

Innovative Financial scheme for sustainable development of Renewable Energy project in Rural Areas in Vietnam, Philippines and Indonesia (IFRERA) – Project 69



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Regulatory and legal framework for small hydropower development in Vietnam, Indonesia and the Philippines

Editorial

Welcome to the fourth newsletter of the IFRERA project. IFRERA is a collaborative effort between IED (France), ETC (Netherlands), ADEME (France), IoE (Vietnam), MBA (the Philippines), and the local authorities and investors in the concerned countries. This newsletter will focus at regulatory and legal frameworks for small hydropower development in three countries : **Vietnam, Indonesia** and the **Philippines**, which has been reviewed and analyzed as a part of the IFRERA small hydro power development study. These reviews and analysis were carried out by the IED and its subcontractors, with extensive supports from all project's partners. The objective of these reviews is to analyze recent institutional improvements, reforms and incentives in the energy sector and to estimate how these changes influence private small hydro power development. The discussions, summaries and recommendations presented in this newsletter are based on these background papers.

Tuan A. Nguyen

Regulatory frameworks in Vietnam

Recently, the small hydropower development in Vietnam has got a momentum to take off, thanks to changes in its legal, regulatory and fiscal framework for renewable energy. Under these new frameworks, The Electricity of Vietnam (EVN), a government-owned company, has

initiated a series of implementation measures to encourage private developers to invest in RE to support its program on rural electrification, particularly in small hydropower.

The regulatory structure that governs the electricity sector in Vietnam consists of laws, decrees, decisions, circulars and other legal documents issued by National assembly, Government, Ministries, and provincial authorities. This regulatory structure can be classified into :

1. Power sector regulations
2. Natural resources (including land use) and environmental regulations
3. Investment regulations: foreign and domestic investors.

Power sector regulations

Up to 2000, activities in the power sector in Vietnam were regulated by Government degree N°80-HDBT, which has been replaced by the *degree N°45* (promulgated in 2001) and the *Electricity Law* (adopted in 2005).

The degree 45/2001/NG-CP introduced new provisions which we can summarize as follows :

- Investment by private actors is allowed only for electricity *generation*, with the exception of isolated power networks, where private investors can invest in both generation and distribution. Electricity of Vietnam is responsible for the whole national electricity system including generation, transmission, and distribution network. A PPA (Power Purchase Agreement)

with EVN is a must for all power plants or isolated networks to connect to the grid.

- Electricity tariff for end-users is determined by Government (Ministry of Industry), except for the case of isolated electricity networks, where the provincial people committee is in charge of determining the tariff, with a ceiling that is determined by the governments.
- Regarding rural electrification, there is clear distinction between grid extension and isolated network. For grid extension, EVN is responsible for MV and LV transmission lines and substations. Funds are supplied by either the government (MV lines) or local sources (LV distribution networks). For isolated networks, the government will support and provide incentives to local authority on construction of isolated networks.

In order to attract foreign and domestic investors, to ensure a fair competition in power production and to protect legal rights and benefits of customers, the Electricity Law has been prepared and adopted in July 2005. The following are important provisions of the electricity law which will be promulgated and implemented in near future to replace the old degrees and circulars:

- All power enterprises are grouped into 6 categories: generation, transmission, distribution, wholesaler retailer and National Load Dispatching Center. Various forms of investment and ownership are allowed in all power activities.
- National power development plan is to be prepared by MOI and approved by the council of ministers. Provincial power development plans are to be prepared by PPC and approved by MOI. Investment to the power sector needs to be in the accordance with national and provincial power development plans.
- For doing business in the sector, a power activity license is required. Licenses may be granted for organizations or individuals in generation, transmission, distribution, wholesale and retailing.
- All power enterprises are allowed to compete legally in a fair, equality manner. To prevent monopoly, each power enterprise is not allowed to generate or manage more than 15% of the total load capacity of the country.
- Tariff would include full efficient costs and allow power enterprises to get return from

investment and have profits. Tariff would, on the other hand, take into account the government policy of subsidization for social purposes and for rural electrification. Government will retain its final decision on any tariff proposals from Ministry of Industry.

