

ESMAP Application Form

Project Title: Bolivia – Energy solutions for the poor marginalized communities (in the framework of GVEP follow up)

Region/Country: Bolivia

Task Manager: Dana Rysankova

Implementation Partner (if applicable): Ministry of Public Works and Services - Viceministry of Electricity and Alternative Energy (VMEEA), Bolivia; Ministry of Indigenous Affairs, Bolivia, Ministry of Sustainable Development and Planning, Bolivia, CEDES (Council of Entrepreneurs for Sustainable Development), FINRURAL (a network of rural banking institutions), and organizations representing indigenous people, particularly OECAs (*Organizaciones Económicas Campesinas*).

Expected Dates for Start: March 1, 2004

Expected Dates for Completion: December 31, 2005

ESMAP Strategic Areas:

Energy Poverty	XX
Energy Environment	
Market Development	X

Stakeholder Engagement:

	Yes	No	Date Expected
Client Official Endorsement	X		
Country Director Approval	X		

A brief summary of the project: (Max. 250 words)

The project will support the Government of Bolivia in finalizing comprehensive Rural Energy Strategy and Action Plan for Social Inclusion, a preparation of which was initiated through the ESMAP-financed GVEP-LAC regional activity.

The principal objective of this project is to define critical energy interventions to improve social equity and inclusion and to foster economic opportunities for the rural poor and indigenous.

Electricity coverage in rural areas is extremely low in Bolivia, only 25%. Recognizing the challenge, in 2002 the Government developed an ambitious plan (PLABER – Plan Bolivia de Electrificación Rural). The plan represents a sound basis for a national rural energy strategy, however, the recent crisis have revealed some of its weaknesses, particularly in relation to demand formulation and attention to specific demands of indigenous households. VMEEA wishes to expand and improve

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PLABER by moving from a rural electrification plan to an integrated strategy for delivery of modern energy services in rural areas with a specific focus on:

- Developing special mechanisms to expand provision of modern energy services for rural indigenous households (this task will be accompanied by a small pilot project to demonstrate economic and social viability of the proposed solutions.)
- Introducing multi-sector approach – explore linkages with social and productive sectors and exploit possible synergies;
- Defining better the links to the decentralized governments, and rural communities to ensure a true bottom-up demand formulation and local ownership (this task will be accompanied by a comprehensive capacity-building program for rural communities);

All tasks will be accompanied by an intensive consultation, information sharing and dissemination activities, following GVEP principles of broad participation and consultation. Information exchange and dissemination activities will not be limited to Bolivia, but will be spread across the Latin American region, particularly through exchanges with other GVEP-LAC participating countries – for this purpose an internet-based information exchange platform will be established.

I. Context

(Max. 350 words)

On July 23-25, 2003 Bolivia hosted a regional meeting for the Global Village Energy Partnership – Latin America and Caribbean (GVEP-LAC), which consisted of a two-day conference and one-day regional workshop. The key areas on which the GVEP-LAC activity focused included: (i) enhancing the awareness of the positive impact of modern energy services on reducing poverty and achieving the Millennium Development Goals (MDGs); (ii) exploring demand for energy services, with particular emphasis on social and productive uses; and (iii) identifying linkages between energy and other sectors. On this basis, the eight participating countries (Bolivia, Brazil, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico and Peru) developed their outlines of the National Action Plans to improve the provision of modern energy services to the poor. Bolivia was the first country in the LAC region to embrace the GVEP principles and acted as a leader in the group of participating countries.

Bolivia has a decade-long experience of intensive efforts to improve delivery of energy services to the poor. First, a broad energy sector reform program, including privatization, was implemented in the mid-1990s. The reform improved the overall performance of the energy sector, and achieved important coverage gains in urban areas: (over 90% of urban population has electricity service now), but had only a limited impact on the rural areas. Important coverage gains were achieved through the decentralization process, by which local and regional Governments received funds and responsibilities for rural electrification. Rural coverage grew from 13.7 in 1997 to 25%. However, 25% is still painfully low by regional standards and stands in sharp contrast to the achievements in urban areas. It should also be noted that while the

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scale-up of energy programs in rural areas would appear particularly desirable, it is also extraordinarily costly in the Bolivian context: Bolivia has the lowest population density and one of the most difficult geographical conditions in Latin America. In summary, the challenge is enormous.

