Dear Members of the Concord Energy and Environment Advisory Committee,

Thank you for taking the time to read my letter as I am unable to be here tonight due to work. It is greatly appreciated. I am writing with several concerns with the past and future proposals to place a large solar filed on W. Portsmouth St, Concord NH.

My fiancé and I just purchased our first home in June of 2017, across the street from the proposed solar field this past summer. We purchased our home on 72 W. Portsmouth St. with the intention that we will live here for some time and start our family here. We fought tooth and nail for our home, not just because of the house, but more importantly its location. Both of our careers are in Concord, and Concord is where we want to start our roots together. This past proposal for a 54-acre solar field has raised several concerns for both of us.

Of course, for ascetics, we would prefer trees and an open field directly across the street from us as oppose to a large-scale solar field. The residential open space district was a huge influence in deciding to purchase our home for where we could feel we were in the county surrounded by trees and wildlife but be close to work. We also fear a large solar field directly across our small road will create challenges for us if we ever need to put our home on the market.

In speaking about starting a family, health is my biggest and scariest concern. I've tried looking for long term research conducted on families living in a very close proximity to a solar field of the size that was proposed this past summer (54 acres) but could not find any. I know that we are told solar energy effects are minimal, however, I know solar fields are relatively new in their development, and the fact that I could not find any research regarding long term health effects when dealing with a solar field of this magnitude, greatly concerns me. I want to know that mine and my fiancé's health would not be affected, that when I become pregnant living in our home would be safe, as well as our future children's health. I am trying not to sound paranoid, however, I don't want my family to be an experiment in any form. I find it hard to not think

about these things when it was proposed just a couple months ago. Such a large source of power I would quite literally be able to throw a rock at from my front step. I'm hoping I am not alone in these concerns and that you would question the same things if this was being proposed to be placed so close to your family's home. What are the risks? Could this in any way cause harm to my family? My children? With such little research and long-term studies, does this make me feel any better? It certainly does not for me.

I am also worried about this past proposal and any future proposal's impact on the land and wildlife in our neighborhood. Surely a project of this size will have a substantial impact on the abundance of wild life we find in our neighborhood as well as the land, which to add to the dynamics is a flood plain. I wonder and worry about the state of both during and after any sort of project like this is done.

I did look for the benefits of the past proposed plan, as I do support green energy. However, I feel this is asking a lot from our family and our neighborhood next to a piece of land that was meant to be minimally disturbed by man. I ask that you please consider mine, as well as our neighbor's concerns, and keep the land on 72. W. Portsmouth St. as it was intended to be kept.

Thank you again for your time.

Singerly,

Kaitlin Sapack

Christopher J. Martineau 72 West Portsmouth Street Concord, NH 03301

October 29, 2018

City of Concord Energy & Environment Advisory Committee and the Planning Division City of Concord

Good evening Board Members;

My name is Chris Martineau. I co-own the property located at 72 West Portsmouth Street.

# I am opposed to any changes to the current zoning ordinance that would permit the installation of solar panels/farms in residential areas other than for the purpose of individual residential use.

Last summer my fiancé and I were looking at purchasing our first home. We were looking for a location where we could start our lives and family together. One day we took a ride down West Portsmouth Street to look at the property at 72 West Portsmouth Street. Upon driving down the street, we instantly fell in love with the street and the home. The street is a quiet, residential street consisting of woodland, cornfields, a nursery, and the Shaker Road Soccer fields. The neighborhood gave us the "country" feeling within the city. The perfect place to put down roots and start a life together.

The current zoning ordinance for "open space residential (RO) zoning" allows a 10% maximum lot coverage under zoning ordinance 28-4. If the City of Concord changes the zoning ordinance and allows for the construction of "solar farms" or other industrial-like solar collection areas it will have a detrimental effect on both the desirability of the City of Concord as well as the property values in the neighborhoods in which the solar panels are located.

Earlier this year Mr. Brochu, owner of Brochu Nursery, proposed the construction of a solar farm site on his property located directly across the street from our house. Aside from the eye sore and "industrial" feeling a project such as Brochu's would bring to the neighborhood there are other issues to consider. A change in the solar zooming ordinance will most definitely change the atmosphere of the residential neighborhoods.

Supporters of large solar collection facilities assert that they "will not permanently alter the character of the property". This could not be any less true. Taking away open fields, trees, and serenity would not only alter the character of the property 100%, but the character of the neighborhood as well. Also, are there other State or Federal Regulations that would become applicable should the zoning ordinance be changed to permit these large "farms"?

Aside from our concerns and apparent change in appearance to the neighborhoods, we have serious concerns of the health effects of solar farms in close proximity to residential homes. We have moved here with the intent to start our family. I have seen no research to prove or disprove the potential health effects or hazards that come with such large projects. There has been no evidence presented to address potential adverse health effects of living close to such a large solar farm. No one can assure us that we, or any children we may have, will not be effected. Changing the ordinance and allowing the residents of Concord to become Ginny pigs, could open the City of Concord up to potential liability.

In closing, I respectfully request that the zoning ordinance NOT be amended to allow for the existence of "solar farms" in residential areas. I ask that the members consider the effect a change will have on you and your family if these structures were to be placed in close proximity to your homes.

Thank you for your attention to this matter and your consideration of my letter.

Respectfully,

Christopher J. Martineau

Dear Concord Energy and Environment Advisory,

My name is James Thorpe. I live on West Portsmouth Street, directly across the street from the proposed lot.

When I purchased my property and house, what drew me to it most was the expansive and open feel to the entire dead-end street that it rests on. The (RO) Residential Open Space District is exactly what I was looking for, and I purchased with that in mind. I made a choice. By making zoning changes, and disregarding the current zoning and bylaws, my choice would be taken away. A change to the variances surrounding me will fundamentally shift my experience with the land and the property I fell in love with. I cherish where I live and do not want to leave.

Ironically though, if I did want to up and leave to find a new place, I'd be hard pressed to sell my house, and find someone who wants to live within a commercial/industrial setting, with 54 acres of solar panels as the view from their front porch. The value of the surrounding properties (financial and emotional) will certainly be reduced with any zoning changes and this proposed installation.

