Environmental Quality and Energy Commission

January 10, 2023
7:00 PM
Fridley Civic Campus, 7071 University Ave N.E.

Agenda

Call to Order

Approval of Agenda

Approval of Meeting Minutes

1. Approve the Minutes from the Environmental Quality and Energy Commission meeting of December 13, 2022

New Business

2. Moore Lake Park Beach Restoration
3. SolSmart PZ-1 Zoning Review

Old Business

4. Energy Action Plan Updates
5. Event and Outreach Updates
6. Grant Updates

Other Items

7. Informal Status Reports

Adjournment

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner

Title

Approve the Minutes from the Environmental Quality and Energy Commission meeting of December 13, 2022

Background

Approve the Minutes from the Environmental Quality and Energy Commission meeting of December 13, 2022.

Recommendation

Approve the Minutes from the Environmental Quality and Energy Commission meeting of December 13, 2022.

Attachments and Other Resources

- Environmental Quality and Energy Commission Minutes- December 13, 2022.

ENVIRONMENTAL QUALITY & ENERGY COMMISSION MEETING

December 13, 2022

7:00 PM

Fireside Room, Fridley Civic Campus

MINUTES

Call to Order

VICE CHAIR Olberding called the commission to order at 7:03 PM

Present

Sam Stoxen
Aaron Klemz
Nick Olberding
Mark Hansen
Justin Foell
Rachel Workin, Environmental Planner

Approval of Agenda

MOTION by Commissioner Hansen to APPROVE the December 13, 2022 meeting agenda. SECONDED by Commissioner Stoxen. The MOTION PASSED unanimously.

Approval of Meeting Minutes

1. MOTION by Commissioner Klemz to APPROVE the September 13, 2022 meeting minutes. SECONDED by Commissioner Foell. The MOTION PASSED unanimously.

New Business

2. University Avenue Service Road Trail Project

Ms. Workin provided background on the City's application for an Active Transportation Infrastructure grant to construct a trail on the westside of University Avenue between 61st Avenue and 69th Avenue.

MOTION by Commissioner Foell to APPROVE a letter of support for the grant application to construct a shared multi-use trail on the westside of University Avenue between 61st Avenue and 69th Avenue. SECONDED by Commissioner Klemz. The MOTION PASSED unanimously.

3. 61st Avenue Parklet

Ms. Workin provided background on the City's application for a streetside activation project at the 61st Avenue parcel.

MOTION by Commissioner Foell to APPROVE a letter of support for the grant application to construct a streetside activation project at the 61st Avenue parklet. SECONDED by Commissioner Hansen. The MOTION PASSED unanimously.

Old Business

4. Energy Action Plan updates

Ms. Workin shared that the City partnered with Center for Energy and Environment to conduct outreach to 75 properties on lighting and HVAC rebates. She also shared that the insulation rebate program has been successful- 18 insulation rebates have been issued in 2022 as compared to 4 in 2021. CEE is also estimated 70 home energy squad visits to be completed by the end of the year as compared to 38 energy squad visits in 2021. The rental division added a PHEV Ford Escape to its fleet and has been well liked.

5. Event and Outreach updates

Ms. Workin shared that the Environmental Fun Fair will be on April 22nd.

6. Grant updates

Ms. Workin shared that construction was underway at the Moore Lake Filter project. Commissioners recommended providing more information to the public through the City's website. Ms. Workin also said that the Met Council would be considering approval for the 44th Avenue bridge at their 12/14 meeting.

Other Items

7. Planning Commission updates

Commissioner Hansen provided updates on Planning Commission meetings.

8. Informal Status Reports

Ms. Workin shared that Coon Creek Watershed District is looking for residents interested in hosting rain gauges and reporting results periodically through a Google Form in order to estimate how big of a rainfall starts to cause flooding issues; however, it was determined that none of the commissioners present live in the Coon Creek Watershed District.

Commissioner Foell shared updates from the Resilient Cities Social Hour.

Commissioner Klemz shared that the Minnesota Center for Environmental Advocacy would be working to support the passage of the Smart Salting bill again.

