STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Chatfield Solar Fund, LLC, petition for a declaratory ruling, pursuant to Connecticut General Statutes § 4-176 and §16-50k, for the proposed construction, maintenance and operation of a 1.98-megawatt AC solar photovoltaic electric generating facility on approximately 25 acres located generally south of Route 80 (North Branford Road) and east of Chestnut Hill Road in Killingworth, Connecticut, and associated electrical interconnection to Eversource Energy's Green Hill Substation located at 775 Green Hill Road, Madison, Connecticut.	:	Petition No. 1354 April 25, 2019

CHATFIELD SOLAR FUND, LLC
MOTION TO STRIKE
KARS' POST HEARING BRIEF

The petitioner, Chatfield Solar Fund, LLC ("Chatfield") respectfully submits this Motion to Strike the "Post Hearing Brief" (the "Brief") of the Killingworth Advocates for Responsible Solar ("KARS"), submitted with the Connecticut Siting Council ("Council") on April 22, 2019. The Brief (1) has not been served upon Chatfield; (2) contains a number of materials not included in the record nor originating from a government source; and (3) contains a number of issues not related to the scope of the Petition. In support of this motion, Chatfield states the following:

1. KARS was granted party status in the proceeding at the Council's February 21, 2019 hearing. February 21, 2019 Tr. at 9.

2. On March 13, 2019, after the established deadline for the exchange of interrogatories between parties, KARS provided the Council with 12 interrogatories by electronic mail without properly serving Chatfield. Attachment A.

3. On March 22, 2019, after the established deadline for filing pre-filed testimony with the Council, James McDonald filed the Pre-Filed Testimony on behalf of KARS without properly serving Chatfield. Attachment B.

4. On April 22, 2019, KARS filed the Brief with the Council. To date, the Brief has not been properly served upon Chatfield by KARS. Attachment C.

5. Upon information and belief, the Council through its Executive Director has informed KARS of the existence of the "Connecticut Siting Council Information Guide to Party and Intervenor Status" (the "Guide") by providing KARS with a link to the Guide. The Guide provides the following concerning the Council's service requirements: "The Council, parties and intervenors must send a copy of any document filed in a docket to every person on the service list ..." To date, KARS has not provided Chatfield with the Brief. Moreover, counsel for Chatfield asked KARS to provide Chatfield with copies of all filings by KARS with the Council (Attachment D)-to date KARS has refused to do so.

6. Throughout the Petition, KARS has consistently disregarded proper service requirements. In regard to the second set of interrogatories, the legal counsel to and the executive director of the Council, Melanie Bachman, stated that "the second set of interrogatories were not served properly on the petitioner[.]" March 26, 2019 Tr. at 6. With regard to the Killingworth Fire Marshal's pre-filed testimony submitted on behalf of KARS, Ms. Bachman also stated "the council *did* establish a schedule by which all interrogatory responses and prefile testimony *were* supposed to be submitted" implying that KARS again violated the Council's procedural service requirements. March 26, 2019 Tr. at 7 (emphasis added). KARS was present at the March 26, 2019 hearing

where the Council discussed KARS' failure to adhere to the Council's service requirements. Additionally, since KARS was granted party status in the Petition, Chatfield has sent KARS eleven different emails through the service list that include Chatfield's submissions, which emails include two of Chatfield's objections based on KARS' prior disregard of the Council's service requirements. Despite all of this, KARS has once again violated the Council's procedural service requirements-marking the *third time* that KARS has utterly disregarded such requirements. Although KARS was able to ascertain the names of the clients of Chatfield's counsel as far back as 1985, perplexingly KARS appears unable to simply include the email address of Chatfield's counsel in any of its submissions. KARS' Brief at 35.

7. Aside from KARS' improper service, KARS' 37-page Brief introduces and relies upon a number of sources and materials, which are not part of the record nor originate from a government source, in its discussion of issues far afield of the appropriate scope of the Petition.[1] The Brief also includes a number of un-cited references to various adages[2] that are not recognized by Connecticut or the United States as having any legal authority. KARS' Brief at 9.

Therefore, in light of KARS' disregard for the Council's established service list requirements, Chatfield objects to KARS' improperly served Brief dated April 22, 2019, and asks that the Brief be excluded from the record. In the alternative, Chatfield objects to KARS' improperly introduced source material and asks that (1) any references to

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[1] See for example, Standard Solar Rockville, Maryland, headquarters bird's-eye photograph (KARS' Brief at 7); Murtha Cullina ZREC & LREC Program slides (KARS' Brief at 21); Connecticut historic storms (KARS' Brief at 24).

[2] E.g., "Murphy's Law", "Drucker's Law", "Mrs. Murphy's Law", "Yhprum's Law".

such material and KARS' conclusions derived therefrom; and (2) any discussion of materials outside of the scope of the Petition, be stricken from KARS' Brief.

Respectfully submitted,
Chatfield Solar Fund, LLC

By: _____

Bruce L. McDermott
Samuel R. Volet
Murtha Cullina LLP
265 Church Street
New Haven, CT 06510
Tel: 203-772-7787
bmcdermott@murthalaw.com

CERTIFICATION

This is to certify that on this 25th day of April, 2019, a copy of the foregoing has been electronically delivered to all other known parties and intervenors.

Bruce L. McDermott

ATTACHMENT A

Mathews, Lisa A

From: Bachman, Melanie
Sent: Friday, March 15, 2019 8:45 AM
To: Mathews, Lisa A
Cc: Fontaine, Lisa; Mercier, Robert; Walsh, Christina
Subject: FW: Speaker List & Question(s)

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
860-827-2951

CONNECTICUT SITING COUNCIL

CONFIDENTIAL INFORMATION: [illegible]

From: Bachman, Melanie
Sent: Thursday, March 14, 2019 9:52 AM
To: Lorinne Sekban <killingworthforesponsiblesolar@gmail.com>
Subject: Re: Speaker List & Question(s)

Good morning, Lorinne.

Thanks for your email.

KARS will definitely cross examine the petitioner on 3/26. We expect the hearing to close that afternoon. There is no time limit. However, if the cross examination is repetitive or otherwise irrelevant, the Chairman may interrupt.

The deadline for responses to interrogatories, witness lists and pre-filed testimony is 3/19. The petitioner is aware of the additional questions attached to KARS request for party status. They will most likely answer all of the questions on 3/19.

When you have a chance, perhaps you could put your questions in a separate document rather than this email and submit them to our office and the petitioner? The document will be posted to the project website. That would be greatly appreciated.

Thanks. Have a nice day. Spring is in the air!

Melanie

Get Outlook for iOS

From: Lorinne Sekban <killingworthforesponsiblesolar@gmail.com>

Sent: Wednesday, March 13, 2019 3:55 PM

To: Bachman, Melanie

Subject: Re: Speaker List & Question(s)

Thanks for the update Melanie,

Do you think that KARS will be allowed any time for cross examination on 3/26? If so, do you know about how long we will be allowed this? Also, we did not receive answers to our first set of questions from February 14th, after the exclusions (not applicable) were submitted back to us. While there were quite a few questions that were not applicable, there were still some questions on our original list that were applicable. And my final question is - when is our list of Witnesses due by?

Thank you again. Here is our list of interrogatories below:

1. What is the name and address of your agent for service of process?
2. Describe the site selection process, including the criteria used.
3. How and why was the decision made to petition for a declaratory ruling, rather than an application?
4. Have you received any financial assistance from Connecticut's Green Bank or any of its subsidiaries and related entities? If so, what is the nature and amount of such assistance?
5. Have you received any direct or indirect funding or loans, subsidized in whole or part, by the U.S. Department of Energy? If so, what is the nature and amount of such assistance?
6. List all federal and state tax credits, tax exemptions, production credits, grants, loans, loan guarantees and other financial assistance you have received or will receive over the life of this project, and the dollar amounts and/or percentages and/or interest rates of these.
7. What will be the cost basis for local property tax calculations?
8. What procedures will the installation contractor be required to perform to prevent panel damage during installation and how will this be monitored?
9. What is the individual cost per panel for recycling?
10. Does the panel manufacturer offer to recycle its panels at decommissioning?
11. Please provide a copy of the manufacturer's warranty.

12. How will the decommissioning date be determined? List and explain the criteria used to make this decision.

On Wed, Mar 13, 2019 at 10:35 AM Bachman, Melanie <Melanie.Bachman@ct.gov> wrote:

Good morning, Lorinne.

The 3/26 evidentiary hearing will proceed as scheduled whether or not the petitioner responds to our extension request and whether or not they consent to our extension request. There is no deadline to respond in our request for extension letter, but the deadline for a final decision on the matter is 4/21.

IF the petitioner does not consent to the extension, we would hold the 3/26 public hearing and then place the matter on our 4/11 regular meeting agenda to render a decision within the deadline. A regular meeting is not a public hearing. It is a meeting of the Siting Council where many matters are taken up (based on a published agenda) for decision, schedule, etc. We would have to render a decision on Petition 1354 during the regular meeting on 4/11 in order to meet the 4/21 deadline.

See the updated schedule at this link:https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/pe1354_schedule_5.pdf

The deadline for filing interrogatories in the matter is close of business today.

Thanks.

Melanie A. Bachman, Esq.

Executive Director/Staff Attorney

Connecticut Siting Council

10 Franklin Square

New Britain, CT 06051

860-827-2951

CONFIDENTIAL INFORMATION: [illegible]

From: Lorinne Sekban [mailto:killingworthforesponsiblesolar@gmail.com]

Sent: Wednesday, March 13, 2019 10:22 AM

To: Bachman, Melanie <Melanie.Bachman@ct.gov>

Subject: Re: Speaker List & Question(s)

Good Morning Melanie,

Thank you for this explanation. Since it appears as though the Petitioner will not agree to an extension, does that mean that the 3/26 is still scheduled? Also, if that is the case, was yesterday the deadline for KARS' interrogations to be submitted? I'm sorry, I'm a little confused now with the timeline of everything. I was waiting for the decision on the extension and it seems that KARS may have missed the deadline now for

submitting final interrogations for your review. Is the 2nd meeting date now 4/11 instead of 3/26? Thank you for the clarification.

Kind regards,

Lorinne

On Mon, Mar 11, 2019 at 8:29 AM Bachman, Melanie <Melanie.Bachman@ct.gov> wrote:

Good morning, Lorinne.

I hope you had a nice weekend.

If all of the parties to a matter, such as the Killingworth solar petition, do not agree to an extension, the Siting Council must render a decision by the current deadline date, which is April 21, 2019. The Petitioner could agree to less time than the Siting Council requested, such as granting 30 days extension rather than 90 days extension. Please be advised that if the petitioner does not agree to any extension, we would have to render a decision during our regular meeting scheduled for April 11, 2019 in order to meet the current deadline of April 21, 2019.

If you have any further questions, please feel free to contact me at your convenience.

Thanks. Have a great day.

Melanie

Melanie A. Bachman, Esq.

Executive Director/Staff Attorney

Connecticut Siting Council

10 Franklin Square

New Britain, CT 06051

860-827-2951

CONFIDENTIAL INFORMATION: [illegible]

From: Lorinne Sekban [mailto:killingworthforesponsiblesolar@gmail.com]

Sent: Friday, March 08, 2019 4:32 PM

To: Bachman, Melanie <Melanie.Bachman@ct.gov>

Subject: Re: Speaker List & Question(s)

Melanie,

Thanks for your reply on this, and for the explanation...

I have one last question for you, what if the responses are split, ie, 50/50 one party saying "yes" to the extension request and the other (petitioner or party) say "no" or unapproving the extension request, what happens then? Also, when will the decision on this extension request be made and announced?

Thank you!

Lorinne

On Wed, Mar 6, 2019 at 12:05 PM Bachman, Melanie <Melanie.Bachman@ct.gov> wrote:

Good afternoon, Lorinne.

I hope all is well. Thanks for your message.

Your e-mail consenting to the extension is sufficient.

Thanks. Have a great day.

Melanie

Melanie A. Bachman, Esq.

Executive Director/Staff Attorney

Connecticut Siting Council

10 Franklin Square

New Britain, CT 06051

860-827-2951

CONNECTICUT SITING COUNCIL

CONFIDENTIAL INFORMATION: [illegible]

From: Lorinne Sekban [mailto:killingworthforesponsiblesolar@gmail.com]

Sent: Thursday, February 28, 2019 5:54 PM

To: Bachman, Melanie <Melanie.Bachman@ct.gov>

Subject: Re: Speaker List & Question(s)

Hello again Melanie, Thank you for your guidance during this process. Did you say the actual link was up on the CSC site now of the actual speaker list? The list you attached seems to have just one name on it. I apologize if you already sent me the link to the "actual list" but can you re-send?

In gratitude,

Lorinne

On Wed, Feb 27, 2019 at 1:01 PM Bachman, Melanie <Melanie.Bachman@ct.gov> wrote:

Good afternoon, Lorinne.

I'm well. Thanks for asking. I hope you are well, also.

In response to your questions:

1) Is it true that anyone who spoke at the Public portion of the meeting om 2/21 cannot speak at all on the 3/24 hearing? Can they attend and listen?The public comment session concluded last Thursday evening. There are no further opportunities to speak, but concerns may be submitted in writing and anyone may attend the 3/26 hearing for observation purposes.

2) Where can I get a copy of the SPEAKER LIST from the 2/21 meeting? Do you have a copy of that? Or should I reach out to Town Hall? The speaker list from the 2/21 public comment session is attached. However, please be advised that this list consists only of those interested persons that signed up to speak. The names of the

additional speakers that did not sign up will be captured in the hearing transcript. We anticipate receipt of the hearing transcript by the end of next week.

