Appendix C. Evaluation Forms

General Project Evaluation Form

This evaluation form is for use with the following Hydrogen and Fuel Cell Technologies Office review panels/projects: Hydrogen Production Technologies;[1] Hydrogen Infrastructure Technologies (Delivery/ Infrastructure/Storage); Fuel Cell Technologies; Systems Development and Integration; and Analysis, Codes and Standards.[2]

Evaluation Criteria: U.S. Department of Energy (DOE) 2024 Hydrogen Program Annual Merit Review

Please provide specific, concise comments to support your evaluation. It is important that you write in full sentences and clearly convey your meaning to prevent incorrect interpretation.

1. Approach to Performing the Work

The degree to which project objectives and critical barriers have been clearly identified and are being addressed, the quality and completeness of the safety plan (if applicable), the quality and completeness of the diversity, equity, inclusion, and accessibility (DEIA) plan or community benefits plan (CBP) (if applicable), and the extent to which the project is well-designed, feasible, and integrated with other relevant efforts. **(Weight = 20%)**

4.0 – Outstanding. Difficult to improve significantly; sharply focused on overcoming critical barriers.

3.5 – Excellent. Effective; contributes to overcoming most barriers.

3.0 – Good. Generally effective but could be improved; contributes to overcoming some barriers.

2.5 – Satisfactory. Has some weaknesses; contributes to overcoming some barriers.

2.0 – Fair. Has significant weaknesses; may have some impact on overcoming barriers.

1.5 – Poor. Minimally responsive to project objectives; unlikely to contribute to overcoming barriers.

1.0 – Unsatisfactory. Not responsive to project objectives; unlikely to contribute to overcoming barriers.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Approach to Performing the Work:

[1] HydroGEN seedling projects use Form B.

[2] Newly awarded projects will be evaluated using the same criteria as this general project form, but with a lower scoring weight on Accomplishments (5%) and a higher weight on Approach (40%) and Proposed Future Work (25%).

2. Accomplishments and Progress Toward Overall Project and DOE Goals

The degree to which progress toward project objectives has been made and measured against well-defined performance indicators, and the degree to which the project has demonstrated progress toward addressing critical barriers to achieving DOE goals while appropriately incorporating safety considerations (if applicable) and implementing the DEIA plan or CBP (if applicable). **(Weight = 35%)**

4.0 – Outstanding. Outstanding progress toward project objectives is demonstrated through clear and measurable performance indicators; results have led directly to overcoming one or more critical barriers.

3.5 – Excellent. Excellent progress toward project objectives is demonstrated through clear and measurable performance indicators; results suggest that one or more critical barriers will be overcome.

3.0 – Good. Significant progress has been made, but there are weaknesses that need to be addressed to improve the rate of progress or improve the clarity of the project's objectives and performance indicators; contributes to overcoming some barriers.

2.5 – Satisfactory. Moderate progress has been made, but there are weaknesses that need to be addressed to improve the rate of progress or improve the clarity of the project's objectives and performance indicators; contributes to overcoming some barriers.

2.0 – Fair. Modest progress has been made, but there are significant weaknesses that need to be addressed to improve the rate of progress or improve the clarity of the project's objectives and performance indicators; may have some impact on overcoming barriers.

1.5 – Poor. Minimal progress toward project objectives has been made, and performance indicators are poorly defined; unlikely to contribute to overcoming barriers.

1.0 – Unsatisfactory. Little to no progress toward project objectives has been made, and performance indicators are poorly defined; unlikely to contribute to overcoming barriers.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Accomplishments and Progress Toward Overall Project and DOE Goals:

3. Collaboration and Coordination with Other Institutions

The degree to which the project effectively engages and coordinates project partners and interacts with other entities and projects to accelerate project progress and improve the likelihood of the project's success and impact, as well as collaborates with minority-serving institutions and minority business enterprises, where possible. **(Weight = 10%)**

4.0 – Outstanding. There is close, appropriate collaboration with other institutions; partners are full participants and well-coordinated.

3.5 – Excellent. There is good collaboration; partners participate and are well-coordinated.

3.0 – Good. Collaboration exists; partners are fairly well-coordinated.

2.5 – Satisfactory. Some collaboration exists; coordination between partners could be significantly improved.

2.0 – Fair. A little collaboration exists; coordination between partners could be significantly improved.

1.5 – Poor. Most work is done at the sponsoring organization, with little outside collaboration; little or no coordination with partners is apparent.