Directly across the street from my house, on the proposed land, there is a 10-15 foot drop into the flood plain. The idea of a commercial installation of solar panels, regardless of how green the resulting energy remains, would be undermining the natural shaping and shifting our land and waterways (in accordance with each other) have been slowly making over thousands of years. Let us not take this lightly.

What is much *more* significant to me personally though, is the fact that I have a 5 year old daughter...Matilda. She is everything to me. She and I use our quiet, dead-end road daily...to pull sleds on, ride bikes, and walk the dog. Our natural behaviors such as these will unfortunately change with such a drastic adjustment to our setting. What's much more concerning, is that our house sits close to the road, and we would be spending a majority of our day within 100 feet of this 10-megawatt solar farm. I can not allow my daughter to be exposed to the electromagnetic energy surrounding a massive industrial installation like this. On top of that, the radiation generated by the conversion of energy is not something I'm willing to let us be so close to.

Due to this solar technology being relatively new to us, there are no long term studies or research to access, that focus and document human health while living in close proximity to such immense and concentrated solar energy systems like this. I can't allow Matilda (still in the early stages of development) and I to be the guinea pigs of such exposure.

I believe in green energy. I am *for* solar. This municipality *should* be considering long-term, sustainable ways to gather energy, to make progress within our town, and allow for the safest and most fulfilling civic engagement and appreciation possible. Allowing for large scale installations of this sort...in residential areas...falls far short of that delineation. The town of Londonderry employed a very fitting approach by leasing out landfill property to a solar

company. Also, my street is adjacent to Locke Road, a very industrial/commercial setting. That would be a great place for solar. We really need to explore other options than simply changing the rules for zoning to allow for this in solar areas. Not to mention, we don't even know yet the long term health effects of close exposure to installations like this. Please don't allow my daughter to be the case study.

Thank you for your consideration,

James Thorpe

Dear Concord Energy & Environment Advisory Committee,

The issue is not whether solar is a responsible and forward-thinking move, the issue is whether Concord is willing to lose the essence of what makes it so lovely. The presence of RO zoning over such a proximity in our city is unique, and with that uniqueness comes a powerful appeal to current and future residents. If we allow the ordinances to change in such a way that RO land is open to commercial and industrial installations, we are open to an influx of the ugly and destruction of the pastoral beauty that makes Concord so special.

I am not asking for a blanket policy that restricts the presence of solar panels, but I am strongly requesting that this idealistic notion of solar power across the city is examined under the lens of the Concord residents that dwell in RO zoned areas.

A typical commercial solar panel is 12 feet tall. This is no minor disruption when hundreds are lined up alongside the road, and if Concord moves forward with unrestricted installations, they could be lined up a mere 50 feet from the street. Residential Open Land is not meant to be commercialized, nor is meant to have an industrial appearance. It is meant to remain as it appeared in the past, with farmlands giving way to backyards, corn fields yielding to swingsets, quiet country roads and orchards tracing alongside paved roads.

The city of Concord has a special connotation. We are a mix of culture and nature. I cannot stand by as the Board discusses changing the critically important aspects of our city without speaking up. I live in the RO- so many of us live there because we want to see the fields and the trees. We chose to live in Concord because it offers us the best of two worlds- to be living the country life with all the amenities of a small and cultured city. We are grateful for the downtown area, and supported the revitalized design despite the minor inconveniences and costs because it was improving and beautifying something we identify as special to our town. But I cannot support acres and acres of solar fields alongside my pastoral drive to Apple Hill Farm. I don't want to imagine staring at rows of 12 ft tall metal structures that could line the fields I have come to love on my drive to the Concord Heritage Trails. I cannot abide the idea that my children may have to look out their windows in the morning and see acres of solar instead of acres of foliage, moose, fisher, bobcats, deer and rabbits. You simply cannot discuss changing the zoning without additionally discussing the protective measures that we in the RO require in order to retain our sense of pastoral living. There is absolutely NO QUESTION that solar installations are uply and disruptive and do not add to the beauty of natural surroundings. If there must be accommodations, and truly I agree that we must allow for renewable energy, then the changes need to allow the residents of RO lands to live as they are living now. We chose our homes because they were a good distance from the industry, and if you allow for solar installations without properly protecting the residents nearby, you are changing the way we live our lives. We will no longer stroll along the road with our dogs and kids and point out the deer and the lady slippers. We will live alongside chain link fences and shining metal. That is not how I want to live, and I speak for many residents of the Concord "country" that would find nothing appealing about that in the least. Consider seriously how and where you will allow these RO changes to be made because someone in our city cherishes that exact landscape that will be diminished. Consider that such RO land, if visible from a road, a window, a treehouse, a

walking trail or a nearby hike, is important to a resident of Concord. Our city is so uniquely New Hampshire that I fear any significant changes will only take away the charm and appeal and necessary wide open space that so many of us have moved here to take part in.

With Respect and Regards,

## Jessamyn Rockwell

10 year Concord Resident, Concord School District Employee, Mother of 3 and RO Homeowner

| From:    | Rob Blakeney                        |
|----------|-------------------------------------|
| To:      | Werner, Robert; Kenison, Linda      |
| Cc:      | Fenstermacher, Beth                 |
| Subject: | PROPOSED CONCORD SOLAR ORDINANCE    |
| Date:    | Monday, October 29, 2018 5:39:55 PM |
|          |                                     |

Dear Councilors Werner & Kenison (Rob and Linda),

As a once and hopefully future Concord resident (albeit now in Deering), I am very interested in the Committee's recommendation for a potential solar ordinance -- most importantly with regard to the lot coverage issue. I will not be able to make it to tonight's public informational session, but hope to personally attend in the future. Please consider these written comments.

