

As this currently stands, I am against this project. Thank you, Dana Holland.

I would like to reiterate my opposition to the HNGC Solar Plan. Clearcutting hundreds of trees and destroying habitats is NOT the way to fight climate change. There must be a better solution/placement than this!

Thank you,

Suzanne Madden

Croton on Hudson

I write this in opposition to the clear cutting of trees on the Hudson National Golf Course (HNGC) in order to install solar panels.

HNGC was approved years ago with the stipulation that the trees on that steep slope remain. There is no justification in allowing HNGC to get around that earlier rule. The village has other options for Solar Panel installation sites.

It would be an affront to this village to allow such an action.

Sincerely,

Grace Brandt

2 Wood Road

Croton, NY 10520

Dear Croton Board of Trustees and Planning Board:

I am writing as citizens of Croton-on-Hudson, regarding the Hudson National Golf Course's special permit application for a Matrix Solar Array.

I am appalled that the village is considering this application and seems unable or unwilling to consider why this is ultimately bad for the community.

The 600 trees and steep slopes that they are planning to decimate will have a serious and permanent negative impact on our community. Here are some of the things that worry me:

- 6+ acres of forest and 600 trees will be destroyed
- The arrays will mar the view of the hillside from all of our area
- The habitat that will be destroyed is home to many deer, turkeys, coyotes, raccoons, eagles, hawks, bobcats, possums and other creatures. I live near the edge of Hudson National's property and we see these animals often. Destroying their habitat will push them further into our more populated neighborhoods and endanger them and us.
- The trees that the applicant "promises" to plant will not in any meaningful way offset the CO2 produced by the trees that are being destroyed for the 100+ years that it will take for this less than half the number of trees they plan to plant get to the height of what was torn out.
- The wetlands that may be impacted are critical to our area and our wildlife.
- I don't really care that they think there is a net climate benefit, that should not be the reason for approving this.
- All of the benefits of this project go to Hudson National, who are terrible neighbors, looking to enrich their own Shan-gri-la investments and a nuisance in our community.
- The claim that this site was selected because of it's proximity to the Con Edison lines is bogus- for what reason? Con Edison is another bully who destroys habitat and continually encroaches on affecting land beyond their own. Only part of Solar Array 1 is anywhere near that.

I have seen the response that Mayor Pugh has supplied to other residents about the "tension" and "tradeoffs" of this project. It seems clear from these messages that he understands that it would be better if Hudson National used their extensive property and options to find a different placement for their solar project, but for some reason feels less than compelled to deny this project and suggest they find a way to accomplish their goals without forcing the village to allow them to rescind on the promise to keep those acres wooded. What is not addressed in any of these notes is an explanation for why the Board would consider this exception to the original terms of the no-disturbance area that was agreed to by Hudson National in 1999.

The fact that the Board has been conducting this review with less than willingness to accept public feedback or comment and with such ready answers of defense and a "no final decision has been made"

but “we know better than you and trust us” type of attitude is particularly appalling. The Board should put off this decision rather than trying to force anything through during a holiday week and in the midst of a growing pandemic and setup a forum for getting public input before making any decision. They should stop acting like they have no choices and understand that there is a legal agreement that this applicant is looking to negate. They should be doing that for good reasons that are clear benefits to everyone.

We don't have to let the rich people who are members of Hudson National and not our community do whatever they want, wherever they want. The village can deny this permit and ask them to look for a better site for their project, even if it means their members have to see it on their buildings or on canopies that keep their cars cooler in the summer. They could put panels on the golf carts or find a way other than an enormous number of gas leaf blowers to keep their courses clear. Find another way. This is what the community is asking you to do. Please listen.

Sincerely,

Liisa McCloy-Kelley and Thomas Kelley

220 Hessian Hills Rd.

Croton-on-Hudson, NY

10520

Liisa

[Please forgive any textual oddities. The combination of typing with one hand and autocorrect may result in unpredictable text output.]

I am writing to express my deep concerns over the Hudson National Golf Course ("HNGC") proposal to locate solar arrays within what is now a forested "No Disturbance Area" of "Very Steep" and "Extremely Steep" slopes causing the clear-cutting of approximately 600 mature trees. Please do not allow this project to move forward at this time without a formal Environmental Impact Statement.

There have been many questions and concerns raised by Croton citizens, which must be given full and neutral analysis.

Did HNGC consider placing solar panels above its parking lot? This would seem to be a feasible alternative to at least reduce steep slope disturbance. If this alternative was not considered acceptable, why not?

Also, according to standard Runoff Coefficient Tables, forest soils allow less than half the runoff as do meadows. However in his 12/9/21 letter to the Gazette, former Trustee Murtaugh demonstrates his lack of basic understanding when he states that "native grasses may actually absorb more moisture than the existing (forest) ground".

This proposal is too significant to permit it to go forward without a full and neutral understanding of impacts including feasible alternatives.

Thank you for considering my comments.

Douglas Wehrle, MLA

Sent from my iPhone

Board of Trustees,

The golf course has removed more than their fair share of trees in order to create the golf course in the first place. The idea of removing additional trees for the sake of solar energy is preposterous and makes every environmentalist cringe. Please consider an alternative site that does not require further destruction of the natural landscape in order to construct a solar panel array. (Perhaps the parking lot?) It is not only the above ground features of trees that we need to consider but the extensive root systems that provide soil stabilization and water retention. The understory plantings, like the tree canopy, create habitat. There is also the world under the surface of the earth, although not visible, but is a vital component to a healthy natural landscape. When trees are removed all of this is lost. This disturbance may actually be an open invitation for more invasive species.

Thank you for the opportunity to write in.

**Ryna Lustig**

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To The Board,

I strongly oppose the installation of solar panels. To do so by removing all of the trees and disrupting habitats when there are viable alternatives is irresponsible and selfish.

The Drukin Family

Croton-on-Hudson



Hello,

My name is Jesse Lewis. I live here in the village of Croton and I'd like to voice my strong opposition to the removal of some 600 trees at the Hudson Highlands golf course. I don't believe that our town should be okay with the destruction of so much nature and wildlife. Please have them explore another option for their solar panels, such as in the parking lot or on their roofs. Thank you.

Sincerely,

Jesse Lewis  
72 Elmore Ave  
Croton on Hudson

To the Board of Trustees and Planning Board,

I am very pro-solar, but the plan to over 600 clear healthy, mature trees at Hudson National feels incredibly wrong to me. This land is protected for a reason, and should remain so. There must be other alternative locations for the solar project that don't involve further harm to our natural ecosystem.

With concern,

Emily Villar

To the Board of Trustees of Croton on Hudson,

I was in attendance at the Village meeting on December 20, 2021.

I am sorry to say that I am even more adamant that this proposal is a travesty and will be an ongoing source of conflict, contention, and resentment with the Village Mayor, Village Manager, and Board of Trustees for years and decades to come if it is passed.

It seems abundantly clear that the majority of the residents of the Village are opposed to this project, NOT to solar power and renewable energy sources, but to this particular project. Matrix wants to position it as residents opposing solar, but let's be clear, that is not the issue here.

From what I understand, there is not a Comprehensive study of the environmental impact of razing 600 mature (70 -100yo) trees on a steep slope. Flooding, natural habitat for wildlife, and degradation of land will be adversely affected. Residents will incur damage to their homes and devaluation of their properties.

I do not want to diminish the visual, aesthetic impact of shearing that much wooded land which ironically is situated on acres of already cleared and protected land. The visual landscape of Croton on Hudson (named a US Tree City) is a viable and legitimate concern. It would be a tremendous eyesore for neighbor residents, highway traffic, and riverfront users. Don't devalue that aesthetics are an important issues. New residents are drawn to Croton because of its natural beauty.

I am also curious of how long and exactly how much money it will cost to remove 600 trees and who benefits from the wood that is felled and milled? I know that for a private party, taking down one mature tree, depending on size, could cost between \$1,500 and \$4,000, without removal. What is the cost of that multiplied by 600 trees? 1.2 million dollars? How long will this take? For a private party it can take an entire day to take down one large tree. Is the reality that it could take one to two years of chain sawing? Is that noise level good for the environment and the wellbeing of Croton residents? And with the cost of wood at a premium with supply-chain issues, who will benefit from the profits of milling 600 hardwood trees?

Matrix says it is prohibitive to advance ConED lines so that 600 trees do not have to be felled on a steep slope of protected land.... well how much will it actually cost? More than the cost of cutting down those trees and removing them? More than the long term environmental impact? More than the destruction of the wooded habitat? More than the anger, betrayal, and resentment of Village residents?

Issues brought to light about the Village Attorney having a conflict of interest as formerly being counsel for Hudson National is a cause for concern and perhaps reason enough for her to recuse herself from this proposed project.

I believe that the mitigation being offered is not commensurate with the damage to the environment and habitat destruction. Why would we destroy a massive number of mature trees to then replant a fraction of that number with young and vulnerable trees. It was made clear that a meadow would not survive with the additional heat that a solar panel gives off in the summer. Not to mention, that meadows require ongoing maintenance. And as it was aptly pointed out, the birds and butterflies that pollinate meadows would still require a wooded area to live and nest in.

PLEASE do not think for a moment that a golf club has any authentic or genuine concern for the environment as they are the worst transgressors with the clearing of land and the unfathomable amount of fresh water used to keep the greens green, and the herbicide poisons used to keep them weed free. Hudson National does not truly care about climate impact. It is antithetical to golf course maintenance.

The covert nature of the actual numbers and involvement of key players here is of great concern. The representative of Matrix who promised to provide costs to us actually said in the Village meeting that anyone who didn't show up on a cold Monday night, of a holiday week, in the midst of a covid surge, supports this proposal!!!! And we are supposed to trust them with accurate numbers???

Do not let yourselves be steamrolled into approving this project. It is bad for the environment, it is bad for Croton, and it is bad for each of you to carry the burden of this bad decision.

Croton will find alternative sites for solar. We will find alternatives that do not further destroy the environment in order to protect it.