- Ministry of Industry will be responsible for regulatory functions of power activities. Although the law mentions about a regulatory body under MOI, different provisions throughout the Law imply that MOI would use its functional departments to execute the functions of regulation, in addition to its existing policy and planning functions. It should be noted that there is no clear cut between state management functions and regulatory functions of MOI despite the fact that it was one of the objectives of the Law. More details on regulations will be provided in the Decree on regulations that together with Decree on Tariff are under preparation.
- Regarding rural electrification, the government will specify targets of rural electrification for each period based on the sector development plan and national social economic development plan. Provincial rural electrification plans are prepared by provincial government and to be approved by MOI. Government will have preferential policies on investment, management of rural electricity supply for rural, remote and mountainous areas, including investment support and tariff subsidies. Renewable energy for rural electrification will be encouraged. It should be noted that there might be an overlapping between a provincial power development and a provincial rural electrification plan.

The regulating framework for the power sector is at this moment being developed and is expected to lay important principles for rural electrification. Furthermore it is expected to encourage renewable energy development to supply electricity for remote and mountainous areas. However, at the moment there are still some arguments between the old degrees and the new electricity law which will be settled in very near future.

Natural resources and environmental regulations

The government has enacted several law and degrees protecting the natural environment and compensation for damage to land and property caused by constructions or other works.

The regulation acknowledges that the people of Vietnam own all natural resources. Furthermore, the law provides for “the management, protection, exploitation and use of the water resources in an economical, rational and effective manner, as well as the environmental protection of the resources and ensures the source of revenue for the State Budget”. Natural resource tax applies to the use of water for generation of electricity with the one exception that electricity not transmitted into the national grid is tax exempt.

All hydro power project are required to submit an EIA. Depending on the size and characteristics, approval is needed from either national government (MONRE) or provincial government (DONRE and/or PPC). For on-grid IPP and SPP, both DONRE and MONRE need to approve the EIA. For each proposal a special council is installed that advises the Minister on the proposal. For off-grid projects (the so-called category 2 projects), no approval from MONRE is required. For this projects, DONRE takes the final decision, after advise from the PPC. The degree of assessment prior to consideration for approval is at the discretion of the PPC.

Investment regulations

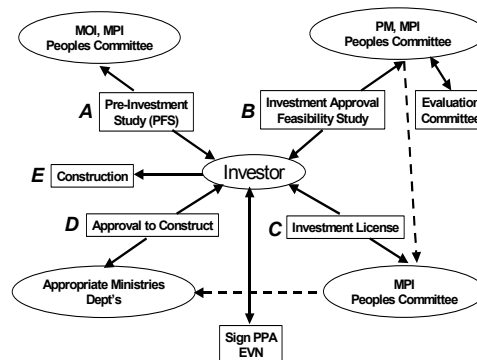
The regulatory framework in the electricity sector is relatively complex and possibly acts as a disincentive for potential investors. Although the regulations are distinctive for foreign and domestic investments, the general procedure is similar.

To implement investments, potential investors have to go:

- A. Prepare Pre-investment study,
- B. Prepare investment approval feasibility study
- C. Acquire an investment license
- D. Acquire the approval to construct.

The most important message for an investor is that the level of state intervention and the length and complexity of the appraisal procedures depend on a) ownership of funding such as government versus private or foreign resources and b) scale of project costs.

Existing Approval Process For IPPs - Foreign Investors



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Source : World Bank, 2002

The existing legal framework was designed to accommodate large power projects and not small-scale projects like renewable energy schemes. This is shown by the following regulations: :

- Actually investment projects in power sectors in other than BOT form are not encouraged, because it is considered that power sector investment is under monopoly of EVN. This constraint was removed from the Electricity Law, but it will take sometimes in order to come into force.
- Too complex appraisal procedure requesting involvement of many ministries and government agencies at different levels for all project's size. The difference for different project scale concerns mostly the level of involvement from the government and local authorities
- Power projects of any size must be approved by Prime Minister or MPI.

Conclusions

The review of the framework of energy regulation in Vietnam shows the complexity of its process, its differentiation by type, scale and by investor. Despite this complexity, the growth in private investments in small hydropower development is considerable in the last two years, showing that there is large economic potential in the development of SHPP and big potential in private-public investment sources.