Adjournment

MOTION by Commissioner Hansen to adjourn the meeting SECONDED by Commissioner Foell. The MOTION PASSED unanimously. The meeting was adjourned at 8:24 PM.

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner

Title

Moore Lake Park Beach Restoration

Background

In 2018, the Environmental Quality and Energy Commission recommended the adoption of a resolution designating Fridley as "Pollinator Friendly". One aspect of the resolution is the City will design all new and renovated facilities with a consideration of adding natural areas with beneficial pollinator-friendly plants where possible. Moore Lake Park is planned for reconstruction in 2023. Consideration is being given to restore approximately ½ acre of the existing beach area with native vegetation and enhance the buffer along the Lake. The DNR's Conservation Partners Legacy Grant Program provides grant funding for the restoration and enhancement of public lands for projects such as these.

Recommendation

Approve the attached letter of support for a Conservation Partners Legacy grant for the restoration and enhancement of the Moore Lake Beach and Shoreline

Attachments and Other Resources

- Project exhibit
- Draft letter of support

LEGEND

- CONSTRUCTION LIMITS
- EXISTING DECIDUOUS TREE
- EXISTING CONIFER TREE
- LAYOUT CONTROL POINT
- CENTERLINE
- BITUMINOUS DRIVE PAVEMENT
- BITUMINOUS TRAIL PAVEMENT
- 4" THICK CONCRETE WALK
- 6" THICK CONCRETE WALK
- CONCRETE WALK SPECIAL
- TRUNCATED DOMES

0 20 40
H: SCALE IN FEET

SHORELINE GRID, SEE DETAIL LX.X

12'

30'

SAND AREA TO REMAIN

NATIVE SEED MIX

NATIVE SEED MIX

NATIVE PLUGS

AGGREGATE WALK, SEE DETAIL LX.X

D412 SURMOUNTABLE CURB

CONCRETE WALK, SEE DETAIL LX.X

CONCRETE WALK, SEE DETAIL LX.X

TNH ELEV: 883.60

SEE ARCHIRTECTURAL

POLLINATOR PLANTINGS

D412 CURB

DROP-OFF

CURB TRANSITION

D612 CURB AND GUTTER

MATCH TO ROUNDABOUT STREET PROJECT

MATCH LINE SEE L3.2 - LAYOUT PLAN ENLARGEMENT

R10.0'
R30.0'
R0.8'
R38.7'
R25.0'
R18.4'
R2.8'
R5.8'
R5.0', TYP.
R52.2'
R44.0'
R35.8'
R35.2'
R104.0'
R27.0'
R18.8'
R56.0'
R28.5'

79.81'
47.29'
25.75'
46.93'
51.37'
18.16'
21.04'
20.5'
42.76'
16'
22.7'
45.02'
207.83'
277.63'
13.16'
20.04'
44'
16.76'
19.99'
25.45'
26.96'
8.34'
12.05'
88.82'
159.13'
29.15'
82.94'
6'
75°
135°

5" HACK
1"MAP"
22"MAP"
12"MAP"
1"
24" COT
14" SPRUCE
5" TALL SPRUCE
3" MAP
18"MAP"
27" COT
31" COT

REVISIONS

NO.	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

Candace Amberg LIC. NO: XXXXX

DATE: 07-27-2022

LAYOUT PLAN ENLARGEMENT

MOORE LAKE PARK REDEVELOPMENT
CITY OF FRIDLEY

CLIENT PROJECT NO.
XXXXXX

WSB PROJECT NO.
020685-000

SHEET
L3.1

City of Fridley
Attn: Rachel Workin
7071 University Ave NE
Fridley MN 55432

January 10, 2023

Re: Conservation Partners Legacy Grant Application- Moore Lake Park

Dear Ms. Workin,

On behalf of the City of Fridley's Environmental Quality and Energy Commission (EQEC), I am writing to express our support for the Conservation Partners Legacy Grant application to restore and enhance native vegetation at Moore Lake Park. The EQEC is tasked with advising the City on environmental policy and was an instrumental voice in the passage of the City's "Pollinator Friendly" Resolution. The resolution states that the City "will pursue planting more pollinator forage in areas of city parks that are currently turf grass" and that the City "will design all new and renovated facilities with a consideration of adding natural areas with beneficial pollinator-friendly plants where possible." Moore Lake Park is an important recreational amenity and a popular fishing location in Fridley. This project presents an exciting opportunity to improve wildlife habitat and water quality.

