



City of Pleasant Ridge

James Breuckman, City Manager

From: Jim Breuckman, City Manager
To: Planning Commission
Date: December 4, 2017
Re: Solar Energy System Regulations

Overview

A proposed zoning amendment to allow solar energy systems where visible from the street has been developed and is attached.

Background

The crux of the question before us is that historic preservation is a significant concern in Pleasant Ridge. Our Zoning Ordinance recognizes this in many ways, large and small. Our exterior design standards are a major example. So is the current prohibition of solar panels anywhere on a property where they are visible from the street.

The question is, do historic preservation considerations that strive to keep houses looking as close as possible to how they looked when they were built outweigh the need to allow for solar energy systems where they are visible from the street.

The reason why this is a particularly salient question for Pleasant Ridge is that the majority of our residential streets (20 out of 22) run east and west, meaning that houses face either north or south. A house on the north side of the street can only install a roof-mounted solar energy system on the south-facing roof, which means that it is visible from the street. In effect, our current solar energy standards prohibit nearly half of our properties from installing a rooftop solar energy system.

Survey Results

A short, three question survey was conducted on this issue prior to scheduling the public hearing for the proposed ordinance. The survey was published online and was included in the summer edition of the Ridger. We received a total of 64 responses to the survey.

The first question asked if solar panels should be allowed where visible from the street. 62.5% were in favor and 37.5% were opposed.

The second question asked if all black panels, or other design requirements to make the panels less noticeable and obtrusive, should be required. 54.84% agreed, 45.16% disagreed.

There were also a number of open-ended comments that were provided, which are included in the attached survey results summary.

Considerations

I offer the following as thought-starters for your consideration as we examine this issue.

- Solar panels aesthetically change the appearance of a historic structure, but do not necessarily change the structural integrity of the house. They do not destroy or permanently alter the historic resource. When the panels are removed, the house can easily be restored to its original appearance. We do not run the risk of permanently altering or destroying historic resources, so objections on historic preservation grounds are purely aesthetic.

Is it appropriate to prohibit solar energy systems based on aesthetic concerns alone?

- An oft-cited reason to wait on doing something with solar panels is because technology is advancing. A common opinion for this matter is that solar shingles will obviate this discussion. However, it is uncertain if solar shingles will ever be as cost effective as traditional solar panels. Perhaps they will, but there is still a large price difference. Solar shingles have been the next big thing for at least 10 years now. I was at a conference in 2007 where Dow Chemical was displaying and marketing solar shingles that would be coming to market “soon.” Instead, Dow shut down the program because it was never market viable.

Furthermore, regulations can be changed. If emerging technologies that are more aesthetically pleasing and are cost-competitive with solar panels do pan out, we can revise our regulations accordingly in the future.

Is it worth waiting for a technological outcome that may or may not materialize?

- Prices on solar energy systems have declined to the point where it is now feasible for homeowners to put in a residential system. Payback periods are now in the 7-10 year range, meaning that homeowners can reasonably put in systems which will save them money over time, and also reduce the carbon intensity of our energy system.

Is it appropriate to retain a regulatory barrier in the short term that impacts the economic and environmental bottom lines in the hope that a more aesthetically pleasing hardware option will be price effective at some point in the future?

Example Photographs

On the following pages are photographs of solar energy system installations on historic or traditionally styled houses. These are intended only to provide context for what visible solar energy systems look like. Please note the difference in appearance between the panels with silver frames and grids, vs. the uniform black panels that have black frames and grids.

Requested Action

Planning Commission consideration of the request to amend Section 82-204 of the zoning ordinance with a recommendation to the City Commission.









CITY OF PLEASANT RIDGE
Ordinance No ____

AN ORDINANCE TO AMEND THE CITY OF PLEASANT RIDGE
CODE OF ORDINANCES, CHAPTER 82 – ZONING.

THE CITY OF PLEASANT RIDGE ORDAINS:

Section 1.

The following Section 82-204 of Chapter 82, Zoning, of the Pleasant Ridge City Code is amended as follows:

Section 82-204. **Solar Energy Systems~~Panels~~**

~~Solar panels-energy systems shall be~~ include solar collector surfaces and ancillary electrical equipment that are either affixed to a permanent principal or accessory building, or as a freestanding structure. A solar energy system collects, stores, and/or distributes solar energy for heating or cooling, generating electricity, or heating water.