1.0 – Unsatisfactory. No coordination with partners is apparent.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Collaboration and Coordination with Other Institutions:

4. Potential Impact

The degree to which the project supports and advances progress toward the project's specific performance targets and the Hydrogen Program goals and objectives, as delineated in the Program and subprogram overview presentations given during the AMR. **(Weight = 20%)**

4.0 – Outstanding. The project is strongly aligned with the Hydrogen Program's goals and objectives and likely to significantly advance progress toward its performance targets.

3.5 – Excellent. The project aligns well with the Hydrogen Program's goals and objectives and has the potential to significantly advance progress toward its performance targets.

3.0 – Good. Most project aspects align with the Hydrogen Program's goals and objectives; the project has the potential to advance progress toward its performance targets.

2.5 – Satisfactory. Project aspects align with some of the Hydrogen Program's goals and objectives; the project has some potential to advance progress toward its performance targets.

2.0 – Fair. The project partially aligns with the Hydrogen Program's goals and objectives and has limited potential to advance progress toward its performance targets.

1.5 – Poor. The project has limited alignment with the Hydrogen Program's goals and objectives and little potential to advance progress toward its performance targets.

1.0 – Unsatisfactory. The project has little to no alignment with the Hydrogen Program's goals and objectives and little to no potential to advance progress toward its performance targets.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Potential Impact:

5. Proposed Future Work

The degree to which the project has logically and effectively planned its next steps by incorporating appropriate decision points, considering barriers to its goals, and, when sensible, mitigating risk by identifying alternate pathways. **Note: if a project has ended, please do not rate it. However, comments on remaining needs for advancing the technology are welcome**. **(Weight = 15%)**

4.0 – Outstanding. Plans clearly build on past progress and are sharply focused on critical barriers to project goals.

3.5 – Excellent. Plans build on past progress and contribute to overcoming most barriers.

3.0 – Good. Plans generally build on past progress and should contribute to overcoming some barriers.

2.5 – Satisfactory. Plans have some weaknesses but should contribute to overcoming some barriers.

2.0 – Fair. Plans need better focus on addressing project weaknesses; may have some impact on overcoming barriers.

1.5 – Poor. Plans are minimally responsive to project objectives; unlikely to resolve project weaknesses and contribute to overcoming barriers.

1.0 – Unsatisfactory. Plans don't exist or are not responsive to project objectives; unlikely to contribute to overcoming barriers.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Proposed Future Work:

SUMMARY OF REVIEWER COMMENTS

Project Strengths:

Project Weaknesses:

Recommendations for Additions/Deletions to Project Scope:

HydroGEN Seedling Project Evaluation Form

This evaluation form is for use with HydroGEN seedling projects.

Evaluation Criteria: U.S. Department of Energy (DOE)
2024 Hydrogen Program Annual Merit Review

Please provide specific, concise comments to support your evaluation. It is important that you write in full sentences and clearly convey your meaning to prevent incorrect interpretation.

1. Approach to Performing the Work

The degree to which barriers have been clearly identified and are being addressed through project innovation; the quality and completeness of the safety plan (if applicable); the quality and completeness of the diversity, equity, inclusion, and accessibility (DEIA) plan or community benefits plan (CBP) (if applicable); and the extent to which the project is well-designed and feasible. A strong emphasis should be placed on the appropriateness of the scope of work toward validation of the project's technology innovation. **(Weight = 20%)**

4.0 – Outstanding. Difficult to improve significantly; sharply focused on overcoming critical barriers and validating technology innovation.

3.5 – Excellent. Effective; contributes to overcoming most barriers and validating technology innovation.

3.0 – Good. Generally effective but could be improved; contributes to overcoming some barriers and validating technology innovation.

2.5 – Satisfactory. Has some weaknesses; contributes to overcoming some barriers and validating technology innovation.

2.0 – Fair. Has significant weaknesses; may have some impact on overcoming barriers and/or validating technology innovation.

1.5 – Poor. Minimally responsive to project objectives; unlikely to contribute to overcoming barriers or validating technology innovation.

1.0 – Unsatisfactory. Not responsive to project objectives; unlikely to contribute to overcoming barriers or validating technology innovation.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Approach to Performing the Work:

2. Accomplishments and Progress Toward Overall Project and DOE Goals

The degree to which progress has been made and measured against performance indicators, and the degree to which the project has demonstrated progress toward DOE goals as well as the HydroGEN Consortium mission while appropriately incorporating safety considerations (if applicable) and implementing the DEIA plan or CBP (if applicable). A particular emphasis should be placed on the strength of the data presented by the accomplishments (including data from the HydroGEN nodes leveraged by the project) in terms of supporting accomplishments. An additional emphasis should be placed on the strength of the project's current budget period's Go/No-Go Criteria, if applicable, and on project progress toward meeting these criteria. **(Weight = 30%)**

4.0 – Outstanding. Outstanding progress toward ambitious Go/No-Go Criteria is demonstrated; accomplishments are supported by strong and convincing data.

