

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

B. HydroGEN Seedling Project Evaluation Form

This evaluation form is for use with HydroGEN seedling projects.

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.

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.

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.

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 H₂ or interim hydrogen production goal of \$2/kg H₂. 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.

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 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.

Comments on Proposed Future Work:

Project Strengths:

Project Weaknesses:

Recommendations for Additions/Deletions to Project Scope: