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The Factors Used in Policy Decision Making for Promoting Direct Steam Generation Parabolic Trough Technology in Thai Food Industry

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Abstract

Direct steam generation from boilers is the most common technique, currently applied in Thailand food industry. To reduce its fossil fuel consumption and GHG emission, industry is focusing on the development of renewable energy technologies, and direct steam generation from parabolic trough is one of them. This study discusses decision making factors for promoting the use of direct steam generation in industrial heat process by parabolic trough technology. The factors were evaluated and applied by using literature review, personal communication with key personnel and questionnaires. The Analytic Network Process (ANP) was applied to suggest a ranking scale for the factors to be used in drafting their weights. The considered main factors were technology, economics, social, environmental and political. The results suggest that the financial mechanism, investment cost, technological maturity, reliability, safety and environmental gains can be used in decision making for the promotion of renewable energies in Thai food industry.

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