Waste Heat Recovery Technologies: Recommendations on how to Overcome Barriers to their Adoption

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The fact that 30% of EU industry final energy is wasted through losses has led to the wide adoption of waste heat recovery (WHR) technologies. But their adoption is hindered by specific technical and non-technical “barriers”. An attempt is made here to determine such barriers and make recommendations on how to address them. This has been done through a literature review as well as on a review and discussions with people from related industry sectors. Moreover, a structured questionnaire on barriers to the adoption of WHR technologies has been issued to a number of industries across the EU. It turns out that the main barriers have been identified as: (i) lack of information, (ii) lack of technology knowledge, (iii) technology risks, (iv) high initial and running and maintenance costs, (v) lack of financial support and lack of governmental incentives, (vi) size and available space limitations, (vii) lack of available infrastructure, (viii) production constraints and risk of production disruptions, (x) risk of the system negative impact on the company operations, (xi) policy and regulations restrictions. Furthermore, an assessment of the importance and negative impact of each of the above-mentioned barriers is given based on the analysis of the questionnaire. Finally, based on the above, recommendations on how to overcome the barriers and a suggestion for related case study are presented, with the hope of their adoption, when possible, by stakeholders.

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