~~Solar energy systems are~~ permitted in all districts as an accessory use as a special use-subject to the following:

- ~~(1) Placement of ground mounted solar energy equipment is not permitted within the required front yard setback. Ground mounted solar energy systems shall meet the location and setback requirements applicable to detached accessory buildings (see Section 82-193).~~
- ~~(2) Ground mounted solar panels shall only be located in a side or rear yard and shall meet or exceed required yard setbacks and shall be located to minimize any glare to adjacent properties.~~
- (2) Roof mounted solar energy equipment shall be permitted on principal and accessory buildings provided that located so as not to the panels or solar collector surface does not increase the total height of the structure above the maximum allowable height of the structure on which it is located, in accordance with the applicable zoning regulations.
- ~~(3) Solar energy collectors shall be designed to minimize glare, and shall be uniform in color. Frames (internal and external) shall be the same color as the collector.~~
- ~~(4) Solar panels, requiring a frame and/or brackets for mounting on the roof, shall not be visible from the public right-of-way.~~

Section 2. Severability.

Should any provision or part of this Article be declared by any court of competent jurisdiction to be invalid or unenforceable, the same shall not affect the validity or enforceability of the balance of this Article, which shall remain in full force and effect.

Section 3. Repealer.

All other ordinances or parts of ordinances in conflict with this ordinance are hereby repealed only to the extent necessary to give this Ordinance full force and effect.

Section 4. Savings clause.

Nothing in this Article shall be construed to affect any suit or proceeding pending in any court or any rights acquired or any liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section 8 of this Ordinance; nor shall any just or legal right or remedy of any character be lost, impaired, or affected by this Ordinance.

Section 4. Effective Date.

This Ordinance shall become effective seven days after publication of a notice of adoption, as provided by law.

Section 5. Adoption.

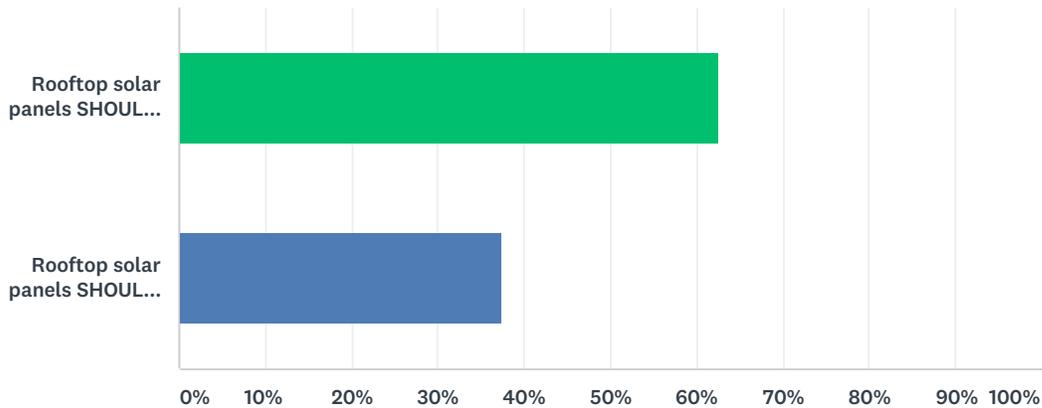
This Ordinance is hereby declared to have been adopted by the Commission of the City of Pleasant Ridge at a meeting duly called and held on the ___ day of ___, 20___, and ordered to be given publication in the manner prescribed by law.

Amy M. Drealan, City Clerk

- Planning Commission Public Hearing:Monday, December 11, 2017
- Planning Commission Recommendation: ...
- City Commission Introduction:.....
- City Commission Public Hearing:
- City Commission Adoption:
- Published:.....
- Effective:.....

Q1 Solar energy systems continue to decrease in price each year, and now residential systems can pay back in as little as 7 years. As solar energy becomes more affordable, more residents are interested in installing solar panels on their house. However, Pleasant Ridge's zoning prohibits solar panels on the front side of houses, where they are visible from the street. This is a problem for nearly half of our residents because most of our streets run east and west. If your house is on the north side of the street, the only good place to put solar panels is on the side of the house that faces the street. Our zoning standards prohibit nearly half of our residents from installing a solar energy system. At this time, the City is re-examining our solar energy system regulations to decide if we should allow them to be installed where they are visible from the street. This survey is intended to gauge public interest in this topic to help the Planning and City Commissions as they consider this matter. Please indicate which of the following statements you most agree with:

