Hydrogen Infrastructure

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Whether produced from fossil or non-fossil sources, the widespread use of hydrogen will require a new and extensive infrastructure to produce, distribute, store and dispense it as a vehicular fuel. Depending on the source from which hydrogen is produced and the form in which it is delivered, many alternative infrastructures can be envisioned. Tradeoffs in scale economies between process and distribution technologies, safety, materials issues, etc. can also dictate alternative forms of infrastructure. This paper discusses several infrastructure alternatives and estimates the "well-to-pump" or "fuel cycle" cost of delivered hydrogen associated with alternative hydrogen infrastructures.