Recognizing this challenge, in 2002, the Government of Bolivia developed an ambitious plan (PLABER – Plan Bolivia de Electrificación Rural) to increase electricity coverage in rural areas from 25% to 45% in five years. The implementation of the plan started in 2003 but was paralyzed by the recent economic, fiscal and social crisis in Bolivia. At the same time this crisis has caused the Government to rethink its strategy and revealed some weaknesses of PLABER. While the plan is very sound on the supply side in terms of the overall implementation principles, its main challenge lies in a better understanding and articulation of local demand, particularly understanding of specific needs of indigenous population, and establishing adequate coordination mechanisms with other sectors and development programs. In addition, PLABER considers only the delivery of electricity services. A broader approach considering all range of energy services is needed, including traditional fuels for both household and productive purposes.

The Government wants to take advantage of the momentum created by the GVEP-LAC activity, and introduce more demand-driven, participatory and multi-sectoral approaches to improve PLABER.

II. Objectives and Activities

(Max. 800 words)

The principal objective of this project is to define critical energy interventions to improve social equity and inclusion and to foster economic opportunities for the rural poor and indigenous. This includes

- (i) creating a broader consensus on national rural energy priorities and introduction of a multi-sector approach to planning and coordination.
- (ii) introducing mechanisms to expand energy service delivery for indigenous communities
- (iii) increasing capacity of local authorities and improving coordination between central and local governments
- (iv) expanding the current rural electrification plan to consider non-electrical energy solutions for rural households and industries.

The project will have the following activities:

1. Creating consensus on national priorities and introducing a multi-sectoral approach to energy planning

As discussed above, while PLABER represents a sound basis for a national rural energy plan, there is a need for a comprehensive review of national priorities leading to the formulation of the rural energy strategy and the action plan. The formulation of

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the strategy and priorities must be carried out in a participatory manner, involving all stakeholders, and particularly, local governments, rural communities and indigenous groups. This task will be coordinated by a GVEP national facilitator, hired by the project, and will consist primarily of the following two activities.

- **Revitalization of a GVEP national committee** (“National Partnership for Implementation of GVEP in Bolivia”) that was established for the GVEP-LAC activity and participated in the conference in Santa Cruz. This committee already included some of the key players (see section III – Implementation Arrangements), but it will be strengthened with representatives of the local governments and indigenous groups. The committee will be convened on regular basis and is expected to be a driving force behind the strategy formulation. The committee will follow a multi-sector approach, exploring linkages with social and productive sectors and exploiting possible synergies.
- a **consultation process** involving other stakeholders including other central ministries, departmental and local governments, rural community organizations, indigenous groups, farmer associations, private sector representatives, NGOs, and donors. The consultation process will be overseen by the GVEP national committee, and will be carried out primarily through a series of workshops. Lessons learnt through a similar consultation process in the oil and gas sector in Bolivia will be applied. **Donors** will be involved through periodic consultations.

2. Design a strategy for scale-up of modern energy services for indigenous households

In the context of the overall strategy formulation, a special emphasis on the issue of scale-up of the delivery of modern energy services for indigenous households. The special attention is needed for the following reasons:

- The vast majority of the Bolivian population in rural areas is indigenous (about 90%). To reach indigenous households, special approaches are often needed to overcome social, economic, cultural, and linguistic barriers;
- The rural indigenous households also tend to be the poorest ones. Approaches based purely on subsidy-minimization principles might not effectively reach this segment of population, and they might even increase the gap between the indigenous and the non-indigenous people in rural areas; and
- The recent social unrest has demonstrated the magnitude of the feeling of exclusion and marginalization of the indigenous people. One of the key priorities of the new government is to improve the provision of key economic and social services for both urban and rural indigenous households, both in the short term (specific emergency operations in key target areas), and long term (systematic approach to ensure proper targeting of the indigenous in all Government development programs).

As a part of an emergency response to the recent social crisis, a multi-sector approach is being promoted, under the leadership of the Ministry of Indigenous Affairs to

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ensure a coordinated strategy to improve a service delivery to marginalized indigenous communities. The Ministry of Indigenous Affairs together with VMEEA and representatives of indigenous groups will therefore play a crucial role in this strategy formulation.