I have been a Village resident and homeowner for 27 years and I am imploring you to not pass this project or the amendment to the permit that would make this feasible.

Respectfully,

Leslie Fabian

6 Park Trail

Dear Mr. Healy,

As a Croton resident with a deep interest in and commitment to Croton's green and wild spaces, I want to share with you my deeply held position that Hudson National's plan to cut down 600 trees for their solar field is bad for the village of Croton On Hudson. The proposed location will have many negative impacts on our local ecosystem.

While I am in favor of green, renewable energy, this is the wrong place and the wrong way to go about it. As the permit language said, "*These are areas in which the natural progress of succession to a mixed hardwood forest shall be allowed to progress unaffected by golf course activities. Wildlife habitats shall develop and evolve unassisted and unimpeded.*"

Please vote against this, and don't let them disturb the No-Disturbance Zone. There are other places they can put their solar panels.

I'm happy to discuss further if that would be valuable to you.

Thank you so much, and Happy Holidays!

Alexander Weiss-Richmond

15 Wood Rd

Croton On Hudson

(646) 298-7089

Dear Board of Trustees,

I am eighteen years old and have lived in this town for the entirety of my young life. Over the years growing up in this town, I have always appreciated the beauty of this town. Currently, I am majoring in Architecture at the University of Maryland and believe in the importance of sustainable energy. The nature that is provided to our community of Croton-On-Hudson is part of our local identity. When we talk about our town we tend to mention locations that involve nature. To name a few places: the Hudson River walk along the Landing, our special hidden trails and hikes with views that leave us all breathless, the roaring Dam, and the beloved Arboretum nature preserve.

Upon hearing about the plan to cut down 600 trees that are native to Croton's foundation, I was appalled. Solar is a wonderful solution to source more energy for our town, that I do not deny. Additionally, I am aware of the benefits solar will offer us. However, the issue here is not the solar energy but the removal of trees and destruction of land to place the panels. The problems which will undoubtedly arise from deforestation are simply undeniable and disastrous to the community, and more importantly, the environment.

Ask one environmentalist. Ask one forester. Ask one hiker what they think about this plan. Anyone in Croton who appreciates the land that they live on wouldn't give this argument a moment of rest. Any Crotonite knows that cutting down trees is against our beliefs. We are a town that appreciates the beauty of nature. We acknowledge what the trees, other plants, and animals have to offer us because we wouldn't be the town of Croton without them. I am proud of my town for the serenity and aesthetic it has to offer. I thank nature for both of those factors. So, what would our beloved town look like with 600 trees we call our home taken down?

The consideration of cutting down trees, and 600 trees at that, shouldn't be a matter of discussion. By simply looking up on Google what could happen after cutting down trees, the first thing you see is, and I quote: "climate change, desertification, soil erosion, fewer crops, flooding, increased greenhouse gases in the atmosphere, and a host of problems for indigenous people." Now, not all of these results relate, but the majority of them do. We would be destroying the habitats of our animals that we are grateful to have near us.

I am writing this letter because it needs to be written. It wasn't even a consideration to not write this letter because the possible actions of passing this plan through goes against our identity here in Croton. I am writing although there shouldn't even be a need to write in the first place. The answer is clear: do not cut down 600 of our beautiful, historic trees. Please acknowledge that this would be wrongful and be a detrimental loss to us all. We value our environment and you all should too. There doesn't need to be a tradeoff: solar for trees. Instead, find a replacement location for the solar panels. We have a multitude of options where the panels could be positioned. The consequences of the desired location really does make me wonder where people's intentions lay. Is it for the money that will be made through the deforestation of our land? Is it so we all, passerbyers and community members alike, have to see gashes on empty land where habitation once remained? Is this some replica of the book *The Lorax*, where the trees were cut down for profit and the land, wildlife, and beauty was destroyed?

If you haven't looked at this website, please do. If you have, please do so again. There is something to be learned here: <https://www.crotondeservesresponsiblesolar.org>

Please acknowledge and prevent this from happening,

Sabrina Fabian Marcus

To the Village Board,

I hope this finds you all well and that you had a joyous Christmas/Chanukah season.

Attached is a copy of a letter that I am submitting to The Gazette for publication in its Jan. 6 edition. It contains more of my thoughts on the location of a solar array on the Hudson National Golf Course and I hope you will take these views into consideration when assessing the project. And, as noted, I urge you, once your evaluation is complete, to approve the Special Permit with whatever restrictions are deemed appropriate. I apologize for the length of the letter, but there are many things that I believe need to be said on this issue.

I do not have an e-mail address for Alejandro Rosales and I would ask you will pass a copy of the letter to him for his consideration.

If you have any questions or if I can add anything further to your deliberations, please feel free to contact me at your convenience.

Keep well. Stay sane.

And a very Happy NewYear to you all and to your families.

Sincerely,

Joel

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Croton-on-Hudson, NY 10520  
(914) 862-2300  
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December 30, 2021

To the Editor,

There are many issues associated with the proposed solar farm on the golf course. But if they can be satisfactorily resolved, and the only remaining impediment is the removal of the trees, I believe we have no choice but to proceed. Let me tell you why.

The arguments made by the opponents of the solar installation are real and valid and I agree with many of them. I also suspect there may be other, as yet unmentioned, issues, which are also real and valid and with which I'm sympathetic. If these were normal times, I'd be standing right alongside those folks and railing against any incursion into our woodlands. But these are anything but normal times.

The ravages of climate change are all around us. It is an existential threat to our wellbeing and our way of life and it's getting worse every year. And we're not doing nearly enough about it.

A few weeks ago, nearly 100 people, including a 2-month old baby, perished in the horrific tornadoes that struck Kentucky and several other states.

Last September, over 40 people were killed in our metropolitan area during Hurricane Ida. About a dozen, including a 2-year old child, drowned in their basement apartments—drowned in their own apartments! That's not even believable! And Ida wasn't even a hurricane when it passed through our area.

Over the past couple of years, the towns of Paradise and Berry Creek in California, as well as others there and in Washington and Oregon, have been totally destroyed by wildfires, and many of their residents lost their lives. And how many trees were consumed by those fires? Hundreds of thousands? Millions? Tens of millions?

The ongoing western drought has reduced water flow in the Colorado River, the source of drinking water for 40 million people in the Western U.S. and Mexico, to levels far below normal, endangering the water supplies of all who rely on it.

Numerous island nations around the world are in danger of disappearing as sea levels rise due to climate change. And the list goes on and on.

I'm an old guy and I won't be around when the worst impacts of climate change engulf us all. But my children and grandchildren will. And I fear for their futures, and the futures of those eloquent young girls who recently spoke before the board and for those of their classmates, unless we take concerted action immediately, on every level, including here in our own community.

So let me peer into my crystal ball. If we don't act quickly and decisively, I can see someone, somewhere in a year or two or maybe five or ten, picking up a newspaper or looking at a news feed and reading about a ruinous storm that devastated the lower Hudson Valley. And in a little village called Croton-on-Hudson, twenty people were killed including seven children under the age of twelve. Seem farfetched? I don't think so.

I care deeply for all of those people who were affected in the past and even more for those who will be impacted in the future, especially all of the children in Croton and elsewhere, and my grandchildren in California. I firmly believe that those children deserve to grow up to lead happy and productive lives and it is our solemn obligation to try to make that happen. If we do not act, and act now, their future will be bleak indeed. Is that not worth the sacrifice of 600 trees?

A bit of perspective. Many of you were probably delighted when the Indian Point Nuclear Plant shut down last spring. But despite its numerous problems, Indian Point generated over 2,000 MW of carbon-free energy at a 90%+ capacity factor.

Just to replace those units, without any increase to support our growing electrical needs, would require about 12,000 MW of solar power, because in our area, solar operates at only a 15% capacity factor. That would be about 8,000 installations the size of that at the golf course or 3,000 the size of the railroad station parking lot project or 40,000 equivalents of the village garage. And where are they all going to go?

So the point is not whether to put the solar array on the golf course OR somewhere else—and I wish some one would tell me where that “somewhere else” actually is—but rather we need the installation on the golf course AND that “somewhere else” AND the railroad station AND the village garage AND Croton Landing Park AND a gazillion other “somewhere elses” in our area, our state, our nation, and the world, if

we're going to have a prayer of making even a dent in the impacts of climate change and providing a promising future for those kids from PVC and for my grandchildren.

A bit more perspective. We are debating about 5-600 trees on the golf course. But how many trees are there in Croton?

I would ask SMRA, of which I've been a member for many years, how many trees are in your Brinton Brook Sanctuary and in your Graf Sanctuary?

How many trees are there in the Arboretum and how many in Gouveia Park and in Croton Point Park and in Senasqua Park and in Croton Landing Park?

How many trees are there in the Croton River Gorge?

How many trees are there along all of the streets in Croton and on all of the private property in the village?

I don't have an accurate number for you, but based on some preliminary work done a couple of years ago, I'd bet that we're talking about hundreds of thousands or conceivably as many as a million trees just in our village. So by any such measure, we're talking about sacrificing only a small fraction of 1% of our village trees in return for taking a modest, but meaningful, step towards combating climate change and advancing a hopeful future for those young girls who spoke to the village board, and my grandchildren, and all of the other kids in Croton and around the globe.

This is not an easy decision for our village board. I do not envy them their responsibilities. There are no good options. But act they must and I urge them to make the hard choice and vote for the long-term future of our children. If we continue to delay until we are completely overwhelmed by climate disasters, we will find ourselves in the unenviable position of the heavy smoker who, despite all of the evidence and the pleas of his family and his doctors, only gave up his cigarettes once he was diagnosed with fourth-stage lung cancer. And by then—it was too late.

Sincerely,

Joel E. Gingold

Dear Croton Board of Trustees,

Although the BoT has received several correspondence from me, I feel it pertinent to send another letter on the HNGC solar array. Hopefully it will be my last and will be posted prior to the January 4th BoT meeting. This letter however will be different from the past several. As I will be leaning on my experience and expertise on basic ecology and it's impact upon this community.

