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| 1. **Employee Information** | | | | |
| **Employee’s Name:** | Evan Reznicek | | **Employee ID #:** | 18027 |
| **Review Period:** | FY 2024 | | **Organization #:** | 5400 |
| 1. **Annual Evaluation Results:** Document performance including both results and behaviors. | | | | |
| *Current fiscal year major objectives agreed upon with line manager* | | *Current fiscal year accomplishments* | | |
| Embrace and Demonstrate the Core NREL Values   * Safety * Innovation * Collaboration * Impact * Diversity, Equity, and Inclusion | | Safety – Maintained a safe and supportive environment by providing praise and positive feedback to peers, thanking co-workers for help on tasks, and openly communicating about challenges or problems.  Innovation – Advised colleagues on the HyBlend project to create impactful visualizations that provide deep insight into the potential costs and emissions reductions associated with upgrading natural gas transmission lines to operate with hydrogen.  Collaboration – Worked with researchers across multiple groups and projects to refine methods and assumptions for various models including the GreenHEART model, the stationary fuel cell installation cost model, BlendPATH, and the RFC project modeling. By providing my unique attentiveness to detail and insight into what capabilities and visualizations will be most impactful while simultaneously getting out of the way to let others use their skills to efficiently and effectively develop these models, I have helped to improve their accuracy, resolution, and overall impact.  Impact – Refined the stationary fuel cell installation cost model to comprehensively capture material, equipment, and labor costs associated with the implementation of various balance of system components such as pipes, cables, valves, and fittings to provide an extremely detailed analysis of the total installed cost of stationary fuel cells. This effort helped to demonstrate that stationary PEM fuel cells could be cheaper and more efficient than gas combustion turbines with today’s technology and will only get cheaper in the future. This finding could help motivate more commercial attention and development for stationary PEM fuel cell systems.  Diversity, Equity, and Inclusion – Always strive to be courteous, fair, and inclusive towards others regardless of race, gender, sex, ethnicity, etc. by putting empathy first in my interactions with others and being aware of my own implicit biases. | | |
| EERE R&D Analysis   * Long duration energy storage BOP modeling * Reversible fuel cell AOP * Green steel and ammonia project | | Long duration storage BOP modeling   * Collected detailed data on balance of system components including pipes, cables, valves, and fittings * Developed an automated script that assigns equipment and labor costs for BOS component installation with high fidelity * Collaborated with another researcher to develop a robust code that automates the process of designing a stationary PEM fuel cell power plant * Completed a draft NREL report and disseminated for review; publication anticipated in early FY2025   Reversible fuel cell AOP   * Performed literature review on key PEM and solid oxide RFC performance and cost parameters; used to inform TEA and provide initial recommendations to HFTO * Advised colleague on process modeling of PEM RFC systems and development of comparison between unitized and discrete RFCs based on LCOS   Green steel and ammonia project   * Facilitated a review of a manuscript across multiple NREL groups and centers * Shepherded the manuscript through the first round of journal reviews and revised manuscript for re-submittal; publication anticipated in early FY25 | | |
| CRADAS   * Pipeline Blending CRADA – A HyBlend Project * HD Fueling Protocols CRADA | | Pipeline Blending CRADA   * Advised two other analysts in the development of the BlendPATH model framework, including advocating for the development of a license-free network model and the capability of modeling up to 100% hydrogen in natural gas pipelines. Having these capabilities dramatically increases the potential BlendPATH userbase and increases the framework’s potential impact by allowing analysis of pipeline blending all the way up to pure hydrogen, which has not previously been analyzed. * Led an effort to overhaul HyBlend case study visualizations to present the economic impact of blending upgrades over a range of design factors in one figure. Conceptualized contour plots that simultaneously show the impact of blend ratio and end-use demand on pipeline upgrade equipment cost, levelized transport cost, and emissions reduction. These visualizations are comprehensive and dense with data, providing very novel insight into the economics of blending Hydrogen. * Assisted team in leading a 2-day workshop with industry partners in Downey, CA to plan out HyBlend Phase 2 research activities   HD Fueling Protocols CRADA   * Advised team on assumptions and visualizations for a model framework that calculates total cost of ownership of class 8 long haul trucks fueled via hydrogen stations operating under different fueling protocols | | |
| OCED R&D Analysis   * LDES demonstration project | | OCED LDES Demonstration project   * Assisted project PI in refining the statement of work for the simulation portion of the project, which I will lead in FY25 and beyond * Reviewed various options for simulation software and worked with project lead and another analyst to down select and choose one | | |