I am a Concord native long involved in environmental and land use planning, commencing as a program assistant with the Society for the Protection of New Hampshire Forests (1971-72), continuing among other things as Ward 4 state rep (1976-80, Environment & Agriculture Committee) and city councilor (1979-83, Concord Energy Task Force (chair), Fire Management Committee, Solid Waste Committee (Chair) and Conservation Commission council member), as well as a member of the N.H. Food Policy Committee (1978-82).

I take a back seat to no one advocating for renewable energy, particularly solar (active and passive), but if forced to choose, my dominant concern has long been farmland preservation. In that regard, my first year on the council was revelatory. It was the first time the council conducted biennial priority-setting sessions. We met at the Ramada Inn and broke into sub-groups. This was early 1980. Concord's public discourse had been focused on the so-called "Clinton Associates" development (now South Concord Meadows), and I hoped to develop a city farmland protection policy. I was pleased to find my sub-group to be quite receptive, but we were all <u>dumbfounded</u> to find that virtually all 15 councilors rated farmland protection as either the City of Concord's 1st or 2nd highest priority.

It is in that spirit that I urge the Committee to not recommend that the solar ordinance except solar panels from the definition of lot coverage. The principle of lot coverage should apply equally with regard to sunlight <u>and</u> water. Land's value as an agricultural production (and carbon sequestration) resource is at least as important as its value as a water treatment and conservation resource, but while a large proportion of land is available for water treatment and conservation, the proportion available for agricultural production is comparatively miniscule. Ag land is a precious resource we cannot afford to remove from availability for production, even if such removal is putatively impermanent.

Photovoltaic electricity development is a critical component of our energy future, but that imperative must not be allowed to eclipse <u>any</u> of our land's food production value.

Thank you very much for your consideration.

Rob Blakeney

| From:    | Madeleine Mineau                     |
|----------|--------------------------------------|
| To:      | Shank, Heather; Fenstermacher, Beth  |
| Subject: | Solar ordinance                      |
| Date:    | Tuesday, October 30, 2018 9:45:34 AM |

Hi Heather and Beth,

Thank you for the opportunity to participate in the public meeting yesterday regarding the draft solar ordinance. As I mentioned at the meeting I am interested in this issue both as a Concord resident/homeowner and in my professional role as the Executive Director of NHSEA.

At the meeting last night you mentioned that though almost all in attendance at both public meetings were strong supporters of solar you had received correspondence from other residents voicing concerns including potential effects of solar installations on health or property values. Please do not let fear replace facts. There is ample fact based information and research to address these concerns.

I hope you find the following and attached resources from reputable sources helpful: https://www.nrel.gov/state-local-tribal/blog/posts/top-five-large-scale-solar-myths.html https://www.energy.gov/savings/permits-and-variances-solar-panels-calculation-imperviouscover

See lot overage commentary in: <u>https://www.mass.gov/files/documents/2017/10/16/model-solar-zoning.pdf</u>

http://www.co.kendall.il.us/wp-content/uploads/Attachment-29-Property-Value-Study.pdf

Our organization offer technical assistance to municipalities and I hope you will not hesitate to reach out to me if you have any questions or are seeking additional resources or information or renewable energy including solar PV at any scale.

Thank you, Madeleine

--Madeleine Mineau Executive Director



bfenstermacher@concordnh.gov

Begin forwarded message:

### From: Matt Schmitz <matt.e.schmitz@gmail.com> Subject: Solar in Concord Date: November 15, 2018 at 9:20:06 AM EST To: hshank@concordnh.gov, bfenstermacher@concordnh.gove

As concerned citizen of Concord NH I would like you to know that fellow citizens and I:

1. Are willing to site solar projects, including large projects, on SOME of our open land. We recognize that solar energy requires space, and we need to devote some space to it for the good of the planet.

2. Do not think solar panels are unattractive. We do not mind looking at them.

3. Those of us who cannot put solar panels on our roofs want to be able to participate in community solar projects, like Rob and Louise Spencer. So let's allow space for those.

4. Want to make it as easy as possible to site solar canopy projects in parking lots (easy permitting process, tax exemptions), and on brownfield sites (I support the City's contemplated solar project at the landfill on Old Turnpike Road!).

5. Want to be the solar energy capital of New Hampshire. Let's open our doors to solar energy.

Regards, Matt Schmitz Concord, NH

| From:    | Christopher Graham                    |
|----------|---------------------------------------|
| To:      | Shank, Heather; Fenstermacher, Beth   |
| Cc:      | Melissa Hinebauch                     |
| Subject: | solar power                           |
| Date:    | Monday, November 12, 2018 10:17:29 PM |
|          |                                       |

I am writing to express my support of increasing the solar power generated in Concord. Two years ago I had 20 panels put on the roof of my house and have found it to be the best home improvement I could possible imagine. I only pay Unitil for staying hooked into the "grid" because the panels have provided 100% of my year round power needs. I think the panels. are attractive on the roof and look at them as a real asset to the house. I would love to see more of them around Concord and think of the positive things that more panels could provide. In the summer the utility companies would not have to buy power from the spot market to meet peak demands since the sunny hot days of summer when air conditioning strains the grid because those conditions are when the solar panels are putting out their peak electrical output. Less pollution if the coal fired power plant in Bow is not needed to meet those peak demand times in the summer.

Keep Smiling Chris Graham, 11 Kimball Street, Concord, NH 03301

| lice DonnaSelva                     |
|-------------------------------------|
| hank, Heather                       |
| enstermacher, Beth                  |
| olar Power in Concord, NH           |
| onday, November 12, 2018 9:49:59 PM |
|                                     |

Dear Ms. Shank and Ms. Fenstermacher,

I am writing in support of any policy that encourages the expansion of renewable energy and particularly solar.

Given the recent <u>IPCC</u> report, it is especially important to do all that we can to wean off carbon emitting forms of energy. Based on informal conversations with my neighbors who span the political spectrum, I think you would find broad-based bipartisan support in Concord for being able to participate in community solar projects when rooftop solar is not possible.

Let's show our Massachusetts neighbors to the south that they are not the only NE state that understands the critical need to invest in energy which does not add to carbon emissions. Let's make Concord the example for the rest of NH to follow!

