

Public Service Commission of Wisconsin Office of Energy Innovation Energy Innovation Grant Program



ATTACHMENT A - COVER SHEET

Project Ti	tle:		Dane (County School D	District Colls	borative	Fnergy Plai	nning
PSC Grant Request (\$):				Cost Share		THE RESIDENCE OF THE PARTY OF T	roject Total (\$):	
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Applicant Type:		□ Villa	□ Village □		Town	☐ County		
☐ Tribal Nation		☐ Manufacturer		⊠ K-12 School District				
☐ University of Wisconsin ☐ Wi		sconsin Technical College System		☐ 501(c)(3) nonprofit				
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Name:	Jerrud Rossing		ıg	Name	e:			
Title:	Director of Business Services		Title	e:				
Phone:	ne: 608-316-1916		Phone	9:				
E-mail: jerrud.rossing@mgschools.net			N E-mai	il:		THE STATE OF THE S		
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Monona Grove School District

Dane County School District Collaborative Energy Planning

Summary of Project Budget						
Line	Description	PSC Grant Request	Applicant Cost Share	Total Project Cost		
1	Personnel		\$17,846	\$17,846		
2	Fringe			\$0		
3	Equipment			\$0		
4	Supplies			\$0		
5	Travel			\$0		
6	Contractual	\$98,000	\$5,000	\$103,000		
7	Other			\$0		
8	Indirect			\$0		
	Totals	\$98,000	\$22,846	\$120,846		
	% of Total	81%	19%	<u> </u>		

Applicant Comments:

- -The applicant cost share value includes a contribution from each of the applicant entities. Each of the school districts have committed 96 hours of in-kind labor hours. At a rate of \$51 an hour, Monona Grove School District has committed to an in-kind contribution of \$4,896. At a hourly rate of \$46 an hour, Oregon School District is committed to providing \$4,416. Middleton-Cross Plains School District has committed \$4,292 at a rate of \$45/hour. Sun Prairie Area School District has committed 96 hours at a rate of \$44 for an in-kind labor contribution of \$4,242.
- -The \$103,000 on the contractual line covers Slipstream's efforts on the project. The majority, \$98,000, will be OEI-grant funded. The other \$5,000 represents Slipstream's in-kind labor hour contribution.
- -The grant will also have support from Dane County Office of Climate and Energy. They will provide inkind labor hours to support the educational efforts.



5301 Monona Drive, Monona, WI 53716

P: 608-221-7660 **F:** 608-221-7688

Dane County School District Collaborative Energy Planning

January 14, 2022

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Executive Summary

Project Description

Monona Grove School District (MGSD), Sun Prairie Area School District (SPASD), Oregon School District (OSD), and Middleton Cross-Plains Area School District (MCPASD) propose an energy planning collaboration to reduce energy use across multiple districts while learning best practices from and alongside each other.

Over the past several years, each district has improved its energy management and sustainability in various ways. OSD constructed a net-zero energy school in 2020. MCPASD resolved to use 100% renewable energy by 2035. SPASD uses geothermal in six of their schools. MGSD has the largest solar installation on a school in the entire state.

These districts are deeply committed to energy management and seek new ways to accelerate their district's carbon reductions. As leaders in this space, each district recognizes the value of sharing their previous and future lessons learned. They acknowledge the merit of creating a comprehensive plan that fuels and directs future energy strategies across their districts. A comprehensive planning process will bring these districts together to:

- 1. Develop a list of near-term and medium-term opportunities to meet their goals
- 2. Institutionalize a school district sustainability consortium
- 3. Share their existing expertise on school energy management

To hit these objectives, this project would incorporate four main tasks: 1) analysis of baseline data, 2) development of opportunities, 3) plans for ongoing measurement and collaboration, and 4) creation of a plan and educational materials.

Task 1 will analyze baseline data for each district. This task is a grounding step, and will establish a baseline of the complete set of actions each district has already taken as well as gauge overall energy use.

The data collected in Task 1 will inform Task 2, when we will identify a set of opportunities for each district. The opportunities will include energy efficiency, renewable energy, and demand response strategies. Our focus will be on-demand response strategies, as each district has already made significant strides in energy efficiency and renewable energy.

Task 3 will identify ways to track and celebrate future progress on energy. This task is vital to provide the school districts with an ongoing way to track progress toward energy goals post-project.

Lastly, Task 4 will focus on report and educational material development. The task will include the development of an internal roadmap for each district and educational materials with best practices and lessons learned that will be widely shared. The project will create fact sheets on key actions other school districts can consider and a webinar to share lessons learned.

Key Partners and Stakeholders

All four school districts are joint applicants for this project. The project lead will be MGSD, with each district equally invested in the project's tasks and success. Slipstream will provide technical and planning assistance.

In addition to the key partners listed above, the Dane County Office of Energy and Climate Change (OECC) will provide assistance as needed throughout the project, particularly with developing educational materials to distribute to other school districts in the area.

Monona Grove School District

The Monona Grove School District serves approximately 3,550 students throughout seven schools and approximately 950,000 square feet of space. The district has four elementary schools, one middle school, one high school, and a 6th to 12th grade project-based charter school. The district's oldest building was constructed in 1937, and the newest building was erected in 2021. The main point of contact is Jerrud Rossing, Director of Business Services.

Jerrud Rossing, Director of Business Services

Jerrud has been with MGSD since 2010. He has worked with two other school districts in the State of Wisconsin, assisting with and overseeing facilities and finance during the past 15 years. He has been part of two new elementary school construction projects, including the first elementary school in Wisconsin to be LEED-Gold certified and multiple facilities upgrades related to sustainability.

Sun Prairie Area School District

The Sun Prairie Area School District serves approximately 7,800 students with 14 total schools and 1.9 million square feet of space. The district has nine elementary schools, three middle schools, one traditional high school, and one alternative high school. The district plans to open a second high school in fall 2022. The point of contact is Kevin Splain, Sustainability and Energy Manager.

Kevin Splain, Sustainability/ Energy Manager

Kevin has been with the district for six years. He has more than 16 years of experience working with building systems. In his role, Kevin tracks ongoing energy use, adjusts schedules and controls as needed to save energy, and works with design teams on new construction to incorporate efficiency.

Oregon School District

The Oregon School District serves approximately 4,200 students and has seven schools and one community pool that covers ~1.05 million square feet of conditioned space. The district has four elementary schools, two middle schools, and one high school. The main point of contact is Andy Weiland.

Andy Weiland, Business Manager

Andy has been the business manager for OSD since 1999. He has been the district lead in the building of three school buildings in two different states during his career and seven additions to existing school buildings.