Unlike before, private participation is now welcomed in the energy sector. This is a major policy change and creates great opportunities for small hydro power development, especially taking into account the huge economical potential of hydropower in Vietnam.

However, the sector is just starting to take off and much more is needed before renewable energy can really become a viable option in the future. Although projects are classified by investment size, the regulation framework in Vietnam is primarily targeted at large scale projects. This means that small projects have to face complex and long procedures, which increases the transaction costs. Especially in the future, after the best sites have already been exploited, this could jeopardise new investments in small hydro power projects.

Regulatory framework in Indonesia

The power industry in Indonesia in the past was reflecting the conventional power industry with very centralistic system via State Electric Company (PLN), which had all rights and power to develop the industry.

Power sector regulations

The momentum of restructuring also made the government further preparing the legal foundation by replacing older electricity law (Law No. 15/1985) with the new electricity law (Law No. 20/2002). The commitment to make the industry to be more competitive is reflected by the new law.

However, the new electricity law (Law No. 20/2002) was annulled on 15th December 2004. The annulment is based on the argument that the Law does not in line with the 1945 Constitution especially article 33 that said the government should exclusively manage economic sectors which are important to the state and crucial for the welfare of the people and must develop it to give the maximum benefit to the people. Electricity is considered as important and crucial economic sector so the government (in this case PT.PLN (Persero)) should manage it and not private sector.

1. Electricity Law No.20 of 2002

The Electricity Law supports rural electrification efforts. Article 7 said that the central government and the local government have the obligation to provide funds for rural electrification projects.

This condition opens opportunities for investors to cooperate with local governments to create rural electrification projects although the first priority will be given to state enterprise (article 30 point 3). The cooperation can take many forms such as

Built Operate Transfer (BOT), Built Operate Own (BOO), or Built Lease Transfer (BLT). Cooperation with local governments is most possible in electricity deficit areas. Sulawesi Island is one of the deficit areas. Another form of cooperation is ESCO (Energy Saving Company) based on performance contract. There are many more schemes possible to be applied.

Considering the human resource capabilities in those areas, the appropriate cooperation scheme is a modification of BOO scheme with enough share goes to the local government or local private investors. BOT is not recommended because the sustainability of the power plant might be jeopardised when the project developer leave. Modified BOO cooperation will have some advantages compared to power selling contract with PLN.

Until today still there are no technical rules and regulations regarding the implementation of rural electrification. It is now depending on the decision of each local government on how to implement rural electrification projects. It is also depending on the negotiation by the investors with the local governments.

The law also emphasises the importance of Local General Plan of Electric Power (RUKD, article 5)). It might be more influencing if the investor can involve in the planning stage of RUKD. RUKD will show the whole aspects of electric power sector in each area. The demand, the local primary energy potential, current supply and also the planning for the development of supply system. Based on RUKD, PLN and also investors can plan their investment in the area especially in the power sector.

Investors who are willing to invest in the area should understand the RUKD very well. The only problem is the capability and capacity of local government's institutions to construct RUKD. If the RUKD is already available, the investor should do a re-check whether the RUKD shows the real conditions or not. It would be better if the investor could give small assistance in the planning stage. Right now most of the district level governments still do not have RUKD. This condition is worse in areas outside JAMALI where there is big energy deficit.

Regarding the permission to establish a power generating company for public interest (IUKU), the law also regulates. Especially the Article 10 is emphasising the regulation of permit issuance in non-competitive areas. The major or the district head (Bupati) should be the one who issue the permit if the system does not cross the border of other districts (off grid system).

The cooperation with local government will simplify the permit issuance because there is an interest from the local government to as soon as possible electrify the area.

Article 41 says that in the non-competitive area electric power selling price is regulated by the central government or local government. Based on this, there are possibilities that the electricity price will be different in different areas.

The law also says that all financial arrangement should use Rupiah as the valid payment currency (Article 42). Contracts using currency other than Rupiah are not valid.

The Law was annulled on 15 December 2004 and Law 15/1985 was again reinstated. There are three articles that have made Constitutional Court annulled the Law: article 16, article 17 and article 68. Those articles are considered as the heart of the law.

The government (DGEEU) responded the annulment very fast. It is planned that a new Government Regulation will be enacted. DGEEU source said that end of January the draft will be submitted to the president. The government regulation will contain all ideas of Law 20/2002 except the ideas of 3 articles above. This government regulation will be the base of the future electricity law.

