

IPPAN

NOVEMBER 2013

INDEPENDENT POWER PRODUCERS' ASSOCIATION, NEPAL



Dr. Subarna Das Shrestha

Remarks from the President

Three Years as IPPAN President:

It has been three years since I took over the responsibility of IPPAN as a President with an aim to further strengthen the development of Nepal's Hydropower industry entailing private investment. In retrospect, the three years of my presidency at IPPAN had me filled with abundant sense of pleasure and pride at IPPAN's achievements, the impetus we have been able to create in this sector, and the positive contribution in real terms that we have made in this sector. The journey of achieving greater interest in power sector investments in Nepal has been long and painful, but I believe this holds true for all the other emerging economies.

In Nepal, some major strides have been taken in opening up the economy for private sector investment, especially in the development of hydropower projects. Efforts of IPPAN in this direction have always been to enlighten the policy and decision makers to create a conducive environment for private sector investment with sufficient political, legal and regulatory stability along with safe and secure working environment. IPPAN has also worked to encourage the private sector, banks and financial institutions, construction companies and equipment manufacturers so that projects are developed in a technically viable, environmentally friendly, socially acceptable and economically sustainable manner with adequate profitability. After the historical peoples' movement in 2005 there has been only 180 megawatts (MW) added to the national grid - 110 by the private sector (IPP) and 70 by NEA, despite all the rhetoric about harnessing Nepal's water resources for the overall economic development of the country. Presently, the Integrated Nepal Power System (INPS) has an installed capacity on hydroelectricity of 718.5 MW including 240 MW from IPP. At present there are 309 projects being surveyed with estimated capacity of 8553 MW, 74 projects that have applied for generation license to generate 3908 MW, 150 projects that have signed a power purchase agreement with generation capacity of 1982 MW among which 35 projects with 240 MW capacities are in operation and 45 projects with 1163 MW in under-construction and the remaining are in financial closure stage. Independent power producers added about 55 MW to the integrated grid during last three years. I have profound respect and admiration for those IPPs who showed that private sector can also display concrete results despite serious

financial constraints, bureaucratic hassles and policy inconsistencies.

With all these political uncertainties surrounding us, this can be taken as a meaningful achievement, although we can always argue for better. We can actually see the impact that the private sector has made in the overall power sector of Nepal, which is the reflection of IPPAN's efforts and advocacy over the years. We can say with pride that IPPAN is now recognized as a major stakeholder in the power sector of Nepal. The achievements are numerous, and I am proud to have led an organization with focused objectives, consistent approaches, thorough professionalism, sustained advocacy efforts backed by extensive research and analysis and excellent communication efforts and IPPAN Executive Committee Members and IPPAN Secretariat for their thorough professionalism even under duress of short timelines.

Political and legal stability risks, security concern, growing local expectations, lack of interest of financial institutions to fund large projects in Nepal, lack of adequate transmission capacity, lack of access to the regional power markets are causing serious concerns in the minds of potential investors. To make the IPPAN common platform of all the stakeholders I have been putting all my hard work to bring together all IPPs and stakeholders, which has resulted in a significant increment of membership from 39 to 104 since I took over as the President.

Despite the difficult situations, our country is still reeling under the steps of fulfilling its obligation to promulgate the new constitution. Second constituent assembly elections has been conducted success-

Vision of IPPAN

Be the umbrella organization of IPPs that advocates for an investor-friendly environment for power development in Nepal.

Mission of IPPAN

- ▶▶ Lobby for private sector friendly policies, regulations and their prompt and effective implementation.
- ▶▶ Disseminate information through media, seminar, conferences to political parties, government, Officials, civil societies and the people.
- ▶▶ Build capacity of IPPs and related stakeholders.
- ▶▶ Develop linkages for regional co-operation in power Sector.

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Meeting of Private Sector Development Committee (PSDC) of Nepal Business Forum

September 9, 2013

The meeting of the Private Sector Development Committee (PSDC) was held on 9th Sept., 2013 at NBF Secretariat. The meeting was chaired by officiating Chief Secretary of the Government of Nepal Mr. Krishna Hari Banskota. The Co-chairs of the Private Sector Dr. Subarna Das Shrestha, IPPAN Executive Manager Mr. Pashupati Dhungel along with relevant ministries representatives, senior government officials, leaders of business and private sector umbrella organizations and IFC Nepal were present at the meeting.



The meeting made decisions on number of critical issues. One of the issues was the need to put the NBF and its secretariat on a firm legal base. The PSDC had decided to table the needed changes at the next steering committee meeting. The meeting also decided to speed up the process of easing the system of repatriation profits for foreign investors.

One of the main issues which was discussed in the meeting was the VAT subsidy on per MW basis on civil works to increase the competitiveness of the project. Mr. Bishwo Prakash Pandit, Secretary, Ministry of Energy assured PSDC to come up with concrete recommendation on VAT subsidy for hydropower within two months. Dr. Shrestha, from IPPAN informed that the task force in coordination with Joint Secretary, MoE along with Joint Secretary Ministry of Finance already came up with the recommendation of NPR. 10 million per megawatt to be granted to hydropower projects as subsidy of VAT paid on civil construction works. He further elaborated that the VAT paid amount from the IPPs will be refunded by the Ministry of Finance after two months from Commercial Operation Date (CoD)

fully recently. Though the results have started to come up gradually, it is well assumed that the CA will be a mixed of all parties with no absolute majority. Formation of government with mixed parties' representation hopefully will be able to better address all aspects of the peoples' desires. It is a pride of IPPAN that its voice finally gets recognized by all the political parties leading a way for the hydropower development to be considered as a top priority in their election manifestos subsequently making Nepal a prosperous country.

Lobbying and advocacy for promotion of private investment in Nepal's hydropower has been its forte. All of us know that developing hydropower projects in the Nepalese context is not a "smooth ride" at all.

Thanks to IPPAN's consistent advocacy and lobbying for improving the investment climate for the private sector, government has initiated some important measures during the past years in Hydropower sector like re-introduction of income tax holiday for 10 years full and 5 years half from the COD achieved till the end of BS 2075, introduction of PDA to stakeholders and initiation of negotiation with IPPs, measures initiated by MoE to safeguard from financial risk to PPA and under construction projects by providing posted PPA, establishment of Hydropower Investment & Development Company, formulation and establishment of Investment Board to run a smooth deal above 500 MW, refinancing policies introduced by NRB, compulsory lending ratio to energy and agricultural sector in tune of at least 12% of the total loan portfolio, allotment of Rs. 13.5 billion to the construction of major transmission lines of 465 km and about Rs. 12.5 billion to government under construction projects for its timely continuity through the budget allocated for the fiscal year 2070/71 etc.