Sincerely,

Amy Dritz, Chair

Fridley Environmental Quality and Energy Commission

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner
Max Lohse, Planning Intern

Title

SolSmart PZ-1 Zoning Review

Background

The SolSmart program is a nationwide recognition program that provides no-cost technical assistance to help communities increase and facilitate solar energy development. The City applied for SolSmart designation as recommended within the Energy Action Plan. A SolSmart representative reviewed the City's zoning code as part of the application process. This zoning code review can be used to identify areas for improvement to be more solar-friendly during the recodification process. Presenting these findings is a step toward receiving Silver designation. The City's current zoning code can be found at:

https://fridley.municipalcodeonline.com/book?type=ordinances#name=205_ZONING

Recommendation

For informational purposes

Attachments and Other Resources

- PZ-1 Zoning Review

PZ-1 Zoning Review

Community:

PZ-1: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required for Bronze)

To assist your local government, the national solar experts at SolSmart have conducted a review of your community's zoning and land use regulations to assess the use of best practices, possible barriers (i.e. height restrictions, set-back requirements, etc.) and gaps related to solar PV development. Below, please find the outcome of the review. By reading the narrative and signing the statement at the bottom of the page, your community will satisfy the PZ-1 pre-requisite and be one step closer to achieving SolSmart designation.

Summary

The Fridley, MN Zoning Code was accessed and reviewed during August, 2022. The code was accessed via the Fridley website with a redirect to the Municode website.

- A search for "photovoltaic" yielded 0 results.
- A search for "solar" yielded 16 results.
- A search for "renewable energy" yielded 30 results in reference to
- A search for "clean energy" yielded 30 results in reference to

Best Practice Review

The Fridley code was reviewed to determine if it incorporates best practice regulations for solar energy. Incorporating best practices improves transparency of processes and clarity of development standards and can enhance the growth of the local solar market in an organized and efficient manner

Purpose or Intent			
The code does NOT contain a purpose or intent for including solar energy regulations in the code.			
Code Language	Section:		
None			
Reviewer Comments	Best Practice: ☐	Needs Improvement: ☒	Barrier: ☐
This section outlines the goals of including solar energy systems in the zoning code and provides an opportunity to link solar energy development to specific community goals and plans			
Suggested Language			
The City of Fridley has adopted the following regulations to encourage the efficient and effective development and use of solar energy systems while protecting the public health, safety, and welfare of Fridley's citizens. Solar energy is a renewable energy resource and valuable economic resource that can be utilized throughout the City of Fridley for the following purposes (the following bullet points are optional depending on community goals and plans): 1)To implement the following objectives of the Comprehensive Plan: a) Encourage the use of local renewable energy resources. b) Promote sustainable building design and practices. c) Encourage economic development while preserving the community's historic resources and character.			

2) To meet the goals of the Climate Action Plan, Sustainability Plan, Clean Energy Resolution.
a) [REFERENCE GOALS OR TARGETS]
3) To decrease the community's reliance on fossil fuel power sources and reduce greenhouse gas emission/achieve carbon reduction goals.
a) [REFERENCE SPECIFIC GOALS OR TARGETS]
4) To enhance the reliability and resiliency of the local power grid and make more efficient use of the local electric distribution infrastructure.
5) To promote consumer choice and allow residents and businesses to use local, renewable energy while displacing fossil fuel generation.
6) To improve air quality and protect public health.