Middleton-Cross Plains Area School District

The Middleton-Cross Plains Area School District serves approximately 6,900 students with a total of 11 schools and 1.6 million square feet of space. The district has seven elementary schools, two middle schools, one traditional high school, and one alternative high school. The district will complete phase two of a high school addition in August of 2022. The following staff members will be involved in the project.

Lori Ames, Assistant Superintendent, Operations

Lori has been with MCPASD since 2012 and has worked with three other school districts in the State of Wisconsin, assisting with and overseeing facilities and finance during the past 31 years. She has been part of multiple facility construction projects. She has also been involved in a shared services agreement between MG&E and the City of Middleton for solar.

Dale Rhodes, Facilities Services Manager/Energy Manager

Dale has been with the district since 2010. Prior to this role, he worked in two other Wisconsin school districts. Dale is certified as Building Operator level 1 and 2. He has also completed the WASBO Facilities Certification Program.

Slipstream

Slipstream is a mission-driven nonprofit that creates, tests, delivers, and scales the next generation of energy efficiency and renewable energy programs to produce equitable economic and environmental benefits. Slipstream partners with utilities, local and state governments, regulatory agencies, and other organizations to inspire new solutions to energy challenges.

Slipstream will serve as a key partner on this project, providing technical and planning expertise. Slipstream will be responsible for the final deliverables. We have provided a list of relevant qualifications that demonstrate our deep experience and capacity to complete this work. Slipstream's key staff resumes are included in the reference materials.

Project Objectives and Metrics

This project has discrete objectives and metrics:

- 1. Develop an energy plan with 15 near-term opportunities for energy efficiency, demand response, or distributed energy resources for each school district.
- 2. Institutionalize a collaborative network to share lessons learned. This will be measured through the development of a tool or meeting schedule for the ongoing exchange of knowledge.
- 3. Identify a tool to measure the success of future upgrades with monthly or active monitoring of school energy use.
- 4. Create and distribute a set of five fact sheets that detail best practices for energy management, procurement, and energy efficiency. The fact sheets will detail the process and technical outcomes.
- 5. Conduct a webinar to share lessons learned through this process with other school districts in Wisconsin.

Reference Materials List

- MCPASD 100% Renewable Resolution
- OSD Environmental Sustainability Statement
- Letters of commitment
- Letters of support
- Slipstream qualifications
- Slipstream resumes

Application Narrative

Monona Grove School District (MGSD), Sun Prairie Area School District (SPASD), Oregon School District (OSD), and Middleton Cross-Plains Area School District (MCPASD) propose a collaboration to reduce energy use across multiple districts. By providing an avenue for these four districts to collaborate and share knowledge, each district can develop an actionable framework to reduce carbon emissions while learning best practices from and alongside each other.

Each school district has taken steps to advance energy efficiency and renewable energy use for their students, buildings, staff, and local communities. Each district is K-12 and serves between 3,500 and 8,000 students. The districts combined hold seven to 14 school buildings. Each school district has an engaged set of stakeholders, including community and staff members committed to sustainability measures.

In 2006, SPASD started an Energy Management Program and hired an Energy and Sustainability Manager to focus on ongoing commissioning, equipment replacements, and control sequence upgrades. The district retrofitted all buildings with LEDs, replaced multiple chillers and boilers with high-efficiency equipment, and all new school buildings since 2005 have incorporated geothermal heating and cooling.

Currently, OSD has solar generation on four school buildings, adding up to 734 kW. Three schools use geothermal heat pumps. They also opened a net-zero elementary school in 2020, which is the largest net-zero energy educational building in North America certified by the New Building Institute.

Monona Grove School District has been working to save energy through energy efficiency improvements in its schools since 2009. The improvements to date are estimated to be saving the school \$250,000 annually. The district is currently installing a solar PV installation on its high school. Once complete, it will be the largest school installation in the state. The ad hoc Sustainability Committee helps guide and facilitate the district's environmental actions.

Lastly, MCPASD has an active Green Team comprised of 60 students across the district. The district has invested heavily in energy efficiency with its buildings and recently adopted a resolution to rely on 100% clean energy for all district operations by 2035. The district is recognized as a Green Ribbon district and has several Green Ribbon school awards.

With the momentum from these previous investments and current goals, these four school districts are looking to identify new ways to move forward on energy and create a consortium to learn from each other and share with other districts in the state. Each district has expertise in specific energy topics, and they are looking to share that knowledge while creating a roadmap with a set of comprehensive energy strategies. This project will consist of four primary tasks, which are detailed below.

Task 1: Baseline analysis

In Task 1, we will gather and share initial data to inform the future project tasks. The two subtasks are 1) a collection of all previous school district energy activities, and 2) an analysis of baseline energy data. During Task 1, the group will meet a minimum of two times to start the collaborative nature of the work.

Previous activities data collection

As identified in the above section, each of the four school districts have taken substantial action regarding energy efficiency and renewable energy in the past several years. This task will create an organized list of previous data tracking efforts, renewable energy installations, energy efficiency upgrades, new building developments, and policy adoptions. The list will identify actions and key challenges or barriers the districts experienced. The outcome will be a categorized table of activities with a description and key barriers or steps.

The list will serve as a starting point for future opportunity development and for key actions to highlight in the educational components of this project.

Baseline energy analysis

Each school district tracks energy use in their buildings through EnergyCap, EnergyStar Portfolio, or other ad hoc methods. This task will analyze that data to summarize total energy use, benchmark school buildings' energy use intensity, and identify periods of high demand. These data points will be essential to determine renewable energy and demand response opportunities for each school district.

Using this data analysis and feedback from the schools' facility managers, we will also identify one school in each district for an audit. During the audit, we will talk with building staff about typical operations and take note of lighting, heating, ventilation, air conditioning, operations, and comfort levels. This audit will help identify pointed opportunities for each building. We will hold short conversations with building staff to gather baseline information about the rest of the schools in each district.

Task 2: Development of opportunities

Task 2 will identify a list of opportunities for each school district in the near and medium-term. Each opportunity will be analyzed for its impact on cost, energy, and carbon. When possible, a savings-to-investment ratio will also be calculated. The group will meet monthly during this process to provide feedback on the opportunities identified. The opportunities will fall into four main categories:

- <u>Demand response opportunities:</u> A main focus of the opportunity analysis will be ondemand response opportunities. This is an area that has a large impact on school district costs. Potential measures include scheduling and lighting and HVAC controls.
- <u>Energy efficiency opportunities:</u> A second component will be traditional energy efficiency upgrades, such as HVAC or lighting conversions. Measures will be determined through the analysis of energy data and facility audits.
- <u>Distributed energy resources:</u> This category includes all distributed energy resources. The districts have already started to install renewable energy systems, and this task will help identify additional sites for renewables and the potential output from those systems.
- <u>Internal policies:</u> This last category will identify any potential internal policies the districts can implement to guide future energy reductions. This may include procurement best practices and operational policies.

