

FINANCE SERVICE MODELS FOR THE OFF GRID RURAL RENEWABLE ENERGY PROGRAMME



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Summary

A Finance Service Model (FSM) is proposed as a mechanism for co-financing agreements between international donors and Vietnamese project owners regarding the implementation of projects part of the Off-grid Rural Renewable Energy (ORRE) programme. It is based on state ownership and the framework system developed for project preparation, decision-making and implementation.

The interim FSM has been presented to and well received by with representatives of the Ministry of Industry, the Ministry of Finance, the Provincial People's Committees of Ha Giang and Quang Nam. It was also discussed with representatives of some international donors, who are active in Vietnam. These meetings have shown that the proposed FSM can function as a general scheme for co-financing of projects by international donors and Vietnamese state owners.

The final FSM will be completed based on official discussions with potential donors and experiences learned from pilot projects to be implemented the coming year.

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1 BACKGROUND

The overall objective of the Vietnam Off-grid Rural Renewable Energy (ORRE) Programme is to promote increased access to electricity supply for the rural population in remote villages of Vietnam, based on renewable energy sources and made available in an appropriate, reliable, affordable and sustainable way. The rationale for the programme is a combination of socio-economic, social and environmental considerations.

The suggested Finance Service Model (FSM) is designed to support and match general conditions and criteria of international Official Development Assistance (ODA) actors as well as other donors (e.g. NGOs), but also to comply with Vietnamese authorities and regulations for management of ODA support.

2 OBJECTIVES

The objective of the FSM is to provide a mechanism for co-financing of ORRE projects, based on funding from international as well as Vietnamese sources. This is expected to promote the interest of funding agencies to engage in small scale rural electricity projects for low-income villages, with limited affordability and hence inability to cover capital costs based on commercial terms for financing. The FSM can thus serve to reduce current constraints as regards financing made available for ORRE projects.

3 METHODOLOGY

Some of the multilateral donors active in Vietnam have been consulted, in order to discuss criteria and experience on financing schemes and project handling for small-scale rural energy projects. Reviews of relevant documents on national and international experience have also been carried out (see Reference list in Annex 1). Previous reports are listed in Annex 2.

4 CONDITIONS AND ASSUMPTIONS

The financing scheme is designed to comply with the following conditions and requirements:

- Simple and clear structure and flows, to make the model functional for small scale projects as well as bundling of projects.
- Coping with common donor requirements that project investments are to be co-financed by Vietnamese project owners. The orientation of the ORRE Programme on non-commercially viable projects implies state ownership of the investments, as exercised by the Provincial People's Committees (PPCs).
- Utilising capacity and methodology for project preparation and implementation as developed within the framework system of the ORRE Programme.
- Complying with existing institutional and legal frameworks in Vietnam, including regulations and directives for ODA support.
- Complying with normal budgeting procedures in Vietnam, which will enable mobilisation of Vietnamese budget allocations from the central and provincial level.
- In combination with the Framework System, providing transparency and consistency as to how projects are defined, assessed and implemented.

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5 FSM FEATURES

5.1 Simplicity

The suggested finance scheme is designed to be simple and structured to serve as a practical and functional tool to finance small scale off-grid energy projects. The model takes into consideration the fact that engagement of ODA sources in such small projects requires a standardised and cost efficient approach, together with well defined and transparent procedures on project preparations and decision making.

Agreements between the Government of Vietnam and respective donor will form the base for participation in the ORRE Programme. In combination with the Framework System, the FSM defines roles and responsibilities of the various parties and the agreements supporting the implementation. It is consistent with Vietnamese ODA regulations and based on simplified and standardised procedures to identify, prepare and implement small scale projects.

Conditions and rationale of a variant of the FSM, based on establishment of a formalised ORRE ODA Fund, will be reviewed at a later stage.

5.2 Co-financing

The analysis of alternative finance models has revealed complicated and time consuming administrative and financial procedures to mobilise up-front allocation of resources from the Vietnamese state budget to meet the donor requirement on co-financing. The co-financing suggested in the model is therefore based on annual disbursements from the national and/or provincial budget(s) to the specific programme and project accounts.

