



ReUseHeat proposal for a Credit Facility for Urban Waste Heat Recovery Projects

“How to ensure waste heat recovery investments?”

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Bankability

“Bankable: project or proposal that has sufficient collateral, future cash flow, and high probability of success, to be acceptable to institutional lenders for financing” (BusinessDictionary.com)

“Where the project is to be financed through limited or non-recourse project financing, Lenders will demand a great deal of outcome certainty in terms of time and cost because their security is heavily reliant on sufficient and timely revenue from the operation phase” (PWC)

“Some of the key technical risks that need to be allocated and managed to ensure the successful financing of the project are: Construction and Completion Risk (CAPEX, delays, ...), Operating Risks (performance, ...), Demand Risk (competitors, ...)” (World Bank)

Key is risk minimization

Main Bankability Criteria

Technical:

- stable availability of waste heat source
- maturity of technical solution → availability of success cases / importance of pilot projects
- existence of infrastructure → e.g. integration of UWHR in existing DHC systems
- clearly defined investment cost structure → link with business model criteria
- consistency of project implementation time schedule

Financial model:

- profitable ownership model → interactions among public/private sector
- low uncertainty on CAPEX → link with technical criteria
- low uncertainty on OPEX and revenues → link with contracts criteria
- clear legal and permitting framework → avoid project implementation delays

Barriers and Needs

- need of pilot projects to:
 - demonstrate technical feasibility
 - prove economic profitability
 - collect monitored performance data on all project phases
 - generate technical and non-technical knowledge
- need of including UWHR in national and local regulations and strategies:
 - easier, faster, standard permitting process
- need of dedicated incentives, guarantees or public funding schemes:
 - e.g.: UWHR Credit Facility

UWHR Credit Facility

General Features

- funds from National/Supranational Entities or Institutional Banks (long-term financing – this part can be avoided if liquidity is not an issue for Commercial Banks)
- credit guarantee fund by same Entities to cover technology/source-related risks
- implementation through one or more Commercial Banks in the EU (primary loans between funding entity and commercial banks – if needed, secondary loans between bank and project promoters)
- support of a Project Consultant to funding body and Commercial Banks

UWHR Credit Facility Proposed Project Cycle

- application by project proponent to commercial bank
- preliminary creditworthiness decided by commercial bank
- preliminary eligibility check by project consultant
- technical support to project proponent by project consultant
- loan signature between commercial bank and project proponent
- project implementation by proponent
- verification of results by project consultant
- periodic reporting to funding bodies

UWHR Credit Facility

Role of Project Consultant

- preliminary evaluation of technical eligibility of projects
- support to applicant in fine tuning of project proposal
- technical due diligence analysis for commercial bank (including sensitivity analysis on financial model for technical inputs)
- monitoring, reporting and verification of results of financed projects (including identification of corrective measures where needed)

UWHR Credit Facility Benefits

- for the commercial bank, risk is minimized due to:
 - assistance by consultant in reviewing technical aspects and impact on financial model
 - in case of need, availability of public guarantee to cover possible defaults – related to UWHR technology or source only
- for the project proponent:
 - free technical support is available for fine tuning of project proposal
 - risk minimization results in easier bankability and higher profitability
- for the community:
 - knowledge is created regarding technical / financial feasibility of UWHR investments
 - bankability of UWHR investments is easier also for projects not benefitting of the facility

Conclusions

- the main barriers identified to bankability of UWHR investments are related to lack of success cases and technical / non-technical knowledge
- R&D projects with demo cases and research help filling the identified gap
- a UWHR credit facility with public guarantee would be of help for de-risking UWHR investments and improve their bankability in the market uptake phase
- the implementation of UWHR projects through the proposed facility would make available further pilot cases to demonstrate feasibility and create knowledge, contributing to overcome barriers to bankability through ordinary instruments

Thanks for your attention

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