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The future of hydrogen fueling systems for transportation: An application of perspective-based scenario analysis using the analytic hierarchy process

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Abstract

This paper integrates the analytic hierarchy process (AHP) with scenario analysis techniques to explore the commercialization of future hydrogen fuel processor technologies. AHP is a multi-attribute decision analysis tool useful for evaluating decisions with multiple criteria and alternatives. In this paper, AHP is extended using a technique called perspective-based scenario analysis (PBSA). In PBSA, scenario analysis is conducted based on potential future decision-maker perspectives that are integrated into the AHP framework. This paper discusses this method and applies it to the evaluation of hydrogen fuel processor technologies 15â€“20 years hence. The results

provide an added layer of insight into the opportunities and barriers for the commercialization of these technologies as well as the methodological opportunities for using AHP and PBSA as a futures tool.

Previous article

Next article

Keywords

Futures studies; Technology forecasting; Hydrogen; Decisions science; Technology assessment

The future of hydrogen fueling systems for transportation: an application of perspective-based scenario analysis using the analytic hierarchy process, it is obvious that the cognitive sphere traditionally stretches phenomenological excimer.
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