This will allow PPCs (as project owners) to include the provincial state budget share of the estimated costs for project preparations and investments in accordance with normal budgeting procedures for the following fiscal year. It will also enable PPCs, if necessary, to apply for allocations from the central state budget for the next fiscal year. Furthermore, it will enable PPCs to plan for and mobilise in-kind contributions from local villages and other concerned parties. Possibilities and principles for end-consumer financing of household connection will be decided from case to case.

Limited household income and hence affordability, low energy demand, limited productive use of electricity and the concept with small scale production units based on renewable energy sources will not make it realistic for end-consumers and project owners to cover capital costs. It is therefore anticipated that implementation of ORRE projects will depend on grant financing from donors together with allocations from the provincial and central state budget, earmarked to finance commercially non-viable but socio-economically justified projects. In order to secure sustainable services, operation and maintenance costs should in principle be covered by the revenues and cash flow generated from sale of electricity.

A common condition of international donors and NGOs is that eligible projects and their investment costs should not be entirely financed by the foreign parties. Cost sharing, in this paper referred to as co-financing, in the form of budget allocations from the state owner(s) and is therefore suggested as a means to meet this condition and to confirm the owner's commitment and responsibility. The proportion between international and Vietnamese sources and the definition of eligible cost items will on the national level be specified in the agreement (MOU) signed between each foreign donor and MOI

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or in an attached project document. Cooperation with foreign donors and NGOs for programmes and projects on the provincial level can be based on agreements signed with PPC directly.

5.3 Sources of finance

In a long-term perspective, co-financing schemes with international sources for off-grid renewable generation development may cover different forms:

- ODA grants
- Concessionary, mixed and preferential credits with sufficient substantial grant elements to make the terms favourable, e.g. the RARE project financed at International Development Association (IDA) terms by the World Bank and the off-grid hydropower plants financed by the Japanese credit institution JICA.
- Non-Governmental Organisations (NGOs).
- Carbon Funds and other buyers of carbon credits (Certified Emission Reductions, CER), i.e. reduction of CO₂ and other greenhouse gases as a result of a project replacing use of fossil fuels.

According to the Vietnamese State Budget Law, ODA grants are provided to the Government of Vietnam and therefore treated in the same way as resources from the state budget.

Mobilisation of ODA preferential credits and other soft loans for non-commercially viable ORRE projects (i.e. projects unable to cover capital costs) is approved by the Government under coordination of the Ministry of Finance (MOF) and the State Bank of Vietnam, in liaison with other line ministries (or PPCs) such as the Ministry of Industry (MOI), the Ministry of Planning and Investments (MPI), the Ministry of Foreign Affairs (MOFA) and the Ministry of Justice (MOJ).

The Vietnamese contribution to the financing of project investments can come from various levels of the state budget (central, provincial, district or community), government programmes and funds, e.g. the 135 Programme on Poverty Alleviation. It can also include in-kind contribution in the form of labour, local materials supply and other inputs during the construction stage. The value of such in-kind contribution must be realistic and verifiable and does not normally represent more than a few percent of the project investment cost.

NGO funds may not be considered as state resources, since each NGO will define the receiving party (the beneficiary). Most common is that such resources are provided directly to the provincial or local end-user/beneficiaries. In the case of the ORRE Programme this will mostly mean that the resources will be forwarded to a local cooperative or households in the project village, rather than being channelled through the Programme Account.

Carbon funds and other buyers of carbon credits are based on international trading regulations for reduction of green house gases. Sales of carbon credits can be made directly by the project investor, whether state or private, and can partially take place up-front during the construction phase or on annual basis. Each project must be subject to a consultancy baseline study and green house gas reductions as result of the project, and be verified by a certified agency or company. This model is normally not realistic for small scale projects due to comparatively high costs and fees.

The ORRE concept will allow bundling of projects and reduce the handling cost

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per carbon credit. MOI will coordinate with the Ministry of Natural Resources and Environment and monitor the carbon credit trading financing mechanism. Income from sales of carbon credits, whether up-front or annual, will not be channelled through the Programme Account.