Task 3: Plans for ongoing measurement

In addition to understanding energy savings opportunities outlined in Task 2, this group recognizes other benefits to collaboration. While some school districts in this group have more experience

with submetering and in-depth monitoring, all collaborating partners want to delve further into how energy savings and investments can be monitored and measured. Task 3 will focus on identifying ways for the school districts to measure energy use and the impact of future upgrades. The outcome of the task will be an overview of potential tools for each objective and a recommendation of how to move forward with implementation. The group will meet monthly during this process.

Each school district has established ways to compile building-level energy data. However, they do not have a robust way to measure more granular equipment-level data or track the impact of an upgrade. Operational changes, such as number of activities in the schools or COVID, impact energy use, and the school districts are looking for a robust method against which to measure the baseline usage to an upgrade.

In this task, we will research and present options for monitoring energy use and measuring the success of an upgrade. The outcome may be investment in a tool or the eventual creation of a dashboard or spreadsheet solution. This tracking will help provide quantitative operational savings shared within fact sheets and informational packages.

Task 4: Create plan and external education documents

The last task will focus on the creation of an internal plan for the school districts and external education documents to share with other school districts.

The internal document will provide an actionable set of opportunities for the school districts. The opportunities will be categorized into relevant timeframes, near-term vs. medium-term, based on the technology's payback periods and market readiness. The document will provide a roadmap for the school districts to review as they continue to implement energy strategies at their schools. In addition to providing details on energy opportunities identified, and their costs and savings, the report will also outline policies and procedures to ensure ongoing collaboration between the school districts. This could include joint data repositories to share energy data continuously, methods to share actions taken and the results, and a structure for ongoing meetings.

The second set of documents will include fact sheets and a webinar that will be used to educate other school districts on the lessons learned throughout this process. The fact sheets will highlight energy-related activities these school districts have done. Tips on barriers and how to overcome them will also be listed. Each fact sheet will compile a narrative of why the school district took action, the technical details on implementing the strategy, and any potential outcomes.

The webinar will share larger lessons learned throughout the planning process and will be marketed to other school districts in the state. The Dane County Office of Energy and Climate Change (OECC) will help distribute these materials through their Sustainable Leaders Collaborative, which has approximately 170 members. The OECC will continue to act as an information hub among school districts interested in pursuing similar projects. It can connect them with additional materials and resources to facilitate their own transition to reduced and/or renewable energy.

Eligibility and Ability to Achieve Objectives

Monona Grove School District is the lead applicant on this project and a Wisconsin K-12. The partner school districts, SPASD, OSD, and MCPASD, are also eligible applicants. Additional proof of eligibility will be provided upon request.

The majority of the work will be subcontracted to Slipstream for their technical, planning, and project management assistance. Slipstream's key staff include Jeanette LeZaks, Maddie Koolbeck, Connor Jansen, and Dan Streit. See their resumes and Slipstream's qualifications in the Reference Materials section.

Budget Justification and Cost Share

The majority of the budget, \$98,000, will go to Slipstream for their technical, planning, and project management assistance. Slipstream will contribute a cost match of \$5,000 to these efforts.

Each school district will contribute 96 hours of in-kind labor hours. These hours will support their data collection efforts, attendance at ongoing materials, and support of educational material development. Together, these contributions amount to \$17,846 with each school district committing between \$4,200 and \$4,900.

Savings and Payback

The implementation of identified opportunities has significant potential to lower annual operating costs. Although, the planning process will not generate any immediate financial benefits for the school districts. Slipstream will conduct a financial analysis of all identified opportunities and ultimately recommend the best financial impact measures. As demand charges account for a substantial portion of the districts' energy costs, the analysis will pay special attention to how the measures impact those costs.

We estimate that the building efficiency measures can reduce energy costs by between 5% and 15%. This is supported by the Department of Energy's Federal Energy Management Program's Operations and Maintenance Best Practice guide, which suggests that an operation and maintenance plan can save "5% to 20% on energy bills without a significant cost investment."

The demand response and renewable energy opportunities will only increase those potential energy cost reductions. The demand response measures will be critical in lowering demand charges for the district. Renewable energy cost reductions will depend on the size of the installations considered, which will be determined through the planning process.

We will utilize savings-to-investment calculations to estimate payback periods for the measures, where possible. This methodology accounts for ongoing operational costs as well as the annual savings and upfront cost, which will provide a complete representation of the financial impact of each measure.

Energy Savings and Environmental Impact

The measures identified in this plan have the potential to create significant energy and carbon savings. However, as this project is a planning process, it will not generate any energy or carbon savings. We preliminary estimate that the opportunities identified through the project will have the potential to lower carbon emissions by between 10 and 30%.

The analysis of each measure will include an estimation of the energy savings and carbon impact. The final deliverable will report these values and serve as a guide for the districts on how each measure can help them reach their goals. By identifying ways for continuous data monitoring, this project will also aid the districts in tracking progress as they implement the recommendations.

Beyond these school districts' implementation, the educational component of this project will guide other school districts across the state to pursue energy reduction strategies. This has the potential to generate significant energy and carbon savings across K-12 organizations.

Energy and Equity Justice

All four districts have adopted an equity mission and guiding framework to respond to and address inequities within their school districts. The school districts are committed to devoting resources to their equity missions. Any money saved through energy savings in this project would allow the district to redistribute resources and provide services for its student population. This project would directly help each district maximize the budget that can be delivered to student and family resources by cutting down on operational costs.

Each district is adding an energy and sustainability curriculum and figuring out ways to utilize this planning process as a learning experience. This approach helps expose students of all backgrounds to energy management and sustainability efforts, providing valuable knowledge about how to lower home energy costs.

The school districts recognize that climate change disproportionately impacts vulnerable populations. This project represents a concrete step to lowering energy use and greenhouse gas emissions to help mitigate adverse impacts of climate change. The districts will pay special attention to ensure that adopted operational policies do not adversely impact any population.

Lastly, the marketing of our educational materials will focus on how to reach smaller districts in Wisconsin and districts that lack resources. The materials will convey the first steps in energy reduction. This will enable districts of all sizes to generate cost savings.

