

Request for Information (RFI)

Development, Integration, Hosting, and Maintenance of the H2FCP SOSS Mobile Website and Related Systems

Issued By: Hydrogen Fuel Cell Partnership (H2FCP)

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1. Introduction

The Hydrogen Fuel Cell Partnership (H2FCP) is soliciting proposals from experienced web development firms or independent contractors to develop, integrate, host, support, and maintain the H2FCP Station Operational Status System (SOSS) mobile website and related supporting systems.

The selected contractor will provide full-stack development, infrastructure support, API integration, database management, technical maintenance, and ongoing operational support for the SOSS platform and associated websites.

The goal of this RFI is to identify a qualified development partner capable of modernizing and maintaining H2FCP's real-time hydrogen station status ecosystem while ensuring long-term scalability, reliability, security, and operational continuity.

H2FCP views this effort as more than a technology refresh. The intent is to evaluate and modernize the overall SOSS ecosystem to improve system performance, reduce administrative burden, enhance user experience, increase data accessibility, and establish a scalable foundation for future growth.

H2FCP is seeking a qualified partner capable of evaluating the current technical environment and recommending practical, cost-effective solutions that balance functionality, maintainability, operational efficiency, and long-term sustainability.

Respondents are encouraged to propose innovative approaches and technologies that can improve the reliability, usability, and scalability of the SOSS platform while supporting H2FCP's mission of providing accurate and timely hydrogen station status information to stakeholders.

2. Background

H2FCP currently operates multiple public- and member-facing web platforms that support hydrogen fueling station reporting, station status visibility, member-only resources, and clean transportation initiatives.

The existing SOSS platform provides real-time hydrogen station operational status information used by:

- Fuel cell electric vehicle drivers
- Hydrogen station operators
- H2FCP members
- State agencies and stakeholders
- LCFS reporting participants
- External map and reporting applications

The SOSS system currently supports and/or interfaces with the following websites and systems:

- H2FCP Public Website: <https://h2fcp.org>
- Member Resources Portal: <https://h2fcp.org/resources>
- SOSS Mobile Website: <https://m.h2fcp.org>
- HD SOSS: <https://m.h2fcp.org/soss-station-list-hd>
- Hydrogen Station Map: <https://h2stationmaps.com>
- Accelerate H2: <https://accelerateh2.com>

In addition to development and maintenance of the SOSS platform itself, H2FCP seeks recommendations and implementation support regarding how SOSS data should integrate with existing public-facing station map systems.

Respondents may propose:

1. Development of entirely new connected web platforms and interfaces; or
2. Retention of the current external websites while developing a new SOSS backend and API infrastructure that feeds real-time station status data into existing websites and applications.

H2FCP is open to recommendations regarding the best long-term technical architecture.

3. Project Objectives

The objectives of this RFI include:

- Modernize and maintain the SOSS platform and supporting infrastructure
 - Develop scalable APIs and backend infrastructure
 - Improve user experience for fuel cell electric vehicle drivers, station operators, H2FCP members, and other stakeholders across mobile and desktop platforms
 - Reduce long-term maintenance costs and administrative burden
 - Establish a scalable architecture that supports future expansion and feature development
 - Evaluate alternative technical architectures and recommend the most effective long-term solution
 - Provide a roadmap for future enhancements including mobile applications, advanced reporting, automation, and data-driven decision support tools
 - Support integration with external station map websites and applications
 - Support onboarding of new station operators
 - Improve data validation and reporting workflows
 - Ensure long-term maintainability and technical documentation
 - Improve reliability and uptime of station status reporting
 - Provide ongoing operational and technical support
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4. Scope of Services

The selected contractor shall provide services including, but not limited to, the following.

4.1 Discovery and Technical Assessment

The contractor shall:

- Review and assess the existing SOSS ecosystem
- Evaluate current infrastructure, APIs, databases, integrations, and workflows
- Identify technical limitations and risks
- Recommend architecture improvements
- Provide recommendations regarding modernization of connected websites and integrations
- Develop a phased implementation and migration strategy

Deliverables may include:

- Technical assessment report
- Recommended architecture diagrams
- Data flow diagrams
- Migration and implementation roadmap

- Risk assessment and mitigation recommendations

4.1.1 Business Process and Operational Assessment

In addition to evaluating technical infrastructure, respondents should assess existing business processes, operational workflows, user roles, data management practices, and reporting requirements associated with SOSS.