The ESMAP activity would assist the Government in developing recommendations for scaling up access to modern energy services by indigenous households. To demonstrate economic and social viability of the proposed options, a small pilot will be implemented. The pilot will pay particular attention to examining barriers (institutional, economic, social, cultural, linguistic etc.) for improving access of rural indigenous population to modern energy services, and will be implemented in cooperation with indigenous organizations. The pilot, specifically, will cover the issues of social and economic acceptance of proposed energy solutions, sustainability issues, maximization of social benefits (community services, health, education) and identification and promotion of small-scale productive uses.

3. Design and implementation of a comprehensive capacity-building program for municipalities and a coordination mechanism

Bolivia is one of the forerunners in the decentralization effort. The broad decentralization reforms implemented during mid-1990s affected also the energy sector. Municipal and departmental governments received funds and responsibilities for rural electrification. Considerable resources were invested by these lower tiers of the Government since then, leading to an increase of the rural electrification rate from 14 to 25%. However, no systematic review of the results and impact of these investments have ever been carried out. Anecdotal evidence suggests problems in terms of efficiency, targeting and sustainability of these investments.

The ESMAP activity will assist the Government in

- Conducting a comprehensive review of municipal and departmental investments in rural electrification in 1997-2003 with a particular emphasis on the issues of targeting, efficiency and sustainability of these investments. The review is expected to provide inputs for the strategy formulation and the design of capacity-building activities for municipalities.
- Design and implementation of a capacity-building program for municipalities. Considering that a simple training is not always the most effective mean (due to high turnover of municipal staff), the component will focus primarily on the development of more structural solutions, such as a permanent “help-desk” for municipalities in VMEEA or other suitable entity, establishment of an information/knowledge sharing network etc. Close coordination will be established with a similar component financed under GVEP-ESMAP scheme for Honduras. Successful experiences from other countries will be integrated.
- Formulation of recommendations for a more effective coordination mechanism between central, departmental and municipal levels. This



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coordination mechanism would clarify policy-making, implementation and oversight responsibilities between these three levels of government, so as to benefit from the economies of scale and technical expertise at the national level, municipal knowledge about local conditions and priorities, and coordination capacity of departments.

4. Development of a policy for sustainable biomass use to meet domestic and/or productive uses

Bolivia has gained many valuable experiences through an implementation of various pilot activities targeting the issue of biomass use, both by households and industries in rural areas (such as through ESMAP-financed biomass program). These experiences, however, have not been used for a formulation of a comprehensive strategy for sustainable use and/or replacement of biomass. As discussed above, PLABER does not address these issues. The Government has expressed a strong interest now to review and systematize the information received through these activities, and integrate recommendations on this subject into the general Rural Energy Strategy and Action Plan. The activity will put special emphasis on health-related issues (indoor pollution), which are not as widely recognized as the environmental impacts. Relevant experiences from other countries, such as from a similar ESMAP activity in Guatemala, will also be incorporated.

5. Action Plan finalization and dissemination

This task will integrate the existing and new sub-sector policies into a comprehensive strategy and action plan to improve the delivery of rural energy services. Once again, the multi-stakeholder committee will play a key role in the process; other stakeholders will be brought in through the consultation and dissemination process. The dissemination will include also a financing meeting with potential investors.

The task will be accompanied by intensive consultation and information sharing activities, both within Bolivia and across the Latin American region, particularly through exchanging with other GVEP-LAC participating countries. For this purpose, an internet-based information exchange platform will be established.

Component Tasks	Outputs to be delivered by each task	Performance indicators (How will the success of each task be determined?)
<i>Task 1:</i> Creating consensus on national priorities and introducing a	<i>Output 1:</i> The “National Partnership for the implementation of GVEP in Bolivia” established.	Multi-stakeholder committee in operation and convened periodically.



