

Table 2-7: Planning for Operations – Useful Resources.

Resources	Where to find the Resources
Talking to FCB and HRS suppliers and question them on their product specifications and experiences	For lists of suppliers see: https://fuelcellbuses.eu/suppliers or search the membership list of: https://www.hydrogeneurope.eu/directory/industry (Note that these lists provide an example only and may not include new/innovative new players.) If possible, visit their factory and use your performance criteria to question them on performance
Talking to and/or visiting sites with operating FCBs and HRSs	For JIVE/JIVE 2 sites see Figure 0-1 or: https://www.fuelcellbuses.eu/projects/jive and https://www.fuelcellbuses.eu/projects/jive-2 The authors of this report can provide personal introductions, see their e-mail addresses on page 2
Reports from JIVE & JIVE 2 and from other ongoing and from completed projects	On https://fuelcellbuses.eu/category/starting-your-fcb-project : <ul style="list-style-type: none"> • JIVE and JIVE 2 Best Practice (this) Report (2024): To be disaggregated for easy access Under ‘Start to Implement’ sidebar On https://fuelcellbuses.eu/publications for example: <ul style="list-style-type: none"> • Operator’s Guide to Fuel Cell Bus Deployment (JIVE/JIVE 2) On https://fuelcellbuses.eu/publications for example: <ul style="list-style-type: none"> • Guidance for HRS consenting phase (JIVE 2) • Public summary of the Final Report of the CHIC project (2010 – 2016) • Introduction to fuel cell buses: Guidelines for operators (in German)
Particular reports on planning for HRSs	On https://fuelcellbuses.eu/publications for example: <ul style="list-style-type: none"> • Info pack about the hydrogen infrastructure in Pau/France (JIVE 2) • Recommendations for hydrogen infrastructure in subsequent projects (CHIC) On https://cordis.europa.eu/project/id/671426/results/ for example: <ul style="list-style-type: none"> • Guidance document on large scale hydrogen bus refuelling (NewBusFuel project) • Review of regulations codes and standards with respect to hydrogen bus scale fuelling (NewBusFuel project)

<p>Emerging standards for HRSs and supporting documents</p>	<p>On https://www.iso.org/standard/71940.html:</p> <ul style="list-style-type: none"> • ISO 19880-1:2020 “Gaseous hydrogen Fuelling stations Part 1: General requirements” <p>On https://cleanenergypartnership.de/en/approved-acceptance-procedure-for-fuelling-stations:</p> <ul style="list-style-type: none"> • Approved acceptance procedure for fuelling stations by the Clean Energy Partnership (CEP) / Safe Refuelling, including a CEP Guideline for ISO 19880-1 <p>On https://cleanenergypartnership.de/en/refuelling-buses-and-trucks</p> <ul style="list-style-type: none"> • Information on the SAE J2601/5_202402 “High-Flow Prescriptive Fuelling Protocols for Gaseous Hydrogen Powered Medium and Heavy-Duty Vehicles”, which currently has the status of “Technical Information Report”, i.e. is not a standard yet • Supporting information on refuelling protocols <p>On https://www.sae.org/standards/content/j2601/5_202402/</p> <ul style="list-style-type: none"> • High-Flow Prescriptive Fuelling Protocols for Gaseous Hydrogen Powered Medium and Heavy-Duty Vehicles J2601/5_202402
<p>Well-to-wheel emissions</p>	<p>A recent study (October 2021) can be found here: https://www.zemo.org.uk/assets/reports/Zemo_Hydrogen_Vehicle_Well-to-Wheel_GHG_and_Energy_Study_2021.pdf</p>
<p>Definition of Renewable/Green Hydrogen</p>	<p>The underlying legislation of the definition of ‘renewable hydrogen’ in the EU is the Renewable Energy Directive:</p> <ul style="list-style-type: none"> • https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-directive_en <p>Two ‘Delegated Acts’ of June 2023 outline detailed rules on the EU definition of renewable hydrogen to ensure that hydrogen is produced from renewable energy sources and achieves 70% emissions savings. This is explained here:</p> <ul style="list-style-type: none"> • https://energy.ec.europa.eu/topics/energy-systems-integration/hydrogen/renewable-hydrogen_en <p>The link above also provides access to the Delegated Acts:</p> <ul style="list-style-type: none"> • Delegated Act (EU) 2023/1184 on a methodology for renewable fuels of non-biological origin https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2023.157.01.0011.01.ENG&toc=OJ%3AL%3A2023%3A157%3ATOC

- Delegated Act (EU) 2023/1185 a minimum threshold for GHG emissions savings of recycled carbon fuels
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2023.157.01.0020.01.ENG&toc=OJ%3AL%3A2023%3A157%3ATOC

A summary of renewable as well as 'low carbon' hydrogen and supporting information can be obtained here:

- [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747085/EPRS_BRI\(2023\)747085_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747085/EPRS_BRI(2023)747085_EN.pdf)