However, the hydropower development is a long term investment associated with considerably high risks, government should still need to focus on many areas to make the sector vibrant, attractive and investment friendly assuring reasonable rate of return on investment. Some of the areas government needs to concentrate on its agenda are VAT subsidy to the tune of Rs. 10 million per MW to make the projects competitive with some improvement of cash flow for the initial years of operation and as a result offer significantly more tax and revenue by industrialization and commercialization; introduction of market based PPA rate with tie up with CPI index; bankable project development agreement, protection against changes in law, timely and market based PPA rate, waiver of PES and private land substitution policy, establishment of power trading company, independent energy demand study, strengthening of domestic transmission lines and timely completion of cross border transmission lines.

It is heartening to note that IPPAN has some important Research Projects that has greater potentials to promote private sector in a big manner in Nepal's hydropower development.

Harmonization of laws and regulations related to Hydropower: IPPAN with the funding from IFC together with Investment Board did a comprehensive study. The study contained two parts, the first part was those laws and regulations that were under the authority of the government to change and in which immediate actions could be taken and the other were those that were to be recommended for drafting new electricity act. It is important to note here that the draft report was shared with the concerned policy makers of the government agencies and NEA. The final report with two parts as mentioned above will be handed over to the government for appropriate consideration.

Review of Model Project Development Agreement: The Ministry of Energy, asked IPPAN for the review of the model PDA so as to make it investor and lender friendly. IPPAN reviewed the model PDA and handed over the Review Report to Ministry of Energy in July, 2013. The basic objective of the recommendation on the model PDA was to make the project agreements bankable, acceptable to the international practices and appropriately share the benefits and risks of the project. Currency risk in PPA is one of the major areas in PDA that needs to be wisely addressed in order to attract the FDIs.

I have always been an optimist, and was quite optimistic about Nepal's bright future through harnessing of hydropower potential. IPPAN should continue lobbying for power trade agreement with India. It should also persuade Nepal Government to launch intensive energy diplomacy for the SAARC Grid. It will certainly help to optimize the hydro-resources of Nepal and address the acute needs of clean energy of SAARC countries. Nepal could be the one that will be benefited maximum by the SAARC grid

While looking back at those years, when I led IPPAN as its President, I note with pride and satisfaction that IPPAN did move further in its journey towards promoting private sector in Nepal's hydropower development. The model PDA Research Project and Harmonization of Laws Research Project will have a very important role to play to move forward Nepal's Hydropower Industry. I wish to request the new leadership of IPPAN to lobby for the implementation of the recommendations of these two projects.

The Power Summit – 2013 was another milestone in sensitizing the stakeholders in general and policy makers, in particulars about the need for hastening the pace of hydropower development in the backdrop of severe energy crisis. I can confidently admit that Power summit 2013 restored confidence level of investors in the sector. The Power Summit had set a stage where we had identified Four Pillars – in other words four critical elements, of power sector for hastening the pace of hydropower development. We are delighted that the policy makers, developers, experts and bankers have given their deliberations, views and recommendations on these four critical elements. We have come up with action plans on each of these four pillars which are clearly summarized in our report "Beyond the Summit." I sincerely hope that the new President will take forward those action plans recognized by Power Summit 2013 to greater heights.

The announcement of Hydro-Excellence Award-2013 to IPPAN was a culmination of the remarkable achievements that IPPAN achieved since its establishment in 2001. I would like to thank all IPPs and stakeholders who helped IPPAN to arrive at this stage. Also, I would like to thank with deep gratitude to the Royal Norwegian Embassy, Kathmandu, Nepal, IFC, WB, ADB, banks and financial institutions, IPPs, suppliers of equipments for funding our projects and activities.

While I handover the baton to the new leadership at IPPAN, I wish them all the success in their endeavors. I strongly urge the new leadership to remain focused on the objectives of IPPAN, i.e. to support the overall growth of power sector in Nepal, with emphasis laid on increased investments from the private sector. I will not disappear completely from the scene, but I will continue to lend my support and guidance to the new team, as and when necessary, because the road ahead is still long and winding.

IPPAN Delegations meets with Mr. Arjun Kumar Karki, MD, Nepal Electricity Authority (NEA)

September 20, 2013



IPPAN delegation team led by Dr. Subarna Das Shrestha paid a visit to the newly appointed NEA Managing Director Mr. Arjun Kumar Karki, on 20th Sept., 2013. Executive Committee Members, Corporate and associate members of IPPAN were also present during the meeting.

Dr. Subarna Das Shrestha congratulating Mr. Karki drew his attention to resolve some major issues that have been pending since long from the side of NEA, which were:

- Informal halting of PPAs with IPPs above 25 MW.

- Power Purchase Agreement (PPA) Tariff Escalation
- Delay in Super Six PPAs
- PPA Tariff Adjustment
- Expeditious construction of domestic and cross border transmission lines
- Electricity Demand Forecast

Mr. Karki responding to the issues expressed his view stating that NEA is determined to bail out the hydropower projects in an effective manner.

Farewell Meeting with H.E. Mr. Arne Ramslien, Norwegian Ambassador to Nepal

September 23, 2013

A farewell meeting with H.E. Mr. Arne Ramslien, Norwegian Ambassador to Nepal was held at Norwegian Embassy, Kathmandu. Dr. Subarna Das Shrestha, President, Mr. Khadga B. Bisht, Vice President, Mr. Bharat Nepal EC members, Mr. Pashupati Dhungel, Executive Manager, Ms. Missu Bhandari, IMO, IPPAN were also present.

Dr. Subarna Das Shrestha, on behalf of IPPAN appreciated Norwegian people and His Excellency for their continuous support that IPPAN is getting from the very beginning of establishment of IPPAN towards strengthening Nepal's Hydropower through private sectors' involvement. He also acknowledged to His Excellency as being the biggest donor of the Power Summit 2013, and anticipated similar continuous support in the future.



H.E. Mr. Arne Ramslien, Norwegian Ambassador to Nepal expressed gratitude to IPPAN team for this farewell and mentioned that Norwegian government always gives priority to projects that ensure institutional and capacity development that improves investment climate in Nepal.

Transmission System Planning & Expansion in Nepal: Status and Issues

Mr. Surendra Rajbhandary
Director, Corporate Planning & Monitoring
Department, NEA
October 25, 2013

Transmission system provides the necessary link between generation and consumption of electric power. One of the major impediments for development of hydropower in the country is the lack of transmission networks. Planning must take into account various factors whose future is still unknown. Planning a transmission line is often a case of investment for coming generations. A properly designed transmission system provides a good distribution of power flows by avoiding excessive geographic concentrations of generating sources or transmission paths. A



transmission system should have ample margin to allow for contingencies and should deal with the uncertainties of long range forecasts.