3) There are some people on the original Witness List on the KARS list that we can no longer call on. My question is - are we responsible for reaching out to the witnesses on our own or how does that process work? I'm not sure I understand this question. If you plan to have witnesses as part of your case (ex. In support of your position), those witnesses need to submit written pre-filed testimony and be available for cross examination during the 3/26 hearing. These are YOUR witnesses. Just as the petitioner has a panel of witnesses who submitted written pre-filed testimony and are available for cross examination on 2/21 and 3/26 by the Council and KARS, KARS would have its own panel of witnesses who submit written pre-filed testimony on behalf of KARS that are to be available for cross examination by the Council and the petitioner during the presentation of KARS' case during the 3/26 hearing. This is more fully explained in the Guide to Party and Intervenor Status and the Citizens Guide:https://www.ct.gov/csc/lib/csc/guides/guides2015/connecticut_siting_council_information_guide_to_party_and_intervenor_status-new.pdf

https://www.ct.gov/csc/lib/csc/guides/guides2015/citizens_guide_to_siting_council_procedures_petition_generating_facility.pdf

Parties andIntervenors: Partiesand intervenors are participantsin the proceeding whorequestedpartyor intervenorstatus from theCouncilbefore the hearing and were granted such status. Both partiesand intervenors fileevidence with the Council beforethe hearingand presentwitnesses at thehearingfor questioningby theCounciland otherparties and intervenorsin the proceeding. Parties andintervenors may askquestions of thepetitionerand otherpartiesand intervenorson evidence that wassubmitted bythe petitionerand otherpartiesand intervenorsbefore the hearing. Parties and intervenors are not allowedto make their own caseby givingoral testimonyat thehearing.They mustmake their case inwritingand,in exchange,they may cross-examine the

petitionerand otherpartiesand intervenorsand theirwitnesses.

E. Expertsand/or Witnesses: Expertsand/orwitnessesarethe authorsof pre-filed testimony andattached exhibits.They are the sponsorsof theinformation contained in pre-filedtestimony and are swornin during the hearing. After the expertsand/or witnesses aresworn in, they are made availablefor questioning by theCouncil and other participants in the proceeding. Experts and/orwitnessesmay not present new evidence or provide direct

testimony. For example, if a partyor intervenor presentsa landsurvey in their pre-filed testimony, the author or engineerthat prepared the landsurvey must be presentat the hearing, sworn in and available to answer questionspertaining to the landsurvey that are asked bythe Council and the otherparticipantsin the proceeding.

F. **Cross examinationatthehearing:** The Council,applicant,partiesand intervenors have anopportunity tocross-examine the witnessesappearing on behalfof the applicant or other parties andintervenorsduring the hearing. Thismeansthat the personconductingthe cross-examination asks questionsof the witnesses.The applicant and partiesand intervenors submit tocross-examinationfromthe Council, the applicant and other parties andintervenors. Theorderof appearances andcrossexamination will be governedby a hearingprogramdeveloped by the Councilfor theproceeding. Order of appearanceis determinedby theorder in which partiesand intervenors were

namedor admitted by the Council.

Melanie A. Bachman, Esq.

Executive Director/Staff Attorney

Connecticut Siting Council

10 Franklin Square

New Britain, CT 06051

860-827-2951

CSC
CONNECTICUT SITING COUNCIL

CONFIDENTIAL INFORMATION:

From: Lorinne Sekban [mailto:killingworthforesponsiblesolar@gmail.com]

Sent: Wednesday, February 27, 2019 11:28 AM

To: Bachman, Melanie <Melanie.Bachman@ct.gov>

Subject: Speaker List & Question(s)

Hello Melanie,

I hope you're doing well!

I and my few other members of KARS are trying to get ready for the March hearing and I have a couple questions for you:

1) Is it true that anyone who spoke at the Public portion of the meeting om 2/21 cannot speak at all on the 3/24 hearing? Can they attend and listen?

2) Where can I get a copy of the SPEAKER LIST from the 2/21 meeting? Do you have a copy of that? Or should I reach out to Town Hall?

3) There are some people on the original Witness List on the KARS list that we can no longer call on. My question is - are we responsible for reaching out to the witnesses on our own or how does that process work?

Thank you very much for your continued help Melanie!

Lorinne

ATTACHMENT B

TOWN OF KILLINGWORTH

FIRE MARSHAL'S OFFICE
323 Route 81
Killingworth, CT 06419
(860) 391-5603 (Cell)
(860) 663-1182 (Ofc)
(860) 663-3305 (Fax)
(860) 399-7921 (Dispatch)

Robert Stein, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

March 22, 2019

RE: 1.98 MW Photo-voltaic generating facility
Chatfield Solar Fund, LLC
Killingworth, CT
Petition No 1354

Chairman Stein:

I have been in contact with the development company representatives on at least 3 occasions to discuss each of my concerns as stated in my January 2, 2019 letter. To date none of the concerns have been addressed to my satisfaction.

The provisions of Chapter 18 have not been adequately addressed in the proposal as required by the 2018 CT State Fire Safety Code (effective October 1, 2018) which is based upon the 2015 Edition of NFPA 1 Fire Code. Chapter 18 Fire Department Access. Access to the site with the provisions of fire access roads adequate in design and maintained to support the imposed loads of fire apparatus shall be provided with an all-weather driving surface have not been addressed in the proposal, (18.2.3.4.2). The proposed site plan contains a bridge to cross a water feature within the complex. As required under the CT Fire Code (18.2.3.4.5.2). The Bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. I have received no documentation regarding the bridge design proposed for the complex.

The total size of the installation (16+acres) and the scope of the photo-voltaic generating facility (5700+ panels & multiple inverter locations) as an unattended installation, would increase the prospect of a delay in reporting any fire incident on site which increases the risk of fire spread.

As I have stated previously, the town of Killingworth has no municipal water supply within the town. Due to the inadequate access to the site as currently proposed I would require an onsite water supply be installed, as provided by the CT Fire Code (18.2.3.1.4) "the AHJ shall be authorized to require additional fire protection features".

Such an onsite water supply and its' requirements are covered in NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting, 2012 Edition.

Additionally, the CT Fire Code in Chapter 11 has the following provisions for Ground Mounted Photovoltaic System Installations (11.12.3).

Clearances. A clear area of 10 ft. around a ground mounted photovoltaic system shall be provided (11.12.3.1).

Noncombustible Base. A gravel base or other noncombustible base acceptable to the AHJ shall be installed and maintained under and around the installation. (11.12.3.2).

Security Barriers. Fencing, Skirting or other suitable security barriers shall be installed when required by the AHJ (11.12.3.3).

In my discussions to date with the site developer, related to the above referenced requirements, they have rejected the installation of a noncombustible material under and around the installation citing environmental concerns without providing any documentation that the DEEP would object to the enforcement of this CT Fire Code provision.

I have expressed concerns related to the proposed single point of access to the site for ground personnel within the security barrier (2900+feet in length). The placement of Firefighters on the ground within such a large facility (16+ acres) could create a situation where they would be cut off from a means of escape. This would also be true for other onsite personnel within the complex. The site development company agreed that a number of personnel gates could be installed over the length of the security barrier.

The unresolved issues cited above have significant consequences to effectively provide fire protection to the proposed Photo-voltaic generating facility. As such, the proposed plan if approved would be in violation of the 2018 CT Fire Code.

Thank you for the opportunity to submit these additional comments to the Council regarding the proposed 1.98 MW Photo-voltaic generation facility.

Respectfully yours,

James McDonald
Fire Marshal
Killingworth, CT
860-663-1182

ATTACHMENT C

KARS brief, CSC petion 1354 - Chatfield Solar Fund, LLC, a Delaware corporation

Introduction

Contracts

Willful ignorance

Gratuitous claims

Transparent, outright lies

Intentional omissions

Not fooling anyone

Beginning at the end

Hail Mary pass - the German fire safety study

California's guidance for firefighters

The big question

Truth finding

Curious behavior of the chief elected official

RICO considerations

Substantial adverse environmental impacts

Murphy's Law and black swan events.

Missing discussions

Material omissions

Missing documentation

Material misstatements

Financial considerations

No actual decommissioning plan

PV panel contents

Timeline of the project size

Core forest

Failure to comply with minimal standards for a petition

Breakdown of the legislative intent of the municipal consultation process

Material omissions and misstatements of facts

Virtue signalling

Fraud

Mapping

Archaeological concerns

Valuable RECs

Questions predominate

TIMELINE

Conclusion

Broken system

Introduction

> 3:131:7 (Colavito): *We're answering all the questions that are being presented. We're being as cooperative as possible throughout the entire process. And Standard Solar is committed to sustainable and responsible development practices in all projects which we participate nationwide.*
>
> 3:110:4 *Would you be willing to submit a panel to the EPA for testing to verify that? THE WITNESS (Colavito): No.*

A petition for a declaratory ruling is analogous to a request for summary judgement in a court trial. In both instances there is no dispute regarding the facts. If there is a dispute, the parties must proceed to a full-fledged application (in the case of the former) or a trial (in the case of the latter). We entered this process with the intent to establish reasons why a declaratory ruling should be denied. It soon became apparent the facts establish the basis for not only a denial of a declaratory ruling, but also make it impossible for the Siting Council to approve an *application* for this same proposal. This is not simply a case of deciding if a property zoned residential, residing in the midst of a state designated core forest area (and most of that property is so designated by the state), bordered by scenic roads and in the headwaters of the Hammonasset River (including the Deer Lake and South Central Connecticut Regional Water Authority watersheds) will incur **substantial** environmental and scenic impacts with a *de facto* zone change to an industrial use. This is an example of a breakdown in the system, highlighting deficiencies in the state's statutory and regulatory framework for deciding how and where solar energy will be generated.

The defective, abusive, rushed[1] nature of this petition is obvious. The reasons why are not. It will be shown the overarching reason for this was straightforward: exceptionally valuable RECs were associated with this transaction. The deadline loomed when these would soon expire worthless.

That the Council saw fit to conduct not one, but two, hearings on this *petition* is sufficient evidence alone that the summary judgement standard was not met. Why there has never been an *application* for a Connecticut solar farm is unclear to us, but if ever there was a petition which called for instead using an application, this is it. Central to our analysis are two components: the **timeline** of how this proposal developed and the **strange behavior** of Killingworth's chief elected official[2]. The bizarre circus of the March

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[1] *e.g.*, the petition's cover letter, describing the proposal as a) a 2.35 MW and b) a fuel cell installation. Both required correction. Numerous other instances of deficiencies are outlined below.

[2] While inappropriate and too lengthy to fully explore here, we take note of the property owner's working relationship with the town, including its officials, in previous years when it enjoyed an exclusive agreement to install residential

26, 2019 hearing (and its even more absurd aftermath - in the form of a statement from the Standard Solar, Inc. CEO - *see below*) provided ultimate confirmation of the disdain the petitioner has shown all along for not only the statutory conditions required for a determination that no certificate of environmental compatibility is required, but also its reckless disregard for Connecticut's environment, by implication. That this proposal is **environmentally incompatible** is obvious. Slipshod sophistry will not change this.

Contracts

We consider this matter a contract. A contract between Connecticut and Killingworth citizens and a business entity concealed under layers of international holding companies. Prior to enacting (or in this case approval of) any contract, due diligence is required. The parties to a contract must exercise caution to ensure they are not subjected to **fraudulent**, **negligent** or **innocent** misrepresentation that might lead them to be induced to sign a deficient instrument. Examples of all three flavors of misrepresentation will be provided below. Using the mails and wires to effect fraudulent inducement to a contract is addressed in the civil and criminal provisions of the federal RICO statute. Poorly drafted contracts frequently lead to litigation. Ambiguity in contract specifics provides fodder for the courts.

Adding to the fact that this transaction is indeed a form of contract is the performance bond that is required for decommissioning expenses. This petitioner should be treated no different than an applicant to rent an apartment or finance an automobile. Are they worthy, based upon their past record, of being trusted with the keys to our environment?

Willful ignorance

During the February 18, 2019 public informational meeting it became apparent the petitioner was concealing facts. During the hearings three days later, this became more obvious. By the close of the March 26, 2019 hearing, once subjected to an adversarial process, the petitioner was reduced to transparent lies, contradicting not only what had previously been entered into the record but also contradicting statements made within that same hearing. We had passed through the looking glass. The only way the petitioner could pretend this proposal would not have substantial adverse environmental impacts was through **wilful ignorance** of certain things (*e.g.*, the municipal and state Natural Hazard Mitigation Plans) or through the **pretense of not knowing** what it did know (*e.g.*, there is currently no viable PV panel recycling market). To prevent future abuses, it becomes obvious certain things need to be codified, *e.g.*, every future petition and application must include references to the state and municipal Natural Hazard Mitigation Plans. Or if a claim is made a proposal is consistent with a POCD, actual references to the text of that document must be included. [**Note**: we henceforth use a three-part notation to identify hearing transcript quotations: hearing number:page number:line number. Example: 1:103:6. Hearing 1 is the February 21, 2019 evidentiary event, hearing 2 is the public comments on that same date, hearing 3 is the evidentiary session from March 26, 2019. Indentations of paragraphs indicate quotations from the transcripts.]

> 3:111:17 If these are subjected to winds in the nature of 200 miles an hour and hail balls of over 2 inches, we can assume they're not rated for that. Correct? THE WITNESS (Colavito): **I don't believe that those conditions have ever existed at this location** in the State of Connecticut.

We will explore below the weather extremes recorded in this region. This is but one of many examples of the petitioner displaying willful ignorance.

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solar panels on the homes of Killingworth residents. This relationship permanently ended once the Connecticut Green Bank reached a final settlement agreement with the property owner, submitted previously as one of our exhibits. It is safe to assume this matter left an extensive paper trail at not only the Connecticut Green Bank but also the Department of Consumer Protection. The length of this paper trails precludes discussion here.

> 3:107:15 Do some jurisdictions consider solar panels to be hazardous waste? THE WITNESS (Colavito): **Not to my knowledge**, and we have some documentation that we can submit to the record to show that it is not hazardous waste.

As will be explored below, this is a material misstatement of fact, as proven, *inter alia*, by the petitioner's own exhibit, the German fire study. Why would someone arrive prepared to submit evidence PV panels are not considered toxic waste unless they did possess knowledge they are so considered? The predicate clause of Colavito's sentence is belied by its remainder. It is not credible that the head of engineering for one of the nation's largest solar panel installers is unaware of these facts. Standard Solar operates a California office. It is no secret that state is in the process of regulating PV panels as toxic wastes. We can play word games as to whether these regulations have yet been finalized, but this does nothing to diminish the potential threat these panels pose to our environment.

> 3:107:9 (Colavito): **I am not specifically familiar** with what happens with every broken module that happens during construction, but I do **believe** they are disposed of in an environmentally responsible manner, which includes recycling.

Whenever the terms, **believe** or **not to my knowledge** are used in a response, this suggests to the cynical an effort to be less than forthcoming, as a legal way to feign ignorance. The transcripts reveal numerous instances such as these, where the petitioner made a careful effort to provide qualified and/or indirect answers to questions, fooling no one.

