PlanIt

COMPREHENSIVE PLANNING FOR SOLAR ENERGY SYSTEMS

Presented by Eric Wojchik and Brian Ross
November 10, 2016
12:00 – 1:30 PM

Webinar Summary: This webinar provides guidance on how protect and develop access to direct sunlight for solar energy systems while emphasizing the importance of measuring and mapping solar resources and integrating this information into the Comprehensive Plan. The session will provide direction for ensuring that solar energy development captures community benefits and integrates within the community's Comprehensive Plan. The session will also describe how solar energy systems can be assessed as a resource, explain the market conditions of solar, discuss the different types of solar technology, and address value-added examples of solar policies and strategies.

Questions and Answers:

1. **How can we work with MnDOT to include more solar around the highways? Are there special programs?**

   That's a great example of the use of land in your community that can't be development in any way, but might be appropriate for solar development. I know MnDot has been looking into this, and how they might enable solar development to occur, for instance, in right-of-ways and standards they might put in place. I actually don't know what the current status of that is, but it is something that communities should think about, and perhaps make a direct inquiry to MnDot about what the status of it is, and options.

2. **Are there examples of Comp Plan language and ordinances related to solar access and urban forest?**
   We did provide examples of a couple of goals that can lay the foundation for doing that. The ordinance language would be a little bit more specific to a community. We generally, as a best practice, recommend that people not cut down trees to put up rooftop solar systems, and that is what we kind of state in the model ordinances. However, there are instances where people might want do that on their own land and that has to be integrated into your (if you have one) tree preservation or woodland preservation ordinance. There has been some work in other communities about how it get integrated when you're also using something like a solar easement across a neighboring property, that would probably be where we see the most specific language used. We actually don't have any specific examples of that in Minnesota, but it's something that other states have incorporated into their land use codes and ordinances.

3. **How realistic is it, or how would we encourage obtaining solar easements in fully developed areas? Will there be a market for this? We would be uncomfortable with this if it discourages development that we'd otherwise like to see.**
   That question goes directly to some of the difficulties of using solar easements as protection tool. Solar easements are a great idea, but they are kind of difficult to implement, especially when you talk about fully developed areas. Minnesota's solar easement law, is a voluntary law. There is no provision in it, or enabling statute to apply a solar easement across somebody's land who doesn't want a solar easement put across their land. It's a market transaction. There's actually a couple of other states I know of where they included some provision on how a local government might actually apply a solar easement in an unwilling fashion

across somebody else's land. We don't do that in Minnesota. And so, we typically see in fully developed areas, that solar easements are rarely used because the cost of them is basically equivalent to buying the land on which they are being laid. It is something, however, that we would see in the development process. The solar easement is a very useful tool if you're in your subdivision ordinance if you want to make sure that every single lot, for instance, has access to solar, you could design it in such a way as to make sure that every solar easement is placed across the appropriate portion of lots so that when one person puts up a solar system on their roof, their neighbor doesn't plant a tree that's going to go up that solar window. That's probably the best place to use a solar easement, rather than the fully developed area.

4. **Some of our residents think solar panels are ugly. Is there a way to overcome this perception or are their strategies for installing them in a way that minimizes their visibility?**
   Yes, there is a way to overcome this perception, or to use a strategy to minimize the visual impact of solar panels. The panels, whether they're ugly or not, is in the eye of the beholder—the same thing we see with all issues around aesthetics. Anyone who has dealt with that issue in their community knows how difficult that can be. But still, there are examples of design standards where different tools are used to make sure that the panels are integrate into the architectural design of the building in a reasonable manner. That will take different forms in different types of communities. Some communities have simply said the panel, for instance, cannot be above the peak of the roof. In other words, visually, the panel would always be within the visual impact of the roof itself. Some have taken this a step further and say that all solar panels visible form the public right-of-way must be flush-mounted, so it also minimizes the visibility of the racking system. We have seen a few communities that have said only a certain percentage of the roof should be covered in solar. I've actually seen one community that argued if a solar panel was going to go on a roof, it should cover the entire roof because that would be more visually appealing. It does change depending on community, but there are examples of design standards out there. The City of Saint Paul has developed a set of design standards. They have an ordinance provision about visual impact and design standards for what that means in the context of solar energy.

5. **This is a lot of great information, but a bit overwhelming. Where would be the best place to get started?**
   The best place to get started, in all honesty and you probably already know this, by working on your engagement strategy with your community if you haven't done so already. In other words, how do you plan on engaging and when will that occur because this can obviously form part of that engagement process. What does your community feel about these sorts of development? It is a lot of information, we hope the resource sis something that you can return to, but certainly kind of gauging your community's interest but also, are some of these policies and ideas around solar politically palatable? Do you already have a current ordinance that is within your community and if it so, does it need to be updated? Once challenge I had when I used to work for a city in Southeast Minnesota, was we were getting a lot of development pressure for accessory solar systems. Our ordinances were just not able to deal with a lot of the issues around that. So we had to find a new model ordinance to use, and update our existing. I would say to frontload the process, because that's what we encourage with comprehensive planning. I think trying to gauge what you have and how currently existing, ordinances, regulations, and seeing where the community wants to go—that kind of visioning and goal setting piece.

6. **Can you explain the tax implications for communities of solar energy systems on agricultural land?**
   This is something that I did discuss to some extent earlier. Agricultural land in particular is a little tricky in the metropolitan area. When a solar farm or a solar garden is installed on agricultural land, it is a principal use. It

would fall under the provisions of the statute that would require that land underneath the solar panel to be assessed as an industrial classification rather than an agricultural classification. That will provide a tax revenue benefit to the community by increasing the tax revenue which benefits from the change in classification. If the system is more than 1MW in size, then the production tax would also kick in, and there would be tax benefit to the community mostly in the county but also to all the cities and townships within the county from that production tax. Since there has been some pressure on agricultural lands for solar farm and garden development, that's typically where we've seen them going in the last year. The net tax benefits for the community are going to be positive because there are two different ways depending on the size of the development where additional revenue that wasn't realized will be realized by the community.

7. **If our community was only required to state that it will protect the development of solar energy systems for direct access to sunlight in 2008, why are you requiring more in this round of comp planning/**
   I had a feeling I would get that question. Well, the answer is that we're not requiring more. The statutes have always been the statute. It does talk about resource protection, but it also talks about resource development. Previously we've had so little information on how to quantify solar as a solar reserve like Brian had mentioned. Now that we have that solar analysis map, we will be providing obviously here in house at the Council and sharing that out to you, so really through your community pages and the Local planning Handbook, you can just take that map we produced with those calculations and just put that in your comp plan. Now, that map should kind of spark some discussion, hopefully at the community level and with your elected officials in terms of "Okay, well this is our growth solar reserve and this is our rooftop solar and this is our map—what do we want to do policy wise?" There needs to be a policy, and in terms of what that policy is, it is up to you. You can go as far as you'd like and I'd want to encourage this, but your policy can't just say "Hey, we're not going to do anything." It needs to provide for the protection and development of solar, so you need to manage the development, and how you do that. So that policy and implementation strategy needs to follow on from that. So the requirements aren't different, what's different is that we have better information and tools that we can provide to you, and we also have these changing market conditions.

Please send additional questions or comments to angela.torres@metc.state.mn.us.