Definitions			
The code contains definitions for solar energy.			
Code Language	Section: **Section 205.03**		
Solar Collector: A device or structure used to gather solar energy. Solar Energy: Radiant energy received from the sun, either direct, diffused or reflected. Solar Energy Devices: A set of devices whose primary purpose is to collect, convert and store solar energy, including heating and cooling of buildings and other energy processes, or to produce generated power by means of any combination of collecting, transferring or converting solar energy.			
Reviewer Comments	Best Practice: ☐	Needs Improvement: ☒	Barrier: ☐
Definitions form the basis of understanding for the terms used throughout the solar energy section of the ordinance and reduces the chance for misinterpretation. While Fridley's code does include definitions for solar in section 205.03, there could be additional improvements made by distinguishing between solar energy type (roof-mounted vs ground-mounted) and use (accessory vs primary) to provide clarity and a foundation on which to specify permissible uses in specific zoning districts and provide development standards. As referenced further in the zoning review, there are numerous instances in zoning codes where it is beneficial to differentiate how ground-mounted vs roof-mounted solar is regulated. Additional definitions that can be included are below.			
Suggested Language			
1) *Grid*-connected solar energy system: A solar photovoltaic system that is connected to an electric circuit served by an electric utility company. 2) *Roof-mounted solar energy system*: A solar photovoltaic system mounted on a rack that is ballasted on, or is attached to, the roof of a building or structure. Roof-mount systems are accessory to the primary use. 3) *Ground-mounted solar energy system (Accessory Use)*: A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and the system is accessory to the primary use. 4) *Ground-mounted solar energy system (Primary Use)*: A solar photovoltaic system mounted on a rack or pole that is ballasted on, or is attached to, the ground and is the			

primary land use for the parcel(s) on which it is located. Primary use systems are permitted through a discretionary approval process.

5) *Community-scale solar energy system*: A solar photovoltaic system that qualifies for the [STATE COMMUNITY SOLAR PROGRAM NAME – if applicable].

Roof-mounted Accessory Use Solar			
The code explicitly permits accessory use roof-mounted solar PV systems as a by-right or allowed use.			
Code Language	Section: Throughout.		
Solar is a permitted accessory use in R1, R2, R3, P, C1, C2, C3, CR1, M1, M2, M3, M4, S1, S3: "Solar energy devices as an integral part of the principal structure."			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
Fridley's code permits solar as an accessory use in all major zones. However, rooftop solar is not differentiated from ground-mounted solar. The code could be improved by clearly stating what certain types/sizes of solar energy systems are considered an allowed or by-right accessory use. This could be achieved by stating that both roof-mounted and ground-mounted solar systems are allowed in all zones.			
Applicable SolSmart Credit: PZ-5, accessory use solar codified and allowed			
Suggested Language			
Roof-mounted solar energy systems are a permitted accessory use within all zoning districts.			

Roof-mounted Solar Height			
The code does NOT exempt roof-mounted solar PV from height restrictions.			
Code Language	Section: **Section 205.04:**		
The building height limits for principal buildings established herein for districts shall not apply to belfries, cupolas, domes, spires, monuments, airway beacons, radio towers, windmills, flagpoles, chimneys, flues, bulkheads, elevators, water tanks, poles, towers and other structures for essential services, nor to similar structures or necessary mechanical appurtenances extending above the roof of any building and not occupying more than twenty-five percent (25%) of the area of such roof.			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
Needs Improvement Fridley's current code exempts structures for essential services from heigh limits, however, if the structure occupies more than 25% of roof space than it is not exempt. While roof-mounted solar does fall under an essential service, solar installations often take up more than 25% of roof area. This means that under the current code, solar taking up more than 25% of roof area is not exempt from height restrictions. In many districts, buildings, particularly those with flat rooftops, are constructed up to the maximum allowed height, thereby limiting a buildings ability to install solar unless exemptions are provided. Since solar panels are most efficient when installed at an angle equal to a location's latitude, local governments should consider exempting solar energy systems from height restrictions. Alternatively, local governments can permit solar energy systems to exceed the maximum building height in all applicable districts.			

Height restrictions should not be a barrier for solar energy systems on pitched or sloped roofs. Solar energy systems are usually attached at the same slope as the roof but with a few inches in between to allow for space to access wiring and to promote airflow around the panels. There should be space, usually 3 feet, between the roof peak and the edge of the panels to allow for emergency access and ventilation opportunities in case of a fire.

Applicable SolSmart Credit: PZ-6, roof-mounted solar exemptions

Suggested Language

On a pitched/sloped roof, solar energy systems shall be installed parallel to the roof surface and may not extend beyond the edge of the roof peak.