Gratuitous claims

Closely related to willful ignorance are the gratuitous statements of the petitioner. Examples include claims such as the proposal being consistent with the state and local plans of conservation and development. (This was a straightforward lie, but the casual nature of how the petition glosses over it, as if it was a mere box to be checked off, warrants its additional characterization as gratuitous.) Or suggesting there will be a viable market for recycling of PV modules in future decades, and it is likely these hazardous wastes will suddenly assume a positive net value when this unknowable market magically appears. It is obvious the petitioner does not take Connecticut environmental statutes seriously, and, as will be shown, considers our environment unavoidable collateral damage in their virtuous war against climate change.

Transparent, outright lies

The audacity of some of the petitioner's lies was stunning. Maintaining the Fire Marshal's concerns had been satisfied was perhaps the most blatant example. Another example would be during the March 26, 2019 hearing when the petitioner simultaneously assured us their panels were environmentally safe and met UL listing standards, then subsequently being unable to specify any manufacturer.

> 3:107:17 THE WITNESS (Colavito): We have not selected a specific module for use on this project yet.

Since we have no way of knowing what will be introduced into our environment, **how can anyone know whether this might have a substantial adverse impact** on that environment? If they know what brand of panels will be used and are lying, or if they honestly have no idea, there is no practical distinction between these two options in terms of the Council's decision. Either way, without the necessary data to render a fully informed decision, the Council can not approve so deficient a petition.

Intentional omissions

Calculated omissions are as egregious as more obvious lies. Claiming the Fire Marshal's objections have been met (when they have not) is no more offensive than **pretending** most of the property is not designated core forest or that there is an actual, viable decommissioning plan. The petitioner's archaeologist was never

present for examination during the evidentiary hearings. Why, what needed to be hidden? Items which could derail the petition were avoided, such as mapping of core forest, stone walls, scenic roads or zoning. On the occasions when truthful answers were provided during the March 26, 2019 hearing, they were hardly reassuring. When asked if a panel would be provided to the EPA for toxicity testing, the immediate, unhesitating answer was "no." One way or the other, **a panel will be sent to the EPA**. Either the Council can make this a requirement for approval or the citizens of Killingworth will pay for it themselves, either through a municipal expenditure or individual donations. To make a refusal such as that, in the world's oldest continuous democracy[3], shows how arrogant, predatory, hubristic and dumb this interloping petitioner is. That was the sort of answer residents of banana republics are used to receiving, not Connecticut citizens. But this was not news to anyone who has read our exhibit outlining the corrupt nature of the Canadian ownership of this proposal.

Not fooling anyone

The petitioner's childish tales have not fooled the public. Any parent[4] is an authority on the telltale signs of tall tales. One of the clearest tells is when the subject changes the subject and offers irrelevant information. For example, Mr. Colavito reverted to his canned declaration of environmental sainthood when questioned. Peter Stockman, first[5] speaker at the February 21, 2019[6] public hearing, highlighted the financial deficiencies of the alleged decommissioning plan and the petitioner's monetary motives (which we will argue below were both confirmed by the petitioner's testimony. Frederick Bova[7], final speaker at the February 21, 2019 public hearing, offered a succinct summary of the obvious, which can not be improved upon:

> There's just so many things that when you ask these people who are supposed to be in charge of this product [sic, *project*], they didn't have a clue. **They had no answers at all**. It would be like, we're going to get back to you. We're working on that. **They' re not working on it**. They're just not going to do any of that homework unless you force them to do the homework.
>
> . . . That's what it's really all about for them. **It's all about money**. And as far as damage to the solar panels and in case of a fire, solar panels do have cadmium. **Cadmium is a very, very dangerous element**. You need a very small amount of that in your water, in your environment to create a huge problem. When you have 25 acres of that inside those panels with a big storm and damage, we're asking for **a lot of trouble**.

Beginning at the end

It might be most expeditious to begin with the facts elicited during the March 26, 2019 hearing. The key findings:

- The petitioner claims to either have no idea, or refuses to answer, how or where the PV panels will be recycled, or how much this might cost. This alone is reason for denial, and reveals the alleged decommissioning plan to be a fiction. If the petitioner can not tell us the cost or how Humpty Dumpty will be put back together again, they can not be allowed to lease our environment for their profits.

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[3] https://en.wikipedia.org/wiki/Fundamental_Orders_of_Connecticut

[4] https://www.psychologytoday.com/us/blog/communication-success/201507/7-key-signs-lying-child-or-teenager

[5] Stockman was the first person listed on the sign-up sheet. The first selectwoman saw fit to insert her name above his.

[6] The same date former Enron Corporation CEO Jeffrey Skilling was released from federal custody, after 12 years of confinement. The several parallels between Mr. Skilling's history in Connecticut and this petition are fascinating.

[7] **Stylistic note** - in this, and all future quotations, unless otherwise noted, all emphasis has been added and was not present in the original. There is only one instance in this document of emphasis in the original. Text [within brackets] has been added by us.

- The petitioner assured us the panel were compliant with UL-1703 standards, then minutes later claimed not to have any idea which panels will be used.
- The petitioner refused to submit a PV panel to the EPA for testing to determine the presence of hazardous substances. This is a tacit admission they fear the contents to be toxic. This *de facto* admission is grounds for denial because it becomes impossible to determine whether this might constitute a substantial adverse environmental impact.
- The petitioner has not referenced (or if this has been done, lied when denying this at the hearing) the state or municipal Natural Hazard Mitigation Plans, yet assures us their proposed installation is more than able to withstand the sorts of weather conditions our region experiences.
- After approximately five months of being certain which PV panel manufacturer would be used, the petitioner suddenly has no idea who this might be. This is not credible and is an obvious response to our submitting exhibits on March 19, 2019 which explored the multinational criminality of the Adani Group, the designated panel supplier. The manufacturer is as much a counterparty to this contract as is the petitioner. If we do not know who this might be, how is anyone able to conduct due diligence?
- Yet in spite of the above, the petitioner assures of us of the durability of the imaginary PV panels and their innocuous (except the hundreds of pounds of lead) chemical contents. The colloquial term for such amateurish nonsense is *lies*. This is clearly not sophistry. To meet the standard for sophistry requires at least a minimal level of artful prevarication. Sophistry is best left to the professionals.
- The petitioner's counsel claimed the Canadian owners of the proposal, with hundreds of billions of dollars of assets, do not have hundreds of billions of assets[8]. This is so absurd it does not deserve comment. Our question remains unanswered, whether there are mere billions of dollars behind the ownership of this proposal, or far more: why was it necessary to establish a standalone Delaware holding company to insulate against risk and/or dodge taxes if this proposal is so environmentally innocuous that the owners would not (not could not) self insure? Part of the answer can be found in the ownership's experience with the responsibility for the worst inland oil spill in American history, as outlined in our previous exhibits. A responsibility which ran close to a billion dollars and necessitated substantial litigation initiated by the U.S. government.
- The petitioner's head of engineering saw fit to enthrall us with tales of his environmental purity. Virtue signalling is the last refuge of scoundrels caught tripping over their lies. This was a tell, that the witness had to go into remote mode to extricate himself from a hole dug too deep.

How we arrived at the facts outlined above is explained in depth below. But what transpired immediately after the hearing is even more strange, and further illustrates the petitioner's arrogance for our citizens. In a March 28, 2019 article[9] (paid placement?) in the *Middletown Press*, Standard Solar, Inc. CEO Scott Wiater claimed

> "Change is difficult. And change, particularly when it's something new and unfamiliar, can be **scary**[10]. . . . We are not building this project to flip it to some **outsider** who doesn't

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[8] The home page of the website of Standard Solar, Inc. https://www.standardsolar.com/ prominently proclaims:

"With access to **$500 million** in low-cost project capital available from international energy giant Énergir, . . ." https://www.standardsolar.com/company/our-vision

In 2017, we found our partner. Énergir, "the new Gaz Métro", an international energy stalwart with **$5.3 billion** in US assets , has provided us with **$500 million** in low-cost capital and told us make the projects happen . . ."

Our previous exhibits explain the basis for the valuation of hundreds of billions of dollars of assets.

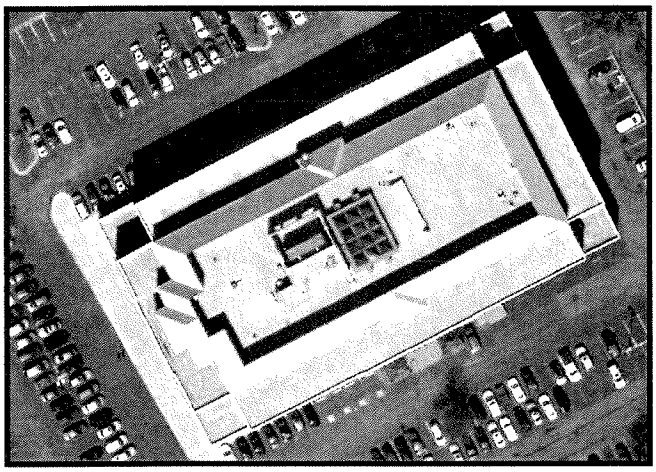
[9] https://www.middletownpress.com/opinion/article/Forum-Standard-Solar-is-responsive-to-13724190.php Standard Solar is responsive to Killingworth community

[10] If things do not turn out well for him in the energy industry, we feel confident Mr. Wiater will be able to find employment in the elementary education field. Especially in the lower grades.

understand the sensibilities of Killingworth residents. We'll be your partners on this project for a long time."

You can not make this stuff up. The petitioner has established a clear pattern of taking everyone in Connecticut for fools (*cf.*, testimony of Frederick Bova, February 21, 2019 public hearing).

Below is an image of the roof of 1355 Piccard Dr., Rockville, MD, where Standard Solar, Inc. is headquartered. This image was taken in 2017[11] and shows no solar panels present.



Not only does the roof of this building show no evidence of renewable energy production, but all the many superior corporate entities controlling Chatfield Solar Fund, LLC (and the Delaware building where it is purportedly housed) also show no such evidence at their corporate offices, domestic and foreign. Mr. Colavito might walk the environmental walk, but he is not the issue - his employers are, foreign and domestic.

Standard Solar, Inc, whole owner of Chatfield Solar Fund, LLC, is also a Delaware[12] chartered entity. Would anyone in their right mind rent an apartment to, or finance a used car for, someone concealed behind layers of LLCs, holding companies and corporations, foreign and domestic. We ask again: if this proposal is so environmentally innocuous, why can this project be owned by something with domestic assets which can be attached should Humpty Dumpty fall? The obvious answer: because it is impossible to put Humpty back together.

Hail Mary pass - the German fire safety study

The desperation of the petitioner is becoming ever more apparent. The Fire Marshal, as the Authority Having Jurisdiction, is required to abate fire code violations, under penalty of law. The Fire Marshal's letters to the Council speak for themselves and to his intentions. He is on solid statutory ground:

CGS §29-307 – **Fire hazards in manufacturing establishments**

> When any local fire marshal ascertains that there exist, in any building, structure or **premises** used in the carrying on of manufacturing, . . . or **any condition in violation of the statutes relating to fire prevention or safety** in manufacturing establishments, such fire marshal <u>shall order</u> such materials to be removed or the conditions to be remedied by the owner or occupants of such building or premises and <u>shall promptly notify and report in writing</u> such matters to the appropriate state or federal agency having jurisdiction over occupational health and safety. [The premises fall under the BLS definition of a power plant.]

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[11] https://rockvillemd.maps.arcgis.com/apps/webappviewer/index.html?id=0aa9fe18b6c64b46a61230da64a2b2fd

[12] https://www.sec.gov/Archives/edgar/data/1550331/000155033112000001/xslFormDX01/primary_doc.xml

CGS § 29-308 – **State Fire Marshal may take original jurisdiction to abate fire hazards**

> The State Fire Marshal may take original jurisdiction for the abatement of any hazardous condition found by him or his agents to be contrary to the statutes or to the regulations made in accordance therewith, and shall report such condition to a **prosecuting attorney**.

As the petitioner is clearly aware, the Fire Marshal can unilaterally (and will, as he has made clear) act to stop this proposal. Some of the petitioner's actions are obviously desperation moves, triggered by this eventuality. At the March 26, 2019 hearing the petitioner introduced an exhibit containing **8 pages** (2.6%) **of a 303 page**[13] German study of PV panel fires.

> 3:164:2 [Attorney McDermott] And while it was a study prepared in Germany, the English translation of the German version was funded by the US Department of Energy Solar Energy Technologies Office. And it's I would think rather informative about the nature of solar fires -- or fires on solar panels, and we'd offer this as **a full exhibit**, and we can submit the necessary copies tomorrow upon our return to the office.

What was received by the Council was not a full exhibit. Why it was not submitted *in toto* will soon become obvious. Apparently, the intent was to claim the study minimizes the risks of panel fires and it is thus acceptable for the petitioner to ignore the Fire Marshal's identified fire code violations. A careful reading of the full outstanding, comprehensive document suggests the **missing 295 pages** are yet **another intentional omission**[14] on the part of the petitioner. [At the same hearing the petitioner tried, during cross examination, to make it appear the Fire Chief's failure to sign the Fire Marshal's letter to the Council was meaningful. Anyone reading the Fire Chief's separate letter[15] to the council would realize how absurd such a contention is. In his letter, the Chief defers to the Marshal's greater expertise and training.]

The German document is dated, an English translation of a 2015 study. Since PV installations roughly double every two years, we can assume considerably more PV panel fire incidents have accumulated in the intervening years. Page 60 of the document shows an almost exponential rate of increase in PV panel fire incidents, coincident with the increased numbers installed. The authors caution that they are not omniscient (page 52): "While far from recording all incidents, the analysis is probably **the most comprehensive published compilation to date**." We concur.

We should all be grateful to the petitioner for bringing this valuable document to the attention of the Council. It is clear why the U.S. Department of Energy saw fit to translate this extensive body of research into English. A core part of the DOE's mission is to research and ensure safe practices for energy production. The study's numerous high-resolution color photographs of fire damaged PV panels and associated components are compelling in themselves. While the petitioner argues this study proves PV panel fires are rare (which we would argue with), that is not the point. As Mr. Silvestri noted in the February 21, 2019 hearing, "When we try to quantify things I don't really know what small is." The point of fire safety

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[13] https://www.energy.gov/sites/prod/files/2018/10/f56/PV%20Fire%20Safety%20Fire%20Guideline_Translation_V04%2020180614_FINAL.pdf Because such a small portion of this extensive study was submitted by the petitioner, we wish to preemptively address any effort to maintain the Council's decision must be confined to only the facts contained within those 8 pages, and be forced to **pretend** the other 295 pages do not exist. Since the proposed facility would be placed in the Real World, not a Pretend World, and those of us residing in the former do not possess the luxury of picking and choosing the facts used to make decisions of public health and safety, this would be a vapid argument.