2. Government Regulations 3/2005 about Supply and Utilisation of Electric Power

The regulation is actually an updated version of Gov Regulation 10/1989. Some articles in Gov Reg 10/1989 are changed and some new articles are inserted. Basically the new regulation carries the ideas of Law 20/2002 although no competition is mentioned. Ideas that were rejected by Constitutional Court are not mentioned in the regulation.

The regulation contains the principles below:

- Bottom up planning and the use of local resources especially renewable energy for power generation
- There is only one Electricity Authority (PKUK holder) and it is the representative of the government (PT.PLN (Persero))
- Government is obliged to provide infrastructure for underprivileged community
- Infrastructure planning both by PKUK holder of private sector must follow the National/Regional Plan drawn by the

government (RUKN, National Electric Power Plan)

- Private involvement in the business is possible and local government has the right to give permits to such businesses as long as still under the jurisdiction and do not harm the interest of many people
- The practices of electric power business such as power selling, the use of transmission line etc. and the principles of how to do the business (open bid, transparency etc.). The use of local resources especially renewable is prioritised
- Captive power producers have also the right to sell excess power
- Quality of electric power and obligation to provide high quality electricity. It is also mentioned about the accreditation bodies to ensure the quality of electricity. All aspect of electric power distribution should comply with Indonesian National Standard (SNI)
- Pricing of electricity. Electricity price/tariff for PKUK holder (PT.PLN (Persero)) is determined by the government. Local governments also have the right to set up tariff for private electricity. Tariff should reflect the economy of power generation and economic condition of the people
- The supervisory role of the government both central and local and the principles of supervision such as coordination with other institution
- Both PKUK holder (PT.PLN (Persero)) and private generators must provide report to respectively central government and local government about their activities regularly (quarterly).

3. Regulations governing the electric power purchase tariff for power supplied by small scale private and cooperative power producers MD 996K/43/MPE/1999

For renewable based power plant with capacity more than 1 MW and less than 15 MW outside JAMALI (article 1 point 2), the power purchase tariff is regulated by the MD 996K/43/MPE/1999. This regulation is still valid as long as there is no new regulation regarding power purchase tariff for mini scale power plants. This ministerial decree is assuming that the interconnection is done with PLN system. Interconnection with non-PLN system (for example KLP Sinar Rinjani in Lombok) is not regulated.

This decree still has some critical weaknesses that open opportunities to slow down private sector

involvement in the electric power sector. Once again, it is very important to formally inform DGEEU of the investment process. DGEEU which has full commitment to develop the renewable energy and also improve rural electrification will 100% support the project.

Investment regulations

The procedure and requirements for investing in Indonesia is regulated by Head of Investment Coordinating Board (BKPM) Decision No. 57/SK/2004. The investment approval from the head of Investment Coordinating Board will be useful in the application of PPA.

Basically, investment can be done by anyone either Indonesian nationality or foreigner. The entity/person should register the investment plan by filling up some forms. All forms are available in the National Investment Coordinating Board office or Local Investment Board office.

According to the law 20 of 2002 article 1 point 31; any private companies working in the electric power sector must be a legal entity which is established based on Indonesian Law. This means any foreign investors should establish an Indonesia based company (PT or Perseroan Terbatas or Limited Liabilities Company).

Article 8 point 2(a) says that electric power business includes power generation. This means any investors interested in power generation; the participation is guaranteed by the law both in competitive area and non-competitive area. In the competitive area the generation and distribution will be implemented competitively (article 17 point 1) while in the non-competitive area there is still a chance for a vertically integrated company.

Investing in Indonesia can be done two ways: via Investment Coordinating Board/Local Investment Board or bypassing the Investment Coordinating Board (BKPM). The size of investment is usually determining the procedure of investment. Generally investment above 500 thousand US\$ is recommended to use the Investment Board procedure (Source: BKPM). It is valid to use either Investment Coordinating Board (Jakarta based) or Local Investment Board. If an investor wants to develop a 2 MW hydropower plant then it is better to use the Investment Board procedure.

Not using Investment Board procedure provides simpler project development but lack of fiscal incentives.

