

**Table 3-1: Procurement of HRS and FCBs – Challenges and Best Practice Solutions applicable to both.**

Challenges	Best Practice Solutions
Running separate but linked tenders for FCBs and HRS and timing them to come online together	PTOs know about buses; other players such as energy suppliers are more likely to know more about HRS equipment; PTA/PTO know about site works etc.
The market for both HRSs and FCBs is immature and delivery times can be unrealistic; availability varies greatly across different EU countries	<ul style="list-style-type: none"> <li>• Do a market review: Determine which manufacturers are willing and able to deliver</li> <li>• Very important to use manufacturers and experienced sites as knowledge resources</li> <li>• Always use a RFI to test the market, particularly where there are suppliers new to the FCB market</li> </ul>
Finding a tender team that has the expertise to integrate FCB/HRS specifics in line with local tender and contract law	Take the time to gather a multi-skilled team and involve them early – legal / technical / finance – purchasing / energy / mobility; ensure that relevant stakeholders are engaged in aspects of evaluation and set up regular dialogue with them during the process
<ul style="list-style-type: none"> <li>• Issues such as warranties and responsibility for maintenance and timely delivery of spare parts in a non-standardised supply chain (see also Table 4-2 and Table 4-10)</li> <li>• Responsibilities of suppliers' third-party contractors add to complexities; unclear responsibilities for solving challenges that may arise can derail the installation of innovative systems</li> </ul>	<ul style="list-style-type: none"> <li>• Matters that are standard to diesel buses need to be made explicit with FCBs e.g. type and size of fuel tanks; intended refuelling regime (max. allowed time to fill etc.)</li> <li>• Ensure that all parties involved on the supplier side are clear on who has ultimate responsibility and accountability for problems that may arise and that it is written into the contracts</li> <li>• Iterative process to contracts, particularly if many parties involved</li> <li>• Detailed and clear contractual agreements will be paramount in resolving problems</li> </ul>
Ownership of equipment can be complex	Where there are multiple funders, ownership of the HRS and buses needs particular attention; ownerships arrangements can vary, e.g. one site arranged to become owners of the HRS after ten years when the H <sub>2</sub> supply contract with the HRS supplier ends, to ensure they could continue to get a competitive H <sub>2</sub> price
Reliability and scalability cannot be assumed	Negotiate for scalability and specifically address reliability requirements – the most important factor for a public transport system (e.g. the length of the overnight windows during which the HRS will always be available)
<ul style="list-style-type: none"> <li>• Maintaining communications with and between stakeholders throughout procurement process</li> </ul>	<ul style="list-style-type: none"> <li>• Regular Communications: Throughout the procurement process with and between the relevant stakeholders, in particular between the favoured suppliers and with the local authorities (including fire brigades); funders should feel informed at all times</li> </ul>

<ul style="list-style-type: none"> <li>• Significant training time is required for bus drivers/maintenance technicians/bus depot people</li> </ul>	<ul style="list-style-type: none"> <li>• Training by suppliers: Factor this into all procurement documentation</li> </ul>
<p>Safety assessments require attention (see also Table 4-8 on Safety in Operations)</p>	<p>To address potential reservations by local authorities lacking experiences, be pro-active; consider resourcing an assessment for the HRS and the Bus Maintenance Facility; professional expertise can be very helpful to ensure compatibility and to smooth the permitting process</p>