SUMMARY OF PROJECT DESIGN DOCUMENT (PDD)

Name of Project: The 84 MW New Bong Escape Hydropower Project (Version 06).

Objectives:

- To generate electricity for supply to national grid using clean, renewable and sustainable hydropower.
- To help in achieving the objectives of combating climate change under by UNFCCC by reducing significant amount of greenhouse gas (carbon dioxide) emissions.

Date of Submission: 3rd April 2007

Submitted by: Laraib Energy Limited, Pakistan

Project Sponsors: Laraib Energy Limited, Pakistan.

Co-sponsors

1. Government of Azad Jammu & Kashmir (GoAJK).
2. Loan from banks.

Total Project Cost:

Construction Cost	**Million US$**	**Million US$**
Engineering Procurement Contract (EPC) Land development and environment Customs duty	109.10 2.50 1.30	
Total Construction Cost		**112.9**
Soft Cost		
Management and development cost to financial close Lenders fees, advisors and agents Feasibility, technical studies and Consultancy Administration, construction management and insurance during construction O&M Mobilization	6.99 4.40 2.74 6.89 1.75	
Total Soft Cost		**22.77**
Total cost before contingency and IDC		**135.67**
Contingency	5.00	
Total cost after contingency and before IDC		**140.67**
Interest During Construction	7.88	
Total Project Cost		**148.55**

Estimated Emission Reduction:

Source	Tons of CO_2eq/ yr
Alternate Electricity Generation (Hydropower)	218,973
Total annual reduction:	**218,973**

Operational Lifetime:

21 Years

Starting/Commissioning date:

30th April 2007 (commissioning date: 31st December, 2009)

Crediting/Validity Period:

- Kyoto first commitment period: 3 years (2010– 2012)
- Estimated validity period (including Post Kyoto period): 21 years (2009– 2030)

Economic Viability of the Project:

Internal Rate of Return (IRR):

Without CDM benefits: 14.44%
With CDM benefits: 17.22%

Benefits from the Project:

Activity	**Revenue (US$ million)**
Sale of 84 MW Electric Power to National Transmission and Dispatch Company (NTDC) (@Rs. 2.82/KWh):	25.24
Sale of Carbon Credits (@ US$ 15/tonnes of CO_{2eq}):	3.3
Total estimated annual revenue:	**28.54**

Other Qualitative Benefits:

- The project activity will improve the local economy through creation of employment opportunities during construction and operational phase.
- Will help in improving the skills for local inhabitants through training and capacity building in the project contributing to growing technical advancement.
- Project activity will reduce the poverty in an economically depressed region with a very little industry and high unemployment.

- It will reduce the carbon emissions by replacing oil fired and future coal based thermal power and thus mitigating environmental pollution with positive spin off for community health.

- The project will assist in improving social infrastructure and public amenities in the area by constructing a new medical clinic and improving an existing school.