

Table 3-3: Procurement of H₂ Supply – Challenges and Best Practice Solutions.

Challenges	Best Practice Solutions
<p><u>'Green' H₂</u>:</p> <ul style="list-style-type: none"> • A widely agreed definition of 'Green' H₂ is still not available • 'Green washing' by providers is also still an issue. • Funding bodies generally want Green H₂, 	<p>The CertifHy projects have developed a system for guarantees of origin for Green H₂ (originating from renewable sources as defined in article 2 of RED II) having a GHG balance below a defined threshold. (See https://www.certifhy.eu/go-labels/).</p> <p>There is also "CERTIFHY™ LOW-CARBON HYDROGEN", originating "from non-renewable origin, nuclear or fossil energy using carbon capture and storage (CCS) and potentially carbon capture and utilization (CCU) which is yet to be defined by European Law and having a greenhouse gas balance below a defined threshold. (quote from https://www.certifhy.eu/go-labels/).</p>
<p><u>H₂ Price</u>: Difficult to get a definitive price</p>	<ul style="list-style-type: none"> • Set up fuel supply contracts for as long a term as possible (such as 10 or 15 years) to help encourage new investors and to improve price offered • Co-locate with an industrial large-scale hydrogen consumer for better prices • It is possible to get a long term contract at a better price if significant volume is assured. These contracts can contain break clauses (see Table 2-1). • Set a target price and a price cap • Evaluate on TCO basis, including 'beyond project' costs
<p><u>H₂ Purity</u>: Purchasing very pure H₂ required by fuel cell manufacturers can be difficult</p>	<p>High levels of purity are obtainable but at increased price; changes to the purity standards are being discussed but have not as yet been implemented</p>
<p><u>H₂ Metering</u>: Measuring accurately enough the amount of H₂ refuelled (and supplied from external sources, if applicable) is still not a fully resolved issue</p>	<p>Ensure this issue is discussed with suppliers and understood by the local stakeholders; enhanced protocols for fast and reliable gauging have been developed but still need to be verified and approved by weights and measures authorities</p>