The assessment should identify opportunities to:

- Reduce administrative effort.
- Improve operational efficiency.
- Streamline user and permissions management.
- Improve station operator onboarding processes.
- Improve reporting workflows.
- Improve overall user experience.

Respondents should provide recommendations that address both technical and operational improvements.

4.2 SOSS Website Development

The contractor shall design, develop, and maintain the H2FCP SOSS mobile website from the ground up.

Services may include:

- Frontend development
- Backend development
- Mobile-responsive design
- UI/UX improvements
- Authentication and permissions management
- Real-time data display and synchronization
- Performance optimization
- Accessibility compliance
- Cross-browser compatibility
- API integrations
- Database integrations
- Reporting dashboards
- Administrative interfaces
- Logging and monitoring capabilities

The contractor may propose:

- A Drupal-based solution; or
- Another modern web framework and architecture if justified.

All proposed technologies must be clearly documented in the proposal.

4.3 API Development and Integration

The contractor shall:

- Develop and maintain APIs supporting SOSS data distribution
- Support real-time station status updates
- Support secure external data integrations
- Develop APIs capable of feeding station status data to external websites and applications
- Support integration with the H2FCP station map and related systems
- Maintain API documentation
- Implement authentication and security controls

Potential integrations include:

- Existing H2FCP website (station map, Member Resources, etc.)
- Third-party map systems
- Operator systems
- Reporting platforms
- Member systems
- LCFS-related reporting workflows

Respondents should evaluate and provide recommendations regarding:

- Traditional API-driven architectures
- Event-driven or streaming architectures
- Hybrid approaches

Recommendations should include:

- Benefits
- Risks
- Cost implications
- Scalability considerations
- Operational impacts

4.4 Existing Website Integration Support

The contractor shall evaluate and support integration approaches involving:

- H2FCP public website
- H2FCP member resources portal
- Hydrogen station maps
- Accelerate H2 website
- H2FCP HD SOSS
- Additional future systems

The selected contractor may be asked to:

- Redevelop connected websites; or
- Maintain existing websites while implementing API-driven SOSS integrations.

H2FCP reserves the right to determine the final implementation approach.

4.5 Database Management and Reporting

The contractor shall:

- Manage and optimize databases
 - Support backup and recovery procedures
 - Develop automated reporting scripts
 - Maintain reporting reliability
 - Support SOSS reporting workflows
 - Support station data validation
 - Support LCFS-related reporting processes
 - Develop administrative reporting tools
 - Ensure data integrity and auditability
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4.6 Hosting, Infrastructure, and Server Administration

The contractor shall provide ongoing infrastructure support, including:

- Hosting environment management
- Server monitoring and maintenance
- SSL certificate management

- Security monitoring and patching
- DNS management
- Backup and recovery management
- Performance optimization
- Uptime monitoring
- Disaster recovery planning
- Infrastructure documentation

Respondents shall describe:

- Hosting architecture recommendations
- Security practices
- Backup procedures
- Monitoring tools
- Disaster recovery capabilities
- Scalability approach

4.7 Maintenance and Operational Support

The contractor shall provide ongoing support services, including:

- Bug fixes
 - Troubleshooting
 - Technical support
 - User support
 - Security updates
 - Infrastructure maintenance
 - Data validation support
 - Performance monitoring
 - Documentation updates
 - Feature enhancements *
- * with additional funding

The contractor shall describe:

- Support response times
- Escalation procedures
- Availability expectations
- Maintenance windows
- Service desk/workflow approach

The contractor shall support reasonable transition activities upon request, including transfer of source code, documentation, credentials, system configurations, and operational knowledge to H2FCP or a successor contractor. Respondents should describe their approach to knowledge transfer and transition support.

4.8 Station Operator Onboarding Support

The selected contractor may be required to support onboarding of new hydrogen station operators into SOSS.

