

SIGNIFICANCE TO COMMERCIALIZATION

← *More Critical*

	A: Essential To or Enables Commercialization	B: Important to Commercialization	C: Supports Commercialization
1: Requires Additional Resources to Succeed	ICC & NFPA Model Building Codes – NFPA 2, 30A, 52, 55 Hydrogen Quality Standards (ASTM, CGA, ISO, SAE) CSA HGV 4.X Series	IEEE 1547.XX , Interconnection of Distributed Generation – Application Guides State Permitting Templates (C&S Gaps Analysis): California	Propane Quality (Odorant) Standards ASME B31.12 H2 Piping and Pipeline Code
2: An Appropriate Level of Resources are Being Applied	International Electrotechnical Commission Standards Micro Fuel Cell Regulations CSA/ANSI FC.1 , Fuel Cell Power Systems NFPA 853 , Fuel Cell Installation NFPA 70 (National Electrical Code) Article 692 , Fuel Cell Systems Revision to FMVSS 305 and SAE J1766 , Post Collision Electrical Safety in Vehicles FMVSS for High-Pressure Compressed Hydrogen Storage in Vehicles, CSA NGV/HGV , and SAE J2579 for vehicle hydrogen systems SAE J2579- H2 Storage Systems SAE J2578- H2 Vehicle Safety IEC Micro Fuel Cell Standards IEC TC 105 WG#8 & WG#10 HIPOC (Hydrogen Industry Panel on Codes)	IEC TC 105 Single Cell Test Protocols Global Technical Regulations (GTRs) for Vehicles California Air Resources Board Emissions Regulations for Stationary Generation Portable Fuel Cell Regulations UL 2266 on Fuel Cells in Telecomm applications UL 2265 - Micro Fuel Cell Standards, CSA/ANSI FC.1 - Portable Fuel Cell Standard IEEE 1547 - Interconnection of Distributed Generation ISO TC 197 WG#9 – Hydrogen Generators Revision to J2578, FCVs UL 2267 on Fuel Cells in Lift Truck applications ISO TC 22 SC21 Hydrogen Vehicle Standards Hydrogen Sensor Standards – ISO TC 197, UL 2075, ANSI/ISA 12.13.01/02	Stack Material & Components Protocols / Round Robins / Standardization / Investigations IEC TC 105 WG#9 – Micro Fuel Cell Performance IEC TC 105 WG#4 – Fuel Cell Performance IEC TC 105 WG#7 – Portable Fuel Cell Performance ASME PTC 50 – Fuel Cell Performance ASME Materials for a Hydrogen Economy FCTESTNET/QA
3: Resources Beyond Needs are Being Applied or Activity not Urgent		SAE performance, sustainability, and terminology documents for Fuel Cell Vehicles	Standardized Industry Error Codes Performance based standard for approving Hydrogen components

FUNDING
Requires Additional Resources →

Most recent changes are highlighted in YELLOW.