Construction of transmission lines faces many hurdles in the work areas. One of the biggest hurdles is the acquisition of Right-of-Way (RoW). The land owners and local people of the project areas do not want transmission lines to pass through their land (not in my backyard). Further, acquisition of RoW is becoming more and more costly. The cost of RoW often exceeds the cost of materials and construction. On one hand, development of transmission networks is vital for the overall development of the energy sector, and on the other optimum development of transmission system has still remained an abstract definition. Under investment limits the use of renewable energy, increases congestion while over investment results in low network utilization. This has caused a dilemma to the transmission planners in NEA.

Key highlights of the presentations were:

NEA Transmission System

- NEA Grid extends from Anarmani in the east to Gaddachowki, (upto the Indian Border) in the west.

- 132 kV : 2129 cct km, 66 kV : 511 cct km
- Substation gross capacity: 1884 MVA
- Total number of grid substations: 42
- Principal voltage of grid is 132 kV. Hetauda-Bharatpur-Bardghat and Duhabi-Anarmani sections on single circuit towers.
- Bardaghat-Hetauda constructed with PANTHER, which has less transfer capacity. (Thermal rating :123 MVA)
- Khimti-Dhalkebar 220 kV, Hetauda-Bharatpur 220 kV, Bharatpur-Bardaghat 220 kV, Kabeli 132 kV Transmission Corridor, Singati-Lamosanghu 132 kV, Dumre-Damauli-Marsyangdi 132 kV, Kusum-Hapure 132 kV and second circuit stringing from Butwal-Kohalpur are under construction.

NEA Transmission Plan

- NEA's Transmission System Master Plan, TSMP 1998 envisages a 220 kV grid to meet future domestic needs and limited export.
- With the increasing participation of IPPs, NEA has stopped updating TSMP except for carrying out grid impact study for IPP projects.
- NEA has revised TSMP basically to ease out evacuation of power to be generated by IPPs.



- No detailed study, generally followed, has been carried out. The plan is based on load flows only.

Revised TSMP of NEA

- NEA already has "10,000 MW in 10 years and 25,000 MW in 20 years" plans unveiled by different governments.
- The ambitious plans to develop thousands of MW

pose serious challenge to transmission planner.

- To address power evacuation problems foreseen, the government and NEA has revised the plan to undertake many transmission links in phase wise manner.
- Plan is silent on how these will be implemented.
- Difficult to implement the plan unless some strong measures for unhindered construction are t

IPPAN ACTIVITIES

Power Summit 2013

26-27 August, 2013

The Power Summit 2013 was organized to primarily hasten the pace of hydropower development in Nepal. The Summit was jointly organized by IPPAN, PTC India Limited and the Non-Resident Nepali Association (NRNA) with the patronage of the Government of Nepal, Ministry of Energy and the Investment Board, analyzed different aspects of hydropower development in the Country and prepared a strategy and direction so as to give momentum to the power sector in the days to come.

The main objective of the summit was to highlight the existing difficulties in the sector and overcome the slowness and accelerate the pace of hydropower development. Hence, its theme was chosen as – **"Hastening Pace of Hydropower Development."**

The contents of the Power Summit 2013 were designed to cover all the major areas such as the political commitments, legal and regulatory frameworks, realistic national electricity demand forecasts, electricity pricing, project financing in infrastructures, construction of transmission lines and managing local expectations. The above issues were covered as four separate categories, entitled as the Four Pillars of hydropower development:





- Projects with local investments and for domestic consumption;
- Projects for Domestic Market with FDI components;
- Export Oriented Projects with FDI and;
- Power Trading, Market Mechanism and Transmission Line.

The summit was inaugurated and addressed by the Honorable President of Nepal Dr. Ram Baran Yadav. Welcoming the summit IPPAN President Dr. Subarna Das Shrestha highlighted the importance of energy for Nepal's economic growth vis-à-vis the Four Pillars. Common political consensus and making Nepal a Hydro-powered country were key focuses in his deliberation. Nepal's imminent personalities such as Mr. Shanker P. Koirala, Minister of Finance, Mr. Uma Kant Jha, Minister of Energy, Dr. Yuba Raj Khatriwada, Governor, Nepal Rastra Bank, Mr. Bishwo Prakash P., Secretary, Ministry of Energy, Dr. Krishna Chandra Paudel, Secretary, WECS, Mr. R.V. Shahi, Former Secretary, Ministry of Power, India, political party leaders and various international energy experts and IPPs shared their views and ideas in this summit.

Relevant stakeholders from Brazil, China, and Czech Republic, France, India, Korea, Nepal, Norway, USA, Russia and other countries for focused discussions on hydropower development in Nepal and key dignitaries of Government of Nepal, India, China, Norway and international agencies had attended the event numbering above 500 participants.

The two days event was divided into technical sessions, panel discussion and plenary sessions. Overall nineteen presentations were made in the technical sessions with two panel discussion sessions and one plenary session.

Topics presented were:

- Domestic Projects: Progress, Issues & Challenges



- Developing Hydropower Projects in Nepal: Civil Construction Perspective
- NEA Electricity Demand Forecast
- Electricity Demand: A Total Energy Perspective
- Systemic & Early Development of Hydropower Project in Nepal: A Case Study
- Financing of Export Projects through WB, IFC, Commercial Bank etc.
- A Bankable Project Development Agreement
- PDA & Harmonization of Laws: GoN's Initiatives
- Electricity Demand Forecasts, Electricity Pricing & Tariff Regulation in India
- Financing Project with Domestic Capital
- NRN Investment in Hydropower Projects: Opportunities and Issues
- Raising Capital for Hydropower Projects: Capital Market in Nepal
- Pre-requisites for Financing Hydropower Projects: Harmonization of Laws
- Experiences and Lessons from Hydropower Investment in Nepal
- Building Political Consensus for Hydropower Development
- Basin-wise Project Planning for Resource for Optimization
- Nine Principles of a Good Hydropower Agreement
- Pre-requisites: Regulatory Issues, Important Barriers, Import Tariff
- Pre-requisites: Opening Electricity Markets, Power Trading Company in Nepal
- Panel discussion topics were
- Meeting Nepal's Domestic Demand &
- Nepal's Hydropower Development: Which direction? (Political Views)

Plenary session was:

- Hastening the Pace of Hydropower Development in Nepal

We are delighted that, policy makers, developers, experts and bankers have given their deliberations, views and recommendations on these Four Pillars. We are honoured to have opinions derived from the prominent political leaders like Pradip Nepal, Gokarna Bista, Gagan Thapa, Pampha Bhusal, Ratneshor Lal Kayastha, Rameshor Khanal etc. The summit further decided to build an action plan on each of these Four Pillars, which is being published as a small booklet called "Beyond the Summit"

The key highlights and the way forward that were defined by the power summit 2013 were:

Defining a clear space for private sector by acknowledging its role in the economy

- Harmonizing existing laws for speedy development of the projects in short term and regulatory reforms through enactment of new acts in a long term.
- Finalizing a bankable Project Development Agreement (PDA)
- Working with banks and financial institutions so as to adhere to international practice on project financing and work towards setting a currency risk mitigation mechanism for foreign currency based investments.
- Making modalities for the management of local expectations and educating the local people on hydropower projects so as to secure plant, property and people.
- Helping political parties make hydropower vision so as to make these vision a part of party's election manifesto and a way of building political consensus on hydropower.

