

Technology Fact Sheet for Mitigation

Technology	Description	Benefits	Challenges
Small Hydro ⁱ	Small hydro power uses the flow of water to turn turbines connected to a generator for the production of electricity. Small hydro is divided into further categories depending on its size, such as mini- (less than 1000kW), micro-hydro (less than 100kW) and pico-hydro (less than 5kW). Generating costs for mini hydro, micro hydro, and pico hydro range as follows 5-12, 7-30, and 20-40 US\$ cents/kWh respectively and corresponding investments range between 1600-3500 US\$/kW.	Useful source for electrification of isolated sites mainly in rural areas where national grid cannot be reached cost effectively. May provide an extra contribution to national electrical production for peak demand. Substituting traditional fuels by a switch to electricity can reduce air pollution, improve health and decrease social burdens, (e.g. from collecting firewood). The electricity can be used to increase income generating activities. Job creation	The challenge for small hydro implementation is the need to have innovative financing mechanism aimed at leveraging the relatively higher electricity generating costs compared to big hydro. Lack of detailed resource potential assessments .

ⁱ This fact sheet has been extracted from TNA Report – Technology Needs Assessment and Technology Action Plans For Climate Change Mitigation– Zambia. You can access the complete report from the TNA project website <http://tech-action.org/>