Financial Leverage and Economic Impact

Each of these four school districts is committed to taking action on energy but often faces resource and budget constraints. The districts often only have the resources to take action as opportunities present themselves and don't have the time or money to devote to a more comprehensive planning process. As each of the districts has implemented a number of initiatives to date, they need technical assistance to identify a set of successful next steps. This grant funding would enable the districts to work with Slipstream to receive help to identify opportunities and establish a more comprehensive plan.

By implementing the actions identified throughout the process, the school districts will generate significant budget savings and be able to reinvest the savings into future upgrades or other important services. However, as a planning project, this project will not have any direct implications on job creation or cost savings.

Existing Energy Planning Effort

Each of the four school districts tracks their school's energy use consistently. Three of the four school districts utilize EnergyCAP to track each school building's energy use annually, while the other uses a spreadsheet-based system. SPASD has also integrated their utility-level energy meters into the BAS system to allow for continual monitoring by in-house HVAC technicians and electricians, while OSD has integrated eGauges into some schools to track more equipment-level

energy use in addition to building-level data. MGSD also had a solar site assessment completed on all its buildings in 2020.

In addition to internal tracking, each district has an engaged community member group working on energy planning. SPASD presents energy data and cost savings annually to its School Board. MGSD has a Sustainability Committee that spearheaded energy tracking and solar installation. MCPASD has a sustainability committee that has pushed forward a resolution for the district to use 100% renewable energy by 2035.

The existing compilation of energy data by each district ensures that adequate data will be available to analyze building performance and identify opportunities. Additionally, these previous actions illustrate that each district is invested in energy efforts, with key stakeholders pushing for action. An in-depth planning process is the necessary next step to position the districts with a roadmap of strategies to pursue in the next five years.

Energy Resiliency

The consideration of distributed energy resources for these school districts is a first step towards resiliency. The analysis of distributed energy resources will primarily focus on the potential output from solar PV. Still, we will also explore how battery storage would impact total cost and benefits from the systems.

As schools often serve as potential community resiliency centers during emergency situations, these systems have the potential to provide benefits to the entire community. This will be explored as a potential benefit to these systems and included in the financial analysis.

Education and Awareness

Since the four collaborating partners are school districts, their priorities revolve around providing students with a high-quality education. Through the project, the four districts will share knowledge through project meetings and discussions.

Furthermore, the school districts will develop an ongoing knowledge exchange plan to encourage uptake by additional Wisconsin school districts. Lack of knowledge regarding the cost-effectiveness of implementing similar energy analyses and in-house expertise on pursuing these types of projects are likely barriers other Wisconsin school districts face. Therefore, external education and awareness will include factsheets on successful measures and a webinar that comprehensively addresses lessons learned from the project.

Each fact sheet will present an energy management or energy reduction strategy that one of the districts has completed. It will also include a narrative on why the strategy was pursued, the technical details around implementation, and any outcomes. The webinar will comprehensively cover how to overcome barriers to energy management and lessons learned from this process.

The webinar and fact sheets will act as a guide for other school districts in Wisconsin to pursue similar initiatives. The purpose is to provide a guide for best practices to other school districts interested in pursuing a similar initiative and to demonstrate this plan as a case study for the cost-benefit of implementing such a plan.

Slipstream and the OECC will work together to produce and distribute these educational materials. Slipstream is a leading provider of educational training in the state of Wisconsin, and its webinars

typically reach hundreds of stakeholders. Dane County has an extensive network and facilitates exchange of materials regularly. The OECC will utilize its Sustainable Leaders Collaborative and its connections with other stakeholders across the state to distribute these educational materials and host them on its website.

Lastly, each school district has educators developing curriculum around energy management and sustainability. We recognize that the data and information gathered through this planning effort can be used as educational tools. School district leadership will prioritize communications with educators to understand the resources they can use in real-world classroom examples.

Innovation

This planning project has several unique features and will serve as a case study for school districts around the state. A collaborative network for planning among school districts is a new approach. It will showcase how different government entities can benefit from comprehensive plans and an organized exchange of knowledge.

The external educational fact sheets created by this project will distribute the practices of these leading school districts to organizations around the state. This piece of the project is innovative as it provides a tangible focus on technology transfer and knowledge exchange.

This project has two unique focuses for planning that include demand response opportunities and tools for continuous monitoring and external sharing. The lessons learned on these topics will create a new knowledge base in Wisconsin that will be transferrable to government organizations across the state.

Reference Materials

Resolutions



SUSTAINABILITY RESOLUTION

WHEREAS, climate change and environmental destruction is considered the biggest issue youth and future generations will face;

WHEREAS, schools are important consumers of natural resources, including energy, water, food, and paper, and generators of waste material, including garbage, runoff, and air emissions;

WHEREAS, schools have the potential to make positive, tangible environmental change in the world while teaching students to be stewards of their communities, the earth, and its resources;

WHEREAS, there is tremendous opportunity to teach children about ecological sustainability, environmental health and nutrition, and support students to become leaders in making their own school a healthier and more ecologically friendly place;

WHEREAS, many stakeholders including staff, students, school board members, and community members have articulated their desire for MCPASD to further embrace environmental and economic progress through sustainability;

WHEREAS, MCPASD has already built a foundation in sustainability and environmental education through their current environmental education opportunities, Green Ribbon recognition, and participation in the Green Schools National Network;

WHEREAS, the City of Middleton passed a resolution in 2018 clarifying goals to mitigate climate change through clean energy and shift to 100% renewable electricity by 2035 within practical and economic reach;

NOW, THEREFORE BE IT RESOLVED, MCPASD will pursue a strong and more cohesive sustainability program (operational, curricular, and cultural) in all schools in order to equip all students with the knowledge and foundation to overcome future challenges, such as climate change, and better our world;

BE IT FURTHER RESOLVED, MCPASD will build into future facility plans mandatory standards for the use of renewable materials, water efficiency, energy efficiency, recycling, and renewable energy projects.

BE IT FURTHER RESOLVED, MCPASD will adopt a zero-waste philosophy, identify and implement sustainable practices throughout its campuses, and develop a waste infrastructure that includes compost, recycling, and e-waste recycling to instill a culture of sustainability in all its members.

BE IT FURTHER RESOLVED, MCPASD will establish goals to reduce landfill waste through sustainable practices by 35% by 2025.

BE IT FURTHER RESOLVED, MCPASD will establish goals to meet 100% of all district operations energy needs with renewable energy by 2035.

BE IT FURTHER RESOLVED, Administration will identify grants and other external, extraordinary funding resources to assist the District's efforts to implement major energy efficient improvements;

BE IT FURTHER RESOLVED, MCPASD will create a sustainability committee to assist with meeting the resolution and to help create a better world, safe from environmental issues, for generations to come.

IN WITNESS WHEREOF, the Middleton Cross Plains Area School District Board of Education has executed this resolution the 22nd day of March, 2021.