- Establishing an independent transmission company and channelize fund through this company for rapid expansion of national and cross border transmission lines
- Establishing a power trading company and umbrella power trade agreement with India
- Reducing dependency on imported fuel and reduce the share of bio-mass energy through rapid development of hydropower generation and increased end use.
- Increase per capita electricity consumption from a mere 100 kWh to 500 kWh in next 10 years;

We feel that Power Summit 2013 has been strong on substance rather than rhetoric and has raised confidence level of all independent power producers. Now we need to make action plans and time schedule to implement them. For this we shall build trust and open lines of communication among all the stakeholders.

SAARC Seminar on Role of Private Sector in Regional Power Trade

26-27 September, 2013

SAARC Seminar on Role of Private Sector in Regional Power Trade was held in New Delhi on 26th and 27th September, 2013.

The program was organized by SAARC Energy Center, Islamabad- Pakistan in collaboration with Independent Power Producers Association of India (IPPAI).

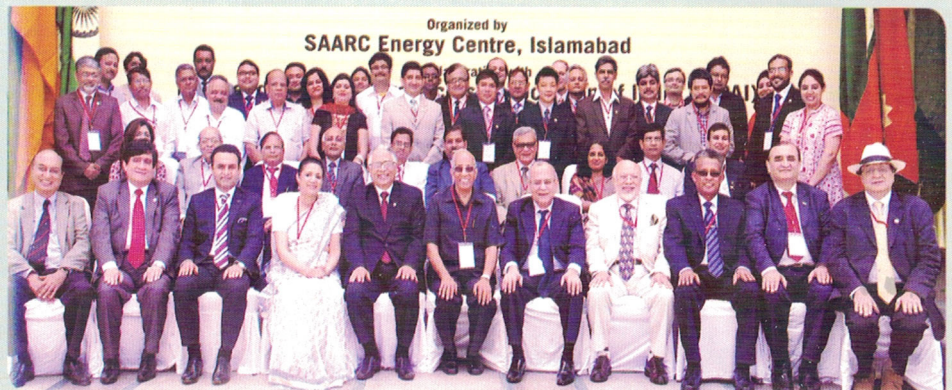
The program was attended by representatives, delegates and high commissioners of all SAARC Nations. HE Ambassadors of Afghanistan, Bangladesh, Pakistan, Sri Lanka and former Ambassador of India to USA Ms. Meera Shankar were also present in the seminar.

The seminar was attended by Mr. Udaya Raj Sapkota, Joint Secretary, Ministry of Energy and Dr. Subarna Das Shrestha, President of IPPAN from Nepal.

The major focuses of two days event were: SAARC grid, transnational trade for energy security of South Asia, SAARC vision on regional energy cooperation, regional power trading in SAARC country's perspective, legal and regulatory issues for cross border exchange and power trade, potential options of power trade (short term, medium term and long term), inter connection securities and safety issues, role of private sectors in power markets of the SAARC region, financing and payment securities, PPA models, common grid codes, wheeling mechanism, power trading agreement, Right-of-Way etc.

Speaking at the seminar Hilal A Raza, Director of SAARC energy center highlighted need of inter governmental energy cooperation agreement, which must include unrestricted cross border trading, non discriminatory open access and power trading in commercial terms etc.

Mr. Harry Dhau, Director General of IPPAI focused on need of fast track building of SAARC grids. Likewise, he also highlighted role of private sector as FRESH AIR in the SAARC Regional Power exchange and trade.



Speaking during the key note address Mr. V.S. Verma, member and acting chairman of CERC, India intimated regulatory requirement of India and its importance to smooth cross border set up of electricity exchange and trading facilities.

A joint presentation by Mr. Udaya R. Sapkota, Joint Secretary MoE and Dr. Subarna D. Shrestha, President of IPPAN Nepal were focused on Nepal's issues, possibilities and challenges during the country presentation session on the power trade amidst the SAARC member nations. The presenter duo highlighted Nepal's water resource potentials to generate clean electricity energy and importance of SAARC grid for Nepal, wheeling mechanism, bilateral and multilateral power trading agreement and India's key role for SAARC grid and eventually its electricity market.

Mr. Devendra Chaudhary, Additional Secretary, Ministry of Power, India, highlighted on the huge need of power to India on a reasonable long term PPA rate. He further highlighted their readiness to purchase electricity but, the seller has to come up with real quantum of electricity that he can offer in a win-win modality. He has focused on long term PPA for better financial closing. He also suggested to all SAARC nations to come up with generation and transmission cooperation methodology

and also pointed out that the power generation is like the goods that need to be brought in the forefront for an economic exchange.

Finally, speaking during the Vote of Thanks, Dr. Subarna D. Shrestha, President IPPAN Nepal, mentioned the greater need of a common SAARC grid, SAARC power pool, legal and regulatory framework, geopolitics, establishment of independent power trading companies in each SAARC nations, umbrella power trading agreement for smooth facilitation of exchange and trading, high voltage transmission linkages, security of payment, currency risk, financial mechanism, export laws, settlement of Right-of-Way issues etc. Similarly, he also focused on the roles and responsibilities of private sector, which could play an important role in managing SAARC grid and also get involved in generation/transmission and trading business provided that each nation sets up clear rules and regulations allowing private sector to come forward.

In the end IPPAN extended their full support and cooperation for the SAARC energy center initiation as well as for its smooth sailing of SAARC regional cooperation on regional power trading and speedy establishment of SAARC regional grid.



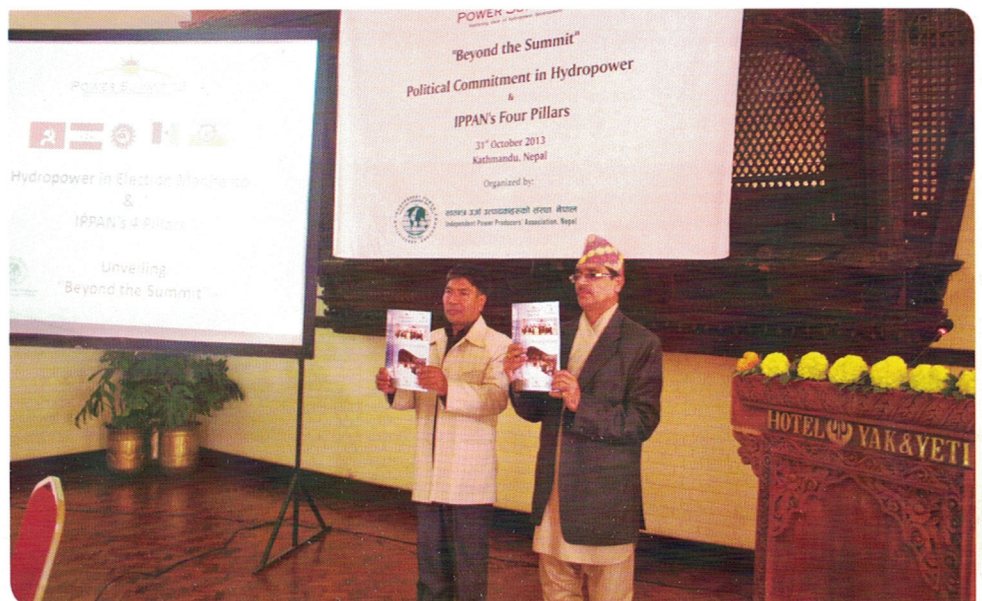
Beyond the Summit - Power Summit 2013 Program