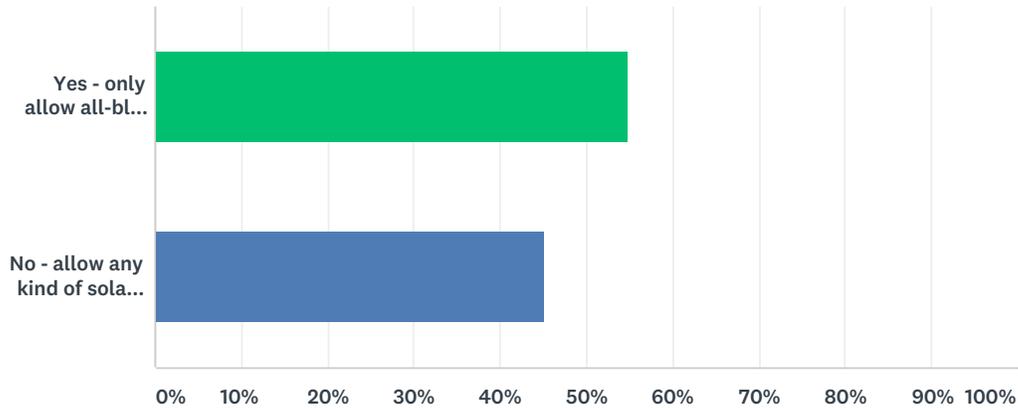
Answered: 64 Skipped: 0



ANSWER CHOICES	RESPONSES	
Rooftop solar panels SHOULD be allowed where they are visible from the street.	62.50%	40
Rooftop solar panels SHOULD NOT be allowed where they are visible from the street.	37.50%	24
TOTAL		64

Q2 All-black solar panels are now readily available, and are considered by some to be less obtrusive or noticeable than the traditional solar panels with silver-colored grid materials. All-Black Panel Example: Traditional Solar Panel Example: If Pleasant Ridge allows solar panels on the sides of houses that are visible from the street, should we require that only all-black panels may be used?

Answered: 62 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes - only allow all-black panels	54.84%	34
No - allow any kind of solar panel	45.16%	28
TOTAL		62

Pleasant Ridge Residential Solar Survey

Q3 Is there anything else you want to share with us regarding residential solar panels?

Answered: 34 Skipped: 30

#	RESPONSES	DATE
1	make designs be in good taste!	10/13/2017 7:46 PM
2	We are installing a 15 kWh system with the 1st Tesla powerwall 2.0 back up battery system in Michigan this November. We are strong advocates of solar and welcome any questions, and believe limited (if any) restrictions should be in place for rooftop solar. -52 Oakdale Boulevard	10/13/2017 7:42 PM
3	Solar panels are somewhat unsightly and I prefer they are not visible from the street.	10/13/2017 7:59 AM
4	As a city we have strived to maintain the historical elements and atmosphere of the community. The current offerings of solar panels are not aesthetically adequate to uphold the current appearances of the community. At this time solar panels should not be allowed on the front of homes.	10/11/2017 6:44 PM
5	I think they're great and lucky to live in a city that will allow solar power!!!	10/11/2017 1:18 PM
6	Solar power is good.	10/5/2017 12:16 PM
7	Many roofs are not black in our city, so requiring all back panels as a way to make the panels blend seems pointless.	9/5/2017 2:11 PM
8	Please prioritize training for Ferndale Fire, as they need to understand how to fight fires in spite of the panels	9/4/2017 9:01 PM
9	How about garage roofs that you can't see from the street.	9/4/2017 5:45 PM
10	We have a responsibility to be good stewards of our natural resources. It's time to put away the outdated requirements that are driven by esthetics.	9/4/2017 2:42 PM
11	Do not restrict to black only. Instead, broaden restrictions to allow a wider range -- All one color with minimal reflectivity OR Constructed to look similar to traditional roofing shingles such as the ones Tesla is touting. An all-black restriction is very short-sighted. Research what may be coming to the market soon, not just a single product that is now available. Prohibit bright metal and highly reflective surfaces.	9/4/2017 2:20 PM
12	Sustainability is more important than aesthetics.	9/4/2017 10:14 AM
13	While solar panels are green energy and saves money they look terrible.	9/4/2017 8:25 AM
14	Can you see if Elon Musk will use PR as a test study for his solar shingles? Kidding. AP	9/3/2017 10:08 AM
15	Does not fit our historical district. Reduces property value in historic neighborhood.	9/2/2017 11:46 PM
16	I don't know if this is consider to be a solar panel but I definitely think the new Tesla roofs should be allowed as well.	9/2/2017 9:53 AM
17	I'm more concerned about the "view" of the neighborhood (and reflection) when looking out my second storey windows. FYI this could be an unforeseen problem that comes up.	9/2/2017 7:09 AM
18	I'm really pro environment. But I'm also pro historic neighborhood, which is why I bought here. There needs to be a balance. Until solar tiles like those in design by Tesla are readily available, I will not support any solar panels on the front of homes.	9/2/2017 2:51 AM
19	I'm all for renewable energy, but it doesn't sound like the city has done its homework. There are still a number of challenges and problems with solar power.	9/2/2017 12:52 AM
20	Stop being ridiculous and allow people to efficiently energize their home.	9/1/2017 11:02 PM
21	No	9/1/2017 10:19 PM
22	No visible solar panels should be allowed, they destroy the historical character of our beautiful unique city. Also some home have portions of there roofs which are flat on top so it is inaccurate to say that half of the city is excluded under the current ordinance.	9/1/2017 9:13 PM