| Business Development   * OCED analysis lab call * LDES BOP FY25 AOP activities | | OCED analysis lab call proposal   * Led multi-lab effort to respond to OCED analysis lab call topic area 5.1 on simulation support, a $3 million, 3-year project that would collaborate with three other labs * Developed a project management plan, coordinated a 3-page concept paper, 45-minute presentation to OCED, and 5-page full proposal * Solicited input from both internal and external parties * Proposal was unfortunately unsuccessful, though we did get some good feedback from OCED   LDES BOP FY25 AOP activities   * Worked with internal team to develop potential follow-on activities for FY25 in AOP project * Secured qualitative support from SA via email to continue funding the project * Precise funding amount still pending as of October 4, 2024, but will likely be in the $120k-$250k range | | |
| Specific Performance Goals from 2021 Review | |  | | |
| * Publish journal article on Green Steel and Ammonia project. | | * Paper has passed through internal review and first round of journal reviewers; currently revising it before resubmitting. Anticipated publication in January/February of 2025 | | |
| * Publish journal article on Pipeline Blending CRADA cost tool. | | * Results have been updated to accommodate significant expansion of model capabilities; paper draft needs to be finished before reviewing with CRADA partners and internal NREL reviewers including Red Team Review | | |
| * Publish journal article comparing costs and emissions of hydrogen blending against alternative pathways including pure hydrogen pipelines and synthetic natural gas production. | | * Task delayed into phase 2 of HyBlend | | |
| * Publish NREL report on modeling framework for determining installed costs of stationary PEM fuel cell systems. | | * Report is drafted and undergoing industry and internal review. Anticipated to be published in first half of FY25. | | |
| * Develop a flexible set of process models to support hydrogen production and storage system modeling for the RFC AOP, LDES demonstration, and LDES-BOP projects. | | * Obtained process modeling software; model development tasks delayed to FY25. | | |
| * Learn object-oriented programming in Python. | | * Improved Python skills via Green Steel and ammonia project and LDES BOP project. | | |
| * Continue to improve leadership and communication skills.   + Taking NREL leadership and project management courses. * Apply those lessons in projects such as Green Steel and Ammonia, RFC AOP, HyBlend, and LDES demonstration. | | * Led another analyst in the LDES BOP project, culminating in a high-quality NREL report draft * Led three other analysts in RFC project in effort to compare discrete and unitized reversible fuel cells * Managed the review process for a high-profile publication for the Green Steel project * Led effort to submit a response to OCED analysis lab call topic area 5.1 * Advised model development across multiple projects including HyBlend, RFC, Green Steel, and LDES Demonstration | | |
| * Present at least one conferenced presentation or 2-3 webinar presentations. | | * Presented at 2024 AMR and CESC webinar | | |
| *Other major accomplishments:* | | | | |
| 1. **Line Manager’s Feedback** | | | | |
| Manager Feedback:   * Evan demonstrates an extremely high level of technical competence and detail which is clearly demonstrated through his work. * He also excels at identifying and executing solutions. These traits of his make an excellent technical contributor. * Evan also is a strong collaborator, communicator, and presenter. He collects his thoughts firmly before speaking and ensures he delivers clear messaging. * For FY25, I would like to see these papers that have been in the pipeline get published and for Evan to get a chance to get out and talk about his work. We’ll also work on being selective on the projects he’s working on to ensure he can build mastery in the areas he’s most interested.   Peer review feedback and suggestions for improvement, if any:   * Strengths that Evan possesses are technical mastery, determination, high quality of work, team player and reliability. Evan has a unique mix of skills which are key to the success of projects. * Evan is one of the sharpest people I know. His strengths are very complementary to the team as he focuses on academic research and ties it together with his strong engineering background. * Clear and direct communication of deliverables, so I knew what was expected of me and when. Extremely responsive to questions (always responded very quickly), so I was never stuck for long when waiting for clarifications or feedback. * I think Evan is doing great and honestly wouldn't change a thing about him. He is getting experience by the day and growing in his own way. * Maybe a better work-life balance (responses were fast, even outside work hours, on both sides of the work day -- while I very much appreciate fast responses, I definitely don't expect them immediately when I send a message at the end of the work day). | | | | |
| 1. **Major Performance Objectives for Next Fiscal Year:** State major objectives for next year. | | | | |
| * Publish journal article on Green Steel and Ammonia project. | | | | |
| * Publish journal article on Pipeline Blending CRADA cost tool. | | | | |
| Publish NREL report on modeling framework for determining installed costs of stationary PEM fuel cell systems. | | | | |