3.5 – Excellent. Excellent progress toward impactful Go/No-Go Criteria is demonstrated; accomplishments are supported by strong data.

3.0 – Good. Significant progress toward meaningful Go/No-Go Criteria is demonstrated; accomplishments are supported by adequate data.

2.5 – Satisfactory. Satisfactory progress toward adequate Go/No-Go Criteria is demonstrated; accomplishments are supported by some data.

2.0 – Fair. Limited data and accomplishments to support the Go/No-Go Criteria are demonstrated; Go/No-Go Criteria may be weak.

1.5 – Poor. Project is unlikely to meet the Go/No-Go Criteria; Go/No-Go Criteria may be weak.

1.0 – Unsatisfactory. Project is unlikely to meet the Go/No-Go Criteria; Go/No-Go Criteria are inadequate or missing.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Accomplishments and Progress Toward Overall Project and DOE Goals:

3. Collaboration Effectiveness with HydroGEN and, if Applicable, Other Research Entities

The degree to which the project has engaged with the HydroGEN Energy Materials Network and has effectively used nodes to accelerate materials development and improve the likelihood of the project's success and impact, as well as collaborates with minority-serving institutions and minority business enterprises, where possible. This also includes the effectiveness of project engagement with the broader materials research community, including work with HydroGEN's cross-cutting benchmarking/protocols (2b) project team, the HydroGEN Data Team, pathway-specific working groups, and others. An additional factor is the broader value and impact of the project's data-sharing through the HydroGEN Data Hub. **(Weight = 25%)**

4.0 – Outstanding. There is close, appropriate collaboration with other institutions, specifically the HydroGEN Consortium with appropriate use of nodes, contributions to the benchmarking/protocols (2b) project and the HydroGEN Data Hub; partners are full participants and well-coordinated.

3.5 – Excellent. There is good collaboration with other institutions, specifically the HydroGEN Consortium with appropriate use of nodes, contributions to the benchmarking/protocols (2b) project and the HydroGEN Data Hub; partners participate and are well-coordinated.

3.0 – Good. Collaboration exists with the HydroGEN Consortium and includes node utilization and engagement with the benchmarking/protocols (2b) project and the HydroGEN Data Hub; partners are fairly well-coordinated.

2.5 – Satisfactory. Some collaboration exists; coordination between partners could be significantly improved, specifically with respect to the HydroGEN Consortium node utilization activities and engagement with the benchmarking/protocols (2b) project and the HydroGEN Data Hub.

2.0 – Fair. A little collaboration exists; coordination between partners could be significantly improved, specifically with respect to the HydroGEN Consortium node utilization activities and engagement with the benchmarking/protocols (2b) project and the HydroGEN Data Hub.

1.5 – Poor. Most work is done at the sponsoring organization, with little outside collaboration; little or no coordination with partners or the HydroGEN Consortium is apparent.

1.0 – Unsatisfactory. No coordination with partners and the HydroGEN Consortium is apparent.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Collaboration Effectiveness with HydroGEN and, if Applicable, Other Research Entities:

4. Potential Impact

The degree to which the project supports and advances progress toward Hydrogen Program goals and objectives, and supports and advances the HydroGEN Consortium mission. A strong emphasis should be placed on the project's potential to advance the discovery and development of novel, advanced water-splitting materials systems, which will enable meeting the DOE ultimate hydrogen production goal of $1/kg H_2 or interim hydrogen production goal of $2/kg H_2. An additional factor to consider is how well the project fits into, leverages, and potentially enhances the framework and resources of the HydroGEN Consortium. **(Weight = 15%)**

4.0 – Outstanding. The project is strongly aligned with the Hydrogen Program's goals and objectives, is likely to significantly advance progress toward its performance targets, and is significantly leveraging and contributing to the resources and framework of the HydroGEN Consortium.

3.5 – Excellent. The project aligns well with the Hydrogen Program's goals and objectives, has the potential to significantly advance progress toward its performance targets, and is aptly leveraging and contributing to the resources and framework of the HydroGEN Consortium.