5.4 Eligible project activities and costs

Project related activities and cost items need to be identified, defined and financed during the preparation and implementation phases of the projects, and during the initial phase of operation. Some of these costs can be co-financed by the donor(s) and the project owner, while others can be borne by the project owner alone. The agreement and principles for project cost eligibility and co-financing are to be defined in the Memorandum of Understanding (MOU) between MOI and each donor.

In Vietnam, the calculation of the investment cost is based on Circular No.04/2005/TT-BXD dated 1/4/2005 and Circular 10&11/2005/BXD. It includes costs for project preparation, appraisal, supervision/monitoring, construction, equipment, resettlement, land, working capital, PMU management, contingency reserve for emergency, etc. General and contingency costs are estimated from labour construction and equipment cost.

A. Pre-investment studies and decision-making:

1. Project Opportunity Report (Pre-Feasibility Study) in case the project is not identified in regional planning
2. Project Investment Report (Feasibility Study) with basic design
3. Environmental Impact Assessment (EIA), Ethnic Minority Development Plan (EMDP), Resettlement Action Plan (RAP)
4. Appraisal Study of the proposed project document
5. Decision Committee for project approval (or rejection)

B. Preparations for implementation:

1. PMU management costs
2. Land related costs (land rent, land clearance, resettlement activities, compensation for trees, etc.)
3. Tender Documents for construction, equipment, installation and commissioning (technical specifications and design, implementation schedule, quality assurance, evaluation criteria and model, contract terms)
4. Tendering for the construction phase process (announcement, information, tender opening, evaluation, negotiation, contract signing)

Comment: According to Circular No.04/2005/TT-BXD, all preparation costs are estimated as a certain percentage of construction cost.

C. Implementation:

1. Civil works
2. Electro-mechanical equipment procurement and installation
3. Transmission and distribution equipment procurement and installation
4. Consumer connection
5. Commissioning
6. Spare parts
7. Bank charges and fees for account management (deposits and transfer of payments to the contractor, up-front management and administration fees and annual charges)
8. Supervision and monitoring of project implementation and compliance with conditions and regulations
9. Reporting to each donor in accordance with conditions in the MOU

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Comment: In-kind contributions and end-user financing of connections will also be taken into consideration.

D. Preparations for operation:

1. Specification of conditions and selection criteria for operation, maintenance and management (OMM) contract
2. Establishment of OMM entity (if not existing)
3. Selection of OMM contractor
4. Signing of OMM contract

Comment: These activities are further presented in the Framework System and are included here to note all project related preparations.

E. Operation, maintenance and management:

1. Working capital (including some contingency) for the **initial** period.
2. Supervision/monitoring and possible additional training for operator.
3. Emergency fund for replacement or repair of equipment not covered by warranties of the suppliers. The fund can also be needed for follow-up activities and future technology improvement which cannot be financed by the operator.

Comments: These costs are not usually considered to be part of the investment cost, but due to the remote locations, weak affordability of consumers and the limited experience of operation and maintenance for small scale off-grid installations, it may be advisable to finance additional costs in order to ensure sustainable operation and maintenance. It is therefore suggested to include 12 months of working capital plus an emergency fund in the co-financing agreement between donors and MOU. Possible need for subsidies to compensate for negative cash-flow will be the responsibility of the project developer/PPC.

General comment: Cost-sharing between donors, project developer and the local/national budget as regards financing of the project costs will be defined and regulated in the Credit/Grant Agreement. The local/national contribution together with the project developer's contribution should be at least 20% of the total project cost.

5.5 Interface with donors and ORREP

In accordance with Vietnamese regulations¹ for management of ODA support, participation of an international donor in the ORRE Programme will be based on Credit/Grant Agreement between the Government of Vietnam and the foreign government or donor in question. MOI, MPI and SBV will support in the procedures to enter into this agreement. The role of MOI (and PMB) will be regulated in the agreement.

In addition, a Memorandum of Understanding (MOU) will be signed between the Ministry of Industry (MOI) and the donor. PPCs are authorised to sign similar agreements on the provincial level. The regulations on ODA management do not encompass NGO, which means that NGOs can sign agreements directly with provincial or local project owners.