Let me first state my back ground as I assume you are unfamiliar to it. For over 40 years I've made my living within the tree care industry, with nearly 30 of those years as a NYS ISA certified arborist. 4 years ago in response to an industry that I felt had gone ecologically astray, I opened Suburban Native LLC. An environmentally centered wildlife habitat restoration firm. Along with my aging professional experience, I've held a position on this village CAC. While on the CAC I chaired the tree sub committee, which during my short tenure I was the lead in the construction of the homeowner sidewalk tree program. Which was mentioned by both Bryan Healy and Mayor Pugh on 12/4 BoT meeting. So I feel I am privy to comment on the ecological impact of the HN solar proposal.

Let me first start by giving the you the healthy definition of a forest. A forest is made up of trees of all ages, sizes, species and condition. From young seedlings to large towering shade trees, trees that are wonderfully canopied to shattered, dead and fallen. Forests are also constructed of trees but of an understory made up of young and smaller tree species, shrubs, vines, grasses, ground covers, fungi and mosses, all of which are binding the soil and controlling erosion. Finally there exists a soil environment of root structures, bacteria, fungi and a host of other organisms sequestering carbon and supporting this one vast environment. Hudson National and it's representatives would have you believe that a healthy forest is made up of trees of one size, in one stage of life, in of one condition and of chosen species. Growing amongst a turf covered earth for a park like feel. This description is however not that of a healthy forest but one in decline. So it would be of question why these so called experts have labeled the existing forest as low grade scrub in need of replacement by a solar array.

I am aware that the course has set offers of mitigation both to the village and to the cleared site itself, both of which I will show have little value. The courses proposed initial out lay to the village of \$78,000 may be, if you understand actual cost will come up short of expectations. As Bryan Healy stated that these funds will be applied to the purchase of 250 trees. Yet in todays market those funds would more than likely only cover about 112 trees, if you were to calculate on trees purchased in the past by the village. No where in the calculations I would assume has anyone considered in the tree purchase the cost of time and material. Which on the conservative side would be \$7-800.00 per tree. In an environment and time where investment and cash flow is lean, I don't think it would be justified as an acceptable offer.

As for the proposed site itself there are several glaring inconsistencies with proposed management practices. The first would be the courses laughable investment of 250 seedlings 10-14" inches tall, perhaps at a material investment of \$150. With such an appalling gesture I contacted a colleague Brendon Murphy, formally Watershed Forester of the Watershed Agricultural Council and presently Director of Stewardship at Westchester Land Trust. His experience without extensive care as takes place

in a nursery setting. The overall survivability of such a planting is approximately 10-20% with increase decline in the next several years following.

The course also promotes the benefit of installing a turf grass meadow to benefit the birds, bees, butterflies and bunnies. Without a increased understanding of how a meadow functions this is a road map to failure, at least in an ecological light. There are few native meadows that manage themselves as short turf grasses. As many native meadow plants reach heights of 4 - 6' feet and upwards of 8-10' including turf grasses. The course however has a solution to put such a meadow on a regular mowing schedule. Mowing however of a meadow will turn such a meadow into a minimal or even a non functional ecosystem. Having a negative impact on the species they are pronouncing to support. Then of course as any service that maintains meadows will tell you. When you remove a forest and disturb the soil you increase propagation of a common invasive northeast seed bank. One of which has been suppressed by a forest canopy. A seed bank of such species to mention a few, stilt grass, mugwort, porcelain berry, bittersweet, barberry, multi floral rose, etc. Most meadows constructed and maintained or lack of in what the course has and has not clarified would simply overrun such a sight in perhaps no more than three year. I am also sure that the course has not taken into consideration the cost for managing merging invasives within a meadow and surrounding cleared areas. That cost for 6+ acres some might find surprising and prohibitive.

Although I could break down and challenge near every ecological statement that the course representatives have proclaimed I've picked out several as I fear this letter would become far to long. Yet I wanted to demonstrate how little ecological investment is being considered in this project. So it concerns me that with the background of our present board of trustees that I believe is not in ecological management and that as responsible citizen representatives you would base your understanding of this project on individuals that apparently have little expertise, experience or background in what they propose as ecologically responsibility.

I hope for the residents of this village and the environment you choose to decline this proposal before irreparable environmental damage is done.

Sincerely Guy Pardee

Sent from my iPhone

To the Board of Trustees of Croton on Hudson,

I have heard about Hudson National Golf's proposal to clear cut 6 acres of land. I am a Croton resident and I strongly oppose this project. While I am NOT opposed to solar power and renewable energy sources, I oppose this particular project. Solar is not the issue here, it is the environmental impact of cutting down 6 acres of trees.

It's my understanding that there is **not** a comprehensive study of the environmental impact of razing 600 mature (70 -100yo) trees on a steep slope. Flooding, natural habitat for wildlife, and degradation of land will be adversely affected. Residents will incur damage to their homes and devaluation of their properties.

In addition, there is a large aesthetic impact of eliminating that much wooded land. The visual landscape of Croton on Hudson (named a US Tree City) is a viable and legitimate concern. It would be a tremendous eyesore for neighbor residents, highway traffic, and riverfront users. New residents are drawn to Croton because of its natural beauty, and this will detract from Croton as a desirable place to live.

The costs and time of removing 600 trees brings up many questions as well. How long will heavy, loud machinery be working to clear the area? The noise pollution will be noticed, if not intolerable to those living nearby. What is the financial cost comparable to advancing ConEd lines? The cost of felling the trees also includes the environmental cost, the long term impact of the region, and destruction of wooded habitat. The mitigation being offered is not commensurate with the damage the project will cause and I have read that it will in fact not even work. The meadow will be burned out by the heat of the solar panels.

I was made aware that the Village Attorney was formerly counsel for Hudson National, which is a conflict of interest and she should recuse herself from this proposal.

This project is bad for the environment, and is bad for Croton. If this project is allowed to happen, it will be a breach of trust among the residents of Croton and the Village Mayor, Village Manager, and Board of Trustees. It will not be easily forgotten.

Kind Regards,

--

Nomi Kleinman

40 Mount Airy Road

732-744-4463

To the Board of Trustees of Croton on Hudson,

I was in attendance at the Village meeting on December 20, 2021.

I am sorry to say that I am even more adamant that this proposal is a travesty and will be an ongoing source of conflict, contention, and resentment with the Village Mayor, Village Manager, and Board of Trustees for years and decades to come if it is passed.

It seems abundantly clear that the majority of the residents of the Village are opposed to this project, NOT to solar power and renewable energy sources, but to this particular project. Matrix wants to position it as residents opposing solar, but let's be clear, that is not the issue here.

From what I understand, there is not a Comprehensive study of the environmental impact of razing 600 mature (70 -100yo) trees on a steep slope. Flooding, natural habitat for wildlife, and degradation of land will be adversely affected. Residents will incur damage to their homes and devaluation of their properties.

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Matrix says it is prohibitive to advance ConED lines so that 600 trees do not have to be felled on a steep slope of protected land.... well how much will it actually cost? More than the cost of cutting down those trees and removing them? More than the long term environmental impact? More than the destruction of the wooded habitat? More than the anger, betrayal, and resentment of Village residents?

Issues brought to light about the Village Attorney having a conflict of interest as formerly being counsel for Hudson National is a cause for concern and perhaps reason enough for her to recuse herself from this proposed project.

I believe that the mitigation being offered is not commensurate with the damage to the environment and habitat destruction. Why would we destroy a massive number of mature trees to then replant a fraction of that number with young and vulnerable trees. It was made clear that a meadow would not survive with the additional heat that a solar panel gives off in the summer. Not to mention, that meadows require ongoing maintenance. And as it was aptly



pointed out, the birds and butterflies that pollinate meadows would still require a wooded area to live and nest in.

PLEASE do not think for a moment that a golf club has any authentic or genuine concern for the environment as they are the worst transgressors with the clearing of land and the unfathomable amount of fresh water used to keep the greens green, and the herbicide poisons used to keep them weed free. Hudson National does not truly care about climate impact. It is antithetical to golf course maintenance.

The covert nature of the actual numbers and involvement of key players here is of great concern. The representative of Matrix who promised to provide costs to us actually said in the Village meeting that anyone who didn't show up on a cold Monday night, of a holiday week, in the midst of a covid surge, supports this proposal!!!! And we are supposed to trust them with accurate numbers???

Do not let yourselves be steamrolled into approving this project. It is bad for the environment, it is bad for Croton, and it is bad for each of you to carry the burden of this bad decision.

Croton will find alternative sites for solar. We will find alternatives that do not further destroy the environment in order to protect it.

I have been a Village resident and homeowner for 57 years and I am imploring you to not pass this project or the amendment to the permit that would make this feasible.

Respectfully,

Judy Jacobs

8 Park Trail

Mayor Pugh and Members of the Board of Trustees,

Please see attached,

Thank you,

Mitch Bring

January 9, 2022

Dear Mayor Pugh,

I am writing today as a 25-year resident of Prickly Pear Hill Road and neighbor of the Hudson National Golf Course. I am familiar with about a dozen neighbors who, like myself, have experienced water runoff damage from the course. Let me be clear, the **current** storm water conveyance facilities have been and remain haphazard and poorly maintained.

Together, we have been through the process of attempting to improve the system conveying storm water from the recently legalized storage area. This work is not scheduled to be completed until April. This history of the Prickly Pear watershed coupled with countless other reports from community members farther afield, calls into high relief the water runoff and erosion exposures of the unfolding HNGC/Matrix plans.

It should be obvious to all that significantly greater run off will be caused by clear cutting several hundred trees on steep slopes and this dramatically increased flow of water will over burden what attempts are been made to improve the situation. The solar project expected run off should significantly heighten concerns due to the difficult terrain and mature forest and wet lands present in the area.