For flat roofs, local governments can select from one of the following two options depending on how the zoning ordinance addresses the height of rooftop appurtenances, chimneys, antennas, and/or rooftop mechanical equipment.

1. *If the ordinance exempts certain features/structures from height limits, then it is recommended that roof-mounted solar energy systems also be exempted from height limits.*

On a flat roof, solar energy systems are exempt from zoning district height limits.

2. *If the ordinance does not include any exemptions, then it is recommended to allow roof-mounted solar energy systems to exceed a districts height limit.*

On a flat roof, solar energy systems are permitted to exceed the zoning district height limits by up to 10 feet.

Ground-mounted Accessory Use Solar

The code does NOT explicitly permit accessory use ground-mounted solar PV systems as a by-right or allowed use in at least 1 zoning district.

Code Language	Section: Throughout.		
Solar energy devices as an integral part of the principal structure.			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐

Needs Improvement

The zoning code does not clearly state that certain types/sizes of solar energy systems are considered an allowed or by-right accessory use. The code refers to solar energy devices but does not differentiate between roof-mounted and ground-mounted.

Sometimes a property is not suitable for a roof-mounted solar system because the building has structural limitations, or the rooftop is shaded. In these instances, a small ground-mounted solar PV system can still allow the property owner to install solar and enjoy the benefits.

Allowing accessory use ground-mounted solar may not be appropriate for dense urban cores or highly developed areas but can be suitable for less dense parts of a community, in areas where lot sizes are bigger, and/or in commercial and industrial zoning districts where a primary use might have available land for a ground-mounted system.

Applicable SolSmart Credit: PZ-7, accessory use ground-mounted solar codified and allowed in at least 1 zoning district
Suggested Language
Ground-mounted solar energy systems are a permitted accessory use within all zoning districts, when incidental to one or more permitted primary and/or accessory structure(s).

Ground-mounted Solar Setbacks			
The code does NOT contain setback standards for accessory use ground-mounted solar PV.			
Code Language	Section: 205.04		
Accessory buildings and structures in the rear yard shall not be any closer than three (3) feet to any lot line. Accessory buildings and structures in the side yards shall not be any closer than five (5) feet to any lot line.			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
Fridley's code does not explicitly regulate ground-mounted solar. Improvement could be made to code by including specific ground-mounted solar language. Accessory use ground-mounted solar energy systems should have similar setback requirements to other residential accessory use structures. These setbacks generally allow accessory structures to be built closer to a property line than primary structures. Applying less restrictive setback requirements allow a ground-mounted solar PV system to operate efficiently through appropriate sizing, optimal siting, and ensuring access to adequate sunlight. Rural communities or those with large lots can be less restrictive and allow solar energy systems to encroach into established residential accessory use setbacks.			
Applicable SolSmart Credit: PZ-8, accessory use ground-mounted solar exemptions			
Suggested Language			
Ground-mounted solar energy systems shall comply with the accessory structure setback requirements of the zoning district in which it will be installed.			

Ground-mounted Solar Placement			
The code does NOT contain placement standards for accessory use ground-mounted solar PV.			
Code Language	Section:		
N/A			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
Needs Improvement Depending on the character and typical lot size of the community, it may be appropriate to encourage the siting of accessory use ground-mounted PV systems in the side or rear yard of a property. Rural communities or those with large lots can be less restrictive and allow solar energy systems in front yards.			
Suggested Language			
Ground-mounted solar energy systems shall be located in the side or rear yard of the property.			

Ground-mounted Solar Lot Coverage/Impervious Surface			
The code does NOT exempt accessory use ground-mounted solar PV from lot coverage and/or impervious surface standards.			
Code Language	Section: 205.07.03		
Not more than twenty-five percent (25%) of the area of a lot shall be covered by the main building and all accessory buildings.			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
As long as the area beneath a ground-mounted solar PV system is pervious (e.g. grass, native vegetation, etc.) the system should be exempt from lot coverage and impervious surface requirements. The tilt and spacing of solar panels allow for precipitation to drain into the pervious ground cover. Ground-mounted PV systems are not analogous to paved driveways or accessory structures like sheds, garages, or accessory dwelling units and therefore do not need to be included in lot coverage or impervious surface calculations. Counting solar energy systems as lot coverage could limit the installation of solar energy systems, especially if many of the current lots at or are near the maximum lot coverage allowed under the code.			
Applicable SolSmart Credit: PZ-8, accessory use ground-mounted solar exemptions			
Suggested Language			
Ground-mounted solar energy systems are exempt from lot coverage and impervious surface requirements if the area under the system contains vegetative ground cover.			