Basically there are 7 main steps to start a power generation business:

1. Setting up a company (limited liability company or Perseroan Terbatas or PT)
2. Apply for Tax Registration Code Number (NPWP)
3. Applying for PPA (if interconnected to PLN)
4. Applying license to generate power for public service (IUKU)
5. Registering the investment to the investment board
6. Carry out EIA study (if EIA is not part of Project's Feasibility Study)
7. Construction phase
8. Operation phase.

The steps above assume that the investor already studied the potential sites of hydropower, found local partners to develop the site and ready to invest.

Based on the steps above the following institutions should be contacted:

1. Lawyer office. To get the Certificate of Association of the PT (Limited Liability Company)
2. Local Tax Office. To apply the Tax Registration Code Number
3. Local EIA Consultant. To study the environmental impact of the project and produce EIA documents. The EIA might also be an integrated part of the Feasibility Study
4. Local EIA Board. To get EIA approval
5. Local PLN Office (Dinas Level and Wilayah Level). To apply PPA
6. DGEEU or Region's Head Office. To apply License to Generate Power for Public Interest (IUKU)
7. Investment Coordinating Board (BKPM) or Local Investment Board. To register and get approval of investment

The role of local government is big so it is highly recommended to cooperate with local government to secure investment locally.

Environmental and water regulations

Environmental Impact Assessment is needed in two important steps of a hydropower project. The first is the PPA application and the second is the project implementation. EIA or AMDAL (Analisis Mengenai Dampak Lingkungan) is important for power projects with capacity more than 100 MW. For power plants under 100 MW only Impacts Mitigation Actions (UKL) and Mitigation Monitoring Actions (UPL) are needed. UKL and UPL are basically part of EIA with smaller scope.

The procedure of EIA is as follows:

- Permission to implement project activities to the local government (depending on the size of the project, bigger size projects should have permission from central government)
- Applicant submit the Reference Scheme to the local EIA Board (or National EIA Board if project size is big enough (more than 50 MW))
- Applicant compose the EIA, Plan of Impact Mitigation, and Plan of Mitigation Monitoring
- Applicant submit the EIA, RKL and RPL to the local EIA Board/National Board
- EIA Approval and then project implementation.

Basically EIA touches several aspects of environment: physical environment, biological component, and social component. In Indonesia there is no specific regulation about environmental impact due to civil construction in water way (e.g. impact to the migrating fishes). The applicant should be able to identify impacts at the most detail level and provide plan to mitigate those impacts and monitor the mitigation procedures.

Regularly, at least twice in a year, the Impact Mitigation Actions and Mitigation Monitoring Actions should be monitored. The monitoring result should be reported to either local EIA board or National EIA board.

There is no exact time frame for EIA application because it very much depends on the scale of the project. Scale of the project will determine the scale of surveys needed.

For mini hydropower project EIA assessment/evaluation will be done by provincial level EIA board.

Local EIA board is usually under the administration of BAPEDALDA (Badan Pengendalian Dampak Lingkungan Daerah). National EIA board is under the administration of BAPEDAL (Badan Pengendalian Dampak Lingkungan).

The applicant of PPA should also attach a license to use water. This license is issued by local government from the respective department. Water rights license includes also the value of water tax has to be paid by applicant. The value of water tax is at minimum IDR 5/kWh electricity produced.

Application of water rights is valid for hydropower development.

Conclusions

The guideline for rural electrification is not comprehensive enough. The government has passed MD 064K/40/MPE/1998 about Rural Pre-Electrification. This decree only regulates the type of technology that is recommended for the implementation of rural pre-electrification. The regulation does not show who responsible for the implementation of rural electrification and who the coordinating body is etc. Actually the guidelines are scattered in many government's regulations so basically it needs an effort to collect them.

The buying guarantee is only for 1 year. PLN now only guarantees to buy power for one year. This is the common practice for small PPA contract. The number will probably be extended to at least 5 years. The discussion is still on going (status: September 2004). Long term contract is possible especially for firm capacity generation plant. The plant owner should be able to guarantee capacity to PLN to get longer term contract.

The buying guarantee time is particularly important for renewable energy power plants. Hydropower for example depends highly on seasonal condition so it can not guarantee firm capacity, unless it uses the lowest flow in the flow duration curve.