We have steep slope laws and code for important reasons. Under separate cover I am sending specific information of how disregarding the code for steep slopes and tree protections along with an insufficient permanent storm water conveyance infrastructure would greatly exacerbate the problem in a large area. We have hired two different independent civil engineers who both foresee greater frequency and intensity of flooding down Prickly Pear Hill.

The separate letter entitled **“Prickly Pear Solar Project: destroying the wooded steep slopes area creates wide impact”** uses four captioned drawings to visualize the problem. I have used Mr. Mastromonoco’s plans draped over vertically modified topology in order to make the highs and lows of the landscape more obvious. The first plan shows the location and extent of the steep slopes upon which the panels would be built and the trees destroyed. It is color coded with yellow, brown, green for increasing degrees of steepness with green indicating the steepest slope, greater than 35 degrees or extremely steep covering the most area.

The second plan is a flow analysis drawing showing purple lines tracking the natural flow of the surface water courses as a result of the topography.

The third plan combines the steep slope base map with the location of the trees as blue dots to be cut. It is important to note that the highest density of these trees grow on the green extremely steep slopes. It is that that large green area unitizes the trees as the greatest protection to stabilize the slope, reduce erosion and prevent run off.

The forth plan shows the full extent of the flow analysis drawing where the runoff channels flow under 9a at several locations.

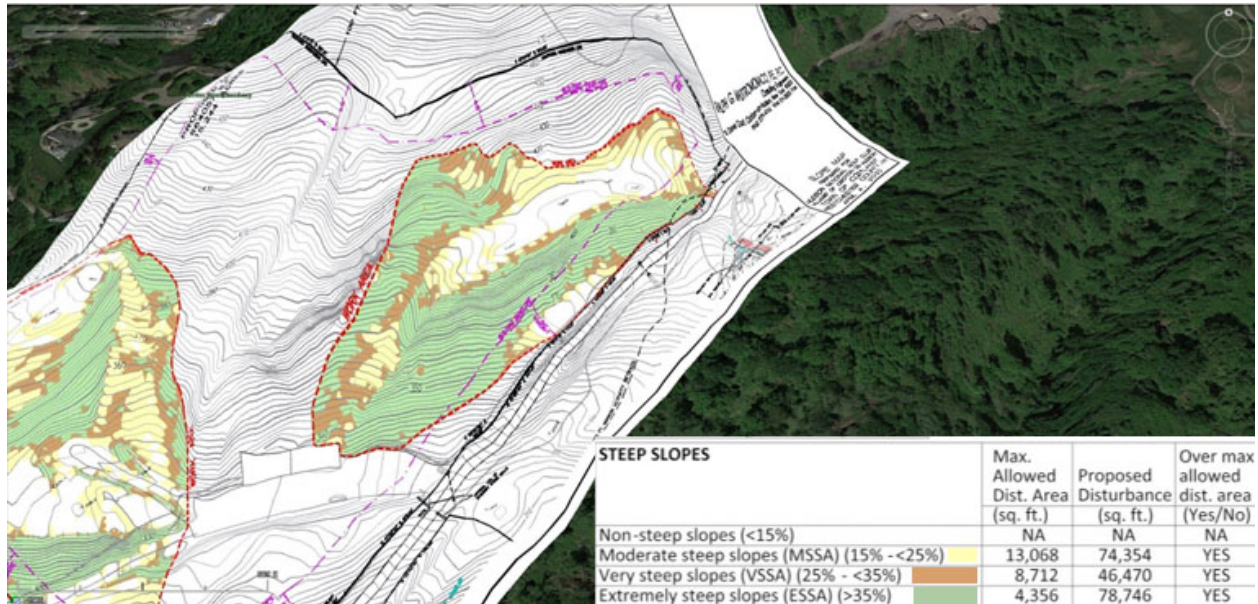
There is absolutely no provision in the plan for permanent storm flow control structures after the construction phase of the project. It is as if the project is complete once it reaches the disturbance boundary. It is clear from this set of drawings that Board must use Questions 9 and 10 in the short-form EAF to declare that the project impacts a moderate to large area.

The project design and its review are too narrowly focused. The clear cutting of several hundred trees on primarily extremely STEEP SLOPES greater than 35 degrees, so the trees will not shade the panels is the problem. No provision has been made for the water cascading down the hillside with no trees to absorb it, to hold the earth or boulders in place. The impact of the run off goes beyond this area; 9A which floods regularly now is at risk of collapse. As storm runoff intensity and frequency increase, so does the risk. The project deserves a positive SEQRA declaration to fully anticipate all related issues. A thorough environmental study is fundamental for a project of this nature including a complete hydrological analysis.

Sincerely,

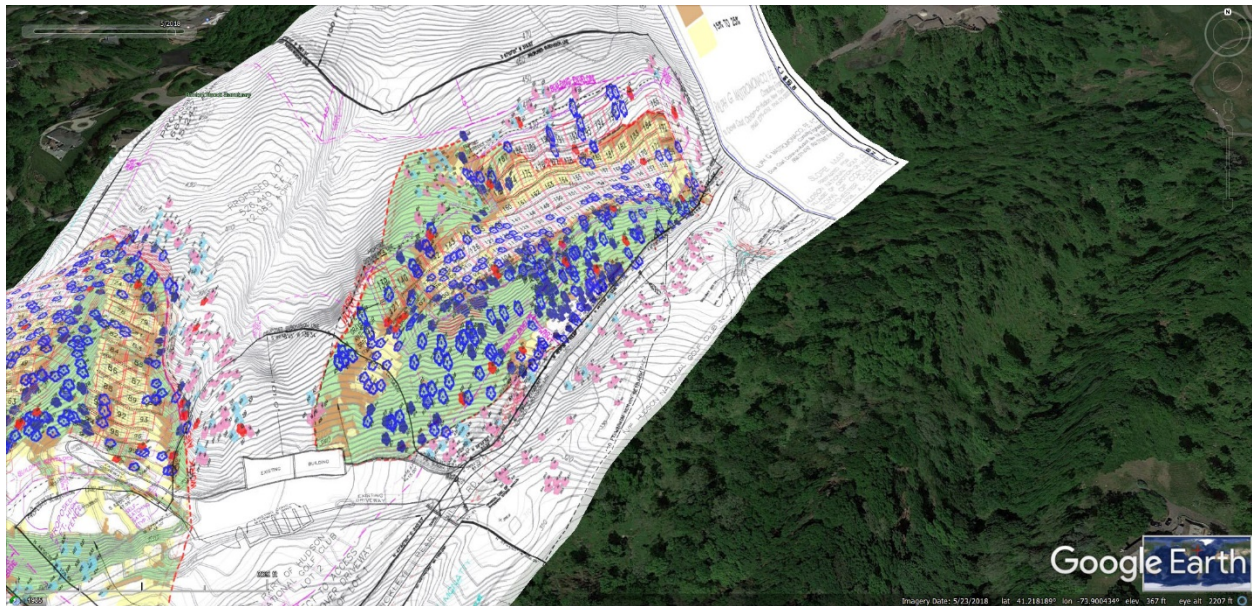
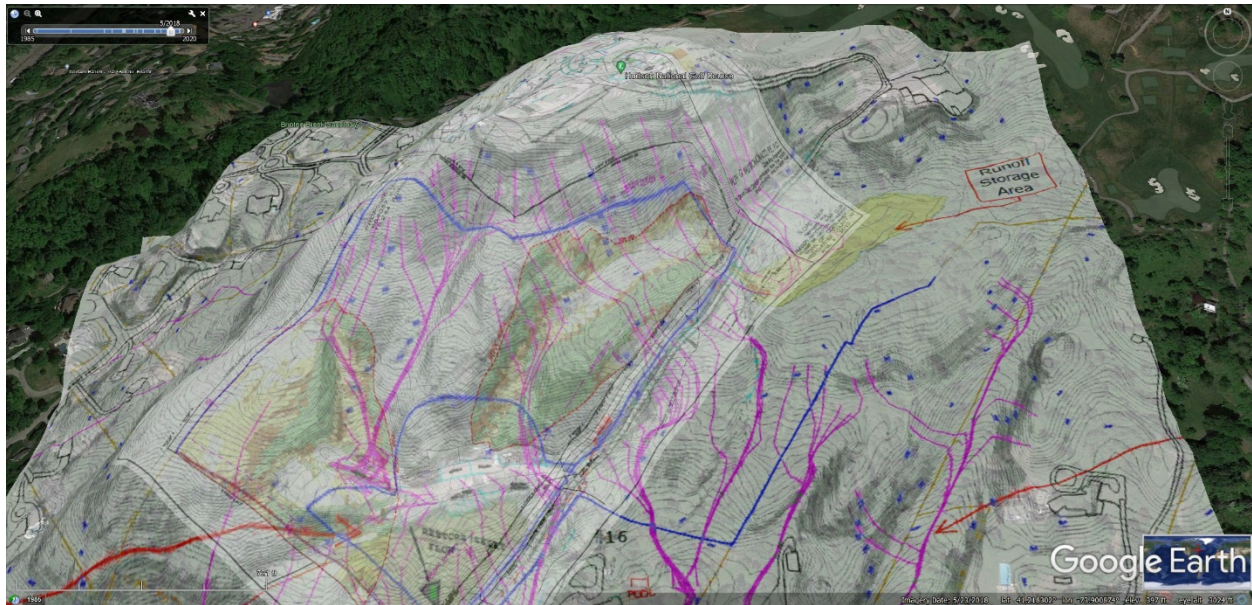
Mitchell Bring

## Prickly Pear Solar Project destroying the wooded steep slopes area wide impact



The area where the proposed solar field is situated is one where there are already considerable storm water drainage problems that go far beyond the borders of the project. The natural water channels already flood and cause damage to homes and property. By removing the trees on the steep slopes, it will cause greater and more frequent runoffs with the resultant erosion and damage. Without the forest, there is nothing to absorb the surface and sub surface water. The purple lines below indicate Mastramonoco's site flow analysis before removing the trees. ( Dec.8 2020 PB meeting)





The majority of the trees (blue dots) to be removed are on extremely steep slopes. The total vertical drop for each of the fields is 100' or the equivalent of a 10 story building. The major source of run off is not from under the solar panels themselves, but further down hill from the panels, where the trees will be cut to eliminate the leafy canopy that would shade the panels. Only during the construction part of the project the applicant will use hay bales and jute matts to absorb the increased run off. **There is no permanent storm water control construction planned to mitigate the significantly engorged water flow down Prickly Pear Hill. The aplicant has ignored the severe problems this will cause the entire**





Hay bales, temporary sediment ponds and jute mats are totally insufficient to address the scale and permanence of the problem that clear cutting 577 mature trees will cause. The Steep Slope and Tree protection codes were written based on experience. Run off will not only damage the terrain, home owners' landscape and structures, but will also damage the adjoining wet land and continue to further damage the drainage catch basins and culverts along highway 9a. putting the road at further risk of collapse. Expert hydrological analysis is required for the area.