October 31, 2013

IPPAN had recently organized a program entitled "Beyond the Summit - Power Summit 2013" in order to release a document replete with interactions on "Political Commitment in Hydropower & IPPAN's Four Pillars" on October 31st, 2013 at Hotel Yak & Yeti, Kathmandu. The program also included discussions with emphasis on hydropower including political manifestos of different representatives of various political parties and the subsequent release of "Beyond the Summit" document by Mr. Biswo Prakash Pandit, Energy Secretary, Ministry of Energy.

Different political party leaders shared with the participants their visions of hydropower development as laid out in their manifesto. Those present were Mr. Laxman Ghimire, Nepali Congress, Mr. Pradeep Nepal, UML and Mr. Ratneshwor Lal Kayastha, MJFN party. Mr. Ghimire and Mr. Nepal were also former ministers for water resources in different governments formed in the past. All of them underlined the importance of political consensus in Nepal's hydropower development.

On the occasion, Mr. Biswo Prakash Pandit had launched the "Beyond the Summit" IPPAN document. Similarly, Mr. Pandit had also highlighted the importance of Foreign Direct Investment in Nepal's hydropower development and stressed the need for working out the management of foreign exchange risks on the same occasion. He also reiterated that energy sector should be liberalized, WECS should be strengthened and Nepal should switch over from single buyer market to multiple buyer electricity



market. Mr. Pandit also explained that the surplus wet energy should be managed by export of power and Time of Day (ToD) tariff. He also discussed about the expensive energy production of \$ 3000 - 4000 in Nepal and stressed the need to make energy production inexpensive.

Mr. Radhesh Pant, CEO of the Investment Board underlined the need for a win-win situation for the IPP and the government in PDA. Dr. Subarna Das Shrestha, IPPAN President pointed out that the Vision Statement of IPPAN would be meticulously followed up with action plans supported by effective programs. Dr. Shrestha also proposed for total commitment from



all the stakeholders to increase Nepal's per capita energy consumption from 100 kWh to 500 kWh in the forthcoming decade. He further added that the recommendations of the Power Summit-2013 will be consistently followed up with the government and IPPAN will persuasively lobby for its implementation. Dr. Sandip Shah, while delivering Vote of Thanks, underlined the need for seriously increasing the consumption of "Green Energy" since the consumption of petroleum products worth Rupees 100 billion every year is putting Nepal's economy at high risks.

The IPPAN document highlights the Four Pillars, mainly (I) Domestic Projects with Domestic Capital, (II) Domestic Projects with Foreign Capital, (III) Export Projects with Foreign Capital and finally (IV) Power Market plus Power Trading.

The document also mentions about the Transmission Network as an element binding these Four Pillars since electricity network is a cross cutting issue.

Pillars	Issues
1.Domestic Projects with Domestic Capital	NEA shying away from PPA due to its projection of excess energy post 2018 Soft loan or concessionary loans; Need for a fair regulatory regime; FDI inevitable, Sharing of Forex Risks; Domestic Capital mobilization, Capital Market and role of NRNs.
2.Domestic Projects with Foreign Capital	Sources of Fund: Foreign Investors, WB, ADB, IFC, Regional banks, financial institutions; Bankable PPA and PDA, Harmonization of laws, Repatriation of profits, policy predictability.
3. Export Projects with Foreign Capital	Bankable PDA, stable government, strong political consensus, longer concession period, issue of nationality and sovereignty, managing local expectations, etc.
4. Power Market plus Power Trading	Complete first cross border line, synchronize NEA system with Indian system, need for a Power Trading Company, Umbrella Power Trade Agreement with India.
Transmission Network : Cross cutting Issue as a tie beam binding Four Pillars: A separate Transmission Line Company needed	

MEMBER ACTIVITIES

1. Super-six projects are reported to have entered into a PPA with NEA, not only the developers themselves who have suffered two years on this disagreement, but also IPPAN has been very strongly lobbying for having a PPA based on new tariff and investment currency.
2. Upper Trishuli 1, technically an excellent project, that is able to generate large amount of energy even with only 216MW has been able to manage finance and is progressing. IPPAN has been vocal when bureaucratic problems ensued during granting generation licenses.
3. IPPAN has strongly argued against arbitrary licensing procedures and asked the government of Nepal MOE to annul the license fee structure which was raised many folds without any rational justification.
4. IPPAN has put its strong objection to Payment for Environmental Services (PES) arbitrarily imposed without a legal justification. PES is counter-productive and also runs against the royalty estimation.
5. Upper Karnali HEP (a GMR project) has been awarded the cancellation on "Stay-order" verdict imposed on it based on the Public Litigation (PL) filed by certain people of the project area. IPPAN has been vocal against numerous and illogical PLs which were filed against the project and had issued a public appeal on it.
6. IPPAN has participated in WECS on-going Vision 2050 work and made it very clear that electricity demand forecast by NEA is too conservative and an independent forecast shall be based on end user survey, fossil fuel substitution, electricity in transport sector and possibility of wet season energy export should be in arrangement accordingly.



PPA of lower solu.

7. IPPAN has also made written approaches to the National Planning Commission on energy/electricity forecast and also stated that organizations like WECS be made strong and they should be the ones making energy plans for the country.
8. IPPAN members received trainings on concession agreement both in Pokhara, Nepal and Bangkok, Thailand. It is an exercise to make IPP members

capable of professionally negotiating concession agreements and PPA.

9. IPPAN is consistently lobbying on VAT subsidy in civil works @ Rs. 10 million per MW to make the sector competitive. IPPAN, Ministry of Energy and NBF jointly formed a task force and came up with a common consensus, which is in consonance with the Ministry of Finance.