Kind Regards,

Alice

Alice DonnaSelva alicedonnaselva@gmail.com 6 New Castle Street, Concord, NH 03301 603-731-2703 Hi Heather and Beth,

I am writing to weigh in on the solar ordinance, to say I fully support expanding solar energy in Concord and ordinances that support and encourage solar. Let's make it easy for residents and businesses to install solar panels. I think it is a great idea to put solar arrays at the landfill and over parking lots, places where we can get a double bang for our buck in the use of space.

Thanks,

Julia Freeman-Woolpert 45 Joffre Street Concord

| From:    | Nicolette Grano                      |
|----------|--------------------------------------|
| То:      | Shank, Heather; Fenstermacher, Beth  |
| Subject: | Solar in the Capitol city!           |
| Date:    | Monday, November 12, 2018 9:12:31 PN |

Good evening! I read you were soliciting opinions on solar in Concord and I wanted to encourage you to go for it. Not all houses are well-suited to roof panels (mine isn't, sadly!) but I'd love to support the broad implementation on brownfields sites, parking-lots and even in select solar fields. Our whole state has to dig in for solutions to what is a world-wide problem. We need the energy; let's do it close to home. My small town looks to Concord for leadership, so show us the best way to bring our energy costs down and to keep the money in our community.

Kindest regards, Nicolette Gala Grano, Salisbury NH Hello, Ms. Fenstermacher -

I am a resident of Concord (40 Roger Avenue) and write in support of the City's proposed solar ordinance. Building solar into the planning and zoning regulations makes sense so that the City may benefit from more renewable energy. I love the one-stop solar permit, and the interest in incentivizing solar on brownfields and industrial sites. As far as the kind of solar farm that was proposed for land leased from Brochu Nursery, I have no problem with that kind of large-scale solar farm on some lands in Concord. I have seen those elsewhere in travels and feel that harvesting solar energy is a good use of space that is otherwise underutilized and/or not attractive for development at this time.

Thank you, Betsy McNamara Cell 603-848-1987



Betsy McNamara, Full Circle Consulting Call: 603-219-0699 Connect: <u>Full Circle Consulting</u>, <u>LinkedIn</u>, <u>Facebook</u>

| From:    | <u>donna</u>                         |
|----------|--------------------------------------|
| To:      | Fenstermacher, Beth                  |
| Subject: | Solar in Concord NH                  |
| Date:    | Monday, November 12, 2018 8:03:55 AM |

### Beth

I would like to express my support for solar projects in Concord NH; I do not find solar panels offensive and would love to see Concord policy support efforts to become a leader in solar. Rooftop projects should also be supported . Energy issues demand we fully utilize solar energy. Let us become leaders in Concord NH Thank you! Donna Lannan 29 Little Pond Rd Concord NH

| From:    | ellermannf@aol.com                   |
|----------|--------------------------------------|
| To:      | Fenstermacher, Beth                  |
| Subject: | I love Solar                         |
| Date:    | Sunday, November 11, 2018 9:03:18 PM |

Dear Ms. Fenstermacher.

Please add my voice to those who are writing to support solar energy in Concord. I love solar. Unfortunately, I live in an attached condo unit with trees on both the front and the back, but if I had the space I would be putting solar panels on my roof to cut my energy costs and to help the environment. I don't find the panels unattractive and I think it would be awesome to have Concord be the solar capital of the northeast! Please Give your support to this GREEN effort. Thank you. Maureen Ellermann

Concord

Dear Ms Shank and Ms Fenstermacher,

Please consider.

I do not think solar panels are unattractive. I do not mind looking at them. They are much more attractive than some other energy sources.

Some of us cannot put solar panels on our roofs want to be able to participate in community solar projects, please allow space for those.

Please make it as easy as possible to site solar canopy projects in parking lots, and on brownfield sites I support the City's contemplated solar project at the landfill on Old Turnpike Road.

Thank you.

Annie Rettew

# Annie

Annie Rettew, RN 603-651-7000

| From:    | Becky Cawley                         |
|----------|--------------------------------------|
| To:      | Shank, Heather; Fenstermacher, Beth  |
| Subject: | Pro Solar voter input.               |
| Date:    | Sunday, November 11, 2018 7:44:23 PM |

I write in support of anything the City of Concord can do to facilitate renewable energy. Solar energy is a particularly appropriate alternative to fossil fuels.

Specifically:

I think it makes sense to site solar projects, including large projects, on SOME of our open land. We recognize that solar energy requires space, and we need to devote some space to it for the good of the planet.

I do not object in anyway to the appearance of solar panels. In fact, I find solar panels to be a very hopeful feature in any setting.

Further, even if we are not able to install solar panels on our home, we want to be able to participate in community solar projects. So let's allow space for those who do have appropriate sites for solar panels.

I think it makes sense to facilitate the installation of solar canopy projects in parking lots (easy permitting process, tax exemptions), and on brownfield sites (e.g the city's contemplated solar project at the landfill on Old Turnpike Road).

I would be thrilled if Concord became the solar energy capital of New Hampshire.

Thank you for your consideration.

Becky Cawley Concord, New Hampshire USA

| From:    | Melissa Hinebauch                    |
|----------|--------------------------------------|
| To:      | Shank, Heather; Fenstermacher, Beth  |
| Subject: | Concord solar ordinance              |
| Date:    | Sunday, November 11, 2018 6:31:06 PM |

#### Dear Heather Shank and Beth Fenstermacher,

I am writing you today to let you know how wonderful solar power is, and that I am in support of solar/expanded renewable energy in Concord.

My name is Mel Hinebauch, and I live in Concord. However, I grew up in Colorado where solar is omnipresent. My parents have solar panels on their home - as do almost all their neighbors. Solar panels are everywhere in Colorado - on houses, businesses, university buildings, farms, bus stops, highways, car ports, and even dog houses.