It is worth noting that the Matrix response to 12-20-2021\_Public\_Comments: point 3, ‘Steep Slope Construction and the SEQRA process” does not mention trees and related water issues at all. Instead they laud the no excavation required to install the support poles for the panels. Once again Matrix fails to acknowledge or to address the specific issues raised by this particular site.

Hello Brian, Let me begin by congratulating and welcoming you to your position as Village Manager. From what I've seen and heard of you thus far, our village has made an excellent selection. I'm writing to offer my input on the Golf Course Solar Panel Issue. Many years ago I was asked to be a member of the Water Control Commission. I had no special expertise in this field but was considered by some to be a fairly intelligent, fair minded person who cared deeply about our wonderful village. I and my wife Gail moved here in 1982 and raised our two children here.

As I joined the WCC there was a big issue with the Golf Course which you may have heard about. They, without permission, clear cut several trees which caused flooding and damage to home on the street leading to the Club's parking lot entrance. What they did was outrageous to any right minded person. Now confronted they attempted to mitigate the problem but just planting trees. At a meeting to discuss this latest maneuver, the Club's attorney and head grounds supervisor were arrogant. I being a right minded, common sense individual couldn't believe their approach. Fortunately the president (at the time) of the Arboretum was there and she eloquently explained why their plantings did not suffice as a, appropriate remediation. My only statement to them was that after what they had done the only thing they should be saying is "yes, we will do what you ask". There were also further discussion about the water being diverted from the Arboretum to the golf course ponds which after much scrutiny on our part they complied with.

My point I'm sure has been made. The Golf Course is interested in itself. There should be no doubt in anyone's mind that their interest is self interest. They've proven in the past that they will do what they can get away with and have not earned any degree of "Trust".

I too support Solar development but not this measure. I would greatly appreciate it if you would share this opinion with the other board members.

I wish you continued good luck in your role as Village Manager and look forward to saying hello in person some day.

Thank You, John Sasso 87 Morningside Drive

P.S. I'm also not in favour of ending the Croton Village Court.



Stanley Perlo  
30 Park Trail  
Croton-on-Hudson, New York 10520  
December 19, 2021

Gentlemen:

A controversy of moment upon which you face a decision is one whereupon I am little informed but wherein I carry nonetheless a decided prejudice. I have learned enough to construe the issue, which I will do, and then tender my sentiment.

The issue is bipartite. It is an international social issue, founded in the global imperative to conserve valuable, irreplaceable natural resources being expended at a calamitous rate; to protect them from further depredation; and to replace them in industrial and civil use by renewable sources of energy. Two principal objectives of this imperative, which I will identify, are naturally consonant. One is conversion from fossil fuels to practically inexhaustible agents like the sun, the wind, and the ocean. The other is conservation of woodlands for the manifold and vital benefits that they confer upon the environment.

The other part is local, manifest in the issue before you. Both those objectives bear in the matter, and they conflict. The local golf club, owners of a course on a considerable tract of land, mean to convert to solar energy by erecting a solar panel on the ground in the woods on their land. They have selected a steep hillside for the enterprise. The project entails complete deforestation of the site, several acres, in order to leave the ground clear for the panel installation and to leave the surrounding area free of trees that might block sunshine.

Local ordinance requires the club to acquire permission from the village government before clearing the woods and undertaking the construction. The ordinance was imposed, I presume, as a condition for the golf club, a private business, to receive the land.

The golf club and other proponents of the project cite the global imperative to conserve fossil fuels like coal and oil, found in underground deposits in large but limited quantities and much the principal source of energy in the industrial era up to the present. Opponents of the project cite the global imperative to conserve woodlands. The village of Croton-on-Hudson endorses both these

principles. Both parties cite other considerations, economic and logistic, regarding which I am ignorant.

The first observation is that this local contention carries no global impact, resolve it either way. The fossil fuel problem requires concerted action by great cities, by great nations, by great industries. Organization and coordination shall have to be global and effective, for the economic order punishes agents who forbear in the long-term interest, when rivals seize short-term profit. If the opponents prevail, the additional continued consumption of petroleum by the local golf club shall be a drop in the sea, no more. Perhaps conversion to renewable energy by the entire national and international entertainment industry, including giant installations in Florida, Nevada, and Asia, bore some perceptible effect; and that event should be an element in the campaign.

On the other side of the scale, the moment of the campaign to save the world's woodlands falls first and most critically upon the great equatorial jungles and rain forests, then on the great arctic taiga, then on the extensive forests that remain in the United States and other countries in the temperate zone. A scraggly copse in Croton carries no general impact. If the proponents prevail, the despoliation of the hillside shall not be perceived outside Croton. What is required is coordinated, international treaty that forbids depredation first of all of rain forest, that provides generous subsidy for equatorial countries to conserve and regrow it, and that removes the present economic incentives to raze it. Again, nothing will happen if the great capitalist agents act separately, each in its own interest, until all the trees are gone.

How then shall Croton decide between these two claims, worthy but antagonistic? Both sides have a global claim that our decision cannot affect; but only one side has a local claim in which our decision makes a tangible difference. On one side we can conserve oil deposits beneath the ground of Venezuela; on the other we can save a hillside woods in Croton, with all the environmental benefits attendant thereon. We should properly and abstractly favor conserving the oil in Venezuela; and we should participate in national and international organizations dedicated to that objective. Allies round the world will help us save Venezuelan oil. None of them will demand saving the trees in Croton. The task falls to us and to local allies; only we can save our woods, just as we alone will suffer the desolation of their extirpation.

It is clear that our priority ought to be local conservation, where our failure will cost us real damage, and where tangible benefit will accrue from our success. I observe besides that the village has reserved the power of approval presumably for a reason. The rationale of the ordinance is logically to block harmful development exactly in this case. If the village fail to exercise the power of denial, we are then like the man who walked about town holding an umbrella for the distinction it accorded him, but never opened it regardless that it were raining.

Vandalism, demolition, destruction are easy, and give rash, dedicated men a jolt of accomplishment and euphoria. Preservation is painstaking, the province of calm and patient men who take the long view and regard nature with affection. It is ordinarily thankless and ever insecure, undone on a whim. It is predictable that if you permit the woods to be wracked, the rationale shall disappear within a couple of generations. The technology shall advance or merely shift, and the solar array shall be supplanted by a different device. The golf club shall fold when the local billionaires are mulcted by the next depression, or simply lose interest in golf. For whatever cause, the solar installation shall fall into disuse, leaving an artificial lid of concrete and glass as a bane upon the land.

I recognize that my conservative argument addresses only the ecological facet of the issue, and that economic and logistic arguments on both sides may be germane. In particular, the conflict may be resolved to the satisfaction of both sides if a solar installation can be effected without destruction of

woodland. This, the ideal resolution, may be attainable or become so, but only so long as the proposed despoliation has not proceeded.

Yours truly,  
S Perlo

A handwritten signature in cursive script, appearing to read "Stanley Perlo". The ink is dark and the signature is fluid, with a large initial 'S' and a distinct 'P'.

I am concerned about  
the consideration to  
vote yes on the matter  
of the Solar System that  
is being talked about on  
the property of Hudson  
National Golf Course.

I am asking you  
to please look further  
into the impact on  
our Town of Croton

Please Vote NO

Alice Rollnick  
146 Grand St

Dear Mayor Pugh Board of Trustees, Manager Healy and Members of the Planning Board,

Thank you all for your continued review of the HNGC / Matrix solar proposal.

I know the Board of Trustees will be discussing the proposal tonight at their work session.

We've spread the word to Croton to tune-in, so many will be watching. As you know, the vast majority of the public is strongly against this proposal.

In preface to my letter, I would also suggest that agenda's labelling of the project as a "solar canopy" is somewhat misleading. Canopies cover parking lots, like at the Train Station, Mary Knoll, or the IBM Campus. This proposal clear-cuts a canopy - namely a forest canopy.

After reviewing the new information on the project page, I would like to suggest a few questions for you to consider tonight. I think if you address these questions honestly, you'll find that the only reasonable future step for the Village is to ask the applicant to withdraw this proposal - a proposal that most of Croton feels is detrimental to the community and its values.

1. **Does making a project "less bad" make it good?** No, making the project "less bad" around the edges is not a win for the community. In addition, the length of the review itself does not mean it's been fully and properly vetted, and does not mean it's "earned" the right to be approved.
2. **Why does Part 1 of the EAF, which was recently amended, still have critical errors?** If the applicant can update the EAF Part 1 to reference their new LLC, why can't they update the document to correct, for example, question 14 (which still suggests the no-disturbance area is "suburban" instead of "forest") or 13b (to recognize the fact that the runoff from part of the site will flow directly into adjacent wetlands, as the applicant's most recent submissions indicate?)