Tasks may include:

- SOSS technical overview and training
 - Station setup and configuration
 - Data collection and validation
 - Reporting setup
 - Integration testing
 - Troubleshooting and debugging
 - Validation of operator data
 - Initial LCFS-related validation support
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5. Existing Technical Environment

The current environment includes technologies and systems such as:

- Drupal
- PHP
- HTML/CSS/JavaScript
- APIs and integrations
- Relational databases
- Git/GitHub/Bitbucket
- Platform.sh
- LAMP stack infrastructure
- Cloudflare DNS and security services

Respondents may propose alternative technologies with clear operational and technical advantages.

6. Contractor Qualifications

Respondents should demonstrate qualifications including:

- Experience developing large-scale web applications
- Strong frontend and backend development capabilities
- Experience with Drupal and/or modern web frameworks
- Experience with APIs and system integrations
- Experience managing cloud or hosted infrastructure
- Database design and administration expertise
- Experience with real-time operational systems
- Experience with map integrations and geospatial interfaces
- Experience supporting public-facing websites
- Experience with mobile-responsive platforms
- Experience implementing security best practices
- Experience with version control and deployment workflows
- Strong troubleshooting and documentation capabilities

Preferred qualifications include:

- Experience supporting transportation or clean energy initiatives
 - Experience supporting reporting or compliance systems
 - Experience supporting membership or portal systems
 - Experience with high-availability systems
 - Experience integrating with external stakeholder systems
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7. Deliverables

Deliverables may include, but are not limited to:

- Technical assessment report
- Architecture recommendations
- Functional requirements documentation
- UI/UX mockups and prototypes
- Fully functional SOSS platform
- API infrastructure and documentation
- Database architecture and reporting tools
- Integration support for connected websites
- Hosting and infrastructure configuration

- Security documentation
 - Testing and QA documentation
 - User documentation and training materials
 - Maintenance and operational procedures
 - Ongoing support and maintenance services
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8. Estimated Level of Effort

The respondent should provide an estimated level of effort for the following:

Web Development and Maintenance

- Web development
- API development and maintenance
- Database management
- SOSS reporting and data validation
- Debugging and troubleshooting
- Member user support for SOSS
- Member Portal support
- Documentation
- Additional support and operational activities

Server Administration

- Web hosting administration
 - Monitoring, maintenance, and security management
 - Debugging and troubleshooting
 - Backup and recovery
 - Server optimization
 - DNS management
 - Documentation
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9. Proposal Requirements

Respondents shall provide a proposal including the following sections.

9.1 Company Overview

Include:

- Company background
 - Organizational structure
 - Years in business
 - Relevant experience
 - Office location(s)
 - Primary point(s) of contact
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9.2 Relevant Experience

Provide descriptions of similar projects, including:

- Project scope
- Technologies used
- Role performed
- Client references
- URLs or demonstrations, if available

Include experience involving:

- Real-time data systems
 - Mobile web platforms
 - APIs and integrations
 - Infrastructure support
 - Public-facing web systems
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9.3 Technical Approach

Describe:

- Proposed technical architecture
- Recommended platform/framework
- Hosting approach
- API architecture
- Security approach
- Database strategy
- Scalability approach
- Maintenance methodology
- QA/testing approach
- Documentation standards

Respondents should specifically address:

- Whether they recommend redevelopment of related websites or API integration into existing websites
- Advantages and disadvantages of each approach
- Recommended phased implementation and migration strategy

H2FCP welcomes recommendations regarding alternative approaches, technologies, architectures, and implementation strategies that may better achieve the project's objectives than those described in this RFI.

9.4 Project Team

Respondents should provide a proposed staffing plan identifying key roles, anticipated level of effort, and responsibilities for each project phase.

- Proposed project team
 - Roles and responsibilities
 - Resumes or qualifications of key personnel
 - Availability of proposed staff
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9.5 Project Schedule

Provide:

- Proposed project timeline
 - Major milestones
 - Estimated implementation phases
 - Ongoing maintenance/support approach
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9.6 Cost Proposal

Provide:

- Hourly rates
- Estimated project costs
- Optional pricing structures
- Hosting costs
- Maintenance/support pricing
- Pricing assumptions
- Optional enhancement pricing

Respondents may provide:

- Fixed-fee pricing
 - Time-and-materials pricing
 - Hybrid pricing approaches
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9.7 References

Provide at least three references for similar work performed.