I am an artist, and I personally think solar panels are beautiful - especially in comparison to the poisonous, toxic pollutants caused by fossil fuels and burned waste. When other people complain about the visual impact of solar panels and/or solar arrays, I wonder if they have ever considered the visual impact of refineries, incinerators, coal fired power plants, cars - not to mention their toxic emissions. When I see solar panels in Colorado or Germany or Vermont or New Hampshire, I cheer and say, "Hooray! That person/organization is concerned about my health AND the well being of the planet. Thank you!" Solar is not ugly, it is responsible, smart, and important to the health of our planet.

Solar panels and other forms of sustainable energy should be allowed in almost all locations in Concord and installed without many restrictions - I really can't think of any place they should not be placed, honestly. Please consider this as you move forward with your decisions.

Thank you very much,

Mel Hinebauch 15 Rockland Rd Concord, NH 03301 603-224-4866 fyi

Heather R. Shank, PLA, AICP

City Planner (603) 225-8515

From: Rebecca McWilliams [mailto:rebeccamcwilliams@gmail.com] Sent: Thursday, November 08, 2018 2:15 PM To: Shank, Heather Subject: Solar Support Letter

Heather,

Please add this letter of support to your file for the new Concord solar ordinance.

To the City of Concord:

Our family purchased the Lewis Farm in August 2016 because we wanted to keep the property as a farm rather than see a housing development go up, which was the second bidder's plan. Farms in New England run on extremely thin margins, where every penny counts, and NH is rapidly losing farm properties to housing development across the state due to supply and demand for open space and the margins of farm profits. In Concord, we currently have six commercial farm operations in business in 2018, and we hope to see all of these farms continue to succeed in farming. Our goal is to remain a farm as long as we own the property, but the harsh reality is that in order to keep running the business, we have crunched the numbers and determined that we need to either achieve an annual profit from the farm or have a stable source of income of at least \$40,000/year to support the variations every farmer deals with be it weather, equipment, facilities maintenance, and staff. This is a LOT of money to make in a good year farming on 130 acres.

For us, installing a solar farm would be a triple win: socially, environmentally, and financially. With guaranteed base farm income for the next 20 years, we can continue our operations as a farm, including grazing animals in our solar field, and collecting water runoff for our vegetable production areas. We will also contribute to fighting climate change by switching our farm's source of energy to renewables. Finally, working with a developer, we can redistribute excess solar energy to our community, allowing the region to have a reasonably priced alternative to fossil fuels.

We have been interviewing solar developers for the past year, and feel confident that as soon as the NH legislature passes enabling legislation for the net metering cap to be over 1 megawatt, we have a shovel-ready project for producing between 8-10 megawatts of solar energy. Our planet does not have time for us to wait on this.

We believe that solar is beautiful, sustainable, renewable, and when paired with battery storage, renewable energy will be the future of all electricity at the Lewis Farm. We support

Concord's commitment to reach 100% renewable energy by 2030, and intend to work towards that goal on our farm as soon as possible.

Thank you,

~Rebecca McWilliams & James Meinecke Lewis Farm 192 Silk Farm Road Concord, NH 03301

"You can't wait for inspiration, you have to go after it with a club" - Jack London

Hello Mary,

Thank you for your comments. I will pass them on to Beth and the rest of the group and include them in the project file.

Heather R. Shank, PLA, AICP City Planner (603) 225-8515

-----Original Message-----From: Mary Wilke [mailto:wilke.mary@gmail.com] Sent: Tuesday, October 30, 2018 9:06 PM To: Shank, Heather Subject: solar power ordinance comments

Dear Ms. Shank,

I had planned to attend the meeting about solar power on Monday night, but was unable to do so, due to unexpected circumstances. Please accept these written comments from me instead.

I've been concerned about climate change since I first learned about it in the 1990s, and am now horrified to see some of the predictions made back then coming true. I won't take time to repeat what I'm sure other people said on Monday, but want to add my voice and say that anything you can do to help us reduce the use of fossil fuels and increase the use of renewable resources, including solar, is something I wholeheartedly support.

After reading the recent report issued by scientists at the UN, I'm even more concerned that we don't have a minute to lose. We have no leadership on this issue at the federal or state levels, so it falls on us as municipalities and individuals to do everything we can, as soon as we can, to reduce activities that contribute heat trapping gases into the atmosphere.

For the sake of our children and grandchildren, please support any changes necessary in our ordinances and regulations to maximize the use of solar power.

Thank you for your consideration.

Sincerely, Mary Wilke 24 Bow St. Concord, NH 03301

#### Heather R. Shank, PLA, AICP

City Planner (603) 225-8515

From: Patricia Bass [mailto:pattybass@comcast.net] Sent: Tuesday, October 30, 2018 9:39 PM To: Shank, Heather Subject: Supporting renewable energy in Concord

Please count me as a strong supporter of Concord's proposed goals for the development of renewable energy sources within the city. I believe that in the very near future we will want and need to localize the production of energy. Thus I hope to see the development of all sizes and shapes of solar and other renewable energy sources in my city. And likewise I favor city ownership of some of the power produced.

Thanks for your informative and interesting presentation last night. Patricia Bass

Patricia Bass 149 E Side Dr. Concord NH 03301 603-224-4622, c: 603-496-6403 pattybass@comcast.net December 20, 2018

City Of Concord Planning Department Heather Shank City Planner 41 Green Street Concord, NH 03301

#### Dear Ms. Shank:

I attended the public information meeting regarding changes in regulations allowing solar arrays in the RO district on October 29<sup>th</sup>. As a resident of Concord and member of the planning board, I am supportive of alternative energy sources including solar and was very interested in learning about the proposal from the Energy and Environment Advisory Committee. I left the meeting with much trepidation. I am especially concerned about:

- the haste in making the changes, do to pressure to meet a looming deadline in tax credits
- the impact to residential areas, forests, open spaces and agricultural land
- visual impacts to scenic view sheds
- impact and conflicts with the recently updated City Master Plan

I believe that these large scale solar arrays would be built on land currently zoned RO by a second party who would benefit financially by selling power to the grid and should be viewed as a business enterprise and a commercial use. The solar arrays at the scale previously proposed on the Brochu property in the RO should be considered commercial developments which could adversely impact the existing uses. What would prevent the deforestation of acres of property or taking valuable agricultural land out of production? Is reducing the forest canopy a fair trade off for blanketing acres with solar arrays? There seems to be plenty opportunity outside of the RO that could be prime candidates for solar applications that would not result in loss of agriculture land and forests. Until all though options are exhausted I think it is premature to expand the reach of the use in the RO.

