

**UHT**

13 July 2013



*Urban Hydro Technologies.*

*Applicant: Envicons S.r.l.*

*Project Duration: 12 Months*

*Project Partners:*

- **Capetti Elettronica**
- **Ambiente e Paesaggio S.c.a.r.l.**
- **Politecnico di Torino - DIATI**

The feasibility study aims to develop new types of plant layouts that make possible the installation of mini and micro hydropower stations in urban area, with the perspective of functional recovery and income generation of the old unused channels today, preserving the aspect of cultural and architectural values while maintaining the landscape and biological values.

- Definition of one (*or more*) layout for central plant mini (*and micro*) hydropower plants suitable to be easily installed in pipelines weakly closed and tilted to accommodate different types of turbines (*to be chosen on a case by case depending on the characteristics of the hydraulic jump and the extent available*);
- Conceptual design of electro-mechanical equipment (*rakes, gates, control system levels*) suitable to be installed on urban area ducts, with particular attention to reducing the footprint and economic sustainability;
- Analysis on environmental feasibility with synthetic evaluation of pressure sources (acoustic climate, vibration, etc.). Works in the urban context of the project, analysis of construction area;
- Preliminary design of control and monitoring systems of the plant operations and their safety, suitable for the conditions of underground urban location;
- Evaluation and design of control and warning system for exceptional conditions and management of the critical case with network overload.

<https://www.enermhypiemonte.it/progetti/30>