Ground-mounted Solar Primary Use			
The code does NOT include standards for primary use ground-mounted solar PV.			
Code Language	Section:		
N/A			
Reviewer Comments	Best Practice ☐	Needs Improvement ☒	Barrier ☐
While the code does allow solar as an accessory use in all major zones, there is not language permitting solar as a primary use. The code contains no requirements for primary use solar energy systems. If the community has enough usable land that could be developed for a large-scale solar energy system, they should include development standards for primary use solar energy systems into the zoning code. This could be of particular interest if there is a brownfield site such as a landfill available for development.			
Applicable SolSmart Credits: PZ-9, primary use ground-mounted solar pathway			
Suggested Language			
See pages 12 -13 in SolSmart's Best Practice Guidance for Solar and Zoning for a list of state model solar ordinances that contain template language for primary use solar energy systems.			

Barrier Review

Solar energy standards should serve to guide and enable solar development, not create ambiguity or restrict solar development. Certain design and performance standards can create significant barriers to solar PV. The inclusion of any of the following standards are not best practices and will likely impact the local government's ability to achieve SolSmart Gold designation. The statements containing NOT align with best practices.

Roof-mounted Solar Screening	
The code does NOT require screening for roof-mounted solar PV systems.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to require screening for roof-mounted solar energy systems. Screening requirements may increase installation costs and decrease system efficiency. Solar PV performance depends on optimal siting of the system and clear access to solar radiation. Screening requirements could negatively impact system performance if the screening results in shading. Screening requirements could also hide the location of important system components that are necessary to shut off a system in case of a fire or other type of emergency.	

Limits to System Visibility	
The code does NOT include standards to limit system visibility (e.g. not visible from public rights of way).	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to prohibit solar energy systems [on the street-facing side of a building] or [from being visible from public rights-of-way] or [from public view] or [from being visible from neighboring/adjacent properties]. In fact, it could severely limit where solar energy systems are installed. Solar PV performance depends on panel location with the best performance occurring when panels are located on a southerly exposure. Less than optimal siting for solar panels can decrease the amount of sunlight a system receives and thereby negatively impact performance. It is not a best practice to suggest the placement of solar panels should be done to [reduce] or [minimize] their visibility. In fact, it could severely limit where solar energy systems are installed. Solar PV performance depends on panel location with the best performance occurring when panels are located on a southerly exposure. Less than optimal siting for solar panels can decrease the amount of sunlight a system receives and thereby negatively impact performance. [The standard also appears subjective since there is no defined guidance on “least visibly obtrusive location” and “functional”. If a house faces south towards the principal street, the least visibly obtrusive location would be the north-facing rear roof. While the panels would still be functional, their performance would be severely restricted since system performance depends on panel location, with the best performance occurring when panels are located on a southerly exposure.]	

Aesthetic Standards	
The code does NOT include aesthetic standards for solar PV systems.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to require systems to [blend into the architecture of the structure] or [be camouflaged from public view] or [be consistent with the color of roofing materials or architecture] or [be painted to match the color schemes or the building or structure] or [be constructed of dull or dark colors] or [be non-reflective]. Aesthetic requirements can increase installation costs but would most likely prohibit a solar energy system from being installed since key system components like solar	

panels cannot be altered or painted to blend into the architecture or color scheme of a building. Aesthetic requirements could also hide the location of important system components that are necessary to shut off a system in case of a fire or other type of emergency.