I would also ask that there be more information meetings in wards most impacted by proposed changes. This is of special concern to Ward 10 as councilor Dan St Hilaire has recently resigned and will not be taking on this role representing and advocating for constituents at this very critical time.

I would appreciate you sharing this letter with all parties involved in this matter. Thank you for your time and consideration.

Sincerely,

Susanne Smith Meyer

| From:    | Madeleine Mineau                      |
|----------|---------------------------------------|
| To:      | Shank, Heather; Fenstermacher, Beth   |
| Subject: | Concord solar ordinance               |
| Date:    | Friday, December 21, 2018 10:08:36 AM |

Hi Heather and Beth,

I saw an updated version of the solar zoning ordinance yesterday and I wanted to shared some concerns.

It is not clear from the definition I saw in the draft but it is my understanding that the intent is to count open space between rows of panels as part of the "solar land coverage" which is limited to 40% in RO, RM. Is this correct? This would be exceedingly restrictive and just not congruent with reality. Those spaces are just not covered by anything and can be managed for environmental or habitat benefits. It is my understanding that the goal of this ordinance is to provide clarity and consistency not to actively restrict or prohibit solar development in Concord.

Am I reading correctly that the required setback in RO, RM would be more for solar systems than any other structure or development? What is the rationale for this? This seems also unfairly restrictive to solar.

The screening/buffer required should be allowed to be within the setback, not beyond it.

What is the rationale for capping solar land coverage to 25 acres? This effectively caps system capacity to roughly 6MW.

The definition of community solar restricts group members to be located within the City of Concord but in another part of the ordinance it says must comply with RSA 362 A:9 which allows group members to be located anywhere within the same utility service territory. This also seems overly restrictive what if a group net metering host served primarily members in Concord but also wanted to supply electricity to a school in a neighboring town? Perhaps include that some but not all group members would have to be in Concord to allow some flexibility?

Regarding on site consumption there are already PUC rules that dictate how much on-site consumption must occur to be eligible for net metering vs. group net metering. I think saying "primarily" is vague.

I look forward to continuing to provide input as this ordinance continues its evolution.

Sincerely, Madeleine

--Madeleine Mineau Executive Director Clean Energy NH (formerly NHSEA) February 20, 2019

Madeleine Mineau Executive Director Clean Energy NH

RE: Solar Ordinance Concord

Dear Madeleine

As you know, we have recently completed a model ordinance for NH Towns and Cities. A significant amount of research and outreach accompanied this effort and helped understand the opportunities and challenges in crafting an effective ordinance that balances a community's land use goals along with their goals for supporting clean energy.

Our findings led to the creation of a document that attempted to reach this balance. Along the way, we discovered several key issues worthy of note in considering solar deployment – especially large ground mounted systems. Obviously large arrays will occupy increasingly larger areas of land. Notwithstanding the overall size, we found several principles that may be considered to make such systems more in line with both land use and clean energy goals. In many cases, larger arrays were perceived as conflicting with open space goals, resource impacts and stormwater management.

Based on our work, these concerns can be mitigated with a skillful review and administration of a carefully drafted ordinance.

- Open space: Carefully siting systems within the contours and existing vegetation on a parcel can provide adequate screening and reasonable solar access on the site. In fact, we have found that several conservation organizations are using solar to occupy marginal areas of conservation parcels finding that such a use is consistent with the overall environmental goals of the organization.
- Stormwater and lot coverage: During our research we found the large arrays have a minimal impact on stormwater flows. Obviously dramatic changes in lot coverage such as forested to open will present different impacts. That said, the placement of a ground mount array will rarely increase flows on the lot due to the spacing between panels and the spacing between rows. Unless the array is installed on a steep slope stormwater from the panels will be attenuated in the open space between the rows. In order to maximize this benefit the developer must insure that following construction, the soil is not compacted and that appropriate ground cover is planted and maintained. The NH DES has issued guidance on solar stormwater for developers and it

does not consider the entire area of the array to be groundcover. We have found a couple peer-reviewed articles in civil engineering that reached the same conclusion.

- The key is to insure the soli driving over during construction is restored and that soil and erosion control is maintained during construction.
- It is equally important to insure that an adequate ground cover is planted following construction.
- Finally, inspections after storms and annually for the first few years will help to insure that the installation has achieved these goals.
- Impacts to natural resources: Clearly a solar array will have an impact to existing features on the site. It is possible however to use careful planning to enhance certain aspects of the site to fit the array's installation into the ecosystem and yield some benefits.
  - There are several companies working with pollinators to make the array field pollinator-friendly (an ecosystem on the verge of collapse) by planting such ground cover and working with specialists to insure the long-term survival of the pollinator system.
  - If there is clearing, it is also possible to insure that the edge habitat of the site is created such that it enhances habitat for edge-reliant species along the limits of clearing rather than just cutting back trees.
  - Finally, careful layout and siting can preserve natural resources on the site with sufficient buffers to insure integrity – such as wetlands and other resources.

Every ordinance and community is different but these principles can help balance the benefits of solar development and resource protection. Overly aggressive ordinances that are not flexible enough to capture these mutual benefits should be carefully considered in the context of state law favoring renewable energy siting and insure that any restriction is based on sound justifications for the limits.

Thank you giving me the opportunity to expand on our work with solar siting and helping communities work through these decisions that must balance environmental goals that may appear to be in conflict.

Very truly yours,

via EMAIL

Clay Mitchell Esq PhD

Good evening, my name is Jennifer Galbraith, resident of Concord and member of the Concord's Energy and Environment Committee.