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:		
<input type="checkbox"/> Shoreline	<input type="checkbox"/> Forest	<input type="checkbox"/> Agricultural/grasslands
<input type="checkbox"/> Wetland	<input type="checkbox"/> Urban	<input checked="" type="checkbox"/> Suburban
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?		
	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?		
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

3. **How can an applicant who continues to submit these kind of flagrantly inaccurate documents to the Board - documents that clearly expose the Applicant and the Board, as Lead Agency under SEORA, to legal liability - ever be trusted to manage this environmentally sensitive site?** It's clear to us that the applicant will display the same arrogance toward the environment as they have toward this process. That alone is reason to end this process, for the good of everyone.

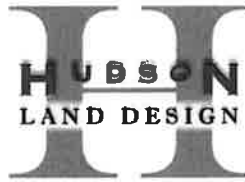
In the fight against climate change and for our environment, we don't have time to waste on ill-conceived projects by applicants with a clear disdain for best practices and for the environment.

It's time to stop trying to make this bad idea work, because no matter how much time and money is spend, it will never be a "good idea."

Instead, let's come up with good ideas, together, that we can all get behind.

Thanks again for your continued attention to this matter.

John Ealer  
5 Prickly Pear Hill Road  
[john@johnealer.com](mailto:john@johnealer.com)  
Croton Deserves Responsible Solar



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)  
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)  
Phone: 845-440-6926 Fax: 845-440-6637  
[www.HudsonLandDesign.com](http://www.HudsonLandDesign.com)*

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January 10, 2022

Steve Varvaro  
1263 Albany Post Road  
Croton-on-Hudson, NY 10520

Re: Hudson National Golf Club Solar Project  
Hudson National Golf Club  
40 Arrowcrest Drive  
Croton-on-Hudson, NY 10520

*Sent via email: [SVvarvaro@aol.com](mailto:SVvarvaro@aol.com)*

Dear Mr. Varvaro:

As discussed during our meeting at my office in mid-December regarding the above referenced project, Hudson Land Design (HLD) has reviewed the submitted plans, reports, supporting materials and comment letters related to the proposed solar project at Hudson National Golf Club (HNGC) located to the northeast of your property.

As understood, Matrix, LLC/Prickly Pear Solar, LLC is proposing a 1.95 megawatt solar panel array system within the HNGC property. HNGC is a private 18-hole golf course on approximately 254 acres within the Village of Croton-on-Hudson. The Club will lease approximately 12 acres to Matrix/Prickly Pear solar for the installation of the solar panels. The proposed panel array will cover approximately 6.4 acres within the leased area. In addition to the panel array, the proposal calls for two grass perimeter roads surrounding the panel area, as well as three concrete pads to support electrical equipment associated with the solar array. The proposed project is located at the Golf Club's maintenance facility with two array fields. The closest portion of the westerly solar array is located approximately 620 feet from your residential dwelling. You currently own three parcels located to the southwest and downslope from the proposed westerly array field. The parcels are identified as Tax IDs 67.15-1-23, 24 & 25 on the Westchester County GIS website.

You, as well many of your neighbors are concerned regarding potential impacts to your property and the community as a whole as a result of this project. Specifically, stormwater, steep slope disturbance and erosion & sediment control are your primary concerns. As such, you have retained

HLD to evaluate the submitted materials on your behalf with regard to potential impacts. Based upon our review of the submitted materials, the construction of the westerly solar array field will have the highest potential for impact to your property.

HLD has reviewed various submitted materials to the Village Board by the Applicant's engineer of record, Ralph G. Mastromonaco, P.E., P.C. (RGM) including, but not limited to, project plans entitled "Proposed Subdivision/ Solar Array System Prepared for Hudson National Golf Club" dated April 22, 2019, last revised on 12/9/21, site line drawings and a stormwater pollution prevention plan (SWPPP) entitled Prickly Pear Solar and Hudson National Golf Club Stormwater Pollution Prevention Plan (SWPPP) Solar Array Installation at Hudson National Golf Club" dated January 26, 2021, last revised November 18, 2021.

The Village Board retained The Chazen Companies to review submitted materials from the Applicant's engineer. The Applicant pays for the consultant review through established escrow with the Village. HLD has also reviewed certain comment letters as it pertains to the project.

The following are potential concerns discovered during our review of the overall project:

#### **Stormwater Runoff**

The area where the solar arrays are proposed is existing woods. According to the submitted materials, the Applicant proposes to remove up to approximately 617 mature trees to allow for installation of the solar array. The proposed ground cover where trees will be removed is native grass vegetation, which is typical for solar farms. Although not required to be evaluated by State or local requirements, the removal of several trees will likely increase available groundwater movement down slope as the trees are no longer there to absorb groundwater. On average, a mature tree can soak up to 100 gallons per day. When comparing the same footprint of native grasses vs. a tree dripline area, a tree will soak up much more groundwater than native grasses.

HLD has prepared design plans for a number of solar farms in the Hudson Valley in wooded areas that have been constructed. We noticed immediately after tree removal that several groundwater seeps were showing up in several areas that weren't present prior to tree removal. This is an indication that there is a surplus of available groundwater movement due to the tree removal. When the groundwater seeps out of the ground, it contributes to surface runoff. Permanent stormwater management basins were designed as part of the projects which mitigated offsite impacts from additional surface runoff and groundwater conditions. There would have been offsite impacts to these projects had stormwater control not been provided.

Hydrologic studies are typically conducted using USDA Natural Resources Conservation Service Conservation Engineering Division "Urban Hydrology for Small Watersheds" Technical Release 55 standards, commonly known as TR-55. RGM uses this standard in their hydrologic calculations. A main component in determining how much runoff is generated from a particular storm event is the runoff curve number (RCN). All landcover types are associated with an RCN. RCNs range from 30 to 100. The higher curve number is equivalent to higher runoff (less initial abstraction through water intercepted by vegetation, evaporation and infiltration). The RCN is also dependent on the type of soil beneath any particular landcover and its ability to infiltrate runoff, defined by the hydrologic soil group (HSG). There are four main types of HSG – A, B, C and D. A soil with an A HSG rating has better infiltrative capacity than B, C or D soils. Conversely, soils with a D rating are less likely to infiltrate runoff than an A, B or C soils. Another component to



determine and RCN is the condition of the groundcover. The groundcover condition is broken into three categories – poor, fair and good condition. TR-55 defines the three conditions as follows:

Poor: Factors impair infiltration and tend to increase runoff.

Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

Fair is not specifically defined but can be characterized as somewhere in the middle of “poor” and “good”.

In the case of woods ground cover condition, TR-55 defines the three conditions as follows:

Poor: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

Fair: Woods are grazed but not burned, and some forest litter covers the soil.

Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

The Applicant’s engineer, RGM, states in the Hydrology section of the SWPPP and correspondence with the Village that the existing woods ground cover is characterized as in “fair” condition. This suggests that there is little forest litter covering the forest floor, and that the woods are grazed. This is not a typical groundcover condition used in New York State as wooded areas are generally not grazed and have adequate forest litter.

It is my opinion that the existing woods groundcover condition is characterized by “good” condition based upon inspection of photos provided of the existing woods area. There is adequate leaf and forest litter, and no grazing evidence observed. Fallen leaves and forest litter act like a sponge by providing additional surface area that can hold and absorb rainfall which help prevent runoff. The same goes for live leaves in the trees.

The Applicant’s engineer is stating that permanent post-construction stormwater quantity control is not required because the pre-development RCN using woods in fair condition with a HSG of B is 60, which is higher than the post-developed meadow RCN of 58; thus, the lower RCN for post-development contributes to less runoff. The same comparison can be made with an HSG of D, where the RCN reduces from 79 to 78 from pre-development to post-development conditions respectively. If “woods good” groundcover is used for pre-development conditions, the pre-development RCN decreases to 55 and 77 for HSG B and D soils respectively. Therefore, the pre-development RCN would be lower than post-development conditions which results in increased runoff for post-construction, thereby requiring permanent post-construction stormwater quantity control.

The Chazen Companies have requested that permanent post-construction stormwater management controls be implemented into the project and evaluation of changes in grades and their affect (sic) on flow paths within their February 8, 2021 comment memorandum. The Applicant’s engineer has responded that no permanent post-construction controls are required, nor are there any changes to hydrology. I could not find any response to any evaluation of altered flow paths.

The proposed grass perimeter access roads alter grades which will result in altered flow paths. The grass roads will act as drainage swales in cut areas which will alter pre-conditions sheet flow, or shallow concentrated flow into channel flow which is a higher concentrated flow. The Applicant’s engineer is proposing to mitigate concentrated runoff by implementation of stone-lined level spreaders at concentrated discharge points. Level spreaders can help bring concentrated

flows back to a sheet flow condition, but do not provide any quantity control of runoff which is needed here. The Applicant's engineering is not proposing any permanent stormwater quantity control as part of the project. The post-developed runoff rates will be higher when using more appropriate pre-condition RCNs, and the loss of over 600 trees will contribute to additional available groundwater post-construction. The abundance of groundwater can lead to seeps forming in areas where they never have before.

It is worth noting that the "Overall Watershed Map" on page 8 & 10 within the SWPPP report prepared for the project dated November 18, 2021 is at a very small scale; however, there is no set scale. Therefore, it cannot be effectively reviewed. The "Watershed Analysis" on page 11 is at a smaller scale than the other maps, and there is no topography. The report states that there will be "no increase in peak flows". The map is not useful in reviewing post-developed flow patterns and offers no justification in the "no increase in peak flows" statement. The SWPPP should include a hydrologic and hydraulic analysis of the watersheds noted within the SWPPP.

### **Steep Slope & Erosion Impacts**

The three proposed level spreaders at the westerly array discharge toward your property. The USDA NRCS Web Soil Survey indicates Charlton-Chatfield complex (CrC), 0 to 15 percent slopes, very rocky in the area of the westerly array area, and Chatfield-Charlton complex (CrD), 15 to 35 percent slopes, very rocky in the steep slope area between the westerly array and your property, and your property. Both soil types have shallow bedrock, with exposed rock outcroppings. The soil overburden and in-between rock outcroppings consists of 0-2" of topsoil, then fine sandy loam over gravelly fine sandy loam. Sand and gravelly soils are highly erodible soils. A major concern with the increased runoff generated from the site along with highly erodible soils is that the level spreaders will be discharging runoff of higher volume and flowrate than current conditions. This condition can lead to downstream channelization and cause rill erosion of the steep slopes between your property and the project site as well as on your property.