[14] As we note elsewhere, intentional omissions are indistinguishable in their subversion of the truth seeking mission of the Council as are naked lies.

[15] ". . . the concerns detailed in the letter are those of the Fire Marshal as **the Authority Having Jurisdiction**. The Chief Officers of the KVFC will not be taking a position on this project but will rather **defer** to the **appropriate** state / local code officials and the applicable requirements for approval." Translation: this is a matter of state law on which only a highly trained and certified Fire Marshal can legitimately (and legally) render an opinion.

analysis, and fire codes, is that when the uncommon occurs, our firefighters must be prepared to respond appropriately and safely for themselves and the public.

This study's findings are valuable in several key areas:

- Establishing how and why PV panels become involved in fires.
- Outlining the difficult, dangerous issues firefighters face when these electrical devices become engaged in fire.
- The chemistry of the PV panels, and associated environmental and health concerns.

Alleged rarity does not override statutory fire codes. If the petitioner proposes to sidestep fire codes, this is yet further evidence of its arrogant, negligent approach toward Connecticut statutes and our environment and safety. If a party thumbs its nose at basic fire codes, it can not be trusted to fulfill any of its other obligations under the contractual relationship they propose we consummate. A petition for a declaratory ruling is not a license to obfuscate, cut corners, rush or use the mails and wires to make material misstatements of facts, in a rushed effort to capture millions of dollars in RECs before they expire worthless on October 1, 2019.

The German study documented **over 200 incidents in which PV panels were engaged in fires that originated internally**, rather than from external sources. (Externally caused PV panel fires were also studied, but will not be explored here. We do note the 2012 brush fire which occurred right down the road in Chatfield Hollow State Park, discussed[16] in the town's Natural Hazard Mitigation Plan.) A fire marshal's statutory obligation is to approach the analysis of fire risk from the perspective of Murphy's Law: anything which can go wrong, will go wrong. If something has happened once, it can happen again. We all are familiar with fail-safe systems which failed. The Space Shuttle Challenger was not supposed to fall out of the sky, but it did. The Space Shuttle Columbia was not supposed to fall out of the sky, but it did. The Twin Towers were not supposed to fall down, but they did. First one and then another Boeing 737 Max planes fell out of the sky, killing a total of 346. Once Humpty Dumpty inevitably falls, it becomes extremely difficult to piece back together the environmental pieces. A fire marshal must consider not only Murphy's Law, but its corollaries as well:

- When one thing goes wrong, everything goes wrong. (aka Drucker's Law)
- The longer the timespan, the greater likelihood everything which can go wrong will go wrong.
- Mrs. Murphy's Law: Everything will go wrong when Mr. Murphy is out of town.

Nature destroys almost all man's creations over a long enough timeline[17]. The concern here is how much can be foreseen to be at risk of being destroyed over a reasonable timeline, perhaps a century or two. Enough natural disasters have occurred in that neighborhood and region over less than the past century alone that the risks which we are attempting to quantify here are not trivial. Rather than apply Murphy's Law, the petitioner essentially requests the Fire Marshal use Yhprum's Law (Murphy spelled backwards): everything that can go right will go right. By law, this approach to fire risk analysis can not be used. Introducing this German exhibit as evidence of a low statistical likelihood of PV panels exhibiting fire risk underscores the petitioner's Yhprum's Law approach, the precise opposite of how professional fire analysts are trained to (and required by statute to) act. This was the same fatal conceit exhibited by NASA bureaucrats and Boeing executives, with tragic results.

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[16] "In the spring of 2012, headlines on the local network television stations such as, "Mar 28, 2012 – Brush fires have been reported in East Haddam, East Windsor and Fairfield," were common. The most recent brush fire in Killingworth was in April 2012. "Brush fire reported at Chatfield Hollow state park." [WFSB Website, April 29, 2012] Several fire departments from surrounding towns worked together to put out the fire."

[17] This truth can be considered the ultimate proof of Murphy's Law.

What does the German study say about fire/electrical safety and what else is there to learn in the 295 pages not submitted? Quite a bit that is useful:

Page 8: In 2006, individual cases of **electric arcs** and their extension to roof constructions could already be observed. In 2008 and 2009, reports on PV component fires increased in frequency. In June 2009, larger **fire damage originating from what was then the world's most powerful PV roof system** in Bürstadt (Hesse) caught great public attention and became a "hot topic" in the order of business.

Long-term studies of PV systems found **burn and overheating marks** on various PV system components. The **flaws** discovered in inspections of the systems, **such as damaged or discolored modules, weathered cables, local fusion in junction boxes and improper installations**, as well as **fire incidents of various degrees of severity**, have led to a drastically increased awareness of the safety aspect of PV systems, especially roof-mounted systems and building-integrated PVs (BIPVs). In addition to economic and **environmental considerations**, this aspect plays a fundamental role in the acceptance and further spread of photovoltaics.
. . . Another aspect is the **safety of emergency personnel and firefighters in particular**.

Page 37: Repeat inspections of the system must occur at appropriate intervals, so that any deterioration of safety conditions will be detected before damage to people or property occurs.
. . . To close this gap, DIN VDE 0100-712 is currently undergoing expansion, and will possibly **recommend maintenance intervals between two and three years**.
. . . **Regular maintenance** measures are the precondition for undisrupted and safe operation of the system. Faulty components or installations, environmental effects and general aging processes can **lead to local overheating over the course of the operating period and in the worst case cause electric arcs**.

Page 58: Past discussions on fire hazards from PV systems have focused on the supposedly more critical DC currents. Owing to the numerous electrical connections, **the many components exposed to weather and the self-stabilization of any electric arcs** given the current source characteristic of the solar cells, the **risk of fire emergence in the PV generator sector is estimated to be significantly higher than in the AC part.** [*see below on the time of year and time of day internally generated PV panel fires are most likely to occur*]

Page 110: 4.2 **Electrical hazard for rescue workers**
Hazards from **electric shock** during firefighting operations at PV systems must be considered in various scenarios and appropriate measures taken to protect teams and equipment as well as any other persons, animals and the environment from electrical hazards.

Page 116: **Photovoltaic systems are combustible** because of their polymer content (see section 3.1). 4.6 describes in detail the possible **toxic emissions from PV system fires**. In fires involving a PV system, the **release of respiratory poisons, also in concentrations exceeding limits (maximum exposure tolerance levels) must be expected**. Depending on the plastics being used, **highly toxic and caustic parts (e.g. hydrofluoric acids (HF)) may occur**

Page 118: PV systems are currently designed for maximum system voltages of 1,000 V DC . . . The risk to people comes not directly from the voltage but from the electric current . . . This **current**

can have physiological, physical and chemical effects, depending on the current path through the body, the current intensity, the period of action and also the type of current

Page 120:

3. Sector DC-3 / AC-3: In this sector, **severe involuntary muscular contractions** are to be expected. In addition, **breathing difficulties**, reversible **cardiac arrhythmia** and muscular cramps may occur.

4. Sector DC-41…4 / AC-4.1...4: Pathophysiological effects like **cardiac arrest**, apnea and cell

damage are to be expected. The probability of **ventricular fibrillation** increases with the current intensity and duration.

Page 123: As is well known, **extinguishing foam increases the electrical conductivity of water** and may not [*emphasis in the original*] be used for fires in live institutions [*sic*, installations?].

Page 128: As expected, the comparative measurements with the **use of a foaming agent showed somewhat higher currents than with water**. [This refers to extensive tests which were conducted to quantify the magnitude of the electric current firefighters would be subjected to when spraying water (or foam) on electrically hot PV panels.]

Page 130: The situation is different **with the use of foam**, . . . **a conductive covering forms on the ground**. Foam sprayed past the electrode and also running off onto the electrode forms possible **bypass connections to the spray jet** [and therefore into the firefighter's body].

Page 146: Uncertainty still prevails today about the emission level of a PV system in case of fire with partial or even complete destruction of components. Different types of plastic and other combustible materials as well as, in small levels, **toxic heavy metals form part of any PV system**. A possible **release of gaseous toxic substances under the effect of heat in a fire is therefore incontestable**. . . . These issues comprise the possible **additional hazard to firefighting personnel or other people in the vicinity of the fire source** from toxic gas emissions, possible **effects on the soil** from massive amounts of quench water and also the possible **spread of toxic gases or soot** particles because of thermal and/or weather-related motions of the air **beyond the immediate neighborhood.**

Page 147: . . . severe damage to the solar modules from hail, direct lightning strike or fire, for example, may lead to the release of pollutants in "small" amounts. . . Previous studies primarily concerned thin-film modules on a cadmium telluride basis (CdTe), since **metallic cadmium and cadmium compounds are classified as severely toxic** in many respects: namely as carcinogenic, mutagenic and harmful to the fetus, and moreover have the dangerous property of accumulating in the body so that multiple exposure to very small doses can already cause serious health damage [49]. This must be considered when assessing the risk to firefighting personnel. The risk of absorption comes mainly from inhalation or swallowing. **Cadmium is also severely hazardous to water**. The possible entry into the soil through the quench water must therefore also be regarded as very critical.

Page 152: The risk consideration for firefighters represents a special case. **Rescue workers wear respiratory protection when operating in the vicinity of a PV system.** An estimation of the concentrations of toxic substances at distances less than 100 m should be made

Page 153: depending on the technology the PV modules contain numerous materials that in part are also classified as **severely dangerous to health even in small amounts.**

Page 170: Chemical analyses
The following tables list the measured values for each substance referring to a specific unit. The gas analysis refers to one standard cubic meter of smoke gas, while the residue analysis refers to one kilogram of fire residue and the quench water analysis refers to one liter of extinguishing water.

Table 4-29: Average smoke gas concentrations from c-Si module

		Test 1A	Test 1B	Test 1C
Arsenic	(µg/m³)	1.1	0.8	0.1
Lead	(µg/m³)	50	630	1,010
Cadmium	(µg/m³)	**6.5**	**60**	**77**
Selenium	(µg/m³)	24	10	9.8

Table 4-30: Average smoke gas concentrations from CIS module

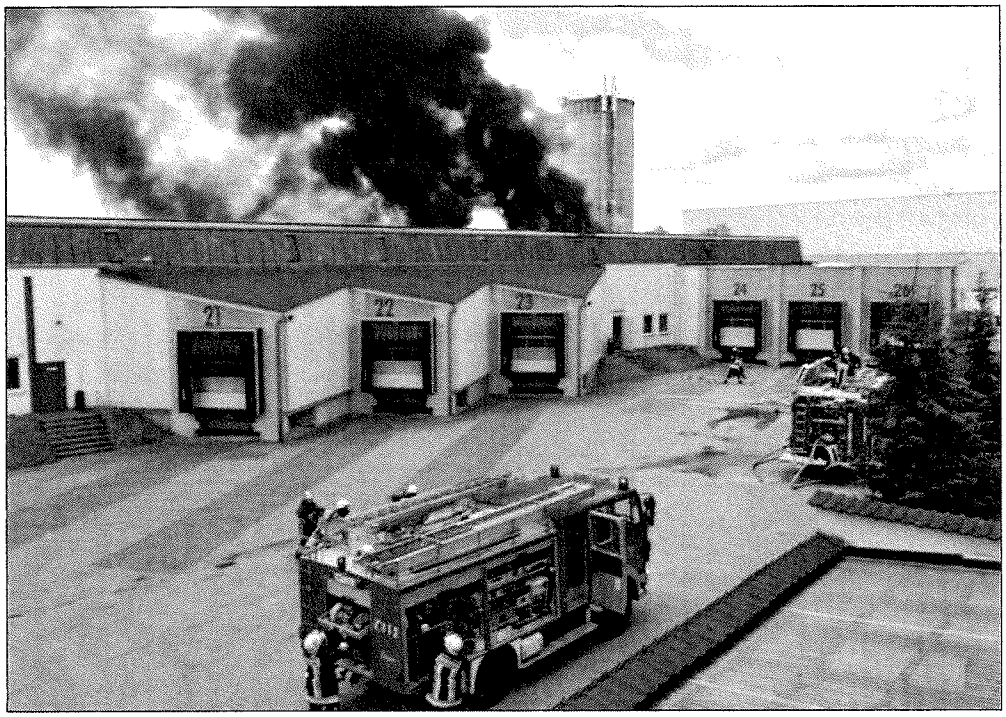
		Test 2A	Test 2B	Test 2C
Arsenic	(µg/m³)	1.5	1.6	1.0
Lead	(µg/m³)	250	270	480
Cadmium	(µg/m³)	**12**	**14**	**34**
Selenium	(µg/m³)	4.8	40	8.0

Table 4-31: Average smoke gas concentrations from Cd-Te module

		Test 3A	Test 3B	Test 3C
Arsenic	(µg/m³)	0.3	0.2	0.2
Lead	(µg/m³)	34	120	1,330
Cadmium	(µg/m³)	**9.9**	**37**	**48**
Selenium	(µg/m³)	4.2	4.7	2.2

The tables above, for three different types of PV panel technology, are truncated to focus on the chemicals of greatest concern. We would urge consulting the entire extensive document for further details, including the graphs of soil concentrations of cadmium and lead resulting from simulated fire conditions. The information contained in these tables is intentionally buried by the PV panel industry. American firefighters are trained to approach PV panel fires with respiratory equipment and to evacuate surrounding neighborhoods.

We find it instructive to include here but one of the numerous photographs[18] contained within the German study.



To summarize from the extensive German study: Murphy's Law, and its corollaries, would appear to be confirmed. It should be noted that this analysis does not consider natural disasters (with the exception of lightning) and their role in triggering fires. The study identifies one damage source which is not often provided sufficient attention - Page 58: "External factors are primarily **animal bites**, individual strikes by lightning . . . " The German study is a treatise on Murphy's Law in the realm of PV panel fire risk.

Do we have any idea which brand or type of panel the petitioner will install into our environment?

> 3:107:17 THE WITNESS (Colavito): We have not selected a specific module for use on this project yet.