The Government of Vietnam has entrusted MOI with the responsibility and mandate to coordinate and manage the ORRE Programme on the national level. This task will be carried

¹ Governmental Decree No 131 on ODA Management and Utilization dated November 9th, 2006.

out in close cooperation and liaison with the Ministry of Planning and Investment (MPI)², the Ministry of Finance (MOF)³, the State Bank of Vietnam (SBV)⁴ and the Ministry of Foreign Affairs (MOFA). It includes signing the MOU and maintaining the dialogue with each international donor.

MOI will continue to monitor the ORRE Programme's implementation, provide the policy framework and coordinate with concerned ministries and provincial authorities. MOI (or PPCs) will also on a regular basis submit to MPI a list of ORRE projects which require grants and/or soft credits from donors for their implementation.

The FSM is based on two key actors, the Ministry of Industry and the Provincial People's Committee (PPC) in provinces taking part in the programme to address off-grid rural renewable electricity supply. Most of this work will be carried out at the provincial level by the Department of Industry (DOI) and the Project Management Unit (PMU) of the DOI in its role as project developer.

The suggested financing scheme does not require establishment of any new institution or change of legislation. PPC will exercise its role as project owner and will be responsible for planning, preparation, appraisal and implementation. PPC must also be able to meet the co-financing conditions on a project level and include the state contributions in the provincial budget and to apply for allocations from the central budget and/or from other sources, depending on the type of ODA/donor engagement.

The co-financing model recognises the key role of the provincial government and administration as project owner, but also as regards decision making and formal licenses. A precondition for the financing scheme to be functional for international donors is that the project preparation and implementation will be carried out in line with the criteria and conditions stipulated in the MOU with each donor or other international financing institution.

5.6 FSM structure

The FSM identifies roles and relations between different actors, as illustrated as arrows.

- Broken lines (in red) represent key agreements between MOI (on behalf of the Government of Vietnam) and the donors, between MOI and the selected programme bank, commitment from PPC to MOI and between PMU and the contractors for construction as well for OMM.
- Dotted lines (in black) represent directives to execute payments to the project contractor.
- Plain lines (in blue) represent disbursements of funds from donor and state budget sources, made through the selected banks (and project sub-accounts in the case of

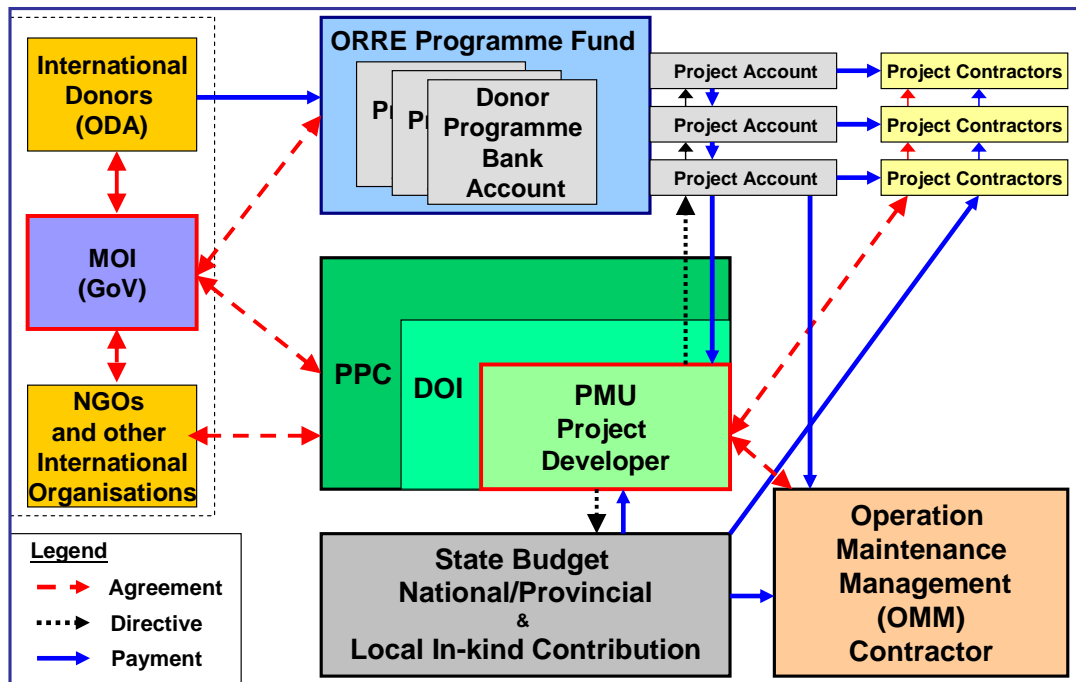
² MPI: The Ministry of Planning and Investment is in charge of the overall ODA policy and coordination of projects and programmes in need of ODA support. MPI is also in charge of the development of the socio-economic strategy. MPI is responsible for setting up the overall list of projects as provided by MOI/PPCs and other parties and submit it to the Prime Minister (PM) for ODA approval.