Include:

- Organization name
 - Contact name
 - Email address
 - Phone number
 - Brief project description
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10. Evaluation Criteria

Proposals may be evaluated based on:

- Relevant experience and qualifications
- Technical approach and recommendations
- Experience with similar systems
- Understanding of project objectives
- Quality and completeness of proposal
- Cost competitiveness
- Ability to provide ongoing support
- References
- Communication and responsiveness
- Ability to provide complete ownership, documentation, and transferability of developed systems

H2FCP reserves the right to:

- Reject any or all proposals
- Request additional information
- Conduct interviews or demonstrations
- Negotiate scope and pricing

- Modify the scope of work
- Award all or part of the work

Vendor Information Session

H2FCP may conduct an informational demonstration session for interested respondents.

The session will provide an overview of:

- Current system architecture
- User roles and permissions
- Existing workflows
- Data integrations
- Operational processes

Attendance is encouraged but not required.

11. Tentative Schedule

Milestone	Date
RFI Release	August 10, 2026
Questions Due	August 14, 2026
Responses to Questions Issued	August 24, 2026
Proposal Due Date	September 15, 2026
Internal Review / Decision on Next Steps	Q4 2026

12. Submission Instructions

Proposals shall be submitted electronically in PDF format.

Submission email: bxiong@h2fcp.org

Subject line: “RFI Response – H2FCP SOSS Development and Maintenance”

Late submissions may be rejected.

13. Additional Terms

- All deliverables, source code, software customizations, APIs, databases, documentation, reports, designs, workflows, and other work products developed

specifically for H2FCP under any resulting agreement shall be considered works made for hire and shall become the sole property of H2FCP upon payment for services rendered.

- The selected contractor shall provide H2FCP with unrestricted access to all source code repositories, technical documentation, configuration files, databases, and related materials necessary for operation, maintenance, and future transition of the system.
- H2FCP shall retain perpetual rights to use, modify, maintain, enhance, and transfer ownership or maintenance responsibilities of the developed systems without requiring additional permissions from the contractor.
- Contractors may retain ownership of their pre-existing proprietary tools, frameworks, libraries, and methodologies; however, respondents shall clearly identify any proprietary components included in their proposed solution and describe any licensing requirements or restrictions associated with their use.
- Respondents are encouraged to utilize widely supported, commercially available, or open-source technologies whenever practical to minimize long-term vendor lock-in risks.
- H2FCP is not responsible for costs incurred in preparing proposals.
- H2FCP reserves the right to cancel this RFI at any time.
- Selected contractor(s) may be required to enter into a formal services agreement.
- Contractor shall comply with all applicable laws and regulations.
- Contractor may be required to execute confidentiality and data protection agreements.

14. Appendix A – Current Managed Websites and Systems

The following systems are currently within the broader H2FCP operational ecosystem:

System	URL
H2FCP Public Website	https://h2fcp.org
Member Resources Portal	https://h2fcp.org/resources
SOSS Mobile Website	https://m.h2fcp.org
HD SOSS	https://m.h2fcp.org/soss-station-list-hd
Hydrogen Station Map	https://h2stationmaps.com
Accelerate H2	https://accelerateh2.com

15. Appendix B – Desired Functional Capabilities

H2FCP seeks a modernization approach that improves the overall user experience, reduces operational burden, increases data accessibility, and establishes a scalable platform for future growth. The following capabilities represent desired outcomes and functional objectives rather than prescriptive technical requirements.

User Experience

- Mobile-responsive interfaces
- Improved navigation
- Enhanced station search capabilities

Operations and Administration

- User role management
- Administrative dashboards
- Operator reporting tools
- Data validation workflows

Data and Reporting

- Historical reporting and analytics
- Automated notifications and alerts
- Station outage tracking

Integration and Scalability

- API-driven integrations
- Public-facing station map integrations
- Scalable architecture

Future Innovation

- Mobile applications
 - Advanced analytics
 - Automated monitoring
 - Predictive reporting
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16. Appendix C – Optional Future Enhancements

Respondents are encouraged to identify optional future enhancements, including:

- Native mobile applications
- Enhanced reporting dashboards
- Predictive outage analytics
- Automated data quality validation
- Advanced API integrations
- Expanded mapping functionality
- Public data feeds
- Enhanced member portal functionality
- Automated operational alerts
- AI-assisted monitoring and reporting tools