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<p>multi-sectoral approach to energy planning</p>	<p>Consultative process and multi-stakeholder workshops to establish and validate plan's priorities and implementation mechanisms.</p> <p>Recommendations for increased effectiveness of rural energy interventions through better coordination with social and productive sectors, including health, education, agriculture and financial sector.</p>	<p>Consultations and workshops carried out</p> <p>Emergence of national priorities for improved rural energy service delivery</p> <p>Better understanding of linkages with social and productive sectors, institutionalisation of the cross-sectoral coordination</p>
<p><i>Task 2:</i> Design a strategy for scale-up of modern energy services for indigenous households</p>	<p><i>Output 2</i> Analysis of the institutional, economic, social, cultural, linguistic and other barriers preventing greater and faster expansion of modern rural energy services in predominantly indigenous areas</p> <p>Recommendation of a strategy to eliminate/reduce these constraints.</p> <p>Pilot design completed.</p> <p>Pilot successfully implemented.</p>	<p>Pilot findings incorporated in the strategy for scale-up of modern energy services for indigenous households</p> <p>Incorporation of the strategy in national rural energy action plan, as well as in the overall Government strategy to improve provision of infrastructure and social services to the poor and indigenous.</p>
<p><i>Task 3:</i> Design and implementation of a comprehensive capacity-building program for municipalities and an efficient coordination mechanism</p>	<p><i>Output 3</i> Comprehensive review of municipal and departmental investments in rural electrification</p> <p>Identification of key target groups for capacity building activities (mayors, community organizations etc.)</p> <p>Review of existing capacity-building activities for municipalities and development of linkages with other sectors</p> <p>Capacity building plan adopted</p>	<p>Identification of relevant experiences to be taken into account and/or integrated in the national rural energy plan</p> <p>Increased understanding of local energy issues and possible solutions by local authorities and communities, and other key stakeholders.</p> <p>Increased capacity at the local level to plan, design and supervise rural energy interventions.</p> <p>Improved coordination</p>

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	<p>Capacity building activities under implementation.</p> <p>Definition of institutional structure for rural energy delivery in decentralized setting.</p> <p>Integration of all inputs in the final national rural energy plan</p>	<p>among the three levels of Government, so as to benefit from the economies of scale and technical expertise at the national level, municipal knowledge about local conditions and priorities, and coordination capacity of departments.</p> <p>Integration of decentralization strategy in the National Strategy and Action Plan</p>
<p><i>Task 4:</i> Development of a policy for sustainable biomass use to meet domestic and/or productive uses</p>	<p><i>Output 4:</i> Review of past pilots and relevant experiences</p> <p>Recommendations for the policy for non-electrical energy (efficient use and substitution of biomass for cooking and productive uses) – setting up priorities, actions and implementation arrangements.</p> <p>Integration of indoor air pollution issues in public health policy</p>	<p>Recommendations integrated in the national rural energy plan.</p> <p>Adoption of national biomass policy</p> <p>Increased awareness of indoor pollution issues</p>
<p><i>Task 5:</i> Action Plan finalization and dissemination</p>	<p><i>Output 5:</i> Integration of sub-sector policies developed through this activity and with assistance of other donors in the final Energy – Poverty Reduction Action Plan</p> <p>Financing meeting with the investors</p> <p>Dissemination of the national rural energy plan in Bolivia</p> <p>Information exchange with other GVEP-LAC countries</p>	<p>Adoption of the National Energy – Poverty Reduction Plan, based on a broader consensus on national priorities and key implementation arrangements.</p> <p>Donor community support to implement the Action Plan.</p> <p>Publication and dissemination.</p> <p>Experiences shared with GVEP-LAC participating countries.</p>

III. Implementation Arrangement

(Max. 500 words)

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Stakeholders and coordination. Bolivia is one of the countries with very active donor involvement. This represents many opportunities, but it also creates difficulties in terms of coordination and atomization of efforts. (For illustration, Development Gateway has estimated that in 2003 there were over 2,000 separate development projects by various donors and private and non-governmental institutions). The GVEP platform, uniting several key donors, would appear a suitable mechanism to confront this challenge. The key local stakeholders, already involved in GVEP Bolivia activity, include:

Implementing Agencies

- UNITAS (national level network of social development NGOs)
- LIDEMA (national level network of environmental NGOs)
- CIOEC (rural economic organizations network)
- AOPEB (Ecologic Producers Association)
- 9 Departmental Prefectures
- FAM (Municipal Governments' Association, representing about 300 Municipal Governments)

Government Institutions

Ministries of: Sustainable Development and Planning, Public Works and Services, Indigenous Affairs, Hydrocarbons and Mining, Agriculture, Finance, Labor (Vice-ministry in charge of microenterprises), Health, Education

Technical Assistance Suppliers and Financing Institutions

- ENERGÉTICA (NGO specialized in energy and development issues)
- CINER (Renewable Energy Documentation Centre)
- The World Bank, UNDP, Bilateral Donors (Dutch and UK Governments)
- CEDES (Council of Entrepreneurs for Sustainable Development)
- FINRURAL (network of rural banking institutions)

All these institutions are expected to contribute to the finalization of the national rural energy action plan. As the first step, a “National Partnership for Implementation of GVEP in Bolivia” will be established and convened regularly. In addition, consultations will be held with a broader group of stakeholders.