It is therefore impossible to guess which PV panel technology they will select and whether the potential environmental impact might be substantially adverse in the event of a fire, natural disaster or other scenario. Maybe the petitioner has located a new type of PV panel technology which does not contain the cadmium and other toxic substances found in the panels tested by the Germans, but we have no way of confirming this.

Two facts brought out in the study are significant: 1) Panels internally igniting occur sooner, rather than later in their lifespans. The obvious conclusion is defective manufacturing leads to PV panel fires.

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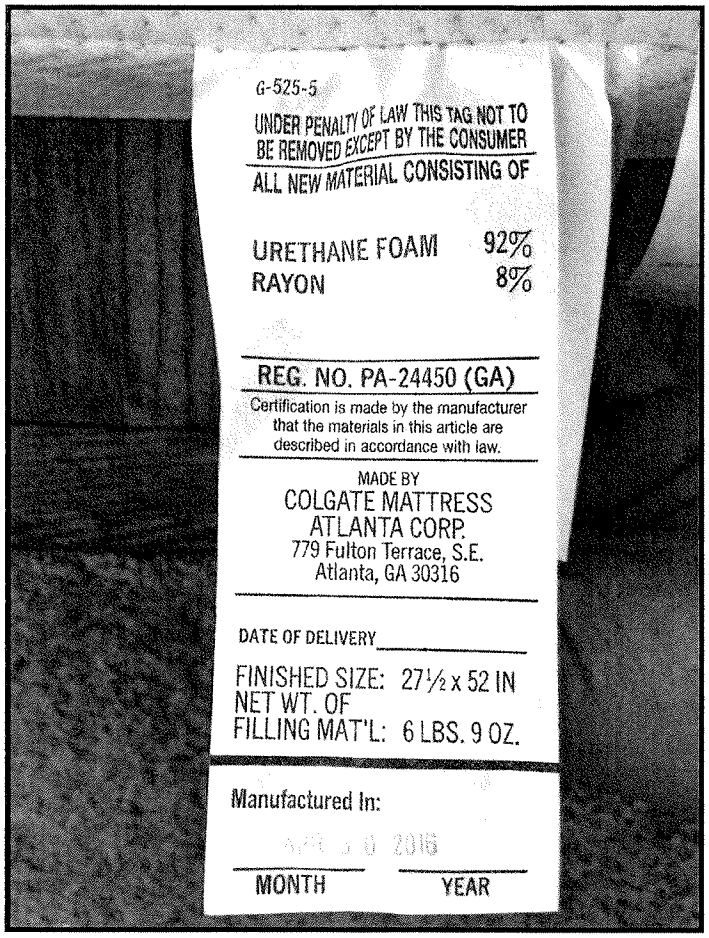
[18] Found on page 1 of the study and hyperlinked to its origin here:
https://www.photovoltaik.eu/article-440918-30021/tauber-solar-und-bp-solar-streiten-weiter-.html
https://www.photovoltaik.eu/Cache/GENTNER/10021/BrandPhotovoltaik-NIX-1_NTM0NDI0Wq.JPG

This is essential information in light of their petitioner's intent to utilize Adani panels. The quality control of the panel manufacturer is critical. 2) Internally generated PV panel fires are most likely to occur during peak energy production, closest to the middle of the day and the summer solstice. The obvious conclusion is that cheap, defective components will fail when stressed.

Let us provide a hypothetical scenario from the pages of Murphy's Law: During an ice storm, a propane or gasoline tanker skids off Route 80 and plows into the panels located close to the edge of the road. The truck explodes, shattering and scattering panels, many of which continue to be electrically hot. The fire department is delayed in reaching the site due to downed trees. There is no water source on site, so any water they are able to bring is quickly exhausted. Surrounding residents are unable to evacuate because of the icy condition of the roads. Not only must the fire engaging the panels and surrounding trees be addressed, but also the flaming truck must be pacified.

Contrast these conditions with those confronting the firefighters in the photo above. The firefighters above must deal with an obviously toxic smoke plume and electrically live panels, but have the benefit of being able to drive directly to the fire and the ability to evacuate neighboring residents, while working on solid, level ground devoid of ice and with access to a presumably adequate water supply. In our hypothetical, all these positives become negatives. For these reasons and many more, the Fire Marshal has made it clear he is required by law to deny his approval.

The photo of a mattress tag below contains the sort of basic information the public requires before allowing the installation of industrial components in a fragile ecosystem. Abuses of the sort witnessed during the process of this petition will accelerate the date when such mandates become legislated. We know more about the innocuous contents of dog beds than the details the petitioner is concealing about the contents of its PV panels. The petitioner is obviously intent upon keeping all knowledge of their panel contents from the public. For good reason.



It is important to emphasize the German study is adamant (due to its extensive testing) that the use of foam on PV panel fires creates dangerous conditions for firefighters and <u>it is not to be used</u>. Foam increases electrical conductivity, increasing the electrocution risk. We elect not to discuss the other significant deficits associated with foams, including their extreme toxicity to ecosystems (due in large part to their fluorine components) and carcinogenicity. Firefighters experience cancer rates considerably greater than the average incidence, in part because of their use of foam. It also creates slippery conditions and obscures the ground, the last thing firefighters operating on uneven ground on the edge of wetlands and forest need to worry about. There are special training foams firefighters use that contain no fluorine, but these lack the effectiveness of those with these compounds. The German study makes moot the discussion of foam during the first hearing.

California's guidance for firefighters

Reproduced below is information from a document[19] entitled Fire Operations for Photovoltaic Emergencies produced in 2010 by the California Office of the State Fire Marshal. https://osfm.fire.ca.gov/training/pdf/Photovoltaics/Fire%20Ops%20PV%20lo%20resl.pdf

> 3.3.6 HazMat—**<u>Firefighter Inhalation Hazards</u>** Many hazardous materials used in the semi-conductor industry are also used in the construction of PV modules. These include: silicon, boron, **phosphorus**, **cadmium, tellurium, arsenic, and gallium**. Under normal conditions, these materials are sandwiched and sealed between a layer of glass and a **plastic** backing all of which are encased in an aluminum frame. During a fire involving PV

[19] https://osfm.fire.ca.gov/training/pdf/Photovoltaics/Fire%20Ops%20PV%20lo%20resl.pdf

modules the aluminum frame can easily deform or melt, exposing these materials to direct flame. **The hazardous materials then become dissipated in the smoke plume and may be inhaled by firefighters not wearing breathing apparatus.** Firefighters should also take caution when performing overhaul on and around PV

Recommended Practice The inhalation hazards from the chemicals inherent in PV modules engulfed in a fire or explosion can be mitigated as long as firefighters wear their SCBA's and personal protective equipment during a structural firefighting and overhaul operations. It is the decision of the Incident Commander whether or not the emergency constitutes **sheltering the population "in-place" downwind of the emergency**. Fire or explosion emergencies involving large number of PV arrays, as in a commercial application, may necessitate **evacuating downwind** of the emergency

There are **toxic inhalation hazard associated with burning PV modules due to the chemicals used to manufacture the modules.** Firefighters can be protected from these hazardous chemicals with the use of a Self Contained Breathing Apparatus (SCBA).

Connecticut's guidance for firefighters

Any fire fighting plan would be diminished by the proposal for vegetative screening along Route 80. Early detection of fires is critical for an effective response. A vacant property, concealed behind arborvitaes, means a fire would be unlikely to be detected until is is well advanced.

Connecticut has made available online[20] a 99-page document, Fire Fighter Safety and Emergency Response For Solar Power Systems, produced by the Fire Protection Research Foundation. Excerpts are reproduced below.

"a comprehensive national look at the needs of the fire service for credible information and best practices" . . . structural fires involving solar power systems can be one of three basic types depending on the point of ignition. These are: (1) an external exposure fire to a building equipped with a solar power system; (2) a fire originating within a structure from other than the solar system; or (3) a fire originating in the solar power system as the point of ignition.

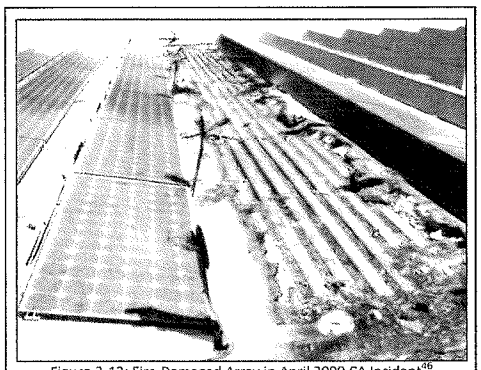


Figure 2-12: Fire-Damaged Array in April 2009 CA Incident[46]

Figure 2-13: Residential PV Fire in March 2010 MD Incident[48]

"Some of the materials used in solar power components are known to be a problem when they decompose in a fire, and although stable under normal conditions, they exhibit adverse effects if released as a vapor of fluid. For example, ***cadmium telluride*** *is among the most promising photovoltaic technologies, but when damaged by fire it introduces potentially* ***dangerous*** *levels*

[20] https://portal.ct.gov/-/media/CFPC/_old_files/ReportFFTacticsSolarPower51210pdf.pdf?la=en

*of materials such as **cadmium**, a known **carcinogen**. Examples of other materials of concern that may be involved in solar power components include gallium **arsenide** and **phosphorous**[21].*

*"Emergency responders are required to wear **full respiratory protection** (e.g., self-contained breathing apparatus) for any atmosphere that is possibly IDLH (immediately dangerous to life or health), and this should be the case when handling damaged solar modules involved in fire unless proven otherwise.*

"An important delayed hazard occurs when a nighttime building fire damages a photovoltaic system and compromises system integrity at a time when no energy is being generated by the system. If the system wiring sustains short circuits and damaged components, exposed live wiring and components may suddenly appear once the sunlight returns.

*"A photovoltaic array will always generate electricity when the sun shines. These units do not turn "off" like conventional electrical equipment. Firefighters on the fireground should always treat all wiring and components as energized. **Breaking or compromising a photovoltaic module is extremely dangerous** and could immediately release all the electrical energy in the system.*

The big question

Underlying this entire process is an overarching question: how will the public ensure compliance with the gratuitous promises the petitioner espouses while desperately seeking approval before **their RECs expire worthless on October 1, 2019**? This is THE question, superior by an order of magnitude to the nine questions enumerated below. The answer is: we won't. We have no way of ensuring compliance. If there was one thing established at the March 26, 2019 hearing, it is that the petitioner can not be trusted. Its employees could not get their stories straight, contradicting statements made at the previous hearing and within that hearing. Their sudden abandonment of the Adani brand of PV panels was not credible.

> 3:107:17 THE WITNESS (Colavito): We have not selected a specific module for use on this project yet.

This begs the question: if we had not pointed out the substantial concerns associated with that brand in our exhibits submitted on March 19, 2019, would they not still be using that brand one week later? Of course they would, and for that reason we proceed with our analysis and conclusions based on the panel brand stipulated by the petitioner for approximately five months. The only conclusion is the petitioner does not care what is placed in our environment in its pursuit of a handsome return on investment.

Truth finding

The role of the Council is to arrive at the truth, via an adversarial process, then render a decision. To be judge and jury. We have considered our purpose to provide the Council with sufficient information, gleaned from open sources and the petitioner's own submissions, to assist in their efforts to identify the truth. Every objection from the petitioner at the March 26, 2019 hearing was welcomed. The answers to our questions were largely known in advance. (We knew, for example, that there is no active recycling market for PV panels. In the past 15 years around 90% of the silver content of panels has been removed through technological advances. The consequence of this was to remove the financial incentive for recyclers.) **Our questions were intended to elicit objections**. Each objection was evidence we were over the target. We

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[21] https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+1169
"A dose of 15 mg of phosphorus can cause severe poisonings in humans and as little as 50 mg may be fatal." Phosphorus is one of the oldest chemical warfare agents.

pose this question: **were the objections intended to assist the Council in determining the truth or were they made with the opposite intent**?

The problem with lying is keeping your stories straight. When a conspiracy of actors participates in a lie, it soon becomes impossible for everyone to stay on the same page and avoid inconsistencies and contradictions of previous lies. When multiple lies are promulgated, it becomes impossible to coordinate such a conspiracy. Tabulated here are just some of these contradictions appearing in the record:

- Advocating the use of foam to fight PV panel fires before submitting the German study explaining why this is not appropriate and poses a heightened risk to firefighters.
- Asserting the Fire Marshal's concerns had been addressed before he submitted a letter stating nothing had been addressed.
- Claiming the property was zoned commercial before being forced to admit the truth.

One of the most significant issues raised during the March 26, 2019 hearing was that of Mr. Geppi's answer [22] to interrogatory 1-13:

> "The property is zoned "commercial" and the following is permitted in a commercial district: (1) professional and other business offices and financial institutions; (2) retail service establishments and retail stores not requiring a site plan review or special exception; (3) bakeries and confectionery stores; (4) post office and postal services. The minimum lot area in a commercial district is 1 acre."

We can not accept that this was a simple error, a careless mistake. There are two possibilities: 1) a town official knowingly supplied the applicant with false information or 2) the applicant knowingly submitted false information. (A third possibility is there was collusion between one or more town officials and the petitioner.) This is not the appropriate forum to attempt to learn the truth of this matter.

Curious behavior of the chief elected official

41 days[23] before the petition was received by the Council, the Killingworth first selectwoman sent, via U.S. mail, an enthusiastic letter of support, falsely stating the project is consistent with the town's Plan of Conservation and Development. Was this a **predicate act under the RICO statute**, which needs to be dealt with separately, either civilly, criminally or both? While we are not omniscient, we can not identify anyone locally she consulted with prior to this submission. This includes elected, appointed or volunteer town officials or employees, with one possible exception. **This underscores why the regulatory regime needs to be altered to require the basic, democratic, open provisions inherent in applications, as opposed to petitions**. Under a declaratory ruling petition, too much authority is concentrated in the hands of the chief elected official of the municipality. If that individual declines to act appropriately, problems arise. The first selectwoman has since endured the wrath of the great majority of her constituents. Normally, politicians go to great lengths to prevent this. She has also been conspicuously unresponsive and evasive to her constituents' concerns regarding this matter. Obvious questions can be posed, none of which we will attempt to answer here. Answers to such questions are best obtained under oath.

- What was the previous relationship between the first selectwoman and the property owner?
- Why was she so anxious to send her letter to the Council, 41 days before the petition arrived?
- How and when was contact made between her and the petitioner?
- Did she seek legal guidance prior to her submission? If so, from whom?
- Who, among the other selectmen and relevant town commissions, did she consult with before issuing the statement on the town letterhead?