Glare, Glint, and/or Noise Standards	
The code does NOT include glare, glint, and/or noise standards for solar PV systems.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to require a glare study prior to the installation of a solar energy system. Solar PV panels are designed to absorb incoming solar radiation and limit the amount of reflected light. Solar panels are designed with anti-reflective glass. A glare study will increase installation costs It is not a best practice to suggest the placement of solar panels should be done to [reduce] or [minimize] glare. In fact, it could severely limit where solar energy systems are installed. Solar PV performance depends on panel location with the best performance occurring when panels are located on a southerly exposure. Less than optimal siting for solar panels can decrease the amount of sunlight a system receives and thereby negatively impact performance. Additionally, solar PV panels are designed to absorb incoming solar radiation and limit the amount of reflected light. Solar panels are designed with anti-reflective glass. The glare from a solar panel is similar to that of smooth water. A glare study is recommended if solar panels will be sited close to an airport but otherwise the analysis is usually unnecessary, adding time and cost to a project. It is not a best practice to [require an acoustic study] or [have maximum level of noise the system can produce]. Roof-mounted solar energy systems produce very minimal noise. An acoustic study will increase installation costs.	

Roof Space Coverage Limit	
The code does NOT limit solar PV system coverage to a percentage/part of the available roof space.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to limit the coverage of a roof-mounted solar energy system. All buildings should have the opportunity to install a roof-mounted solar energy system to the maximum extent possible, so long as the roof is structurally capable of holding the load and applicable emergency access requirements are maintained. Maximizing a solar PV systems roof coverage is important goal since buildings are transitioning to electric appliances and systems and incorporating electric vehicle charging equipment.	

Prohibition on Flat or Low Sloped Roofs	
The code does NOT prohibit solar PV systems on flat or low sloped roofs.	
Code Language	Section:
None	
Reviewer Comments	

It is not a best practice to prohibit solar energy systems on flat or low slopped roofs. All buildings should have the opportunity to install a roof-mounted solar energy system regardless of roof slope, so long as the roof is structurally capable of having a solar energy system. Many buildings with flat roofs like warehouses, data centers, distribution centers, and big box retail stores are excellent candidates for roof-mounted solar energy systems.

Limits on Electricity Production	
The code does NOT include limits on how much electricity a solar PV system can produce.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to include limits on the amount of electricity a solar energy system can produce. Regulations and policies like this are normally set by a state entity (Public Utility Commission/Public Service Commission) and/or local electric utility and are not appropriate for zoning codes.	

Limits on Electricity Consumption	
The code does NOT include limits on where a solar PV system's energy is consumed.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to include limits on where a solar energy system's electricity can be consumed. Regulations and policies like this are normally set by a state entity (Public Utility Commission/Public Service Commission) and/or local electric utility and are not appropriate for zoning codes.	

Discretionary Review Process	
The code does NOT identify a discretionary review process for accessory use solar PV.	
Code Language	Section:
None	
Reviewer Comments	
It is not a best practice to have a discretionary review process for accessory use solar PV. This has the potential to be an onerous and/or subjective process for roof-mounted solar energy systems and could increase a project's timeline and costs. Roof-mounted systems should be an allowed or by-right use and only need to go through the building permit process to ensure compliance with applicable building and electrical codes. [The zoning code indicates small solar energy systems are permitted as a conditional use in all zoning districts. Depending on the complexity of the conditional use permit process, the time it takes to permit a small solar energy system may increase the cost of the project and therefore decrease the ability of all residents and business to be able to access and afford solar. Permitting solar energy systems as a permitted use in all zoning districts can improve equitable access to solar by reducing installation time and costs.] [In addition to the need for building and electrical permits, roof-mounted solar energy systems also require a zoning certificate. It would be helpful to understand the complexity of the zoning approval process (what is required for the submission, what details are evaluated), timeline for approval for solar panels, and why the certificate is needed.]	

Additional Notes

The Fridley Zoning Code defines a solar energy device and permits solar as an accessory use in all major zones. The code could be enhanced by defining and distinguishing regulations between roof-mounted and ground-mounted solar systems, exempting solar from height, lot coverage and setback restrictions, explicitly allowing ground-mounted solar as an accessory use, and permitting large-scale solar as a primary use.

Next Steps

1. This zoning review can be presented to the Planning & Zoning Commission or relevant zoning body to achieve credit PZ-2.
2. Based on the zoning review and the dialogue from the Planning Commission meeting, staff can draft proposed language for changes to the zoning code to achieve credit PZ-3.
3. SolSmart staff are available to help present the zoning review and/or provide guidance and feedback on draft language.