10. IPPAN is consistently raising its voice for automatic PPA tariff increment based on the market. IPPAN and NEA have realized the issue and kept under process for formation of a task force to do their home work on its modality and methods.
11. Refinancing facility given by NRB is another area where IPPAN have had a strong lobbying. However, the time given as 6 months with possible extension is quite difficult for execution so IPPAN is still lobbying for an extended period for the total loan period or its automatic extension on an annual basis.
12. PPA with NEA, timely completion of both domestic and cross border transmission line, PDA, harmonization of law, interaction with politicians for a common consensus, capacity building of IPPs, are a few other areas where IPPAN is putting strong efforts continuously.

Issued Survey license till November 06, 2013 (Source DoED Web Site)

sr. no.	Descriptions	nos	capacity, MW
1	below 1 MW	181	132.184
2	1 to 25 MW	85	496.546
3	25 to 100 MW	22	1381.700
4	above 100 MW	21	6543.000
	Total	309	8553.430

Issued construction license for generation till November 06 2013 (Source DoED Web site)

Projects	nos	capacity, MW
Projects	76	2036.460

Summary of Nepal's Hydropower Projects Status till 20 November 2013

SN	Description	nos	capacity		Remarks	
			MW	Total MW		
A	Total Projects signed PPA with NEA	150		1982.34		
	NEA involved IPP	6	748.3			
	IPPs	144	1234.04			
B	Total Hydro Projects in Operation	86		718.484	100%	
	NEA	51	477.93	66%	Major Hydro, 11 nos	459,150
					Small Hydro, 17 nos	14,244
					Isolated, 23 nos	4,536
Total, 51 nos		477,930				
IPPs	35	240.554	34%			
C	Total Projects in construction	45		1163.374		
	NEA involved IPP	5	726.3		Upper tamakoshi	456,000
Upper Sanjen					14,800	
Sanjen					42,500	
Middle Bhotekoshi					102,000	
Rasuwa gadi					111,000	
Total					726,300	
IPPs					40	437.074
D	Total Projects having PPA, preparing for Financial Closing	70		578.412		
	NEA involved IPP	0	0			
	IPPs	70	578.412			
E	NEA projects in Under-construction	4		136		
	Chameliya	1	30.00			
	Kulekhani III	1	14.00			
	Upper Trishuli -3 A	1	60.00			
	Rahughat	1	32.00			

INTERVIEW

Mr. Keshav Dhoj Adhikari,
Joint Secretary, Ministry of Energy

Q. What are the plans of the Ministry of Energy to solve the energy crisis?

Keshab Dhoj Adhikari (KDA): The country is not currently facing overall energy crisis. However, we now have limited power crisis. Electric power is only one of the many forms and modes of energy. In a hydro-dominated power system like ours, power crisis cannot be resolved within a few months, not even in a few years. We could have got rid of the power crisis within six months by installing diesel plants. We don't have to buy these plants; we can hire them. However, the cost of generation is prohibitive in the order of some Rs. 40 per unit. The consumers, domestic or industrial, cannot afford it.

The Government of Nepal (GON) has short term, medium term and long term plans under implementation for fighting the power crisis. Under short term plan, GON found import as the least cost alternative, and hence prioritized. Apart from that, IPPs have been incentivized to accelerate the implementation of their

small hydropower projects. If one completed a project before the end of 2071VS, he would get increased PPA tariff for some time and also loan with concessional interest rate. There are tax incentives for developers that complete projects before the end of 2075VS.

Under medium term plan, various hydro projects are under implementation under private as well as public sector investment. Their capacity ranges from a few megawatts to several hundred megawatts, as for instance 456 MW Upper Tamakoshi Hydel Project. The projected scenario is such that by 2017/2018 AD, we will have surplus power during wet season. As implementation of long term plan, GON is promoting large hydro projects, especially those with storage facilities. Budhi Gandaki, Nalsingh Gad, Uttar Ganga, West Seti, etc. are to name a few, which are in the advanced stage in the pipeline. Besides, Export oriented projects with foreign investment are also under consideration. These projects would contribute to domestic power system by providing parts of generated energy, free of cost or otherwise, in the shorter term and by total transfer of the projects after the concession term.

Q. Government of Nepal has allocated 30 billion Rupees for the energy sector. Can you please tell us for which projects and activity they will be used this year?

KDA: The Rs. 30 billion budget is for all the ongoing public sector power projects. I doubt citing a list of power projects would be relevant now. Realizing that transmission line bottlenecks have constrained many generation projects, even when IPPs are eager to invest, the budget has prioritized development of different transmission corridors, such as Koshi, Solu, etc.

Q. Power transmission is identified as the bottleneck for the development of hydropower projects. What are the plans and actions taken by the ministry to strengthen and for the construction of new transmission lines?

KDA: Yes, as I said just a moment ago, transmission line has remained a major constraint in Nepal's power sector. We find investors, domestic and foreign, willing to develop hydroelectric generation projects, but on account of transmission line bottlenecks

and inadequate overall capacities, Nepal Electricity Authority is not in a position to readily enter into PPAs with the IPPs. The utility itself is incurring huge loss due to transmission line bottlenecks.

For the above reason, GON has equally focused on various transmission line development. You may know a new 400 kV and 220 kV transmission line is under implementation between Inerwa and Bardghat under the World Bank funded Nepal-Indian Electricity Trade and Transmission Project. Likewise, in the western sector also, capacity is being increased by stringing the second circuit. Along the north-south direction, there are several transmission lines in various stages of development. The 132 kV Kabeli corridor line is being implemented. Funding has been arranged for the 220 kV Koshi corridor, 132 kV Solu corridor and 132 kV Lekhnath-Modi lines from the Indian Exim Bank. Likewise, ADB is prepared to invest for the Marsyangdi and Kali Gandaki corridors. Thus it is only a matter of timing. We'll have our transmission network with much more enhanced capacity within a five year time period.

Q. What is the status of first Cross-border Transmission Line and what is the target date of its completion?

KDA: As you know first cross border transmission interconnection (400 kV Dhalkebar-Muzaffarpur transmission line) has two components, each on either side of the international border, to be implemented by two separate companies. Contractors have already been selected for the two components and the two companies are about to sign the contracts. The cross border interconnection is scheduled to put under operation in July, 2015.

Q. What is the status of second Cross-border Transmission Line?

KDA: I want to refer you to my answer to your earlier question, where I said that in four to five years' time from now we would be having surplus power during wet season. Even in such situation, we would be having power deficit during dry season. Cross border power trade could be a measure to offset such seasonal imbalance of power supply. GON has proposed to the Government of India that a second cross border high voltage transmission interconnection be developed on G to G basis. The Indian side has responded positively on the proposal and asked for the preliminary details. Meanwhile ADB is also financing feasibility study of the second cross border transmission interconnection. The cross border line will be developed somewhere between Bardghat in Nepal and Gorakhpur in India.

Q. We were also talking about an umbrella power trade agreement with India. What is its status?

KDA: Nepal sent a draft Memorandum of Understanding on the Power Trade Agreement about three and half years ago to India for the latter's review. We have been following up the matter in different forums. However, we have yet to hear from the other side on the MOU.