Pleasant Ridge Residential Solar Survey

23	As much as I see the need to save on energy costs, I also feel that being a historic district PR's ambience would be forever changed by allowing these to be present from the street.	9/1/2017 5:57 PM
24	Limiting the discussion to only these two panel types is in error. The full range of available solar panel types including solar shingles now being developed needs to be included in the language of any ordinance. Technology advances faster than cities can create or revise regulations and any rewrite should allow for types still to be developed, such as solar tracking/ movable installs. Same goes for wind power; new vertical blade systems are small, quiet and unobtrusive. If wind generation is currently prohibited in our zoning regs (I haven't checked), it also should be considered for approval, with sound and footprint limitations.	9/1/2017 5:34 PM
25	I'd prefer not to allow panels facing the street, on the front of the house. They are unsightly. However, corner lots may allow panels facing the rear of the house to be seen from one side, and I think that should be allowed. Only the front should be restricted. For those homes being excluded by this restriction, I think it will not be long before solar shingles are ready for prime time and priced feasibly. This would be a better solution for these cases.	9/1/2017 5:27 PM
26	If solar panels are allowed on a street visible side they must blend in w the roof top of a home, garage or building. Failure to make them less obtrusive looking will significantly degrade the historical perspective look and feel of our city. While modern technologies should be allowed it should be done with the most caution and used not to ruin our city	9/1/2017 5:20 PM
27	Please do not allow the aesthetic value of our historic properties to be negatively impacted by visible solar panels. Thank you.	9/1/2017 5:15 PM
28	They are quite common visible from street views throughout historic districts in Europe. There are new solar panels (shingles) that look great. It is still an emerging technology, like CFLs to LEDs.	9/1/2017 5:13 PM
29	I am an architect and I also use to work for a solar panel company and I am totally okay with this as long as it is done "in good taste".	9/1/2017 4:53 PM
30	This topic should be re-addressed as soon as other emerging technologies are proven both affordable and robust.	9/1/2017 4:48 PM
31	I hesitate to answer either of the questions above, because I think it depends. I am for an increase in solar, but I also feel that the character of the houses would be diminished if the solar implementation is done in a poor way. But, an all-out ban of solar that can be seen from the street doesn't seem right. For example, some homes in PR have a more modern style where even visible solar panels would not be obtrusive in my opinion, and some have low pitched roofs where the panels may not be as visible. If the "non-black"solar panels were installed on a high pitched tudor revival visible from the street, I would have a problem with it. But, if solar panels were installed on the detached garage of a home, even if still visible from the street, that would probably not be bothersome for me. And of course, as your question regarding all-black panels indicates, the style of solar panels is changing. There are solar shingles coming on the market that look like slate. etc. - assuming that they do look nice enough, I don't see why there would be any ban on those regardless of where they were placed.	9/1/2017 4:18 PM
32	If possible no solar panel should be placed on a side of a house if the other side of the house does not have a neighbor. Houses on many OF streets are very close to each other.	9/1/2017 4:06 PM
33	Should not be visible at all. No matter what kind/color they are.	9/1/2017 3:57 PM
34	would love it if the City could negotiate for residents to contract individually, but en masse, with a single contractor to get solar panels installed a reduced rate	9/1/2017 3:56 PM