New investor would certainly walk in the dark or walk in dimmed light. There path is unclear although it is there. The government should make an effort to create a comprehensive guideline of rural electrification that includes the guidelines of private sector involvement in the programme.

Main actors in the rural electrification are PLN and MEMR (DGEEU). There is possibility that they have different perspective in the implementation of rural electrification thus the guidelines from PLN or DGEEU might a little incompatible. PLN for sure has its own regulations and those regulations are usually

more detail. Asking information from PLN might be the best solution.

The Philippines regulatory framework

In the Philippines, The passage of Electric Power Industry Reform Act (EPIRA) paved the way for introducing reforms in the electricity industry. Further, the EPIRA provides for, among others, the privatization of the National Power Corporation (NPC), the creation of the National Transmission Company (TRANSCO) to assume the transmission functions of NPC, Power Sector Assets Liabilities Management (PSALM) and the Energy Regulatory Commission (ERC), opening up of the generation sector to competition and the establishment of the Wholesale Electricity Spot Market (WESM), and the implementation of open access for competitive consumers. This new electricity structure would ensure transparent and reasonable price of electricity in a regime of free and fair competition to achieve greater operational efficiency. With the implementation of retail competition and open access, privatization of NPC generation assets, unbundling of electricity tariffs, and the establishment of the WESM, the industry will be opened up to competition and greater private sector participation.

Energy sector regulations

The power sector regulation in the Philippines is characterised by several hierarchies and implemented via different organisations :

- **DOE** : The policy making body in the sector, overseeing the implementation of the restructuring of the power sector and ensure that there is a reliable and adequate supply of electricity;
- **Energy Regulatory Commission (ERC)** : is a independent regulator able to promote competition and ensure the consumer's protection.
- **National Electrification Administration (NEA)**.

EPIRA

On June 28, 2001, the Electric Power Industry Reform Act (EPIRA) known as Republic Act 9136 was signed into law by President Gloria

Macapagal-Arroyo. The Implementing Rules and Regulations (IRR) followed suit on February 27, 2003. The law enabled the enhancement of the global competitiveness of our electricity industry participants, lower power rates and provides better service to the end-users through restructuring of the industry.

Restructuring includes changing the existing over-all structure of the electricity industry and involves mainly the separation or “unbundling” of an integrated industry to encourage competition in the generation and supply sectors. Where competition cannot be present, regulation will take the reins for the protection of the consumers, thus the distribution and transmission sectors will remain regulated being natural monopolies.

The distribution of electricity remains to be a regulated business. Distribution utilities (DUs) are classified into Private Investor-Owned Utilities (PIOUs), Electric Cooperatives (ECs); and Local Government Unit-Owned Utilities (LGUOUs). The ECs are still under the umbrella of the National Electrification Administration. However, ECs are given the option to convert into either stock cooperative or stock corporation.

The privatization of the National Power Corporation (NPC) will entail splitting it into several generation companies to be grouped in a manner that will promote the profitability and viability of the resulting units. This is done to ensure economic efficiency, encourage competition and foster reasonable power rates. The creation of several generation companies (GENCOS) will provide a competitive environment essential in bringing down power rates and making service more efficient.

Department of Energy (DOE) circulars

DOE has issued many important circulars which provided the guidelines to facilitate private sector participation (PSP) in existing SPUG areas with the ultimate goal to reduce the cost in supplying energy to missionary areas.

Department Circular DC 2004-06-006 “*Prescribing the Qualification Criteria for the Qualified Third Party Pursuant to Section 59 of the Electric Power Industry Reform Act of 2001*”. This Circular only sets the criteria for determining QTPs participation in providing electricity to remote and viable areas and this includes the financial, technical, environmental and other indices of performance.

Department Circular DC 2004-06-007 “*Promoting Investment Management Contracts As One Measure in Effecting Greater Private Sector Participation in*

the Management and Operation of Rural Electric Cooperatives Pursuant to Section 37 of Republic Act No. 9136 and its Implementing Rules and Regulations.”

Energy Regulatory Commission (ERC's) Issuances

ERC has issued the rules governing the collection of the universal charge which regulates charges by distribution utilities and suppliers, by TRANSCO. ERC has approved also the unbundling of electric power rates which identified and segregated different cost components in providing specific services of electricity (generation, transmission, distribution and supply).

