

Barpak Project - HAC Proposal

SESDC has submitted a proposal (June 2017 - *not yet awarded*) to HAC for \$29,700 to support modernization of the Barpak Micro-hydro Mini-grid.

- 133KWP MHP in Barpak, 8 hrs from Kathmandu
- 1470 Households, rural enterprises
- Recently rehabilitated following earthquake



Challenge:

- Continued load growth will reduce availability/ reliability of the MHP without intervention
- Medium term issue which many other grids may face after 10+ yrs of operation.

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Objectives

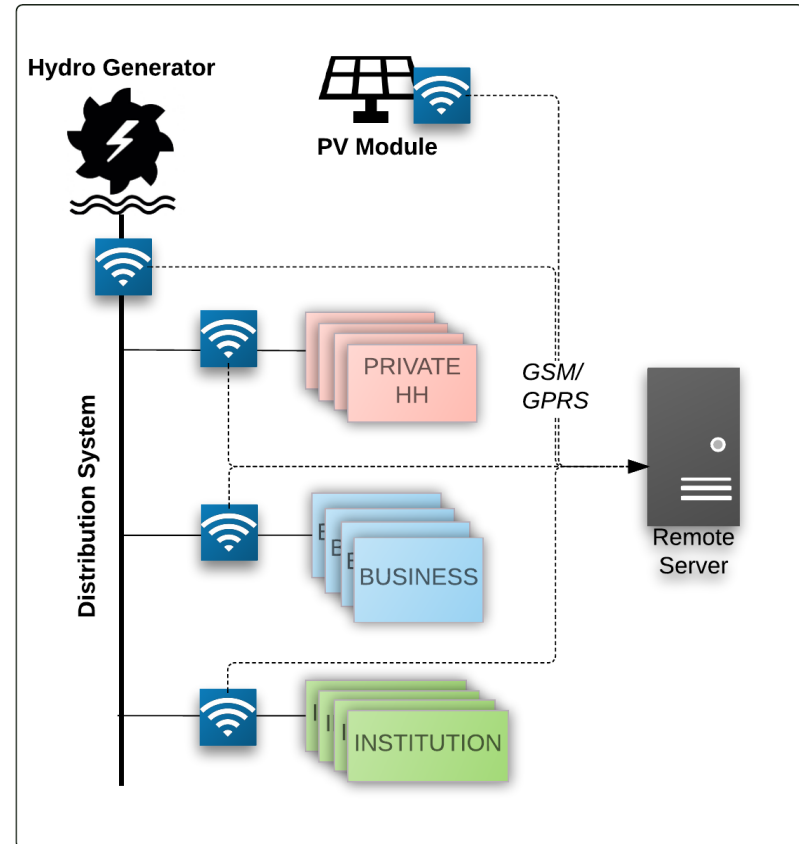
- Improve understanding of energy use at select customer classes
- Identify potential complementary renewable resources which could be implemented
- Improve load factor through dynamic time of use tariffs
- Build local capacity to install, maintain data systems (smart meters)
- Produce practical learning for the sector



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Approach

- Multiple partners with SESDC leading the effort: University of Strathclyde, Smarter Grid Solutions, BRE (local grid operator), Global Himalayan Expedition
- Strong local engagement
- Collaborative research on:
 - Future Grid Expansion
 - Renewable Resources
 - Financial performance of MHPs
 - Energy Use Profiling
- Impact
 - For Barpak MHP: improved ability to manage load factor, improved financial reporting will support grid managing and scaling opportunities
 - For Sector: Improved understanding of how to appropriately manage growth of system



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SESDC Members are encouraged to get involved!

Please contact Peter Dauenhauer (peter.dauenhauer@gmail.com) with your interest.