Annette Ashley Board President

Date

139: Environmental Sustainability in the Oregon School District

In 2016, the Oregon School Board convened an Environmental Task Force comprised of district stakeholders to study sustainability within the Oregon School District. That Task Force issued a report to the Vision Steering Committee, which received the report on April 9, 2017. A copy is found here.

The Board approved a position paper in September 2016 titled "The Path Forward" (Board Policy 138). The paper recognized that we must educate our students in the context of an evolving world and included the following bullet point as an important factor for consideration:

The changing landscape of our ecological world has a profound impact on our lives. It is
essential to prepare our students to learn about the world, how it works and understand
the challenges and opportunities before us.

Five values were articulated in the paper to guide District decision-making and implementation of District priorities. The best way to facilitate the consideration and implementation of Environmental Task Force recommendations, consistent with our recognition of the vital importance of teaching our students about the changing ecological landscape, is to cast them in the context of a broad value statement. This statement, while not an addition to the five values articulated in "the Path Forward," is nevertheless intended to be used by the District in furtherance of those five values as they relate to environmental sustainability.

Accordingly, the Board adopts the following value statement regarding environmental sustainability in the District:

"The Oregon School District believes it is critical for the future of our planet to develop learners who are ecologically literate and environmentally responsible citizens and stewards. We believe it is important to model the District's commitment by establishing these values and developing practices consistent with them:

- The District will continue to develop building and operational practices and procedures that reflect a commitment to environmental sustainability; and
- The District will have an aligned K-12 curriculum that integrates ecological and environmental sciences and issues into the curriculum, including socio-economic aspects.
 This may include, but is not limited to, experiences outside the classroom, project-based learning, and environmental services projects."

Adopted: January 8, 2018

Letters of Commitment						



ADDRESS
501 S. Bird Street
Sun Prairie, WI 53590

PHONE 608.834.6500

SUN PRAIRIE AREA SCHOOL DISTRICT

Futures depend on us...every child, every day.

January 3, 2022

Jerrud Rossing Director of Business Services Monona Grove School District 5301 Monona Drive Monona WI 53716

Dear Jerrud,

I am writing to confirm our support for and intention to participate in Monona Grove School District's proposed energy planning collaboration to create a comprehensive plan for future energy strategies at school districts. The Sun Prairie Area School District (SPASD) is committed to supplying the specific staff, time and resources defined in the proposal as a partner on the project team. This amount to a \$4,240 contribution of in-kind labor match, as show in in the projection budget.

We feel that SPASD can bring a unique perspective that will compliment the other districts existing steps and actions towards improved energy management and sustainability. The SPASD School Board believes it has a responsibility to ensure every effort is made to conserve energy and natural resources while exercising sound financial management. This collaboration, if awarded the EIGO2021 grant, will allow the district to further these goals by identifying energy saving opportunities, sharing successes through a school district sustainability consortium, and by identifying a way to track and share future progress on energy reductions.

We look forward to being a part of this work if the project moves forward,

Thank you,

Kevin Splain

Sustainability/ Energy Manager Sun Prairie Area School District

Oregon School District 123 East Grove Street, Oregon WI 53575 608-835-4000 www.OregonSD.org

December 14, 2021

Jerrud Rossing Director of Business Services Monona Grove School District 5301 Monona Drive Monona, WI 53716

Dear Jerrud:

I'm writing to confirm our intention to participate in Monona Grove School District's proposed energy planning collaboration between four school districts. We are committed to supplying the specific staff, time and resources defined in the proposal as a partner on the project team. Oregon School District Policy 139 states, "The Oregon School District believes it is critical for the future of our planet to develop learners who are ecologically literate and environmentally responsible citizens and stewards. We believe it is important to model the District's commitment by establishing these values and developing practices consistent with them." This project provides a structure with resources that will allow our four school districts to work on one of the most significant threats and opportunities of our generation. It will also provide us data and tools that we can use to help other school districts with their own sustainability journey

Oregon School District is also committed to providing matching funds of \$4,416 of labor as shown in the project budget.

We look forward to assisting you in this project to compile baseline energy use profiles, identify key energy opportunities, and develop plans for ongoing sharing and collaboration, if the project moves forward.

Sincerely,

Andy T. Weiland Business Manager



1/10/2022

Jerrud Rossing Director of Business Services Monona Grove School District 5301 Monona Drive Monona, WI 53716

Dear Jerrud:

I'm writing to confirm our intention to participate in Monona Grove School District's proposed project involving an energy planning collaboration between the school districts of Monona Grove, Oregon, Sun Prairie, and Middleton-Cross Plains. We are committed to supplying the specific staff, time and resources defined in the proposal as a partner on the project team.

The Middleton-Cross Plains School District believes in promoting, protecting, and sustaining green and health practices in all its schools. The entire district, as well as four individual schools, have already been honored as U.S. Department of Education Green Ribbon Schools. The district currently uses geothermal in two of its schools and solar for approximately 25% of the energy needs in nine of its schools.

In the spring of 2021, the Board of Education approved a resolution to use 100% renewable energy by 2035. The district believes this project will assist in reaching our ambitious goal. We are committed to providing matching funds of \$4,292 as shown in the project budget.

We look forward to assisting you in this project to compile baseline energy use profiles, identify key energy opportunities, and develop plans for ongoing sharing and collaboration, if the project moves forward.

Sincerely,

Lori Ames

Assistant Superintendent-Operations

Losi ames



January 13, 2022

Jerrud Rossing Director of Business Services Monona Grove School District 5301 Monona Drive Monona, WI 53716

Dear Jerrud:

I'm writing to confirm our intention to participate in Monona Grove School District's proposed project: Dane County School District Collaborative Energy Planning. We are committed to supplying the specific staff, time and resources defined in the proposal as a partner on the project team.

We support the school districts' ambitious goals and excited for the opportunity to collaborate with Monona Grove School District, Oregon School District, Middleton Cross Plains School District, and Sun Prairie Area School District to develop a roadmap of strategies to progress towards the goal.

We are also committed to providing matching funds of 5% of labor, \$5,000, as shown in the project budget.

We look forward to assisting you in this project, if the project moves forward.

Sincerely,

Jeannette LeZaks

Director of Research and Innovation, Slipstream

Letters of Support		



December 28, 2021

TO: Public Service Commission of Wisconsin

RE: Energy Innovation Grant Letter of Support

On behalf of Dane County's Office of Energy & Climate Change, I am writing to support the proposal submitted by Monona Grove School District for the Energy Innovation Grant Program.