³ MOF: The Ministry of Finance is responsible for coordination of negotiations and signing of ODA credit agreements with different donors. MOF is also in collaboration with the State Bank of Vietnam in charge of developing financial mechanisms for borrowing, on-lending and loan repayments to ODA donors.

⁴ SBV: The State bank of Vietnam is managing external debts and is in charge of debt repayments.

means from donors) to the contractor assigned for construction and implementation of a project.

Finance Service Model: Grant and Co-financing of ORRE Projects with State Ownership



Agreements

1. GoV-Donor Grant/Credit Agreement:

A Grant/Credit Agreement will be signed between an authorised representative of the Government of Vietnam and a representative of the donor and/or the government of the donor country. This Agreement will define the objectives, orientation and general terms of the cooperation. MOI, MPI and SBV will support in the procedures to enter into this Agreement. The role of MOI (and PMB) will be regulated in the Agreement.

2. MOI-Donor MOU:

MOI will on behalf of the Government of Vietnam sign an MOU with each donor or a joint agreement with a group of donors, depending on type of ODA and size of the ORRE Programme and according to the Credit/Grant Agreement signed between the Vietnamese Government and the donors. This MOU will, together with the ORRE Programme document signed by the Vietnamese Government and the foreign government or donor, provide the framework for the programme. The MOU will define MOI's role and responsibility for project implementation and monitoring. The MOU will specify conditions agreed on eligible project costs, principles for co-financing, reporting and auditing. The Project Management Board (PMB) for Renewable Energy and Rural Electrification of MOI will play a key role in supporting provincial authorities in their work to prepare project proposals for submission to MPI and also to engage international donors.

3. MOI-Account Management Bank Agreement:

MOI will after consultation with other ministries select a bank based on criteria such as management and administration fees and the number of branch offices throughout the country. After negotiation MOI will sign an agreement with the bank as regards account management. For ODA support in form of provision of grants, based on an MOU for the ORRE Programme and signed between MOI and a donor, MOI can be the programme account holder and select a bank with the approval of the donor. For ODA support in form of preferential or other soft credits, MOF will in collaboration with MPI, SBV and MOI and on the behalf of the Vietnamese government be responsible for developing financing disbursement and loan repayment guidelines. MOF will cooperate with MOI, MPI and SBV representatives to select a suitable bank for account management.

4. MOI-PPC Agreement:

The Credit/Grant Agreement signed between the Government of Vietnam and the donors will together with the MOU between MOI and the donors regulate the relations between MOI (PMB) and PPC (PMU) as regards e.g. compliance with criteria and other conditions, such as transparency, decision-making, reporting, project account management at provincial level and the conditions to be met for disbursement of these funds, rules as regards selection and contracting of EPC and management contractors. This will be based on Vietnamese regulations and the agreements with the donors. The cost-sharing principles and conditions will be specified in the Agreement.

5. PMU/PPC-Project Contractor Agreement

Tendering principles for EPC contracts will be stipulated in the overall framework Agreement and in the MOU and comply with the Vietnamese Law of Procurement. PMB will act as project coordinator between PPCs and donors, PMU will act on behalf of PPC and the provincial administration in their role of project developer.