Implementation strategy. It is expected that the VMEEA, in cooperation with the local GVEP partners, will take the leadership in carrying out this activity. The Government of Bolivia has shown a strong commitment to rural energy issues and consistent interest in the GVEP approach. Nevertheless, the World Bank team will coordinate closely with the VMEEA and GVEP local partners, and provide assistance in drafting TORs and guiding local and international consultants. Implementation will rely heavily on local consultants, which will be complemented with international consultants for specific tasks, if needed. All activities will be overseen by the “National Partnership for Implementation of GVEP in Bolivia.”

Pilot. The implementation of the pilot will be competitively awarded. The specific design and methodology of the pilot will be developed in the coordination with the GVEP national partners.

Participation and knowledge dissemination. The task will be accompanied by intensive consultation, information sharing and dissemination activities (Task 6

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described above), both within Bolivia and across the Latin American region, particularly through exchanging with other GVEP-LAC participating countries. For this purpose, an internet-based information exchange platform will be established.

Expected capacity building results. The activity will be implemented primarily by the local staff and consultants, with corresponding guidance and assistance by the World Bank staff and international consultants. Therefore, it is expected that the activity will result in significant capacity building and institutional strengthening of local stakeholders. This will be enhanced by the participatory and consultation processes that will permit information and knowledge sharing with a broader group of stakeholders. A specific capacity-building program will be established for municipalities. In addition, an information exchange with other GVEP-LAC participating countries, built into the dissemination strategy of this activity, will facilitate region-wide knowledge exchange and capacity building.

IV. Sustainability & Risks

(Max. 350 words)

Sustainability and replicability: The design of the activity aims at promoting long term sustainability. The participatory approach ensures a broader acceptance of the plan by the stakeholders (both within and outside the Government), and therefore a greater resistance to its changes induced by political motives.

Once the plan is finalized, its priorities and principles are expected to be translated into various rural energy programs of the Government, donors, NGOs and the private sector. VMEEA will play a key coordination role in this respect, as the main entity responsible for rural energy issues in Bolivia, but it will be supported by the donors and the GVEP National Partnership, which is expected to be institutionalised by the end of this project.

Risks: The current main risk is the political crisis and social instability in Bolivia. While this risk cannot be mitigated, the activity helps the Government to address the long-standing gap between urban and rural areas, and the feeling of marginalization of indigenous communities, which have been at the heart of the recent conflicts. The participatory approach will involve rural communities and indigenous organizations, help them understand the energy issues, and allow them to participate in finding appropriate solutions. This should increase local ownership and the chance that the activity will continue even if the current political situation is altered.

The second risk relates to the coordination issues. The existence of such a broad range of stakeholders that should participate in the formulation of the national rural energy plan carries a risk of a coordination failure. To some extent, this risk is inherent in the GVEP partnership approach, and is a price to pay for enhancing local ownership. But, it can be managed through careful planning and monitoring of the consultation process, and a clear division of responsibilities among the individual National GVEP Partners.



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V. Team Composition

(Max. 100 words)

The core WBG team includes:

Dana Rysankova – Task Manager
Kilian Reiche – Sr. Rural Energy Consultant
Vivien Foster – Sr. Economist
Ghislaine Kieffer – Rural Energy Consultant

VI. Additional Comments

ESMAP funds are sought even though there is an existing project (Decentralized Infrastructure for Rural Transformation - IDTR) that contains a rural electrification component. The Government considers the ESMAP-GVEP window as a more appropriate instrument because of:

- Limitations of the IDTR project description, established in the Legal Agreement (the first phase focuses only on electricity, with a particular emphasis on investments in photovoltaic systems, and only in certain geographical areas of the country): and
- The status of GVEP as a multi-donor facility, which enhances trust and openness of local stakeholders and other donors, and facilitates coordination among all participants.