The Town defines steep slopes in the following manner: Moderate steep slope – a slope equal to or greater than 15% but less than 25%; Very steep slope - A slope equal to or greater than 25% but less than 35%, and Extremely steep slope - A slope equal to or greater than 35%. Although not noted on the plans, the proposed project area and slopes between your property and the project site, as well as slopes on your property contain Very Steep and some Extremely Steep slopes. Higher rates and concentrations of peak flow generated from the site will flow through these steep slopes toward your property. Rill erosion occurring as a result of higher rates and concentrations of peak flows upstream of your property can lead to sediment being transported to and deposited onto your property.

On page 1 of the project plan set, there is a "Steep Slopes" table in the upper right-hand corner of the sheet. The table lists the maximum allowable disturbance to each steep slope category, actual disturbance to each steep slope category and a weighted steep slope area based upon a formula from the Town code. It is noted that the "Total steep slope disturbance" row doesn't explain how the maximum allowable disturbance area was calculated, nor is a shaded map provided; therefore, the calculations cannot be effectively reviewed. It is assumed that the Town is requiring a steep slope protection permit for exceeding the maximum allowable disturbance to steep slopes.

### **Recommendations and Conclusions**

The following recommendations should be implemented into the design plan to minimize impacts to offsite properties.

1. The stormwater analysis pre-development conditions cover type runoff curve number should be based upon woods in good condition, not woods in fair condition. Doing so will result in the need for quantity runoff control. Each discharge point should be analyzed separately via a hydrologic and hydraulic analysis to determine where permanent stormwater quantity control is required. It may be appropriate to convert the proposed temporary sediment basin into a permanent stormwater quantity control structure. At minimum, it is the opinion of this office that permanent stormwater quantity control is required at the proposed level spreader at the low point in the westerly grass perimeter road that is closest to Prickly Pear Road. Permanent stormwater quantity control should be provided at other discharge points of the westerly array, as well as the easterly array. The design engineer should consider designing a permanent stormwater control basin where the temporary sediment basin is located if feasible.
2. The grass perimeter access roads acting as conveyance swales are likely to become eroded from concentrated stormwater runoff flowing along them or across them. The design should incorporate road-side swales with appropriate turf or rip-rap lining in cut areas to convey surface runoff without flowing onto the road. There should also be culverts proposed where drainage crosses the grass road. Placement of stabilized conveyance swales and culverts are crossing areas will minimize potential onsite erosion at those locations. The on-site swales and culverts should be directed to permanent stormwater quantity control management basins prior to discharging to off-site properties.

In conclusion, it is the professional opinion of this office that the proposed project as designed, without providing adequate post-developed stormwater control will lead to potential downstream impacts to your property in terms of stormwater runoff, groundwater movement and potential erosion of the steep slopes on your property, between your property and the proposed project. Should you have any questions, please feel free to contact me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael A. Bodendorf". The signature is fluid and cursive, with a large, stylized "B" and "D".

Michael A. Bodendorf, P.E.  
Principal

cc: Daniel G. Koehler, P.E. (HLD file)

**Steve Varvaro**  
**1263 Albany Post Road**  
**Croton-on-Hudson, NY 10520**

January 10, 2021

The Honorable Brian Pugh, Mayor  
& Village Board of Trustees  
Village of Croton-on-Hudson  
1 Van Wyck Street  
Croton-on-Hudson, NY 10520

Dear Mayor Pugh and Village Trustees,

It is indeed unfortunate that I have had to spend so much time, effort and thousands of dollars to retain both a lawyer and a civil engineer to help focus the Croton-on-Hudson's Village Board of Trustee's attention to the problems associated to my property from the proposed solar array project at Hudson National Golf Course.

The civil engineer that I hired, Hudson Land Design, (see attached) found significant wrong or mis-used assumptions in the applicants submissions about the hydrology and effects of this project.\*

*Stating: In conclusion, it is the professional opinion of this office that the proposed project, without providing adequate post-developed stormwater control will lead to potential downstream impacts to your property in terms of stormwater runoff, groundwater movement and potential erosion of the steep slopes on your property, between your property and the proposed proposed project.*

Furthermore, the attached maps that all come from the Village's Proposal website outline watershed and flow paths that are inadequately remediated and indicate water that flows directly from the Hudson National disruption area across my property.

Although, there have been some changes suggested by the most recently posted site plans since Michael Bodendorf, P.E. reviewed the December 9th documents, the larger issues still stand and the potential impacts remain.

Should this project go through and the changes to the watershed and stormwater runoff impact my property in any way, the members of the Board individually, and together as the Board of Trustees, Chazen, Mastromonaco, Matrix, and Hudson National will all be hearing from me and my attorney and I will not hesitate to take any action available to me under the law.

Sincerely,

Steve Varvaro

\*Hudson Land Design letter attached.

I have written several letters, and commented in person before the BoT on at least three occasions about the problems associated with this proposal. All along the Board has passed the buck to Chazen/La Bella to do the background investigation of the issues. With every iteration of Matrix/Mastromonaco's responses Chazen/La Bella ignores or downplays significant issues and lets unreasonably answered questions go unchallenged.

Of course the main topics are:

- Elimination of Trees on Steep Slopes
- Abrogation of the No Disturbance Area that was a condition of the HN charter
- Both future and present water shed issues
- Water Erosion and potential unmitigated damage to the existing conditions
- Complete dismissal of the need for "Post-construction" remediation measures\*
- Serious view shed harm
- Strong community opposition to this project (Previous comments ran 120 against, 6 pro, the most recent tranche is 19 to 1)
- A history of transgression on previous commitments to environmental stewardship by Hudson National

\*exasperated by Chazen's feeble responses to this important topic.

It is clear from the most recent items posted on the Proposal portal of the Village website that the Village is trying to promote and bolster its favorable position to this project. One only has to review the two graphs and charts that show; a) that only .4% of the village acreage will be impacted, clearly meant to downplay the significance of the distributed area, b) Total Solar Installation's in Croton, which is clearly meant to promote the size of this proposal vs. that already in place. Presumably since there is no credit line on either chart/graph that they were prepared by the Village to put the project in a favorable light.

The Village Board of Trustees should turn this project down cold, as it should have been because of No Disturbance Zone charter, or at minimum find a Positive Declaration and require a full Environmental Impact Statement.



# *Domna Candido*

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1299 Albany Post Rd, Croton on Hudson, NY 10520

January 10, 2022

The Honorable Brian Pugh, Mayor, Village Board of Trustees,  
Village Manager Healy and Village Attorney Whitehead  
Village of Croton-on-Hudson  
1 Van Wyck Street  
Croton-on-Hudson, NY 10520

## **Re: Hudson National Golf Course Solar Plan – Public Concerns re Board of Trustees Handling: Mitigation Terms and Additional Submissions to Project Page by Applicant**

Dear Mayor Pugh, Board of Trustees, Village Attorney Whitehead and Village Manager Healy:

Unfortunately, I am here again submitting another letter to this Board for which I will likely, again (except for Trustee Horowitz), not receive any substantive responses (the last one only receiving a one liner from Mayor Pugh that the letter will be posted, an acknowledgement from Trustee Rosales, and absolutely nothing from Trustee Simon who is on record as unequivocally stating that he has responded to every email he has received, which I can unequivocally state is not true).

The last Board of Trustees Meeting on 12/20/21 and documents made of record since then on the HNGC Solar Plan Project Plan raise additional issues of concern, not the least of which are the “Mitigation Terms” that the Board is allegedly considering in lieu of all the damage, destruction and significant adverse environmental impacts that the HNGC Plan will impose on Croton, its residents, its natural resources. This weak and irrelevant Mitigation Plan which doesn’t, in fact, “mitigate” the damages, but appears to be some misguided attempt to convince us that some feeble “deal” to place seedlings or saplings on the site, or a “fund” for street trees, or to receive some paltry amount of money that none of us would accept in any settlement agreement for even a fraction of the damage if done to our homes or properties, is somehow adequate to compensate for all of the damage that will be done by the HNGC Plan. A solar plan which conflicts with Croton’s longstanding Master Plan and current Comprehensive Plan and the Community “values” set forth therein relating to protection of our environment, and is in violation of important conservation and environmental laws, such as the Village Steep Slope and Tree Laws, that embody those values and impart, along with the New York State Environmental Quality Review Act (SEQRA) on the Village, this Board of Trustees and Planning Board the duty to act as “stewards of air, water, land and living resources” and mandate the “obligation to protect the environment for the use of this and further generations.”

HNGC wants to install a Solar Farm, primarily for their own benefit (on last check only 150 Croton homes would benefit by getting 10% off part of their electric bill and disturb 15 acres on 15-35+% very steep and extremely steep slopes, totally clear-cut approx. 600 healthy trees on 7 acres of forested land which HNGC had agreed, as a condition of them even being able to operate in Croton, would be a NO DISTURBANCE area. The intent of that No Disturbance area was to allow that land to be a wildlife habitat (which it is to diverse wildlife, deer, owls, fox, eagles, bobcats, hawks, chipmunks, squirrels, lots of birds, and butterflies, etc.), to develop into mature forest (which it has been doing very well). But now, HNGC wants to chop it all down on 7 acres, install the solar panels, under which they say they will put in some grasses they call a Meadow which they like to discuss in fairytale language of ‘Bunnies and Butterflies’.