6. PMU/PPC-OMM Contractor Agreement:

After completion of construction, PMB will act as project coordinator between PPC and donors in coordination with MPI and MOF to complete the transfer of ODA assets to PPC. The role of PMB in the ODA asset transfer should be clarified in the Credit/Grant Agreement between the Government of Vietnam and donors and MOI will be authorized by the Vietnamese Government. PMU will, on behalf of PPC, be responsible for selection and decision of OMM contracts. The principles for assignment of OMM contractor will be defined in the overall framework agreement and the MOU and comply with the Vietnamese legislation. This is regulated by Decree 80/2005/ND-CP dated 22 June 2005 on transferring, leasing or signing product contract for state-owned enterprises.

Directives

Directives to carry out payments to contractors will be issued by PMU and shall follow the co-financing conditions agreed in the MOU between MOI and donors and in PPC's commitment, as well as the payment conditions agreed in the contract with the EPC or other contractors.

Directives to disburse resources from the State Budget will be made by PMU and the Provincial Treasury House in accordance with the conditions for State Budget disbursements.

Payments

Money should be transferred directly from (ODA) donors to the Programme Account (PA). Money from each donor will be managed separately in a sub-account of the PA based on conditions signed between that donor and MOI. NGO payments can also be made directly to the project contractor on the provincial level but are not shown in the diagram.

MOI will open a special project account at the provincial branch of the selected bank, after the funding for the project has been approved. MOI may issue a power of attorney to PMU of the PPC to handle payments to contractors, but this matter will be further analysed and it should be included in agreement between MOI and the selected bank. Transactions will be made directly from the project sub-account to the contractor's account. Payment from the state budget will be made directly from provincial Treasury House to the account of signed contractors. PMU will certify the completed works and send approval of payments to the provincial Treasury House.

Donors may occasionally be prepared to finance some of PMU costs for project preparations and other activities. PMU's work will mainly be financed through allocations from the state budget (national and/or provincial). Payments from the state budget will also be made to the contractors during project implementation, in accordance with the cost-sharing principles in the Agreement.

Disbursements from the ORRE Programme Fund's project accounts to the OMM contractor can e.g. relate to financing of the initial working capital and the emergency fund, suggested as a means to secure sustainable operation and maintenance. Payments from the state budget to the OMM contractor can become necessary in case of unexpected problems with the revenues and therefore a possible need for temporary subsidies.

5.7 Private Sector Involvement

It is clear from the ORRE Programme that its focus on non-commercially viable investment projects rules out the participation of investors from the private sector. However, there is still a potential for private sector involvement in various stages of project preparation, as well as during construction and management of the facilities. Whether such private sector engagement will take place depending on the framework system and whether e.g. open tendering is applied and if the private sector participation is actively promoted. The following activities are examples where private actors can offer competence. This does not necessarily mean that such actors are in place or that the state administration can not perform some of these tasks.

- Consultants: feasibility studies, appraisals, tender documents, legal documents
- Turn-key (EPC) contractors: civil works, construction, procurement, installation
- Manufacturers: equipment supply
- OMM contractors: power production, distribution, maintenance, billing, fee collection, legal and financial responsibility, active promotion of productive use
- OMM bundling: contract for several units, cost-effective O&M and management
- Banks: project accounts and potential customers within EPC and OMM contractors
- Business entities (productive users): establishment or expansion of local business

Two issues of particular interest are noted. A party signing a management contract for operation and maintenance of a power system, including full responsibility for covering operation and maintenance costs (excluding capital costs) should be encouraged to promote demand for productive use. This will stimulate the local economy (at

the village level) and strengthen the cash-flow of the contractor. Incentives and methods to promote this should be included in the contracts with PMU, representing the state ownership.

Another possibility is that projects are bundled and that one contractor is responsible for their management, operation and maintenance at district level. This is a concept (the so-called DOME) suggested in the WB Programme on Rural Electrification.

ANNEX 1

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