| * Publish NREL report or journal article on reversible PEM fuel cell technoeconomic analysis. | | | | |
| * Lead the development of process models of reversible solid oxide fuel cell systems and PEM hydrogen storage systems for the RFC and LDES demo projects, respectively. | | | | |
| * Continue to improve leadership and communication skills.   + Taking NREL leadership and project management courses. * Apply those lessons in projects such as LDES BOP, RFC AOP, and LDES demonstration. | | | | |
| * Present at least one conferenced presentation or 2-3 webinar presentations. | | | | |
| 1. **Areas for Growth, Development and Challenge:** List skills, knowledge, or attributes that need to be developed or strengthened. | | | | |
| Technical   * Refresh process modeling and optimization skills * Increase expertise in PEM fuel cell and electrolyzer hardware and systems   Leadership and professional development   * Continue to refine capabilities and efficiency in project management and budgeting * Improve leadership and communication skills by engaging with partners on various projects, mentoring post-doctoral researchers and other analysts, continuing to represent hydrogen analysis in industry and DOE forums and initiatives and at conferences, actively pursuing business opportunities, and taking NREL training courses in management and leadership. * Improve project management skills by prioritizing communication with analysts on the projects that I am leading, learning their unique skills and interests, and working to identify how to leverage those skills and interests to benefit both the projects and the people working on them. | | | | |
| 1. **Overall Performance Rating:** | | | | |
| |  |  | | --- | --- | | |  | | --- | | **Successfully meets or exceeds expectations** |   **Enter the overall performance rating:** |  |  |  | | --- | --- | |  | Type “Yes” in the box to the left if a corrective action plan is required. | | | | | |
| **Performance Rating Definitions:** | | | | |
| **Needs improvement** – Employee does not meet the performance and/or behavior expectations, and/or demonstrates only a minimum level of proficiency in the competencies required in their job on a consistent basis. This rating also applied to an employee who may exhibit workplace behaviors which negatively impact the ability to be effective in their role, although goals may be achieved. Additional skill development, commitment, and/or change in behaviors are necessary. This rating describes the employee who may meet only the very minimum position requirements and/or behaviors and change is necessary. The evaluation should detail the changes necessary for improvement to ensure clear expectations are defined.  **Successfully meets or exceeds expectations** – Employee is currently successful in their role and consistently meets and may frequently exceed the high NREL performance expectations commensurate with their position within the laboratory. The expected behaviors include proficiency regarding judgment, interpersonal and communication skills, and other competencies required in their job. This rating describes the employee whose overall performance is successful and above. Any minor areas where performance gaps exist were counterbalanced by overall successful performance and behavior that consistently met or exceeded expectations. The rating can also apply to employees new in their jobs who may be learning or lack experience but, overall, are successful in their role with no significant gaps in performance or behavior.  **Exceptional** – Employee consistently exceeds the majority of performance expectations and goals, and demonstrates judgment and behaviors commensurate with their position within the laboratory. The expected behaviors include a high level of proficiency regarding judgment, interpersonal and communication skills, and other competencies required in their job. | | | | |

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| **Employee and line manager review the following items together and initial upon review.** | | |
| **Initial each item** |  |
| **EPR** | **I have reviewed the** [**Commitment to Safety and Environmental Stewardship**](http://thesource.nrel.gov/esh/commitment.html) **and reviewed my ESH training requirements with my line manager.** |
| **EPR** | **I have reviewed my required training plan with my line manager and have submitted necessary changes to** [**institutionaltraining@nrel.gov**](mailto:institutionaltraining@nrel.gov)**.** |
| **EPR** | **I have discussed** [**NREL’s Ethics Handbook**](https://highpoint.nrel.gov/sites/iop/Documents/gen/fy21/77850.pdf) **with my line manager and understand my responsibilities in these areas.** |
| **EPR** | **I have discussed cybersecurity requirements, including personally identifiable information, and physical security requirements, such as visitor access and control issues, with my line manager and understand my responsibilities in these areas.** |

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| 1. **Employee Comments (Optional)** |
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| 1. **Signatures** |

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| **Employee:** | **Evan P. Reznicek** |  | **Date:** | **11/21/24** |
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| **Employee’s Line Manager:** | **Mark Chung** |  | **Date:** | **11/19/24** |

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| **Reviewing Manager:** |  |  | **Date:** | **12/16/2024** |