The committee would like to thank the Planning Staff: Beth Fenstermacher, Heather Shank and Sam Durfee for their efforts and hard work developing this draft amendment. We appreciate the considerable time and effort they invested in conducting public information sessions, accepting and documenting public comments, and meeting and discussing the amendment with our committee, the Conservation Commission and the Planning Board.

This past summer the Concord City Council adopted a goal that the City of Concord will use 100% Renewable Energy community-wide by the year 2050, and electricity goal by year 2030. Pursuing and achieving the goal will help fight climate change and bring economic and other benefits to the City. Solar energy will play a large role in achieving the goal. Some of that solar energy will need to be generated within our boundaries. Our current zoning ordinance does not specifically address the siting of solar projects, leaving uncertainty about siting requirements that inhibits solar development. This amendment, if adopted, removes that uncertainty.

Our committee is pleased that the amendment is strong on community solar projects. We have concerns about the solar land coverage provision and how it will apply to ground-mounted solar projects, especially larger projects. However, we recognize that the planning staff took into account various perspectives on siting issues, and we respect the amendment drafted by the planning staff as a fair compromise among differing perspectives.

The Energy and Environment Committee is appreciative of the efforts made in developing this zoning ordinance amendment and would like to thank the Planning Board for convening this hearing.

*PS*: Obviously my last name was auto-corrected into "Blake me." Sorry about that! Rob Blakeney

On Feb 20, 2019, at 4:53 PM, Rob Blakeney <<u>rbplease@aol.com</u>> wrote:

Dear Beth- Thank you for please passing along the following comments to the Planning Board for tonight's hearing. Thank you very much, Rob

TO THE PLANNING BOARD:

Twin family medical emergencies prevent my attendance at tonight's hearing, so please accept my comments in written form. Included at the bottom of this email, and incorporated herein, please see my submission to the Energy and Environment Advisory Committee (CEEC).

Having now reviewed the proposed ordinance, I want to reiterate and reemphasize my concern for agricultural lands development for solar electric generation.

I am very gratified, and I ask that the Board please carefully note, that a distinct majority of comments submitted to the CEEC by members of the public shared and focused on my concern for continuing uninterrupted protection of valuable open land. With respect to agricultural soils, the question should not be a close one: irreplaceable food production resources versus generation of electricity. It is preservation of resources necessary to survival through protection of unique resources, on the one hand, versus a reduction of the carbon footprint used to produce convenience and utility through decidedly non-unique resource alternatives on the other hand.

The reason to be concerned about the loss of local food production resources to enable electricity generation is all too obvious: undeveloped contiguous tillable soils, if offered for solar development, will always be the choice of first resort. Non-tillable open space would be close behind.

I am sure members members of the public who shared my concerns before the CEEC would also feel alarmed at its resulting proposal. The proposed ordinance, for example, would allow the <u>obliteration</u> of common open-space by solar collection systems in the various developments that provide for common open-space.

I am not opposed to the conversion of some open space to solar collection. but I strongly urge your unyielding resistance to the sacrifice of <u>any</u> potentially productive agricultural land to this otherwise laudable alternative form of energy production.

Thank you for your consideration, and I wish you well in your deliberations

regarding this potentially very beneficial proposed zoning amendment.

Rob Blake me

Begin forwarded message:

From: Rob Blakeney <<u>rbplease@aol.com</u>> Subject: PROPOSED CONCORD SOLAR ORDINANCE Date: October 29, 2018 at 5:39:30 PM EDT To: <u>rwerner@concordnh.gov</u>, <u>LKenison@concordnh.gov</u> Cc: <u>bfenstermacher@concordnh.gov</u>

Dear Councilors Werner & Kenison (Rob and Linda),

As a once and hopefully future Concord resident (albeit now in Deering), I am very interested in the Committee's recommendation for a potential solar ordinance -- most importantly with regard to the lot coverage issue. I will not be able to make it to tonight's public informational session, but hope to personally attend in the future. Please consider these written comments.

I am a Concord native long involved in environmental and land use planning, commencing as a program assistant with the Society for the Protection of New Hampshire Forests (1971-72), continuing among other things as Ward 4 state rep (1976-80, Environment & Agriculture Committee) and city councilor (1979-83, Concord Energy Task Force (chair), Fire Management Committee, Solid Waste Committee (Chair) and Conservation Commission council member), as well as a member of the N.H. Food Policy Committee (1978-82).

I take a back seat to no one advocating for renewable energy, particularly solar (active and passive), but if forced to choose, my dominant concern has long been farmland preservation. In that regard, my first year on the council was revelatory. It was the first time the council conducted biennial priority-setting sessions. We met at the Ramada Inn and broke into sub-groups. This was early 1980. Concord's public discourse had been focused on the so-called "Clinton Associates" development (now South Concord Meadows), and I hoped to develop a city farmland protection policy. I was pleased to find my sub-group to be quite receptive, but we were all <u>dumbfounded</u> to find that virtually all 15 councilors rated farmland protection as either the City of Concord's 1st or 2nd highest priority.

It is in that spirit that I urge the Committee to not recommend that the solar ordinance except solar panels from the definition of lot coverage. The principle of lot coverage should apply equally with regard to sunlight <u>and</u> water. Land's value as an agricultural production (and carbon sequestration) resource is at least as

important as its value as a water treatment and conservation resource, but while a large proportion of land is available for water treatment and conservation, the proportion available for agricultural production is comparatively miniscule. Ag land is a precious resource we cannot afford to remove from availability for production, even if such removal is putatively impermanent.

Photovoltaic electricity development is a critical component of our energy future, but that imperative must not be allowed to eclipse <u>any</u> of our land's food production value.

Thank you very much for your consideration.