Dane County is home to more than 550,000 residents, a world-class research university, and about 55,000 dairy cows. Our economy is diverse and vibrant. In 2020, Dane County issued an ambitious countywide climate action plan that aims to reduce by half all emissions in the county by 2030. We are actively working with almost a hundred local governments as well as numerous other stakeholders on implementing the plan. This includes working closely with Sun Prairie Area School District, the Oregon School District, Middleton-Cross Plains Area School District, Monona Grove School District, and Slipstream, on a variety of projects and initiatives associated with energy efficiency, electrification, and renewable energy.

We are excited about the potential for their innovative project. We support their efforts to better track and understand their energy needs and think that their proposed collaboration is an optimal strategy for sharing resources, knowledge, and making progress. More, we recognize that projects like this one—embedded in public schools—have enormous potential to accelerate clean energy momentum across our communities. We will continue to offer our guidance and share resources with these school districts as needed to complete this work.

We urge the Public Service Commission of Wisconsin to fund this important project.

Thank you,

Kathy Kuntz

Director

Office of Energy & Climate Change



1425 Corporate Center Drive Sun Prairie, WI 53590-9109 608.834.4500 wppienergy.org

January 6, 2022

Public Service Commission of Wisconsin Office of Energy Innovation 4822 Madison Yards Way Madison, WI 53705

Dear Administrator Nieto:

WPPI Energy and Sun Prairie Utilities is pleased to provide this letter of support for the Sun Prairie Area School District grant application for the Office of Energy Innovation Grant Program.

The project application will support a stakeholder engaged process for evaluating and compiling energy use data across multiple schools. The team will study and identify potential energy efficiency opportunities, demand response capabilities and distributed energy resources. The study will also help in the development of a plan for the measurement and reporting of their energy usage for the public to view on their website and annual reports.

WPPI Energy and Sun Prairie Utilities understands the value of this project and looks forward to contributing as a strategic and technical partner of the applicant.

Regards,

Clint Cry

Clint Cry

Energy Services Manager Serving Sun Prairie Utilities

Slipstream Qualifications

Energy Innovation Planning for Dane County Municipalities.

The Wisconsin Office of Energy Innovation (OEI) provided funding for seven communities in Dane County to develop energy plans. Slipstream provided project management and technical support for this year-long effort to identify and prioritize near-term actions for reducing energy and carbon in each community. Through collaboration, these seven communities (Fitchburg, Marshall, Middleton, Monona, Stoughton, Sun Prairie, and Waunakee) developed actionable recommendations that each city uses to address existing energy goals and establish additional goals. Each municipality benefits from sharing best practices and lessons learned from assessing the feasibility of innovative pilot projects and programs designed to provide maximum economic benefit to their communities. WPPI Energy, the wholesale electricity provider for several of these communities, saw this project as a model for other WPPI member communities throughout Wisconsin.

Small Business Characterization Study.

Slipstream characterized the small commercial sector in Minnesota and identified utility program opportunities to serve this sector better. Using surveys, site visits, and secondary data collection, Slipstream targeted a large sample of buildings to characterize this market. They identified sector segments with the greatest potential for savings and completed nearly 100 site visits to offices, restaurants, and grocery stores to identify energy-saving opportunities. Their research, best practices, and recommendations in this sector are used across the country for promising program approaches. It compels small business owners to consider reductions in heating, cooling, ventilation, process loads, and lighting.

Bayview Affordable Housing Development Energy and Sustainability Planning.

Slipstream led the Bayview Foundation and TKWA designers through a series of charrettes and design activities for a new 500-resident affordable housing development in Madison, WI. They established measurable goals that improve energy use and increase health and resilience. Building upon those goals, they investigated and analyzed pathways for a net-zero development outlining massing strategies, PV and community solar options, metering considerations, and HVAC designs.

OEI LCO Planning Grant

Slipstream currently works on an energy plan with the Lac Courte Oreilles Band of Lake Superior Chippewa (LCO), one of six federally recognized bands of Ojibwe People in Wisconsin. The plan is funded through an Office of Energy Innovation (OEI) Grant. The goals of this comprehensive energy and decarbonization plan include actionable strategies pursuant to energy efficiency, self-sufficiency, resiliency, and ultimately, energy sovereignty. The plan will help LCO determine how to lower their energy burden, strengthen their power resources, and fortify the health of their People, environment, and economy that are now vulnerable to frequent power outages. The plan will ultimately enable LCO to obtain new funding to build energy infrastructure that benefits the LCO Tribe and LCO Tribal Citizens.

OEI Microgrids

The Wisconsin Office of Energy Innovation (OEI) provided funding for microgrid feasibility studies. Slipstream provides technical support to both the City of Madison and the City of Sun Prairie for their projects. The City of Sun Prairie project proposes a feasibility study that explores the expansion of the library's current emergency and community capabilities. Slipstream investigates integrating solar and storage with microgrid controls to serve critical loads, such as the HVAC,

lighting, computers, and the Sun Prairie Media Center. The library is committed to providing community benefits, including those of a CRC.

The City of Madison project proposes a feasibility study that examines the conversion of two adjacent city-owned facilities into an interconnected microgrid, leveraging existing solar and back-up generation systems. Each of the proposed locations houses critical city functions, such as snow removal, road maintenance, and sewer maintenance, in addition to office support for police, firefighting, and GIS services for multiple agencies. In the study, Slipstream will work with key stakeholders, including city staff and utility partners to compare system configurations and costs, quantify resiliency, environmental, and grid benefits, and consider how efficiency initiatives impact microgrid performance.

Resumes		

Jeannette LeZaks

Slipstream—Interim Director of Research & Innovation

Jeannette develops and manages residential, commercial and industrial energy efficiency research projects. She applies technical research to examine how people use energy and combines skills in billing analysis, planning and econometrics to identify energy impacts and opportunities. Jeannette also develops survey and interview instruments, conducts interviews, and analyzes energy data to develop advanced program approaches that help utilities reach efficiency goals.

Selected Projects

Energy planning for municipalities. Jeannette is leading a municipal energy planning effort with seven communities in Dane County, Wisconsin. Slipstream is providing analytical support to develop an energy profile for each community and identify near-term opportunities for energy and cost reductions. The project will also leverage collaborative opportunities.

Minnesota commercial energy baseline and market characterization study. Jeannette is leading a study to characterize the energy efficiency of new and renovated commercial building and identify specific opportunities for increased energy savings through and beyond existing commercial energy codes. The study includes detailed plan reviews and site visits of recently renovated or constructed buildings. Jeannette manages the project and conducts analysis of the data collected.