Recommended Reading

Please see Best Practice Guidance for Solar and Zoning - Accessory Use for template language that can be used to develop organized, transparent, and consistent accessory use solar energy regulations for zoning codes.

I, [full name] as [title] of [community], [state] have received the zoning review and read its findings.

Signature: _____ Date: _____

Please note that this review is not an endorsement or recommendation for changing and/or updating the zoning code. This is an informational review only.

If the local government has clarifying comments, please provide them in a memo to the SolSmart team.

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner

Title

Energy Action Plan Updates

Background

At the November 9, 2021 meeting, the EQEC recommended adoption of Phase 2 of the Energy Action Plan. The following activities were completed this past month:

- Submitted SolSmart application
- January newsletter energy article

The following activities are projected in the next month:

- WindUp Challenge to signup 50 new Windsource subscribers by April 22
- February cable show on Home Energy Kit

Recommendation

Commissioners should review and discuss if there are other activities that should be considered.

Attachments and Other Resources

- None

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner

Title

Event and Outreach Updates

Background

Outreach at community events is an important strategy to build environmental awareness and increase engagement. Events that have been completed since the last meeting as well as upcoming outreach events are listed below.

Completed events (12/13-1/10)

-

Confirmed events and topics

- Recycling Events (5 in 2023)
- WinterFest (1/21)
- HRA Open House (2/8)
- Environmental Fun Fair (4/22)

Potential Upcoming Events

- Kids Book Swap
- Water-Themed Summer Concert
- Pollinator Planting at Moore Lake
- 5 year Anniversary Celebration for Civic Campus
- 7th Avenue trail ribbon cutting

Recommendation

Commissioners should discuss if there are other community events that are a priority, what topics should be highlighted, and if there is an interest in commissioner involvement.

Attachments and Other Resources

- None

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner

Title

Grant Updates

Background

The purpose of this item is to provide Commissioners updates on sustainability grants held by the City. New items are highlighted in yellow.

Grants in the Pre-Application Stage

- Moore Lake Native Plant Restoration

Grants Under Review

- MnDOT Active Transportation Pilot Grant
- MnDOT Active Transportation Infrastructure Grant

Active Grants

- Recycling grant (ongoing)
- Met Council Regional Solicitation Grant for 44th Avenue Bridge w/ Anoka County
- BWSR/RCWD grant for Moore Lake IESF project
- RCWD grant for road diet on University Ave Service Rd
- LRIP grant for 53rd Avenue Trail Project
- RS grant for 7th St Trail Project (missing section in front of Community Center, will resume following school release)
- University Avenue Lighting Project
- Met Council Climate Mitigation grant for feasibility study of 73rd Ave
- BWSR HELP grant for native plant restoration on Commons Park hillside
- Met Council Water Efficiency Grant pt 3
- MDH Well Sealing Grant pt 3
- DNR grant for mitigating impacts of EAB

Grants Closed (1/1/2021+)

- SHIP grant for wayfinding kiosk
- MDH Well Sealing Grant pt 2
- SHIP grant for bike fleet (SNC/Recreation)

- CCWD grant for Craig Park improvements
- Lawns to Legumes grant for Craig Park Bee Lawn
- RCWD grant for 6 raingardens in Rice Creek Terrace neighborhood
- Lawns to Legumes Demonstration Neighborhood Grant (ACD grant in partnership with Coon Rapids, and Lino Lakes)
- SHIP grant for Civic Campus orchard
- RCWD grant for sumps in Farr Lake neighborhood
- CCWD grant for hydrodynamic separator in 2022 Street Project Area
- Met Council Water Efficiency Grant pt 2

Recommendation

Commissioners should review and discuss if there are other activities that should be considered.

Attachments and Other Resources

- None

AGENDA REPORT

Meeting Date: January 10, 2023

Meeting Type: Environmental Quality and Energy (EQEC) Commission

Submitted By: Rachel Workin, Environmental Planner

Title

Informal Status Reports

Background

Staff and Commissioners will share informal status reports on programs happening in the City.

Recommendation

None

Attachments and Other Resources

None