

Donor country Canada			
Project/programme title VLH turbine collaboration			
Purpose To demonstrate the economic viability, energy efficiency and fish friendliness of the Very Low Head turbine technology for very low-head small hydro applications (heads less than 3 meters) in Canada and the United States of America.			
Recipient country U.S., Canada	Sector Energy (hydro power)	Total funding \$610,000 (GoC, includes in-kind) \$2,190,000 (CDN project partner leveraging) \$1,180,000 (US contribution)	Years in operation 2009-11
Description <p>Under the Security and Prosperity Partnership, Canada and the United States of America are collaborating on research aimed to advancing very low head hydropower technology and its applications. The Very Low Head Turbine, owned by MJ2 Technologies S.A.R.L. of France, is an innovative and cost-effective technology that allows the development low head hydro sites with very limited impact on environment. This clean, renewable technology was collaboratively developed by Canada and France.</p> <p>Although Canada and USA have significant very low head hydro potential (over 1100 MW), only a small percentage of it has been developed, mainly because the sites are not economical to develop with existing low head technology. In addition, the lack of development of the technology is associated with two other key challenges: the environmental mitigation and regulatory requirements associated with all hydropower projects. This project will focus on: 1) the demonstration of the VLH technology on a Canadian site with about 500 kW of installed capacity, and, 2) the engineering studies for the VLH turbine system and selected sites in Canada and USA. In Canada, the project team has identified several sites that have good potential for the demonstration purpose and will determine a best one for the demonstration purpose; in the USA, a site identified on the Mississippi River will be used for the engineering studies purpose. The information and experience accumulated throughout the implementation of the VLH turbine technology in Canada, as well as the results of engineering studies will be shared with engineering firms, sites developers and participating government agencies in Canada, USA and Mexico through regular meetings and a final trilateral workshop for the project.</p>			
Indicate factors that led to project's success This project is ongoing			
Technology transferred Very Low Head Hydraulic Turbine			
Impact on greenhouse gas emissions/sinks			