Examining prepaid electricity in Minnesota. Jeannette assisted in an ACEEE-led study that examined the potential for prepay electricity programs to reduce energy. Jeannette conducted numerous stakeholder interviews that included Minnesota utilities, consumer groups, and other organizations to understand the complex issues that currently surround prepay electricity programs. She also assisted with a literature review of contemporary research and developed recommendations for Minnesota utilities.

Small commercial characterization study. Jeannette co-led a study to characterize the small commercial sector in Minnesota and identify opportunities for utility programs to better serve this sector. Surveys, site visits, and secondary data collection was used to target a large sample of buildings and identify sector segments with the greatest potential for savings. Nearly 100 site visits were conducted at offices, restaurants and grocery stories to identify energy saving opportunities and inform recommendations for promising program approaches designed to compel small business owners to consider reductions in heating, cooling, ventilation, and process loads, in addition to lighting.

Manufactured homes characterization and performance baseline survey. Jeannette managed a CARD-funded project to identify and characterize a representative sample of manufactured homes in Minnesota. She implemented the research design to gather a comprehensive set of housing and household data from these homes. The project also mined existing data sources for useful information on energy use and savings potential in manufactured homes and incorporated GIS techniques to estimate the potential energy savings from this segment by utility.

Research-based design of residential high user program. Seventhwave completed a CARD-funded study in Minnesota to develop empirically-based program approaches for utilities to better serve residential customers with comparatively high electricity and natural gas use.



Jeannette conducted interviews and walk-through home audits to determine the causes of the high usage and identify energy-saving opportunities. She also assisted with data analysis.

California low income needs assessment. Seventhwave assisted Evergreen Economics with a needs assessment of low-income households in California. The project helped utility weatherization and rate-based programs better serve these households and reach goals of 100 percent participation. Jeannette was on a team of three interviewers who conducted 100 inhome interviews to better understand perceptions, needs, and willingness to participate under various scenarios of eligible households, including past non-participants. Jeannette conducted most interviews in Spanish.

Chicago area energy efficiency potential studies. Seventhwave conducted comprehensive studies of achievable program-based energy savings for two Chicago natural gas utilities. Jeannette managed the overall logistics of this multifaceted project that involved residential and commercial customer phone surveys and on-site visits to establish baseline energy use characteristics. She also developed the analytical framework.

Minnesota multifamily energy efficiency potential. Jeannette was a key member of the team that conducted a comprehensive characterization of Minnesota's multifamily housing stock and provided a detailed accounting of the sector's energy savings potential to the Department of Commerce. We gathered information from building owners and tenants through online and mail surveys and also evaluated the payback period of 25 common energy and water savings measures in multifamily housing. Jeannette managed the development of the sampling protocols, data gathering and analysis.

Selected employment history

Affiliated Engineers, Inc.—Sustainable Planning Consultant

Jeannette worked with clients to incorporate sustainable design principles into new construction and existing building projects.

Peace Corps, Paraquay—Agriculture Extension Volunteer

Jeannette used her natural resources background to serve as a sustainable agriculture specialist in a small farming community. She provided technical assistance related to soil conservation techniques, alternative crop development, and home gardening related to nutrition education. She gained professional working proficiency in both Spanish and Guarani.

Education

- Master of Science, environment and resource, energy analysis and policy concentration, University of Wisconsin—Madison.
- Bachelor of Science, natural resources, Cornell University, Ithaca, New York.
- Nonprofit Management Certificate, University of Illinois—Chicago.

Memberships and associations

Co-Chair, City of Madison's Sustainable Madison City Commission



Maddie Koolbeck

Slipstream | P: 608.210.7128 | mkoolbeck@slipstreaminc.org

Slipstream - Research Analyst

Maddie provides analytical support for projects relating to energy efficiency, market characterization and potential, and emerging technology. She utilizes her economics and policy background to analyze how energy efficiency and increased grid flexibility can reduce carbon emissions and energy costs. She performs data analyses on energy, cost, and carbon savings. She also assists with secondary research reviews and conducts surveys to further understand the current state of the market and stakeholder viewpoints.

Selected projects

Energy planning for municipalities. Maddie assisted with a municipal energy planning effort with seven communities in Dane County, Wisconsin. She provided analytical support to develop an energy profile for each community and identify near-term opportunities for transportation and streetlighting energy and carbon reductions.

Market Potential for Saving Energy and Carbon Dioxide with Load Shifting Measures. Maddie was currently a key member of a Minnesota-funded project focused on understanding the energy, energy cost, and emissions impacts of measures that both save electricity and shift the time that load occurs. She led the development of the cost-effectiveness calculations for the project, as well as the development of the analytical framework.

State energy policy analysis support. Maddie has been involved in Slipstream's support of the development of a clean energy plan for the state of Wisconsin and the analysis of the impacts of a proposed clean energy bill in another Midwest state. Maddie supported analysis of the impacts of various policy options, including the impact on carbon emissions, economics, and health.

OEI microgrid feasibility studies. Slipstream is currently supporting City of Sun Prairie and City of Madison on microgrid feasibility studies for city facilities. Maddie is assisting with the quantification of resiliency, environmental, and grid benefits. She is also leading the stakeholder engagement for the Sun Prairie project.

Wisconsin Income-qualified weatherization. Maddie has supported the analysis of the technical assistance portion of the Wisconsin Weatherization Assistance Program for two years. She helps lead the billing analysis to estimate the energy savings for close to 5,000 homes each year. The analysis includes analysis of pre/post weatherization billing data, and summarizing findings at the program, measure, and agency-level.

Columbia Gas of Ohio impact evaluation. Maddie leads the impact evaluations of six residential and commercial efficiency programs for Columbia Gas, including their low-income weatherization program. The evaluations include analysis of pre/post billing data, and the application of engineering calculations from the state technical resource manual. She also performs cost-effectiveness calculations for each of the programs. Lastly, she performs ad-hoc analyses on potential programs to help Columbia Gas determine the viability of new programs or changes to program design.



U.S. Department of Energy/Oak Ridge National Labs, Non-Energy Impacts for Weatherization. Maddie was a key member of a team that performed a literature review of current research on the non-energy impacts associated with the national Weatherization Assistance Programs. Maddie led the literature review and analysis of how to monetize various non-energy impacts for the project. The final report shares a discussion focused on issues for DOE to consider related to incorporating NEIs into WAP.

Utility pilot program evaluation and surveys. Slipstream completed an evaluation of pilot programs for Madison Gas & Electric. As part of these projects, Maddie directly aided in the development of the survey, the phone interviews with participants, and the analysis of both energy and survey data. She helped consolidate these results to communicate the impact of the programs on energy behavior as well as customer perceptions of the programs to the utility.