Q. A Pre-construction Period should be there in addition to the license period. What does ministry think about that?

KDA: Of late the Ministry of Energy has been issuing generation licenses for hydropower projects for a period of 35 years in case of domestic projects following a provision of Hydropower Development Policy, 2001. It



can be as long as 50 years though in accordance with Electricity Act, 1992. The period includes construction period. Concession term longer than 35 years has a very limited effect on the financial parameters of a project. Hence, a longer concession term is not really in the interest of IPPs and it's not in the interest of the Government either. For pre-construction preparatory works, a separate five year period, known as survey license period, is already there.

Q. As a ministry level committee was formed for VAT exemption from construction materials and the report was handed over to the Energy Minister with recommendation that a one-time subsidy of NPR. 10 Million per megawatt of generation capacity be granted to hydropower projects as subsidy of VAT paid on civil construction work within two months of request after Commercial Operation Date (CoD.) However, the report is still not forwarded to Ministry of Finance for the implementation. Why?

KDA: The Ministry of Energy has yet to make a decision on the recommendations in the report you are referring to. The ministry has not rejected the recommendations either. Hence, it is difficult to speculate the outcome at this point of time.

Q. IPPAN had reviewed the PDA template to make it investor and lender friendly and handed over to the Ministry of Energy with recommendations. What is the status of PDA as many projects financed by foreign direct investment (FDI) are waiting for long time for Power Development Agreement?

KDA: IPPAN committed an error by not consulting us while conducting a review of the PDA template. We ourselves had already moved far ahead of the PDA template incorporating most of the private sector

investors' concerns. Anyway, we have gone through the review report and we'll do it again to find the constructive suggestions to be used.

Q. What are the reasons for delay in signing the PDAs and how long will they have to wait for PDAs?

KDA: No developer could complete the prerequisites so that the ministry could initiate PDA negotiation, leave aside signing of the PDA. Recently, after relaxation of a couple of stringent conditions by the Government, one developer is qualified for negotiation. We'll invite the developer for negotiation very soon, in a mutually convenient time, within a month. We'll invite every other developer, which completes the prerequisites.

Q. IPPs are concerned for financial health of NEA. What are the plans to improve the financial health of NEA?

KDA: Financial health of NEA is more of a concern of NEA itself and the Government than it is of IPPs, because the Government can never afford collapse of NEA, and for that matter, collapse of the country's power sector.

NEA's poor financial health is attributed primarily to: i) excessively front loaded PPA tariff structure in some of the IPP projects; ii) actual cost of electricity not being passed on to the end consumers in absence of an independent regulator; and iii) NEA itself implementing financial less attractive hydropower projects, whereas the more attractive ones being implemented under subsidiary companies having NEA employees' shares thus creating a serious condition of conflict of interest.

Naturally, NEA's financial health can be improved by offsetting the above conditions. We in the ministry are making efforts to do so.

UP-COMING EVENT

ICH-IPPAN seminar on "Hydropower Financing and Risk Management"

International Centre for Hydropower (ICH) and Independent Power Producers' Association, Nepal (IPPAN) are going to organize jointly International Training Course on "Hydropower Financing and Risk Management" from January 27th – 31st, 2013 in Jungle Safari Lodge, Sauraha, Chitwan, Nepal. The course is tailor-made for senior officers and executives with responsibilities in the financing aspects and

decision-making processes related to hydropower projects. About 25 participants from different financial sectors are expected to participate in the 5 day residential course.

The course will be an introduction to Hydropower Financing and Risk Management. It will provide participants with insight into the various aspects of

Hydropower Financing and Risk Management and will give a basic understanding of the components that are necessary for a successful project and the development of a country's hydropower resources.

The course will utilise resource persons with wide experience from the Norwegian and international hydropower industry and development.

NEWS FROM MEMBERS

Consult Hydro news of Oct - Nov. 2013 



Contract signing with Dudh koshi HEP (NEA/BGDC/TEF)



Tripartite Agreement signing

Jade Consult Pvt. Ltd. and Dudhkoshi Power Company have signed the contract Agreement to carry out detail Engineering design and Bid Document preparation on 24th of Oct. 2013.

Jade Consult Pvt. Ltd. has obtained the ISO 9001:2008 quality certifications on Oct 03, 2013 from BM Trada. The Scope of certification is "To provide consultancy services for hydropower, transmission line, road and civil structure projects".

The Tripartite Agreement signed between Nepal Electricity Authority (NEA), Budhi Ganadki Development Committee (BGDC) and Tractebel Engineering SA France (TEF) to carry out ongoing Budhigandaki HEP study on 10 Nov. 2013. Originally the contract was signed with NEA on 02 Dec. 2012, after that Government of Nepal formed development committee to implement the project in fast track. Jade Consult is working as an association with TEF and is responsible for the all local investigation and to provide Consulting Services for the Feasibility Study and Detailed Design of Budhigandaki Hydropower Project.



ISO 9001:2008 Certification to Jade Consult P. Ltd.

Commercial Operation of Aankhu Khola -1 HPP

Aankhu Khola -1 Hydropower project located in dhading district has started its commercial production from Bhadra 8, 2070. The capacity of project is 8.4 MW and the generated electricity is transmitted to Dhading Besi substation of Nepal Electricity Authority through the 13 KM long Transmission line constructed by the company. The project has more than 200 promoters with more than 50 promoters from Dhading district. The project is financed by consortium of Prime Commercial Bank, Sunrise Bank Ltd., Machhapuchhre Bank Ltd., Kist Bank Ltd, Rastriya Banijya Bank Ltd. and Kasthamandap Development Bank Ltd.