Water and environmental compliance certificate (ECC) regulations

An ECC is issued by DENR to ensure that the proposed mini-hydro project will not cause significant negative environmental impacts.

For mini-hydro projects with proposed capacities of less than 6MW, only and Initial Environmental Examination (IEE) is required. The following are the requirements:

- Project Description: includes the basis information, location, rationale, alternatives and phases of the project.
- Baseline Environmental Conditions: describes environmental condition of land, water, air and people in the project site
- Impact and Risk Assessment (if required): describes impact identification, prediction and evaluation of the project.
- Environmental Management Plan: defines environmental impacts and monitoring action plan of the project environment.

For mini-hydro projects with proposed capacities greater than 6 MW and with 20 million cubic meters of water impoundment, an Environmental Impact Statement (EIS) is needed and should contain the following:

- Table of Contents
- Executive Summary : Brief Project Description; Brief Description of Methodology: scope and duration; Project Description of Project Setting; Summary Scoping Report: establishes the information and assessment requirements to provide the proponent with the scope of work for the EIS;

Summary Matrix of Major Impacts, Mitigation Measures and Environmental Management Plan; Summary Presentation of the Environmental Initial Assessment Process/Process Documentation

- Project Description : Brief Project Information; Project Location; Project Rationale; Alternatives of the Project; Description of Project Phases: Pre-Construction, Construction, Operational and Abandonment;
- Baseline Environmental Conditions: Land, water, air and people;
- Impact Assessment and Mitigation; Impact Identification; Impact Prediction and Evaluation; Future Environmental Conditions without the Project; Future Environmental Conditions with the Project; Unavoidable and Residual Impacts.
- Environmental Management Plan : Mitigation/Enhancement Measures/Plan; Construction Contractor's Environmental Program Social Development Program (resettlement/relocation/livelihood); Contingency Response Plan and Abandonment Plan; Environmental Monitoring Action Plan; Institutional Plan; Information Education Communication Plan; Cost Estimate/Viability;
- Proposal for an Environmental Monitoring and Guarantee Fund (If required)

For water right permit, the documentary requirements are :

- Location and conceptual plans on convenient scale showing the source of water, layout of proposed works, and point of diversion determined by its latitude and longitude;
- Brief description of project, including among others, how water will be used, amount of water needed, power expected to be generated if applicable, amount of water to be taken, measures to insure that such water is not polluted, other relevant information;
- Articles of Incorporation or Articles of Partnership in case applicant is a private corporation or partnership or certificate of registration in case of cooperatives

Investment regulations

Board of investment : investment priorities plans

The 2004 investment priorities plan entitled the enterprises specialized in new and renewable energy sources to the following incentives :

Fiscal incentives : Income tax holiday, exempt from taxes and duties on imported spare parts, tax exemption on breeding stocks and genetic materials, tax credits, deduction from taxable income.

Non-fiscal incentives : Employment of foreign, simplification of customers procedures, importation of consigned equipment...

The 2005 Investment Priorities Plan was signed by the President of the Philippines on May however its implementing guidelines has just been released by the BOI on August this year. This years Plan, covers the exploration, development, and/or utilization of energy. This also covers activities using energy technologies leading to energy efficiency and conservation in accordance with the program of the Department of Energy. All applications for registration shall be endorsed by the Department of Energy that shall include projects' compliance with world-class environmental standards. This further covers exploration or development of indigenous and/or renewable energy, utilization of such energy in power generation, and energy efficiency and conservation activities. All projects using RE sources are qualified for pioneer status.