Low-income community solar journey map. Slipstream conducted research on low-income community solar programs with a specific focus on the customer's process and the intersection with other forms of income and energy assistance programs. Maddie completed the research on existing programs, including secondary research and interviews with stakeholders that successfully administer existing programs.

BayRen Multifamily Cost Calculator. Maddie assisted with the development of a cost calculator for a multifamily efficiency program in the San Francisco Bay Area. Using past data from the program, Slipstream is determining cost ranges for a variety of measures and analyzing whether other factors, such as age of the building or location, impact the cost of the measure. Maddie is completing the data analysis for this project.

Education

- Master of Public Affairs, energy analysis and policy concentration, University of Wisconsin—Madison
- Bachelor of Arts, economics and environmental studies, Coe College, Cedar Rapids, lowa



Dan Streit

Slipstream | P: 608.729.6954 | dstreit@slipstreaminc.org

Senior Researcher – Finance, Renewable Energy & Sustainability Services

Dan is an experienced researcher, with expertise in residential and commercial clean energy financing, as well as municipal energy and sustainability planning. He advises on Slipstream's administration of C-PACE programs in four states to maximize emissions reductions and has experience developing new PACE programs. Dan also drives development of Slipstream's Financing, Renewable Energy, and Sustainability Services service lines, poising the organization to provide financing solutions, consulting services, and software that enable households, property owners, businesses, and local governments to operate more efficiently and reduce negative environmental impact.

Professional Experience

Slipstream | Madison, Wisconsin | 2006-present

Senior Researcher, Product Developer – Finance, Renewable Energy & Sustainability Services, Program Manager—Energy Finance Solutions, Process Manager, Program Supervisor, Program Coordinator

Leads research and the development of Slipstream's Finance, Renewable Energy, Regenerative Agriculture Financing, and Sustainability Services service lines. The services within the product lines include the C-PACE program development, Lender Referral Service, sustainable purchasing, GHG inventory development, sustainability planning and reporting, and financing technical assistance service offerings. To advance these offerings, Dan defines and develops technical assistance service, consulting strategy, and software products to meet market needs. He conducts research to develop strategies to maximize emissions reduction opportunities within each service line and identifies opportunities for Slipstream's product offerings to accelerate the world's transition toward clean energy. In previous roles, Dan managed day-to-day operations of financing programs, provided consulting and support services to clients and trade allies, and oversaw loan origination, underwriting, and income qualification processes. Key accomplishments at Slipstream:

- Led research to investigate the impact of financing programs on savings generated by utility-based energy efficiency programs.
- Initiated and led the development of the Sustainability Services product line.
- Supported the development of C-PACE programs in Illinois, Virginia, Oklahoma, and Pennsylvania.
- Developed strategies to expand the reach of clean energy financing strategies to better serve sustainable agriculture.
- Co-managed the PACE Wisconsin program
- Conducted market research to identify financing strategies for energy improvements to multifamily buildings.
- Engaged a national network of financing providers to create the Lender Referral Service.
- Advanced Slipstream's thought leadership in the field of sustainable purchasing.
- Tripled Slipstream's Energy Finance Solutions (EFS) volume of funded loans in three years.
- Presented at the following industry events and conferences as a subject matter expert:
 - ReCONNECT, the conference of the American Institute of Architects Illinois chapter, 2020
 - Growing Sustainable Communities Conference, 2018 and 2019
 - Michigan Sustainability Conference, 2018
 - Milwaukee Sustainability Summit, 2018



Connor Jansen, PE, LEED AP BD+C

Slipstream | P: 608.210.7168 | cjansen@slipstreaminc.org

Slipstream—Technical Services Director

Connor Jansen has more than 14 years of leadership experience in the development of energy-efficient and sustainable buildings. His approach focuses on the engagement of stakeholders and the integration of technical strategies to achieve high-performance outcomes. Passionate about combining his deep knowledge of building design and utility programs, Connor develops innovative processes and collaborative partnerships that advance measurable impacts in energy equality through efficiency.

Selected projects

ComEd Energy Efficiency Program affordable housing new construction

Connor managed the delivery of the ComEd affordable housing new construction offering from 2017 to 2021, which supports long-term affordability and healthy homes for low-income residents. Connor was responsible for program KPIs, portfolio energy savings, technical leadership, forecasting, evaluation, and customer satisfaction. Currently, Connor is leading the development of a Passive House Pilot Program.

Tribal Energy Sovereignty – Various

Working with tribal communities in Wisconsin and Minnesota, Connor is providing technical capacity building and design advice for energy planning and net zero building design.

ComEd Pilots – BIT Neighborhood Program

The BIT Neighborhood pilot program, designed and overseen by Connor, creates job opportunities and reduces barriers for low-income participation in utility programs. This pilot trains Chicago Housing Authority residents on benchmarking and continuous improvement strategies in the BIT platform, which assist existing buildings in better operation.

Minnesota CARD - Passive Building Advancement

Connor works with the University of Minnesota, and key stakeholders, to characterize and advance the uptake of Passive buildings within the state. Connor is also working with that team on panelized over-cladding for existing housing to improve conventional weatherization.

Building Performance Consulting – Various

Connor helps lead Slipstream's high-performance building practice through consulting, design advice, and analysis, which helps clients achieve exceptional performance within the built environment. His areas of expertise include energy, indoor environmental quality, water, passive systems, and daylighting. His work ranges from net-zero campus planning for communities to the design of sustainable national museums and stadiums to grid-independent orphanages. Accolades include LEED Platinum, Well Building, PHIUS+, and Living Futures certifications.

Selected engagements

Illinois Green Alliance—Board of Directors (2017-2021)

The Illinois Green Alliance is a membership-driven non-profit that works to promote green buildings and sustainable communities. Connor has served as a volunteer, strategic advisor, and financial officer for the organization.

Midwest Building Decarbonization Coalition—Leadership (2020- Present)

The Midwest BDC seeks to develop equitable strategies to achieve zero emissions from the building sector by 2050. Connor serves as a technical advisor and team leader.



Twin Cities Habitat for Humanity | Minneapolis, Minnesota | 2001-2006 Family Services Senior Associate

Oversaw pre-qualification and approval processes for Habitat for Humanity homes. Led task forces to design new program policies, and to identify and analyze trends impacting the program. Monitored performance of a \$36 million loan portfolio. Set lending terms, conducted loss mitigation, and provided training.

Education, Affiliations, and Awards

- Bachelor of Arts Degrees in Political Science and French, St. Olaf College
- GHG Inventory Quantifier Certification, CSA Group, 2016
- GRI Certified Training Program, Deloitte & Touche, LLP, 2015