NAME LIST OF IPPAN MEMBERS

Corporate Members

S.No.	Name of Company	Tel/Fax
1	Bhote Koshi Power Co. Pvt. Ltd.	4270027/ 4273516
2	Butwal Power Co. Ltd.	4784026/ 4780994
3	Himal Power Limited	5521864/ 5536411
4	Himtal Hydropower Company Pvt. Ltd.	5260259/5260773
5	Lamjung Electricity Devt. Company Ltd.	4232748/ 4232749
6	Molnia Power Ltd	4436027/ 4419703
7	Sanima Hydropower (P) Ltd.	4446442/4441277
8	Annapurna Renewable Energy (P) Ltd.	4414519
9	Khudi Hydropower Ltd.	2053003
10	Himalayan Hydropower Pvt. Ltd	4441216/ 4441217
11	Rairang Hydropower Devt. Co. Pvt. Ltd.	9757009243, 5111015, 5111016
12	Mai Valley Hydropower Pvt. Ltd.	2052566/ 5522869
13	Manang Trade Links (P) Ltd.	4441131/
14	Balephi Hydropower Company Ltd.	4224074/4266133
15	IDS Energy Pvt. Ltd	4169116/4238496
16	PAN Himalaya Energy Pvt. Ltd.	4244352/4225685
17	Pashupati Energy Dev. Co. (P) Ltd.	4422803/4433610
18	Tundi Power Co. Pvt. Ltd.	5548573/5555574
19	Muktishree Pvt. Ltd.	4258339/4258338
20	Cemat Power Dev. Co (P) Ltd.	5539891/5539792
21	Ru Ru Jalbidhyut Pariyojana Pvt. Ltd.	4357563/4389703
22	Radhi Bidyut Company Ltd.	4234849/ 4234850
23	Upper Maiwa Hydropower Pvt. Ltd.	4033750/4033755
24	Upper Madi 0 Hydro Pvt. Ltd.	4033750/4033755
25	Super Khudi Hydropower Pvt. Ltd.	4033750/4033755
26	Unique Hydrel Co. (P) Ltd.	4033750/4033755
27	Shikhar Hydropower Co. Pvt. Ltd.	4033750/4033755
28	Ankhu Hydropower (P) Ltd.	4033750/4033755
29	Annapurna Group (P) Ltd.	4229222/
30	Grid Nepal Company Pvt. Ltd.	4442049/4436585
31	Welcome Energy Devt. Co. (P) Ltd.	9851095497
32	Nepal Hydro Developer Pvt. Ltd.	4441131/4441973
33	Dordi Khola Jalabidyut Co. Ltd.	4234849/ 4234850
34	Himalayan Power Partner Pvt. Ltd.	4002801
35	Naulo Nepal Hydroelectric Pvt. Ltd.	4428299/4428299
36	Numbur Himalaya Hydropower Pvt. Ltd.	4225009/4248695
37	Global Hydropower Associate Pvt. Ltd.	4268589/4248695
38	Nasa Hydropower Pvt. Ltd.	4244352/4225685

S.No.	Name of Company	Tel/Fax
39	Rara Hydropower Devt. Co. Pvt. Ltd.	4033016
40	Sanima Mai Hydropower Pvt. Ltd.	4446442/4441277
41	Tara Energy Pvt. Ltd.	5555707/5555701
42	Nimrung Hydropower Co. Pvt. Ltd.	4102651
43	River Falls Hydropower Devt. Pvt. Ltd.	16219566
44	Nyadi Group Pvt. Ltd.	4102651
45	Baishno Devi Hydropower Co. Pvt. Ltd.	4228816
46	Synergy Power Development Pvt. Ltd.	4440433, 9851003846
47	Energy Engineering Pvt. Ltd.	4478225, 9851015956
48	Upper Mai Hydro Devt. Pvt. Ltd.	5010631/5522869
49	GMR Upper Karnali Hydropowr Ltd.	5260259/5260518
50	Lower Arun Hydro Electric Pvt. Ltd.	4247237
51	Sinohydro-Sagarmatha Power Co. (P) Ltd.	4284418
52	Essel - Clean Solu Hydropower Pvt. Ltd.	4423286/4260266
53	Chirkhwa Hydropower Pvt. Ltd.	4033016
54	Mailun Khola Hydropower Co. Pvt. Ltd.	2001348/4419703
55	Liberty Energy Hydropower Co. Ltd.	4238241/4226946
56	Sikles Hydropower Pvt. Ltd.	061-523557/061-523593
57	Hira Ratna Hydropower Pvt. Ltd.	4424619/4226330
58	Ambeshwor Engineering Hydropower Pvt. Ltd.	5000075/5000300
59	Alliance Power Nepal (P) Ltd.	4429533/4425363
60	Jumdi Hydropower (P) Ltd.	9841447281
61	Mount Kailash Energy Company Pvt. Ltd.	4387869/4350870
62	Daraudi Kalika Hydro P. Ltd.	4439152
63	C.E.D.B. Hydro Fund Ltd.	4261827/4260266
64	Nepal Water & Energy Development Company	4412257/4412557
65	Kalanga Hydro Pvt. Ltd.	4377462/5551546 5552905
66	Eastern Hydropower (Pvt.) Ltd.	5550587
67	Sanvi Energy Pvt. Ltd.	5522953/5532860
68	Dovan Hydropower Pvt. Ltd.	9851125161
69	Triyog Energy and Development Pvt. Ltd.	5528571
70	United Modi Hydropower (P) Ltd	4770886/4770884
71	Bhairabkunda Hydropower Pvt. Ltd.	4420108/4418131
72	Tamor Sanima Energy Pvt. Ltd.	4415022
73	Panchthar Power Co. Pvt. Ltd.	5251003/5251004
74	Idi Hydropower Company Pvt. Ltd.	9851018118
75	Ankhukhola Jalvidhyut Co. Ltd.	4102049
76	Sunrise Hydropower Pvt. Ltd.	+911147624100

Associate Members

S.No.	Name of Company	Tel/Fax
77	Shangrila Energy Ltd.	4431545/ 4439267
78	Clean Energy Development. Bank Ltd.	4671444/ 4277013
79	Klen Tech Pvt. Ltd.	4218888/ 4430396
80	SN Power	5521864/ 5536411
81	Nepal Hydro & Electric Ltd.	4785136/ 4781851
82	ICTC Pvt. Ltd	4434895/ 4434937
83	Himal Hydro & General Construction Ltd.	5000064/ 5000211
84	Hydro Solutions Pvt. Ltd.	4033751/4033755
85	Jyoti Bikash Bank Ltd.	4411116/4442192
86	Nabil Bank Ltd.	4227181/4226905
87	Himalayan General Insurance Co. Ltd.	4231788/4241517
88	Standard Chartered Bank Nepal Ltd.	4782333/4780762
89	Bank of Asia Nepal Ltd.	4263212
90	Sanima Bank Ltd.	4428979/4428969
91	Sunrise Bank Ltd.	4004560/4422475

S.No.	Name of Company	Tel/Fax
92	Nepal Investment Bank Ltd.	4225273/4245688
93	ACE Development Bank Ltd.	4441110/4445554
94	Feedback Ventures Nepal Ltd.	4240424/4248640
95	Qiankang Allonward Hydro-Equipment Co. Pvt. Ltd.	4228816/4223570
96	Structo Nepal (P) Ltd.	5521192/5542118
97	Siddhartha Bank Ltd.	4442919/4442921
98	Laxmi Bank Ltd.	4444684/4444640
99	Grand Bank Nepal Ltd.	4168605/4168609
100	K-water (Korean Water Resources Corporation)	4442117
101	Jade Consult Pvt. Ltd.	4247237/4232171
102	Mahavir Shree International Pvt. Ltd.	4110860/4110855
103	GCE Group Pvt. Ltd.	4222202
104	Ghatal Trading & Suppliers Pvt. Ltd.	4467461
105	NRNA NCC Russia	+7255093999

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