. There is only little experience with biogas credits in the region which implies that the bank will charge a higher risk premium compared with established credit products. Furthermore the bank has to newly develop the product, train their credit officers and promote the product, which results in initially high transaction costs. Both costs reduce over time.

However, the FLUC before the start of the RBF project (FLUC ( $t_0$ )) would imply an interest rate of 32%, which is reduced over the project running time of 4 years to 24% (FLUC( $t_4$ )). The RBF incentive shall thus cover the difference between the cost in every year of the running project - FLUC ( $t_x$ ) - and costs at the end of the project - FLUC ( $t_4$ ). Thereby the community bank will be able to offer their biogas credit product in the 1<sup>st</sup> year of the project at a competitive interest rate of 24% (see Figure 1).

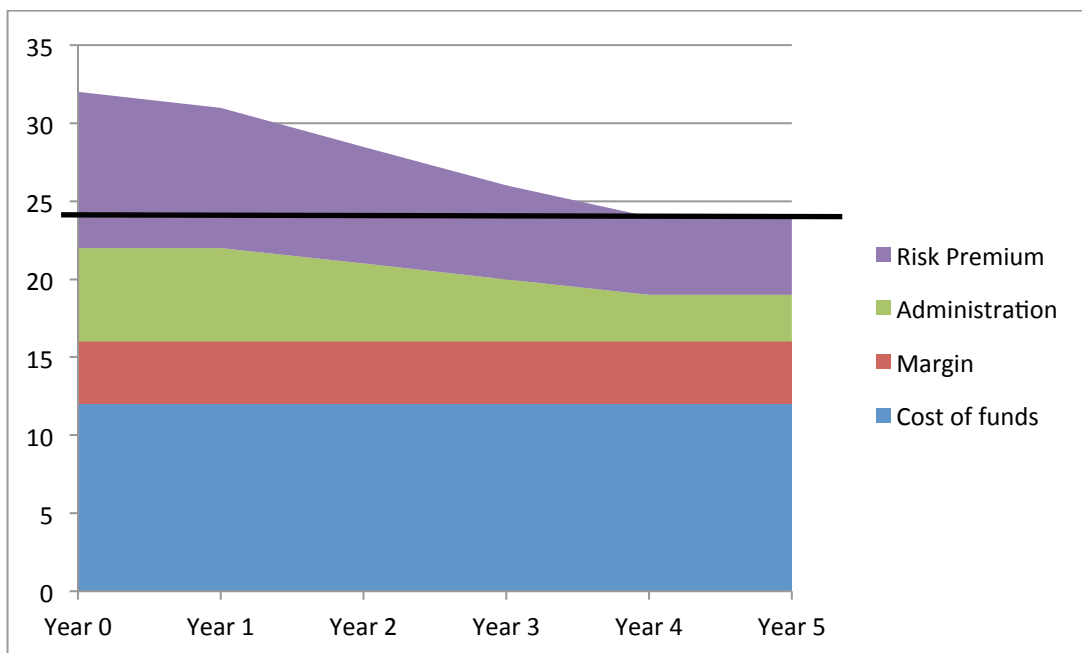


Figure 1: Development of a RBF incentive over time

#### d. Technologies for RBF financing

The technologies to be used in the EEP Mekong Phase II have to be tested and proven. Only mature technology will guarantee that the project produces eligible results. To apply a results-based financing instrument the markets must not be at very nascent stage and there must be a several private sector entrepreneurs engaged which are ready to invest.

The second phase of EEP Mekong aims at changing markets for RE technologies. Given the limited number of projects EEP can support focal technologies should be defined for every market/ country. Thereby a larger impact on technology markets can be assured. When defining these technology-specific support lines possible co-benefits and synergies with other TA programmes shall be taken into account. Until May 2015 three countries (SC members) reported possible focal technologies for their markets:

- 1) Lao PDR:
  - a. Biogas for LPG substation
  - b. Development of the biofuel market
- 2) Myanmar:
  - a. Energy efficiency and energy conservation
  - b. Energy Management in the industry
  - c. Low cost biogas systems
- 3) Thailand
  - a. Waste-to-energy
  - b. Biomass/biogas

However, the RCU should review the readiness of the markets, business environment as well as the legal and regulatory framework for a support scheme which targets private sector investment. RBF needs favourable conditions in all these fields as private sector actors are otherwise reluctant to invest. If e.g. regulations or immature markets hamper the private sector development results-based

aid (RBA) is a better option as this provides incentives to state agencies to improve the business and regulatory environment. For sustainable impacts and successful impacts RBF programmes depend on favourable conditions.