3.0 – Good. Most project aspects align with the Hydrogen Program's goals and objectives; the project has the potential to advance progress toward its performance targets and is adequately leveraging and contributing to the resources and framework of the HydroGEN Consortium.

2.5 – Satisfactory. Project aspects align with some of the Hydrogen Program's goals and objectives; the project has some potential to advance progress toward its performance targets and is leveraging and contributing to the resources and framework of the HydroGEN Consortium to some extent.

2.0 – Fair. The project partially aligns with the Hydrogen Program's goals and objectives, has limited potential to advance progress toward its performance targets, and is not adequately leveraging and contributing to the resources and framework of the HydroGEN Consortium.

1.5 – Poor. The project has limited alignment with the Hydrogen Program's goals and objectives, little potential to advance progress toward its performance targets, and minimal interaction with HydroGEN to leverage and contribute to the resources and framework of the HydroGEN Consortium.

1.0 – Unsatisfactory. The project has little to no alignment with the Hydrogen Program's goals and objectives and little to no potential to advance progress toward its performance targets; the project is not leveraging and contributing to the resources and framework of the HydroGEN Consortium.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Potential Impact:

5. Proposed Future Work

The degree to which the project has logically and effectively planned its next steps and leverages progress made in previous budget periods toward meeting end-of-project goals and advancing the materials research mission of the HydroGEN Consortium. **(Weight = 10%)**

4.0 – Outstanding. Plans are sharply focused on overcoming critical barriers, meeting end-of-project goals, and advancing the materials research mission of the HydroGEN Consortium.

3.5 – Excellent. Plans effectively contribute to overcoming most barriers, meeting most end-of-project goals, and advancing the materials research mission of the HydroGEN Consortium.

3.0 – Good. Plans contribute to overcoming some barriers, meeting some end-of-project goals, and have potential to advance the materials research mission of the HydroGEN Consortium.

2.5 – Satisfactory. Plans have some weaknesses but should contribute to overcoming some barriers, meeting some end-of-project goals, and may contribute to advancing the materials research mission of the HydroGEN Consortium.

2.0 – Fair. Plans have significant weaknesses but may have limited impact on overcoming barriers, make minimal progress toward end-of project goals, and insignificantly contribute to advancing the materials research mission of the HydroGEN Consortium.

1.5 – Poor. Plans are minimally responsive to project objectives, are unlikely to contribute to overcoming barriers or meeting end-of-project goals, and most likely will not contribute to advancing the materials research mission of the HydroGEN Consortium.

1.0 – Unsatisfactory. Plans don't exist or are not responsive to project objectives, are unlikely to contribute to overcoming barriers or meeting end-of-project goals, and are unlikely to contribute to advancing the materials research mission of the HydroGEN Consortium.

- ☐ 4.0 – Outstanding
- ☐ 3.5 – Excellent
- ☐ 3.0 – Good
- ☐ 2.5 – Satisfactory
- ☐ 2.0 – Fair
- ☐ 1.5 – Poor
- ☐ 1.0 – Unsatisfactory

Comments on Proposed Future Work:

SUMMARY OF REVIEWER COMMENTS

Project Strengths:

Project Weaknesses:

Recommendations for Additions/Deletions to Project Scope:

2024 AMR – DOE Hydrogen Program Review Questions

Dear DOE Hydrogen Program Reviewer: We appreciate your input on the overall DOE Hydrogen Program, its participating DOE Offices, and the Hydrogen and Fuel Cell Technologies Office (HFTO) subprograms. Please provide scores and comments on ALL the questions below. Your comments will be useful in helping to guide future DOE program strategies and priorities.

Please refer to the AMR's plenary program for overview presentations on the overall DOE Hydrogen Program and to the subprogram overview presentations at the beginning of each technical session. Information on specific RDD&D activities being carried out by the different HFTO subprograms and the various DOE Offices involved in the Hydrogen Program can be found in the plenary, oral, and poster AMR presentations.

1. The Hydrogen Program plan and strategy are well-aligned with the missions and goals of the National Clean Hydrogen Strategy and Roadmap and the Hydrogen Shot.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

1	Hydrogen Program Overall Strategy
Score	

Please explain the reason for your rating and comment on strengths and/or improvement opportunities related to the Program's plan and strategies as well as the Program's portfolio of projects.

2. The Hydrogen Program is well-aligned with industry and stakeholder needs and appropriately complements private-sector, state, and other non-DOE investments and research, development, demonstration, and deployment (RDD&D).