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22 https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/pe1354-20181219-responsestointerrogs.pdf

23 The date of this letter will be explored below, when the timeline of events is developed.

- Did she not know this would outrage her constituents?
- Why did she keep the rest of the town in the dark for so long? It was 159 days after her support letter that a public informational meeting was hastily held, on a federal holiday three days before the first public hearing. This meeting was organized by the Killingworth Energy Task Force, because they, as did the rest of the town, had so many unanswered questions.
- Most significantly (as will be outlined below), was it mere coincidence her letter was **dated the same day as the PURA draft decision** to grandfather in existing RECs? A corollary to this question is if and how she learned of that decision, and if so, how was this communicated this to her?
- Why, at the February 18, 2019 "informational" meeting (which was recorded and held on the Washington's Birthday holiday) did she claim (when referring to her September 12, 2018 support letter) her opinion, issued on the municipal letterhead, was no more significant than that of any other Killingworth resident? The audience was not amused.

POCD Consistency

Regarding the petitioner's gratuitous claims of consistency with the state and municipal plans of conservation and development, here are the facts: The Killngworth POCD[24] mentions "solar" three times, twice in conjunction with the results of a survey of residents. There is nothing in its regulations to permit solar farms and the town's industrial zoning is on its opposite border. There are 156 mentions of "open space." "Forest" appears 48 times, "scenic" occurs 20 times. The POCD would appear to be entirely congruent with the comments and sentiments of the citizens at the February 21, 2019 public hearing. There are no mentions of "solar" in the state plan. The state plan[25] mentions "renewable" once, in passing. "Open space" is mentioned 13 times, "core forest" has 5 mentions. There are many ways the petitioner's claims of consistency could be described, but truthful would not be among these. Either these documents were never consulted, or if they were, an intentional effort was made to conceal. Either is not acceptable or legal.

RICO considerations

Transparent lies, sent by mail or wire with the intent to defraud, count as RICO predicate acts[26]. Several questions are relevant here:

- Was the second 1 MW ZREC **fraudulently acquired**, in clear violation of the program rules?
- Why did the first selectwoman **send** a letter on the town letterhead, stating the proposal was consistent with the municipal plan of conservation and development?
- Why did the petitioner state in **writing** the property was zoned commercial?
- Why did the petitioner state in **writing** the plan is consistent with the state and municipal plans of conservation and development?
- What was the reason for the petitioner **contacting** the municipal zoning enforcement officer in "April or May"[27] of 2018?
- Is there a nexus between the principals involved with this transaction and a solar farm installed at the town landfill of Woodstock, CT? If so, who or what is the bridge between the two, and were all

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[24] http://www.townofkillingworth.com/documents/2008/Kill_Town_Plan_2008_Final.pdf

[25] https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/kars/pe1354-20190319-karsexhibit-planofdev.pdf

[26] https://www.justice.gov/jm/criminal-resource-manual-956-rico-prosecutions-18-usc-1961-68

Violations of either Section 1341 or 1343 or both may be used by prosecutors as the predicate acts necessary to establish a RICO violation. See 18 U.S.C. § 1961(1)(B) ("racketeering activity" defined to include "any act which is indictable under . . . . section 1341 (relating to mail fraud), section 1343 (relating to wire fraud) . . . .").

[27] Testimony of Eric Partyka 3:122:11

parties to the contract consummating the latter installation fully apprised of all relevant facts and adequately advised and represented? Who paid for that town's legal representation, if any? Who represented whom? Was this contract signed more or less than four years ago?

Questions such as these, *inter alia*, seek answers.

The first question above is addressed within a 2014 PowerPoint presentation produced by the petitioner's attorney's firm. The relevant slides[28] are reproduced here, and clearly state large ZREC contracts are capped at 1 MW for a project. As shown in our exhibit[29] of the results of the 2016 auction, the petitioner possesses ZREC contracts totaling 2 MW. As correctly stated in the slides below, ZRECs are capped at "No larger than than 1,000 kW." **Ignorance of the rules is no defense**. We submitted as an exhibit[30] the settlement agreement between the principals behind the ownership of the property and the Connecticut Green Bank.

In the long documentary record (housed at both the Connecticut Green Bank and Department of Consumer Protection) leading up to that final agreement, said principals claimed confusion over the rules as a defense. We might anticipate a similar defensive strategy here. The lifetime value of the second ZREC contract acquired totals $2,332,500. (To put this value into perspective, this worth, over 15 years, is equivalent to 86% of the one-year value of all the large ZREC contracts awarded two years earlier - see second slide reproduced below.) 18 U.S.C. § 1346 and 18 USC §§ 1961-1968 potentially address the consequences arising from the fraudulent acquisition of RECs. The question arises as to the liability of not only those initially engaged in a fraudulent act, but also those knowingly perpetuating the consequences of, and benefitting from an initial fraud. What has escaped recognition is that under relevant Connecticut statutes, the final resolution of this matter might include the state acquiring title to the Route 80 property, potentially being able to add it to its extensive inventory of state forest and park holdings within that same neighborhood. We would rank the likelihood of this eventually to be far higher than this property ever hosting a solar farm.

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[28] Woodbridge Microgrid - Murtha Cullina LLP https://www.murthalaw.com/site/rte_uploads/files/Michaud.ppt

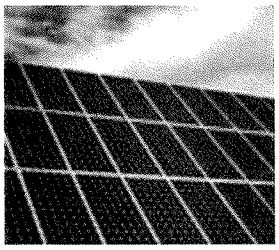
[29] https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/kars/pe1354-20190319-karsexhibits-resultsof2016recbids.pdf

[30] https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/kars/pe1354-20190319-karsexhibits-greenbanksettlementagreement.pdf

ZREC & LREC Program

MURTHA CULLINA

- **General Project Eligibility Criteria**
  - Class I renewable energy project
  - Located behind the utility meter
- **ZRECs**
  - No larger than 1,000 kW
  - Zero Emissions
  - May include Solar, Hydro, Wind
- **LRECs**
  - No larger than 2,000 kW
  - Must have low emissions
  - May include fuels cells and other low emissions Class I resources, plus all zero emission Class I resources



Z-REC & L-REC Program – *continued*

MURTHA CULLINA

Bid Selection Process

- Project bids are ranked by REC price, with the lowest bid REC price ranked first
- Projects are selected until the annual ZREC and LREC Program budgets are met for each utility:
  - Large ZREC Project (250 kW to 1,000 kW) Budget: $2.7 million
  - Medium ZREC Project (101 kW to 249 kW) Budget: $2.7 million
  - LREC Project (1 kW to 2,000 kW) Budget: $4.0 million
  - Small ZREC Project (1 kW to 100 kW) Budget: $2.7 million
    - Separate Solicitation under a utility tariff rider

Substantial adverse environmental impacts

In approval or denial of a petition for a declaratory ruling, the outcome hinges around the word ***substantial***. The Council must determine if the proposal will have an adverse impact on the environment and, if so, does that impact (or potential impact) rise to the level of substantiality. Not only must the Council determine if there will be an adverse environmental impact, but it also must consider Murphy's Law and foresee not only the impacts which **will** occur during the anticipated future, but also those which **might** occur in both the **physical** and **financial** universes should unanticipated events arise.

In order to help determine if potential or probable impacts rise to the level of substantiality, it is helpful to consider the antithesis, impacts all would agree to be insubstantial. An insubstantial impact to core forests and scenic areas would be if a property is a) not on the periphery of a state designated core forest area, b) is not situated along a waterway forming a key component of that core forest ecosystem and eventually that of Long Island Sound, c) contains few trees (as a percentage of the property's land area), d) is located in a zone designated for industrial use, e) is a mile or more distant from the nearest local and state designated scenic routes, f) is not comprised of any wetlands and g) is not fully visible from adjacent roads and residences. If a property met all of these criteria, most would agree the negative impacts associated with its proposed development would not be considered substantial, as intended by the statute.

But all these points essentially only apply to the physical location and condition of the property, and do not take into consideration points such as the chemistry of the panels or the lack of a nonfiction decommissioning plan. In order not to have a substantial adverse impact, the equipment the petitioner proposes to install on the property must be environmentally innocuous. And the consequences should a fire or natural disaster ensue must also be environmentally innocuous.

Our arguments focus around the following core areas:

- Chemistry of the solar panel contents.
- Recycling considerations at decommissioning and if and when panels became damaged or dysfunctional during their normal lifespans or during installation.
- Ownership of the project and the financial structuring of this ownership.
- Ownership of the property.
- The site selection process.
- Financial considerations, as they relate to ownership of the property and the project.
- The integrity and competence of the applicants.
- The integrity of the property owner.
- The integrity of the photovoltaic panel manufacturer.
- The proper role of municipal consultation.
- Force majeure events.
- The need for complete and public transparency.
- Failure to comply with minimal standards for a petition for a declaratory ruling.

The obvious question, existential to the approval or denial of this petition, is: what are the potential liabilities the Canadian corporate owners (funded to the tune of hundreds of billions of dollars of assets) seek to insulate themselves from? They are many. They are both environmental and financial. The latter must be of equal concern to the Council in its determination. The state must be protected from petitioners who are here for a quick profit. Standard Solar can be conceived of as a front for deep-pocket Canadian corporate entities, intent upon being subsidized by Connecticut ratepayers and American taxpayers to reap handsomes rates of return on their investment.

Murphy's Law and black swan events.

As the number and scale of solar installations in Connecticut increases exponentially, the likelihood of catastrophic physical and/or financial events impacting such installations increases proportionately. The likelihood of a negative or even catastrophic event occurring also increases proportionate to the lifespan of a project. The applicant suggests a lifespan of around 25 or 30 years. The space shuttle Challenger was not supposed to fall out of the sky, but it did, 33 years ago. The space shuttle Columbia was not supposed to fall out of the sky, but it did, 16 years ago. The World Trade Towers were designed not to collapse, but they did, less than 18 years ago. The 1938 hurricane left a trail of death and destruction in the area where this project is proposed, including the blockage of local roads, 80 years ago. A lot of unanticipated events will occur in a 30-year period. What we do know is that after Humpty Dumpty[31] falls, it is impossible to put the pieces back together again as they were prior to the fall.

Killingworth (as do all municipalities) has a Natural Hazards Mitigation Plan[32], produced at great expense (a federal and state requirement, funded through FEMA) and providing a sober and extensive analysis of the probabilities of the occurrence of adverse physical events and appropriate means of response. This petition omtis any consideration of how an electrical generating facility could be so impacted and the appropriate responses should this occur. **Any petition or application to the Council should require the applicant to produce a draft addendum to the municipality's NHMP**, including an analysis of how each of the identified potential natural disasters could impact the proposal and what the appropriate response from emergency services personnel should be. In the event of approval, the applicant should be required to compensate the municipality for the costs associated with updating its NHMP. More than any other factor, the failure to even acknowledge the existence of the town's NHMP[33] in this petition underscores how the current system has broken down and the acute and immediate need for a moratorium on Connecticut solar farms until new rules and guidelines can be established. At the March 26, 2019 hearing the petitioner testified to not having referenced the town NHMP (3:111:3), yet offhandedly declared "**xxxx**

Regarding high wind speed events, specifically hurricanes and tornadoes, it is important to realize the destructive power of wind increases as the cube[34] of wind speed. If wind speed doubles, the power increases eight-fold. The difference between the destruction caused by 100 and 200 mph winds is considerable. Our exhibits include photographs[35] from FEMA of the destruction wrought on Puerto Rican solar farms by hurricane Maria in 2017. Maria's sustained wind speeds[36] reached around 175 mph. This was not unlike the speeds attained locally in the 1938 hurricane. In Maria, many of the panels were stripped from their brackets, shattered and the brackets were twisted.

Below is an itemization of the sorts of information the petitioner would have learned from referencing the NHMP.

https://en.wikipedia.org/wiki/1938_New_England_hurricane

> *Approximately **600 people died** in the storm in New England*
> ***4,500 cottages, farms, and other homes were reported destroyed** and 25,000 homes were damaged. Other damages included **26,000 automobiles** destroyed and **20,000***

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[31] https://www.poetryfoundation.org/poems/46951/humpty-dumpty-sat-on-a-wall

[32] http://www.townofkillingworth.com/documents/2013/Killingworth%20-%20NHMP%20Final%20Draft%209-10-2013.pdf

[33] Under questioning at the March 26, 2019 hearing, the petitioner denied consulting the NHMP.

[34] https://www.worldstormcentral.co/storm%20destructive%20potential%20and%20winds.html

[35] https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/kars/pe1354-20190319-karsexhibit-photo-fema159846.pdf
https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/kars/pe1354-20190319-karsexhibit-photo-fema147099.pdf

[36] https://en.wikipedia.org/wiki/Hurricane_Maria

electrical poles *toppled. The hurricane also devastated the forests of the Northeast, knocking down an estimated* ***two billion trees*** *in New York and New England.*
Highest wind speed: ***162 mph***

How do firefighters access the property and its service roads if public roads are blocked by downed trees, perhaps for days? They don't. In the event of a fire in conjunction with blocked roads, how do local residents evacuate to a safe radius outside the smoke plume? They don't. For the information of the petitioner, Killingworth was directly in the path of the 1938 hurricane.

https://en.wikipedia.org/wiki/1953_Worcester_tornado

94 people were killed *over* ***10,000 people were left homeless***
the tornado entered Worcester and grew to a width of 1 mi. Damage was phenomenal in Worcester and in some areas ***equaled the worst damage in any U.S. tornado****.*
Houses simply vanished, with the debris granulated and scattered well away from the foundations. Entire rows of homes were swept away in some areas.
Baseball-size hail *was reported in a score of communities*
The farthest documented distance of tornado debris was an item that blew from Holden to Eastham on Cape Cod, a distance of 110 miles. Some debris was found in the Atlantic Ocean. This is one of the greatest such instances in a U.S. tornado.
winds close to 300 mph

https://en.wikipedia.org/wiki/Moodus,_Connecticut

The largest earthquake recorded for Connecticut was an ***intensity VII quake*** *on May 16, 1791 near Moodus.*

Moodus is approximately 13 miles from the property.

https://www.wunderground.com/cat6/deadly-high-winds-sweep-pennsylvania-connecticut

May 15, 2018 Giant hail set a possible state record in Connecticut
If confirmed, the 2.5"-wide hailstone at Granby, CT, would tie the state's unofficial record for largest hailstone, which occurred at Hamden, CT, on July 10, 1989. EF-1 tornadoes, 110 MPH winds.
https://www.nbcconnecticut.com/weather/stories/May-15-2018---Southbury-to-Hamden-Tornado-483123751.html

Missing discussions

Reference this petition for an example of a more complete effort:
https://www.ct.gov/csc/lib/csc/pending_petitions/petition_1137/pe1137_filingwithexhibits.pdf
A number of significant areas are not discussed in the original petition. Their omission suggests either the applicant is inexperienced and should have anticipated these needed to be included in a complete submission, thought there was no need to do so, was rushed, or some combination of these factors. Either is troubling. The deficiencies are numerous and fatal to this petition. Itemized below are obvious and necessary components of **any** petition for declaratory ruling, not just this one. The omission of elementary items such as these waste everyone's time, including that of the Council and the public.