The natural resources that will be decimated or destroyed by this primarily self-serving project, which HNGC insists needs to be on that particular piece of its 280 acre property... that 7 acres with the fragile steep slopes that our Village Laws and other laws and regulations strongly caution against using for this type of project... all, it seems, because HNGC doesn’t want its members to see it! In other words, HNGC’s own NIMBY issue that they’ve now made, with the assistance of our Board of Trustees (except for Trustee Sherry Horowitz, so far), into Croton’s problem, risk, cost and sacrifice. But as we’ve all learned with all things related to the HNGC Solar Plan which has been deep steeped in

huge amounts of Greenwashing from the start, so we never have any idea what is true and what isn't, they will never admit that. (See my 12/20/21 Letter to the Board of Trustees posted on the Village site Project Page for a list of just some of the numerous misrepresentations and fanciful other "unicorn" tales we have been told and that HNGC has even submitted in their official documents, along the way, that just aren't true, even though, under law, are not supposed to contain false statements).

The most absurd part of the 12/20/21 Board Meeting, was this Board's revelation of what it refers to as the proposed "Mitigation Terms" which it appears this Board is seriously considering, mentioning those terms to us, apparently because that's where it thinks this should be going. For me and others witnessing it, that was so unreal that it actually felt like a real Looking Glass experience. We're dealing with a situation that didn't need to be, i.e., by having the No Disturbance agreement in place, the Village does not need to allow ANYTHING to be done or take place on those acres of HNGC's property. That restriction is still valid and in place. Why the Board thinks that they should even be discussing any proposed project, let alone a solar project that would completely destroy the resources and land, flora and fauna, habitats and already existing and working, global warming fighting eco and bio systems, and create possible erosion, drainage and slope failure issues, that the No Disturbance restrictions were put in place to protect, is incomprehensible to begin with. But then, to strongly consider allowing all that destruction to occur, regardless of the significantly adverse environmental impacts that so much of these environmental laws warn against, including our Village Laws and many of the key provisions of SEQRA, NYSEDA, etc., all in the name of some misguided, warped vision of our new "carbon counter" reality that shuns even hearing about anything other than their counters. The UN is calling for a complete end to Deforestation involving any and all types of forests and our "leaders" want to forge ahead to destroy this one and can't seem to see anything beyond the blinders... all in an unquestioning lockstep! This is not leadership! Our Board should not be just following, particularly when it doesn't even seem to understand what it is following or where that is going to get us! What this Board cannot be allowed to do is to proactively squander our precious, priceless and irreplaceable natural resources while fumbling to find its way... particularly when there is evidence that the Village has not taken this path in the past.

The Proposed Mitigation Terms: Priceless, precious, irreplaceable natural resources—forest needed to fight climate change, wildlife habitat, threatened steep slopes, scenic views for:

Approx. \$78,800 to be put in a Village "Tree" Fund for other trees to be planted elsewhere as Village street trees

Approx. \$165,000 comprising \$11,000 pd to Village ea yr for 15 yrs in a quid pro quo arrangement (from my understanding, this money is in lieu of the Village increasing HNGC's other land taxes... so keep in mind, this is not a \$165,000 gain for the Village. Any benefit needs to be offset by how much the Village will not be receiving in those other taxes which now will not be able to be increased.)

250 saplings (10-14" high) which we know the deer will eat, so HNGC will magnanimously chip in for some Deer repellent!... to be planted around the solar array site.

So, 7 acres of all of these natural resources already fighting climate change, providing lot of other environmental and life affirming benefits for, basically, \$250,000 (\$165,000 of which is over 15 yrs so really isn't \$165,000 in today's money and isn't really \$165,000 at all when we offset HNGC's tax benefit gain.) Plus teeny, tiny saplings that the deer will snack on and likely won't even make it past the first season. Grass seed for the Meadow that they said was part of the package, but now the actual grass seed has moved over into the negotiation package.

It's really unclear who negotiates like this? But to do so and then present it as if it is some kind of accomplishment is startling and raises even more issues than this particular matter. I'm not sure who is doing the negotiating. If the Village's legal counsel was involved in the negotiations or was opining on the advisability of such, perhaps this is what happens when one's legal counsel has a conflict of interest and was former counsel for the other side? (Certainly, the Minutes show that in the Village Attorney's past representation of HNGC on issues against the interests of Village residents, neighboring conservation organizations, and, ironically, against installation of the proposed cellular antenna at the location on Hessian Hills Road, the position was far more vigorous!!!) All I know is, that given these facts, if I ever walked away from a negotiation where the other side accepted that kind of offer, it would be so laughable and I would have so little respect for them being so absolutely clueless. Giving one's power away voluntarily in such a



feckless way in a negotiation of such importance to Croton, its residents and its natural resources is certainly not a show of strength, and definitely is not to the benefit of Croton or its residents. My hope is that this Board will reconsider.

The other issue is the fact that HNGC and Matrix appear to continue to engage in the Greenwashing that I outlined in detail in my 12/20/21 letter to the Board, by submitting even more letters and documentation that seems to aim and befuddle, but not to provide clear, concise information to assist the Board, Planning Board, Village Residents, etc. in understanding what they are or intend to be doing. After almost 18 months of this, why do they not know? Why didn't Mike Doud from Matrix not know off the top of his head what little benefit there is to Croton residents when he was asked at the 12/20/21 meeting? That information has been submitted multiple times. We know. We read all the documents. It is that only 150 Croton resident households will benefit by getting 10% discount off of part of their electric bill... a fact that Mike Doud seemed to remember after the meeting. There is so much environmental downside it is hard to see how this proposal is environmental at all. Even SEQRA guides us in stating that **"Where public need and benefit cannot be shown to outweigh the environmental impacts of a project, the Board may be compelled to deny approvals for the action"**. As such, this project should be rejected!

But Mike Doud from Matrix also didn't seem to be able to answer in front of the Board and Public when asked by a resident about information relating to the "Heat Island Effect" (i.e., the raising of temperature in the area around Solar Farm Fields due to the heat from the solar panels themselves). Mike Doud had no real response, except glibly inviting us all on a trip to California to visit another of their installations!!! THEN, he submitted a document that is posted on the Project Page trying to show there is no such concern. However, that is an early study from 2011 that indicates that more will need to be done:

*"Work is in progress to approximate the flow fields in the solar farm with 2-D simulations and detail the temperature and wind profiles of the whole utility scale PV plant and the surrounding region. The results from these simulations can be extrapolated to assess potential local impacts from a number of solar farms reflecting various scenarios of large PV penetration into regional and global grids."*

...and Mike Doud and Matrix totally ignored what appear to be much more recent studies that show there is, in fact, a known issue of heat island effects. Why are we always being Greenwashed? Why do we always need to do research only to find out that the whole story is not being told?

Unintended Climate Consequence of Solar Farms Article

<https://www.greenbiz.com/article/giant-desert-solar-farms-might-have-unintended-climate-consequences>

The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperature

<https://www.nature.com/articles/srep35070>

Researchers discover solar heat island effect caused by large-scale solar power plants

<https://phys.org/news/2016-11-solar-island-effect-large-scale-power.html>

It is not surprising that Mike chose that early study (which I think one of the later ones indicates was limited) and takes the position that he knows for a fact that there is no problem. Curious that he knows that now, when he claimed he didn't really know much about this at the meeting despite all of his years in this business.

Why our Board or anyone in their right mind would go forward with any deal with any companies who you can't rely on to tell the truth on anything is beyond me, particularly for an installation on extremely steep slopes that is not advisable to begin with. So many things that have been said thus far have been disproven by other info that later has been submitted. Even the defective camouflaged View Study that Ralph Mastromonaco submitted shows Solar Fields that one can see, contrary to what had previously been misrepresented.

It appears that the Board needs to have someone come in to fact check all that has been represented here or just drop this project with the HNGC and Matrix entities. To do otherwise is very risky because one needs to ask why someone keeps misrepresenting if there is nothing to lie about?

Now HNGC also is submitting documents showing what appear to be irrelevant comparison charts and statistics relating to acreage and other solar sites in the Village, again changing the numbers of trees in the different categories (all without any explanation of how.... What appears to be a new "Applicant" with the name of "Prickly Pear Solar LLC with no explanation of how that is the true Applicant, how that Applicant would have a right to request subdivision of HNGC's acreage on which there is a current No Disturbance Area... and who actually is the Village dealing with here, and who actually is accountable for all the details that none of these entities seem to know! I again ask: How is this Village supposed to trust that the installation of a Solar Farm on very steep and extremely steep Slopes (not encouraged by NYSERDA, the extent of disturbance of which our own Village Steep Slopes law cautions against, many other municipalities do not even allow, all particularly when approx. 7 acres on those Very and Extremely Steep slopes will be clear cut with no viable stormwater management plan put forth by people we can't trust... people who can't seem to, at least, keep their details accurate and straight... even on documents that require accuracy... WHY again is this Board even contemplating going forward with this HNGC project?

We are being told it has something to do with Global Warming and Climate Change... but those who actually know something about fighting climate change, and who sincerely care about it (and are not primarily focused on their own profit motives) are not advocating for deforestation or destruction of natural resources! They know that it isn't about the pure numbers of actual trees, which is important, but also the destruction of the contiguous forests, the eco and biosystems, the soil stabilization, the water filtration, the air cooling, the maintenance of the nearby wetlands... these are all the issues that the pseudo-environmentalists who are invested in solar never seem to mention! In fact, the serious environmentalists and scientists who are actually fighting against climate change are fighting for the exact opposite: they fight to save ALL of the forests because they know they are invaluable against climate change and that those with the blinders on, only looking at their carbon counters are way off track! The U.N. COP26 Glasgow Deforestation Declaration with over 140 countries including the United States signed on to stop all deforestation of ALL forests by 2030, the New York Declaration on Forests, initially signed in 2014, recently renewed its call to action to preserve forests for climate control purposes on the tails of the Glasgow Deforestation Declaration. Organizations like the Sierra Club, The Nature Conservancy and the Union of Concerned Scientists feel that preserving forests is critical to combating climate change.

We need both Forests and Renewable Energy. And that Renewable Energy needs to be responsibly sited. That is not the case here and the HNGC should be denied unless moved to "dead space", i.e. parking lots, carports, roofs.

Sincerely,  
Domna Candido