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

2	Hydrogen Program Stakeholder Alignment
Score	

Please explain the reason for your rating and comment on whether the Program's funding is adequate to achieve its goals.

3. The Hydrogen Program is effectively collaborating across DOE Program Offices and other federal agencies to reach national hydrogen goals.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

3	Hydrogen Program Project Portfolio
Score	

Please explain the reason for your rating and comment on strengths and/or improvement opportunities related to inter-Office and/or inter-Agency collaborations.

4. The Hydrogen Program is effectively collaborating with other countries through international partnerships, such as the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE), Clean Energy Ministerial, Mission Innovation, International Energy Agency, and others.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

4	Hydrogen Program Effective Collaborations
Score	

Please explain the reason for your rating and identify (1) actions DOE can undertake in conjunction with these or other international activities to effectively accelerate U.S. progress in hydrogen and fuel cell technologies, and (2) opportunities for the Hydrogen Program to strengthen its national leadership and maintain global competitiveness.

5. The Hydrogen Program is sufficiently addressing energy and environmental justice (EEJ) and diversity, equity, inclusion, and accessibility (DEIA) in the execution and impacts of its RDD&D activities.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

5	Hydrogen Program EEJ and DEIA
Score	

Please explain the reason for your rating and comment on strengths and/or improvement opportunities related to engaging and leveraging stakeholders, external groups, and/or resources to address EEJ and DEIA within the Program's portfolio of projects.

6. The Hydrogen Program's efforts to advance workforce development and education in science, technology, engineering, and mathematics (STEM) through its current projects and activities are effective and sufficient to meet the Program's goals.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

6	Hydrogen Program STEM
Score	

Please explain the reason for your rating and comment on strengths and/or improvement opportunities related to workforce development and STEM education efforts across the Program, its Offices, and its portfolio of projects, including engagement of stakeholders, external groups, and/or resources to address workforce development and STEM education.

7. The Hydrogen Program adequately emphasizes safety in RDD&D across its portfolio.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

7	Hydrogen Program Safety
Score	

Please explain the reason for your rating and comment on (1) gaps and/or strengths in the Program's approach to addressing safety and (2) the adequacy of the Program's efforts to engage and leverage stakeholders, external groups, and/or resources to address safety.

8. The Hydrogen Program's portfolio of projects is appropriately balanced across (1) research areas, (2) technology readiness levels, and (3) research organization types (i.e., industry, academic, and national laboratory) to help achieve its mission and goals.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

8	Hydrogen Program Portfolio Balance
Score	

Please explain the reason for your rating and identify strengths and/or gaps in the Program's project portfolio, including over- or under-represented research areas, technology readiness levels, and/or research organization types.

9. The Hydrogen Program's announcements over the last year (e.g., selection of hydrogen hubs, selection of electrolyzer, fuel cell, and manufacturing projects through the Bipartisan Infrastructure Law Funding Opportunity Announcement) are contributing toward achieving commercial liftoff on a timeline consistent with the U.S. opportunity for hydrogen identified in the *U.S. National Clean Hydrogen Strategy and Roadmap*: 10 MMT per year by 2030, 20 MMT per year by 2040, and 50 MMT per year by 2050.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

9	Hydrogen Program Commercial Liftoff
Score	

Please explain the reason for your rating and identify additional actions DOE can take to accelerate progress toward achieving commercial liftoff.

10. The Hydrogen Program has made adequate progress in the last year.

Please rate your response on a scale of 1 through 10, with 1 indicating that you strongly disagree and 10 indicating that you strongly agree, or N/A if you have no opinion.

10	Hydrogen Program Progress
Score	

Please explain the reason for your rating and identify technology areas that are not making adequate progress.

11. Please describe any additional strengths or improvement opportunities in the overall Hydrogen Program, Program Offices, and subprograms within Offices (e.g., technology development, demonstration, and scaleup; technology transfer; technoeconomic and environmental impact assessments; soft costs; management approach; portfolio development; commercial liftoff; outreach and education; impact on industry development).

Comment only

12. The Hydrogen and Fuel Cell Technologies Office (HFTO) is the lead office coordinating activities across the broader Hydrogen Program. Please comment on the effectiveness, strengths, or weaknesses of each subprogram within HFTO and provide any additional suggestions you may have for improvement.

Comment only

Subprogram	Comments
Hydrogen Production Technologies	
Hydrogen Infrastructure Technologies	
Fuel Cell Technologies	
Systems Development and Integration	
Analysis, Codes and Standards	