Technologies which are already eligible under other RBF projects in the region shall be excluded – or the RCU shall discuss with the project implementers how to ensure cross-benefits without distorting each other's projects. These technologies are:

- Biogas (Vietnam), implemented by SNV under EnDev's RBF Facility
- Clean Cookstoves (Myanmar, Cambodia, Laos), implemented by SNV under EnDev's RBF Facility

#### **e. Partners**

During EEP Phase I only few limitations and conditions were given for the lead partner and other partners. As the focus is now on developing the private sector, the lead partner should be a private company. Furthermore the lead partner should be a company registered in one of the Mekong Partner Countries to ensure a long-term commitment of the supported private entrepreneurs.

It should be encouraged to engage (micro-) finance institutions as project partner. If no financial institution (e.g. bank, microfinance institution or similar) is included in the project proposal the applicant would need to demonstrate how the required investment is funded.

During the evaluation of proposals the evaluators shall thoroughly analyse the financial capacity of the applicant, in particular the lead company. As incentives are only paid after the delivery of the result, all companies have to pre-finance their investment. The company should be able to cover this investment, not be troubled by delayed payment by the EEP Programme and should not become insolvent in case the expected results are not reached.

#### **f. Results for RBF – funding**

All project proponents shall propose results, which will trigger the payment of the incentive. Project developers shall be free in the definition of these results. However, they should as direct as possible feed into the EEP Mekong's objective. Thus two results are proposed to be eligible for RBF funding:

- a) Increased renewable energy generation or energy saving; and
  - a. A payment is triggered for every kWh of electricity generated or saved
- b) Increased access to sustainable energy services.
  - a. A payment is triggered for every household or enterprise supplied with a sustainable energy solution.

However there should be an option to propose further incentive-triggering results, if needed. Large RE projects might need earlier payments to assure a positive cash-flow of the proposing company. An off-grid solar minigrid for instance, might suggest a first result-payment upon complete installation of the PV plant.

### **g. Monitoring, Evaluation, Reporting, Verification and Auditing (MERVA)**

- The verification of the results triggers the incentive payment;
- Verification has to be quick after delivery of results to avoid cash-strapped SMEs
- Monitoring / Reporting is basis for verification → build online tool.

### **h. Exit and Sustainability Strategy**

The EEP Mekong intends to have an impact beyond the running time of the supported projects. Therefore the programme shall aim at companies that want to improve and expand their business. All proposals have to include an exit and sustainability strategy to ensure operations after the withdrawal of the EEP funding. It shall be explained why the EEP RBF incentive will not be needed after its end anymore and how the business has changed to guarantee this.

### **i. Further recommendations**

#### **Speed up the payment process within EEP after verification**

- Well-established and quick processes within EEP Mekong are crucial
- Supported applicants have to trust EEP's structures
- A fast payout of incentives after reporting and verification is of utmost importance to avoid cash-flow problems of the participants

#### **Encourage a competitive market**

- Sustainable markets include many strong market actors. Thus, the RBF project shall not be discriminatory and include all technology/service provider in the market (restrictions to ensure quality may apply). Do no harm!
- Focus on impacts on the market – not on a single market actor;
- Competitive bidding structure for RBF incentive can also earn better results

#### **Big partners are helpful**

- Partners like governmental or financial institutions with established structures can significantly increase the reach of RBF programmes, particular in rural areas.
- Anchoring the programme with local partner might also increases the sustainability of the programme, if the partner has a self-interest in it (e.g. a financial institution providing credits or a governmental institution fulfilling its mission and employing own funds).
- Keep an eye on administrative issues as they may take lots of time (contracting, coordination, etc).

#### **Ensure sustainability**

- Many TA projects lack long-term effects after the end of the project. RBF projects are generally better placed as they build private sector structures without initial subsidy and aim at changing markets.
- The project shall induce a change in the market, i.e. reduce transaction costs and risks for RE entrepreneurs and RE financiers.



- Reducing subsidy/incentives over the project running time can ensure a smooth phase-out of the project. They can be reduced, if their purpose is to overcome initial market barriers / transaction costs and not to subsidise unviable businesses.

#### **Speed up the process**

- well-functioning processes established within EEP Mekong are crucial
- Supported applicants have to trust EEP's structures
- A fast payout of incentives after reporting and verification is of utmost importance to avoid cash-flow problems of the participants