- Mapping of core forests; prime farmland; scenic roads; municipal zoning; LIDAR and high resolution photo imagery (see below), proximity to nearby firehouses;

- Screening plan: It was only upon prodding from the Council that the petitioner patched together a hasty plan for vegetative screening. We oppose this because it is antithetical to prompt fire detection.
- Discussion of the site selection process was omitted from the petition, when the criteria and process used should be a mandatory component of **any** petition or application.
- Itemization of the chemicals within the panels was absent. Every mattress and piece of upholstery has a tag listing the chemicals they contain. Yet the applicant proposes placing these panels into a sensitive ecosystem without having (or without being willing to divulge) any idea what is in them.
- The petition was not accompanied by any mapping of **two key considerations** necessary for approval of a petition for declaratory ruling: core forests and proximity to scenic roads. We submit the need for this was so obvious that it can not have been an accidental omission. Accompanying our request for party status was a map of the state's designated core forest in the neighborhood of the property. This is hardly difficult data to locate.
- No natural (or manmade) disaster planning nor mention of Killingworth's NHMP.

Material omissions

There are numerous examples throughout this brief of obvious material omissions. That petitioners think it is acceptable to omit such details is something which should never be permitted to happen again. This is a waste of time for all involved. The Council should not need to issue interrogatories requesting specifics regarding the firefighting plan, screening, stone walls, energy production decay rate of the panels, etc. Such items are not optional. These examples provide evidence of why a moratorium is required to allow the Council to create a primer of minimal items of information which must be considered prior to consideration of the merits of a petition. Omissions are less obvious, but no less offensive to the Council's search for the truth, than explicit material misstatements.

Material misstatements

Some of the more obvious examples:

- Proposal consistent with CT and Killingworth plans of conservation and development.
- Property zoned commercial.
- Fire Marshal's concerns satisfied.
- Panels do not contain hazardous/toxic substances, except for lead (which is bad itself).
- This region of Connecticut does not experience the types of weather which could destroy the panels.
- Two large ZREC contracts could be applied to this single property.

For these reasons this matter should be referred to the Attorney General for prosecution.

Financial considerations

In our application for party status we began with the obvious: 1) The only reason anyone would attempt to place this project on this property is because of its proximity to three-phase power lines. 2) Combine this fact with the exceptionally valuable ZREC contracts, and the property becomes a field of dreams for deep-pocket investors. The principal downside was the looming ZREC expiration and the inability of the property to host sufficient panels to maximize the value of the ZREC contracts. These last two points explain both the rushed, shoddy nature of everything associated with this petition and the refusal to modify the plan in any meaningful way that might reduce the number of panels, and thus reduce the return on investment. The quotation below underscores the significance of the first point above:
https://www.landmarkdividend.com/solar-farm-land-lease-rates/

> *One of the most important factors taken into consideration during the evaluation process is the property's* ***proximity to*** *important infrastructure like roads and* ***grid connection points****. Infrastructure components such as these are incredible* [sic] *expensive to create, and require careful navigation of local regulations, so developers are highly likely to avoid selecting land that doesn't already have these things in place. It's safe to say that* ***if the property in question is too far from the necessary infrastructure, or the infrastructure simply doesn't exist, it is very likely that the property will be declared unfit for the development of a solar farm****.*
>
> *On average, the solar farm profit per acre is somewhere between $21,250 and $42,500 per acre on an annual basis.*

No actual decommissioning plan

The applicant proposes submitting a bond in the amount of $375,000 to cover decommissioning costs. The latest reported number of panels is 6,552. The applicant should be required to submit an accounting of how this amount of money is proposed to cover the costs of panel recycling and site remediation. The only accounting the applicant had provided is that the bonded amount would represent $15,000/acre. This is an absurd method to account for this expense. Straightforward and obvious questions remain.

- How much of this amount is for recycling the panels?
- What is the individual cost per panel for recycling?
- What is the facility that is intended to be used for recycling?

When queried regarding these basic questions at the March 26, 2019 hearing, the petitioner's response was crickets. Which is better than objections, but still does not instill confidence the petitioner either a) possesses an actual decommissioning plan or b) intends to follow through on its contractual obligations in this regard. It is obvious neither of these elements are nonfiction. The petitioner essentially confirmed there is no current viable market for PV panel recycling, describing it as "immature." But they are certain one will exist in the future. The only certainty is the petitioner does not care about decommissioning.

e? THE WITNESS (Colavito): At the moment, yes, it is not as mature as 30 years from now.

Colavito suggested these panels, now classified as toxic waste in an increasing number of states, might one day prove to be of positive value to recyclers, who would pay for their contents:

> 3:127:23 . . . cost will be de minimis. Potentially they would pay me to recycle my modules similar to the way they do soda bottles today. So I think that's not a relevant speculation.

The difference between the Tooth Fairy and imaginary future PV panel recyclers is that one pays, the other does not.

The obvious question: how can anyone know the future cost of this currently nonexistent market? This underscores the foresight behind Mr. Stockman's suggestion at the February 21, 2019 hearing that there be an annual review of decommissioning costs, with periodic payments into an account calibrated to inevitably changing market realities. Since there is no active PV panel recycling market existing today, we suggest the bonding be set considerably higher than the proposed $375,000.

Contrast the nonresponsive nature of the petitioner's March 26, 2019 remarks with its attachment CSC-2-93[37], submitted with the reply to the second set of interrogatories. The attachment purports to be a decommissioning plan. One thing it carefully avoids is any mention of where the panels might be recycled or a budget for how much this might cost.

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37 https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/pe1354-responses_set-two-interrogatories-20190206.pdf

One thing which has gone unnoticed is the bond for decommissioning will not mature for 25 years. See petitioner's response to A-CSC-1-14. What happens after year 15, when all the investment tax credits, RECs and other benefits have expired, the panels have degraded and are producing less energy than at installation, and the wholesale electricity market has declined, and then a natural disaster occurs and destroys most or all of the panels? Would it be necessary to wait until year 25 for the performance bond to mature, in case the petitioner walks?

PV panel contents

During the February 21, 2019 evidentiary hearing, the applicant's head of engineering stated that he thought there might be silver in the PV panels, then supposedly being sourced from Adani:

> 1:52:2 There's really very few chemicals or very, very small quantities, trace amounts in -- in solder for the electrical connections. **I believe** it's silver solder paste in most PV modules. The modules are extremely resilient. They're **warranted** for 25 years. As I stated earlier, if a module is to be impacted by a tree branch or anything else it does not splinter or explode. It's tempered glass and it stays together. It's not -- **I can't foresee** a way that the materials from the PV module can actually enter the ground unless they were buried into the ground intentionally.

Several points are obvious. Since at the subsequent hearing the petitioner suddenly did not know what brand of panels will be installed, there is no way for us to know about any warranty. There are of course, obvious ways the contents of the panels can end up in the soil, one need only reference the German study to learn how. Nor does it matter if tempered glass is used because it certainly does not provide a seal upon impact and the contents are then exposed to leaching.

At that hearing Colavito appeared unprepared to state with certainty the contents of the panels. By the March 26, 2019 hearing, the petitioner appeared to have subsequently acquired a definitive knowledge of the panel contents.

> 3:128:11 Would it be accurate to say there's any cadmium in these panels? THE WITNESS (Colavito): No, there is no cadmium in these modules.

The problem with this statement is the German study examined the chemistry within the three modern types of PV panels being produced, and all contained cadmium. Unfortunately, the petitioner undermined its definitive knowledge of the panel contents when it revealed minutes later it possessed no idea who the manufacturer of these hypothetical panels might be. It might have been more credible to simply maintain the dog ate the paperwork. As illustrated in one of our exhibits (image of a mattress tag), every mattress, pillow, cushion and dog bed is labeled with the chemistry of the contents, name of the manufacturer, address of the manufacturer, weight of the contents and date of manufacture. Yet most would consider mattresses on the very low end of the toxicity scale, possessing zero environmental consequences. The public has a far greater interest and right to know with certainty the chemistry of what will be placed into our environment that it does for the bed the dog which ate the petitioner's paperwork sleeps on.

Here is the reality: the entire thrust of the industry in recent years has been to remove almost all silver content from PV panels (on the order of a 90% reduction in the past 15 years), as this was the most expensive component of photovoltaic panels. This has negatively impacted the recycling side of the equation. Previously, the silver content of panels had been worth in the vicinity of $50 each, now it is negligible. There is no longer any incentive for anyone to recycle panels, thus there are few, if any, facilities to accept them. They can not be disposed of in landfills due to their leaching[38] of cadmium, lead and other toxic metals. For the same reason they can not be sent to incinerators. A burgeoning solar panel recycling

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[38] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5607867/
Leaching of cadmium and tellurium from cadmium telluride (CdTe) thin-film solar panels under simulated landfill conditions

crisis is developing, with no solutions on the horizon. The possibility of stacking them in storage containers has been raised. Many are already being warehoused and stored in other contexts, with no place to recycle them. Photovoltaic panels are emerging as the the early 21st Century version of the late 20th Century dilemma regarding where to store nuclear wastes.

It is a positive sign the petitioner admitted at the March 26, 2019 hearing that the panels (albeit imaginary ones, which they claim they have no idea who the manufacturer will be) contain lead. The quantity of lead per panel they suggested translates into many dozens of pounds of lead across the thousands of panels.

> 3:108:13 . . . the most dangerous material within the module is lead solder, which is in a very small amount, the amount of lead solder in a PV module is less than one-half the lead in a typical 12 gauge shotgun shell, an entire PV module. And one module is about 1/750th of the lead in a single car battery,

We were unaware disposing of car batteries in a fragile ecosystem is acceptable. We will leave it to the Council to determine if the March admission to the presence of lead essentially contradicts the testimony given in February. We do not need to climb out onto a limb to conclude the German study negates the March testimony. Contrast this testimony with that provided in February:

> 1:57:18 MR. SILVESTRI : . . . Is there lead solder involved in any of the system? THE WITNESS (Colavito): **I cannot confirm if there is or is not** in the PV module. **I assume** there's some lead solder in the inverter within the printed circuit boards and electrical components inside the inverters, but I would have to check into that to confirm for you that -- **very small amounts** in general compared to the entire system. MR. SILVESTRI: Yeah. When we try to quantify things **I don't really know what small is**, . . .

Anyone who bothered to glance at the Killingworth Natural Hazard Mitigation Plan would realize there is a good chance a disaster of powerful intensity will impact the site over its lifespan and shatter the panels, unleashing their contents to the Hammonasset River watershed and beyond. Absent any natural disaster, PV panels have been found to leach their toxic contents from simple rains. Microcracking of the panel glass also contributes to leaching.

Uncertainty morphing into certainty

Let's review: At the February 21, 2019 hearing Mr. Colavito claimed a vague familiarity with the chemical contents of the panels. By the following hearing this vagueness had crystalized into certainty, in spite of suddenly being unable to identify a panel manufacturer. At that same hearing the petitioner introduced into evidence 2.6% of a study which provides definitive guidance on panel contents. Somehow those pages of this study were not included in the submission. Yet the petitioner refused to submit a panel to the EPA for testing. But they were willing to submit a "study" churned out by what appears to be little more than an industry public relations shop[39].

The center makes it clear that only industry insiders are welcome on its board.

There is a larger issue lurking under the surface here. Not only is there so much the petitioner pretends not to know, but in those instances such as this, when they claim to know something with certainty, it turns out to be suspect.

> 3:107:21 . . . the California Department of Toxic Substances Control yesterday, as a matter of fact, they had a informational meeting that was broadcast online about their new regulations regarding waste photovoltaic modules, and they're going to add them to the list of hazardous waste. So you're not aware of anything like this? THE WITNESS (Colavito): **I am aware**[40] of a report[41] by the North

[39] https://nccleantech.ncsu.edu/about-us/advisory-council/

[40] Note the failure to answer the question.

> Carolina Clean Energy and Technology Center which receives funding from the US Department of Energy, and they published a report titled Health and Safety Impacts of Solar Photovoltaics in May of 2017, which we would like to admit to the record as a -- well, it specifically says that PV modules are not toxic, and there's very minimal impact, and all potentially toxic materials, which namely the most dangerous material within the module is lead solder, which is in a very small amount,

Let's examine this report and the entity which produced it. The North Carolina Clean Energy and Technology Center exists "as a resource for renewable energy programs and information . . ." If they were to reveal their primary subject is toxic, and the solar energy industry in North Carolina gets eliminated as a result, they are out of jobs. Their funding includes "fee-for-service work." An industry publication provides additional details, gleaned from an interview[42] with the NCCETC executive director Steve Kalland: ". . . from our research, the panels are able to be landfilled as non-hazardous waste." Which is news to many jurisdictions, including the states of California and Vermont and the EPA. The latter performs Toxicity Characteristic Leaching Procedure (TCLP)[43] testing on panels to determine if they are safe to deposit in landfills.

Kalland earns an annual salary of $100,908[44]. It is unclear if he is allowed to receive outside income or if the fee-for-service work the Center performs creates a way for him to do so. Our point is he is hardly a disinterested third party. The Center may be an industry mouthpiece. We do note that they solicit donations through the N.C. State Engineering Foundation, Inc. We would imagine that if the PV panel industry made donations, they would not be rejected.