Rob Blakeney



# **CITY OF CONCORD**

New Hampshire's Main Street™ Conservation Commission

February 20, 2019

City of Concord Planning Board c\o Concord Planning Department 41 Green Street Concord, NH 03301

#### Re: Comments on Proposed Solar Ordinance

Dear Planning Board Members,

The Concord Conservation Commission supports the City's efforts to promote renewable energy sources and climate change initiatives. We applaud the effort being put forth by the members of the Concord Energy and Environment Advisory Committee in working towards implementation of a Strategic Plan that will shape the long-term goals and outline the action steps of this endeavor. We also commend the City staff, including the Planning Division and Engineering Division, for their efforts to develop the proposed updates to the City's Zoning Ordinance and Site Plan Regulations, which will regulate the future solar energy sources proposed in our City.

We recognize that solar energy has an important role to play as we collectively work towards increasing renewable energy sources worldwide. Solar is already cost competitive with fossil fuel energy on certain scales and will become more so as its technology advances. Both promoting and regulating solar energy sources are important aspects of Concord's future and must be done with an appropriate balance to ensuring we protect our resources and quality of life while also promoting a renewable energy future. For our part, the Conservation Commission is charged with protecting, promoting and developing Concord's natural assets. We are guided by our master plan and our open space plan each of which were developed with comprehensive and extensive public input from Concord citizens. Therefore, we are concerned with striking the right balance between promoting renewable energy sources and protecting the valuable natural resources of the City.

The Commission has monitored and reviewed the development of the proposed Solar Ordinance and we have provided previous comments directly to the Planning Division during the drafting phase. In general, we support the draft Ordinance as currently written. Our primary concern is to ensure that we end up with a proper balance when implementing future solar uses within the rural and open space areas of the City. Predominantly, these rural and open space areas of Concord are located within the Open Space Residential (RO District). Therefore, we feel that any proposed changes to the current Zoning Ordinance should carefully take into consideration the potential impacts of future development, within the RO District specifically, and should carefully reflect the vision of the City's Master Plan.

The Vision for Concord, as stated in the Master Plan 2030, is as follows: "Concord maintains its essential character that is valued by its residents while accommodating growth and development in a way that maintains and is consistent with that essential character." As further stated in the Master Plan, the essential character of Concord includes "an extensive rural landscape including preserved open space, active agricultural lands, and working forests."

While we recognize that the inclusion of solar farms in the RO District may be necessary in order to promote an effective renewable energy policy and to work towards a global reduction in fossil fuel consumption, it is imperative that we do so in a manner that will continue to preserve the rural character of the District that is valued both by its current residents and by the City as a whole. We fully support the initiatives for promoting residential and community solar in these rural and open space areas. Commercial solar projects, on the other hand, have the potential to significantly alter the rural aesthetic and quality of the City's rural areas and to jeopardize the natural resources within our open space areas. It is critical to recognize these potential impacts and to impose reasonable limitations on the size of commercial solar projects in the RO District.

Large scale commercial solar farms will most certainly alter the essential character of the rural areas of the City if they become too expansive or are located in highly viewable areas. Many residents of the RO District are unaware of these proposed changes to the Zoning Ordinance which could have significant implications to them and to how they value the character of the open space that surrounds them. This was evidenced last year by the local opposition to a proposed commercial solar farm on West Portsmouth Street that we understand was deemed to be too expansive by the neighborhood residents and inconsistent with the rural character of the neighborhood. Limiting the overall size of a solar farm and providing adequate buffers from adjacent land uses are two ways to mitigate the effects that these facilities will have on the character of the RO District. Site specific concerns should also be taken into consideration. Where possible, promoting solar farms that are set back from roadways or viewpoints would also lessen the impact that they have on the essential character of the open space areas.

There are many environmental factors that should also be taken into consideration when siting solar farms in open space areas. While many of these factors can be properly addressed through appropriate design and construction, like water quality concerns, others could simply be affected by the size of such a facility. Wildlife corridors exist throughout the City's open space areas as well as migratory routes. Large scale land coverage of a single solar farm could have an impact on wildlife travelling through the landscape. Large scale land coverage of multiple solar farms in the RO District could have significant impacts. Therefore, it is important to ensure that portions of all parcels remain in a permanent open space condition.

Aside from agricultural uses, the current RO District essentially only allows residential cluster developments. For all practical purposes, the potential development opportunities in the RO District include only single-family housing developments. And the Zoning Ordinance has

specific requirements and limitations for these types of developments. In the RO District the Ordinance requires that 60% of the overall parcel be preserved in open space condition and that only 40% of the parcel be utilized for development. It also requires that an open space buffer of not less than 100-feet in width be preserved around the perimeter of the development. These requirements highlight and reinforce the City's recognition of the importance for maintaining and preserving significant areas of open spaces within the RO District.

The draft Solar Ordinance includes a new defined term "Solar Land Coverage" which is effectively the overall developed area of a proposed solar farm or solar collection system. The draft Ordinance proposes a maximum of 40% solar land coverage in the RO District for commercial solar uses, which would include large scale solar farms. This would ensure that 60% of the overall parcel remains in an open space condition which is consistent with the established requirements for cluster developments and the established principles for preservation of critical open space areas in the RO District. While the Conservation Commission supports this proposed aspect of the draft Ordinance, we would not support any increase in the allowable solar land coverage above 40% without further study and analysis being provided.

The draft Ordinance also includes setback requirements from property lines for proposed solar collection systems. In the RO District this setback is proposed to be 50-feet, whereas the perimeter buffer requirement for a cluster development is 100-feet. In many cases, a 50-foot setback (buffer) will not be adequate to ensure preservation of the existing character of a neighborhood or rural area, especially from existing homes that may be directly adjacent to the solar collection system. The Conservation Commission recommends that the minimum buffer width be increased to 100-feet in the RO District, which again will be consistent with the previously established regulations for these rural and open space areas of our City.

In summary, we simply recommend that the new solar ordinance respect the established parameters for development within the RO District and that it apply the same requirements for open space and perimeter buffer preservation that are already contained within the existing Zoning Ordinance.

Again, we appreciate all of the efforts that are going into this process and we feel that it is headed in the right direction. We also appreciate the opportunity to participate in this important dialogue.

Sincerely,

Bristine & Tarding

Kristine S. Tardiff, Chair Concord Conservation Commission