Step	Time Required	Activity
1. Identify potential site/s		Consult DOE, NEA, NPC and NIA lists, project profiles or own investigation (LGUs)
2. Apply for non-exclusive reconnaissance permit	minimum of 2 weeks	Apply with DOE (Privileges/right to study the area)
3. Conduct reconnaissance study	3 months – 1 year including conduct of FS	Contract local or foreign consultants or use own technical capabilities
4. Submit reconnaissance report to DOE		DOE evaluates submitted report and informs the developer of the results
5. If site is feasible, conduct FS	minimum of 6 months	Contract local or foreign consultants or use own technical capabilities
6. Apply for Environmental Compliance Certificate		Apply with DENR
7. Apply for Water Rights permit		Apply with NWRB
8. Negotiate PPA with NPC or ECs concerned		
9. Acquire land		Negotiate with land owner
10. Finalize financing plan		Apply for concessionary loan from donor or financial assistance from financing institutions
11. LGU endorsement		Obtain from LGU
12. Apply for operating contract and accreditation as PSGF or now NPP	Apply with DOE	
13. Tender for construction and installation works and evaluate bids; negotiate and sign contracts	3 months	Proponent tenders for civil construction, electrical works and mechanical equipment supply of turn-key contract
14. Construct scheme	minimum of 9 months	Submit quarterly progress report to DOE
15. Commissioning and test runs	3 months	Conduct test runs with mini-hydro experts
TOTAL TIME REQUIRED	minimum of 24 months	

Above is an outline of the process for private sector participation in hydropower development.

Rights and privileges for minihydro developers

Republic Act 7156 or the Mini-Hydro Law “An Act Granting Incentives to Mini-Hydroelectric Power Developers and for Other Purposes” has granted the following Rights and Privileges for mini-hydro developers:

- Special privilege tax rates – Tax payable by developers/grantees to develop potential sites for hydroelectric power and to generate, transmit and sell electric power shall be 2 percent of their gross receipts,
- Income tax holiday for seven years from the start of commercial operations,
- Tax and duty free importation of machinery, equipment and materials – Exemption from payment of tariff duties and value-added tax (VAT) on importation of machinery and equipment within seven years from date of award of contract,
- Tax credit on domestic capital equipment – For developers who buy machinery, equipment, materials and parts from local manufacturers, tax credit is granted in an amount equivalent to 100 percent of the value of VAT and customs duties that would have been paid to import said machinery, equipment, etc.,
- Special realty tax rates on equipment and machinery – Realty and other taxes in civil works, equipment, machinery and other improvements of a registered mini-hydroelectric power developer shall not exceed 2.5 percent of their original cost,
- VAT exemption – Exemption from payment of 10 percent VAT on gross receipts derived from the sale of electric power whether wheeled via the National Power Corporation (NPC) grid or electricity utility lines

Conclusions

Although the Micro-hydro Law was already passed a few years back and several initiatives have already been undertaken by the private sector, the passage of the EPIRA Law provided the framework for the development and utilization of RE in the country and participation of the private sector. Among the innovative mechanisms introduced by the EPIRA where RE such as hydropower could participate in is to enter as a Qualified Third Party to provide electric

service to remote or unviable areas that the DUs are unable to serve; to manage and operate ECs with hydropower resource through Investment Management Contracts; to collaborate with the ECs in the 14 first wave of NPC-SPUG areas. However, some regulatory activities are currently being fine-tuned. In spite of this, the prospects for hydropower development in the country at present is high due to the worldwide escalation of oil prices and the Government's thrust to attain "Energy Independence" utilizing indigenous resources.

It is at this juncture that private sector participation is encouraged to support the development of a competitive environment that will promote an efficient, reliable and transparent electricity market responsive to consumers needs. Pioneering efforts in this endeavour would greatly contribute, showcase and improve the existing framework to encourage the participation of more private investors in the Philippine Power Market Industry.

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Calendar of activities

19 – 20 December 2005: Dissemination workshop and Training in Hanoi, Vietnam on "Economic Analysis of Sustainable Energy Projects and Programs, using SHP Krong Pa 2 as a case study"

21 December 2005: Team progress meeting focusing on implementation package, Hanoi, Vietnam

15-17 March 2006: Dissemination workshop and Training in Indonesia on "Economic Analysis of Sustainable Energy Projects, using SHP Mikuasi, Sambilambo and Ratelimbong as case studies".

15-16 March 2006: Final IFRERA consortium meeting in Indonesia.

Contacts

For more information about the IFRERA project:
IED France at ied@ied-sa.fr, t.nguyen@ied-sa.fr
ADEME France at stephane.pouffary@ademe.fr
ETC Energy at energy@etcnl.nl
Institute of Energy, Vietnam at lientvnl@hn.vnn.vn
Or visit the <http://www.ied-asean.com> website