Timeline of the project size

- Prior to petitioning, the applicant had contemplated a 2.41 MW facility. Upon submission of the petition on October 23, 2018, this was down to 2.35 MW, the same value it had been the previous day when abutting property owners were noticed. The petition called for the installation of 6,732 panels producing 350 watts each[45]. 6,732 panels x 350 watts = 2.35 million watts.
- On October 26, 2018, notice was sent to the Killingworth first selectwoman and the zoning enforcement officer, describing the proposal as a 1.98 MW installation. This is 15.7% below where it had been three days earlier. This was obviously a change of the megawattage calculation from DC to AC current. Yet the statute contains no reference to which criteria should be used. There is **no statutory basis** for either, the 2017 statute simply states DEEP and the Department of Agriculture must sign off on petitions for projects exceeding 2 MW.
- In the applicant's December 19, 2018 response to the first set of interrogatories, it was reported that the number of panels had been reduced to 6,552 and they were then described as 355 watts each. In the cover letter of the applicant's attorney, it was stated:

  > The project size has been reduced from 1.98 MW AC [*i.e.*, 2.35 MW **DC**] to 1.92 MW AC [*i.e.*, 2.33 MW **DC**]. The reduction in the size of the project was necessary following completion of

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[41] https://content.ces.ncsu.edu/solar-panel-materials-end-of-life-and-regulation

[42] https://energynews.us/2017/08/18/southeast/qa-north-carolina-researchers-confront-health-fears-about-solar/

[43] https://www.epa.gov/hw-sw846/sw-846-test-method-1311-toxicity-characteristic-leaching-procedure

[44] https://www.newsobserver.com/news/databases/public-salaries/article11863496.html?appSession=0TKMG4Z1763CE987S64B0DJK1199Z000HM4DW21XYV3ZL95GC9Z210K464E99B3V2UZTT1N13C314IC7ZG8722KKDFR7U8UZC3A6F8ZR97ADM59T1DAW757DI457FH4O&RecordID=158492&PageID=8&PrevPageID=2&cpipage=1&CPIsortType=&CPIorderBy=&cbCurrentRecordPosition=1&Mod0LinkToDetails=True

[45] Petition 1354, page 5.

further surveying of the property.

The facility is designed for 1.98 MW AC.

- By the time of the February 21, 2019 hearing, this had shrunk to 1.92 MW, a further loss of 3% from the previous value. Was even one panel removed from the plan due to the Fire Marshal's objections? Not that we can discover. It appears the sole reason for the reduction was obtaining an A2 survey which revealed physical limitations.
- At that hearing, the applicant stated (without explanation) they had chosen to use 355 watt panels, rather than the 350 watt ones in the original petition. They stated the number of panels would be 6,552, a reduction of 180 (2.7%) from the number in the original petition. 6,552 panels x 355 watts = 2.326 MW DC. As was agreed at the March 26, 2019 hearing, the current proposal exceeds the 2 MW statutory hurdle, when measured in DC units.
- At the March 26, 2019 hearing, seven days after we submitted exhibits outlining the criminal complexion of the designated PV panel manufacturer, the petitioner maintained (without offering any explanation) it now had no idea which brand of panels would be installed. Setting aside concerns about credibility, how is the Council now able to determine if the total megawattage to be installed falls under or over the 2 MV statutory threshold if no one even knows which panels are to be installed and therefore the rated output of these unknown panels can not be known? The petitioner of course will assure us they intend to use panels outputting 350 watts, 355 watts or whatever today's number is. But can anyone believe anything they claim at this point?

In Alice's conversation[46] with Humpty Dumpty,

> 'When I use a word,' Humpty Dumpty said, in rather a scornful tone, 'it means just what I choose it to mean — neither more nor less.' 'The question is,' said Alice, 'whether you can make words mean so many different things.'

We reside in Connecticut, not Wonderland, where words in statutes possess specific meanings. Applicants can not choose whatever meaning they desire for statutory language. If there is doubt they must seek guidance from the Council and/or reference the legislative debate preliminary to the statute enactment or subsequent case law. To do otherwise is to **flout the obvious legislative intent**, invite needless litigation and waste of everyone's time and money. The legislative intent was not to trash core forests, something this proposal would do.

If this same solar farm, configured with the same number of panels, rated at the same wattage, and producing over 2 MW DC was intended for another use, it would be clearly in violation of the 2017 statute. For example, if its output was intended to be directed into storage batteries (including use as an electric vehicle charging station), the current would remain as DC. Inversion of the electric current into AC does not negate the reality of this being a facility producing greater than 2 MW when it exits the panels.

The further electric power is transmitted, the more that becomes lost along the way. The correct calculation should be based on the output from the panels, not after losses have occurred when the power is inverted to AC, not after further losses occur when the electricity arrives at the Green Hill Rd. substation, and not when this power arrives at its ultimate destinations. Some of it may end up in Ohio, but this does not justify allowing petitioners to pick and choose where along the way they will base their megawattage calculations. Once we descend the slippery slope of allowing petitioners to pick and choose where in the point from the panel output to the ultimate consumer the measurement will be made, the 2017 statute loses all meaning. This issue is straightforward: the panels cumulatively output in excess of 2 MW DC. If this same installation was used for an electric vehicle charging facility, it would fail the 2017 statutory threshold,

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[46] L. Carroll, *Through the Looking-Glass*

and they would be required to seek a DEEP waiver. DEEP has essentially made it clear this would not occur. Opting for a different ultimate use of the electricity does not change these facts.

Core forest

Among the filing guidelines on the CSC website, the one titled "*Petition for Solar Electric Generating Facilities with a generating capacity of 2 or more megawatts Memo Requirement*" is relevant.

> **Prior to the submission of any petition for a declaratory ruling** for a proposed solar project to the Connecticut Siting Council (Council) that is not exempt as described above, petitioners shall consult with the Department of Agriculture and the Department of Energy and Environmental Protection. Thereafter, the petitioner shall submit to the Council with the petition for a declaratory ruling written correspondence from the Department of Agriculture that such project will not materially affect the status of such land as prime farmland and written correspondence from the Department of Energy and Environmental Protection that such project will not materially affect the status of such land as core forest.
>
> Any petition for a declaratory ruling for a solar facility with a capacity of 2 or more megawatts that is submitted to the Council without the above-referenced written correspondence will be rejected as incomplete. In lieu of submitting a petition for a declaratory ruling, project developers may opt to submit an Application for a Certificate of Environmental Compatibility and Public Need in accordance with the provisions of Connecticut General Statutes §§16-50k and 16-50*l*, which does not require the submission of written correspondence from the Department of Agriculture or the Department of Energy and Environmental Protection.

No such memorandum from DEEP was submitted, or has been submitted, with this petition. Whether this omission represents malpractice or an attempt to deceive the Council is immaterial. The petition must be rejected. As noted above, the failure to include a map of DEEP designated core forest areas for the property and surrounding neighborhood was a **material omission** corollary to this **material omission** of a DEEP letter. It is worth noting that DEEP has made it clear in their comments they have serious misgivings about this proposal, and it would be a safe bet DEEP would never provide certification on the core forest issue.

Failure to comply with minimal standards for a petition

The Council has surely noted the obvious deficiencies in the petition. Besides those mentioned elsewhere in this document, they include:

- Failure to include a local zoning map.
- Failure to explain **how** the project is consistent with the state and local Plans of Conservation and Development. Merely asserting this to be true[47] is not the same as referencing specific text in both documents. The reason this was omitted is obvious: nothing in those plans supports this proposal.
- Failure to include access roads in the site plan. Or any of the other minimal fire code standards noted by the Fire Marshal.
- Failure to submit accurate mapping of the site as it is, with stone walls depicted. The site plan depicts a *tabula rosa*. While some applicants do provide such details in their site plans, this should not be left to their discretion and this requirement should be addressed through regulation or legislation. Our previously submitted maps clearly depicted this. Connecticut possesses the world's highest resolution LIDAR imagery for a jurisdiction of our size, with nine-inch vertical resolution. It literally takes only several minutes to produce such a map off the state's online servers[48].

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[47] Whether this constitutes a RICO predicate act is best decided elsewhere.

[48] https://cteco.uconn.edu/viewers/ctelevation/ http://cteco.uconn.edu/viewer/index.html?viewer=advanced

Applicants with nothing to hide should be required to submit such mapping. This would also allow the Council to far more easily visualize the topography of a site. Connecticut also possesses the highest available standard and infrared photographic imagery[49] for a jurisdiction of our size, 3 inches per pixel (collected in March and April of 2016). There is every reason applicants should also be required to submit maps of such imagery. As the state notes on their servers:

> The imagery was captured by digital cameras on airplanes and processed to remove distortion. The detail and clarity is better than anything else available and makes the imagery invaluable for mapping by local government (your town!), state agencies, private companies and anyone who is interested is seeing and measuring the landscape of Connecticut.

This level of "invaluable" detail is available free, and there is no reason applicants such as Standard Solar, backed in this case by hundreds of billions of dollars in corporate assets, can not use this if slobs such as us can easily do so.

> A petition for a declaratory ruling for construction of a renewable energy facility shall include the following, **as applicable:**
>
> 1. Project and Property Description
> a. A map and description of the location of the proposed facility, including, but not limited to, depiction of site boundaries, identification of towns within 2500 feet, zoning designation, abutters' map;
> b. A description of how the project is consistent with the state's energy policy, including, but not limited to, whether the project was selected through a Department of Energy and Environmental Protection (DEEP) or utility request for proposal process, how the project will comply with air and water quality standards of the DEEP and how the project will not have a substantial adverse environmental effect; and
> c. A site plan with the proposed facility location, access roads and other associated equipment, including, but not limited to, as applicable, inverters and transformers, cooling modules, water tanks, concrete pads and utility connections (overhead or underground).

Essentially almost all of the items above were omitted. Which is not surprising. To have included a local zoning map would have highlighted the legal absurdity of siting an industrial use in a quiet residential neighborhood. To have included a description of "**how** the project will not have a substantial adverse environmental effect" would not come close to passing the laugh test. To have included a site plan with multiple access roads or water tanks would have required removal of PV panels, diluting potential profits. There is a massive gulf between stating "the project will not have a substantial adverse environmental effect" and breaking down "**how**" this is the case. We are still waiting.

Breakdown of the legislative intent of the municipal consultation process

While the requirements for a full application mandate various municipal obligations, thus fostering an appropriate adversarial process, a petition for a declaratory ruling only requires minimal municipal input. The excessive local opposition to this proposal underscores why a petition was wholly inappropriate for this proposal. The obvious legislative intent behind the process required for a petition was that the environmental impacts would be so insubstantial and innocuous that there was little need to bother the municipality with any significant need to participate. The sole requirement is that the chief elected official and the zoning information officer are to be noticed.

[49] https://cteco.maps.arcgis.com/apps/webappviewer/index.html?id=061ce6a2709449fd8d48c93944e535a3
https://cteco.uconn.edu/viewers/ctimagery/

The applicant's December 21, 2018 letter[50] to the PURA illustrates the deficiencies inherent in this petition. In the letter the applicant requests a six month extension of its ZREC agreement with Eversource. In the letter it is revealed that over two years prior, the property owner (not the applicant) had, on December 12, **2016**, entered into the agreement with Eversource and contemplated initiating energy production by October 1, 2017, the original Delivery Term Start Date (DTSD) of the REC contracts.

Material omissions and misstatements of facts

Dispersed throughout this document are examples of significant omissions, misstatements and obfuscations made by the applicant. The enabling statute anticipates such occurrences and provides a remedy in the form of referral to the Attorney General for prosecution in the courts. If the Council elects not to make such a referral, we would be glad to. Obfuscations and other flavors of prevarication are as significant as more transparent misstatements and omissions in preventing the Council from ascertaining the Truth. If an applicant has knowledge of certain facts and is less than fully forthright in revealing them, even when questioned by the Council, this represents as significant an offense against the Truth as if a garden variety lie was uttered.

Virtue signalling

It would be an omission to fail to comment on the virtue signalling exhibited by the petitioner's head of engineering, Mr. Colavito, during the March 26, 2019 hearing. Virtue signalling is the last refuge of scoundrels, frequently exhibited by those with a virtue deficit. For the record, as of this date, from the visible evidence available using Google Maps and other sources, the buildings housing the headquarters of Chatfield Solar Fund, LLC in Wilmington, DE; Standard Solar, Inc. in Rockville, MD; Northern New England Energy Corporation in S. Burlington, VT; Énergir in Montreal, Quebec, or any of the other superior shell corporations, holding companies and ownership entities ultimately submitting this petition, Including CDPQ and Enbridge, do not contain solar installations on their roofs or parking lots. Mr. Colavito saw fit to enthrall us with his devotion to the cause of planetary salvation. We remain skeptical it is necessary to threaten the Killingworth environment to save the planet from certain destruction. But we would be open to entertaining evidence to the contrary.

> 3:72:18 Colavito: "I've dedicated my entire career and my entire life to the development of renewable energy and to ending our addiction with fossil fuels in this country. I believe with my whole heart that climate change is real based on the data and based on what we've observed, and it is an urgent dire issue that needs the full attention of our country and all of our resources to resolve, not just in the United States but across the entire world. . . . And **if it's not done in the near term, it will be too late**. And things that we're worried about such as **wood frogs and the whip-poor-will will be completely irrelevant** compared to the destruction and issues that we suffer as a result of climate change in the long term. So I think that this project, among others, are essential in achieving that goal."

In other words, we are in a war. In war, casualties are inescapable, including the Connecticut environment. The quotation above makes it clear Connecticut species are to be considered as unavoidable collateral damage. It is tempting to substitute the pursuit of a substantial return on investment for protestations of global concerns in the quotation above. And to substitute the impending October 1, 2019 worthless expiration of valuable ZRECs for the immediacy of these concerns. But we resist such a temptation.

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50 https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/pe1354_petitioners_request_to_pura_ext_zerc_contract_20190130.pdf

Fraud

On the first page we promised to show examples of fraudulent, negligent or innocent inducement to this proposed contract. Having now done so, summarized below are a few examples of all three, but these are hardly all inclusive.

Innocent - Maintaining PV panel fires should be fought with foam, while this is contradicted by the last-minute submission of the German study. The German study (page 123) is adamant on this point, as using foam increases the risk of electrocution of firefighters, which is generally frowned upon.

Negligent - Examples include describing the proposal in the petition cover letter as a 2.3 MW fuel cell project; failure to anticipate the requirement for screening; failure to obtain an A2 survey before petitioning.

Fraudulent - Maintaining the proposal is consistent with the state and town plans of conservation and development; claiming it resides in a commercial zone; lying about the Fire Marshal's concerns being addressed; numerous intentional material omissions, including failure to provide state designated core forest mapping. Or consider this example:

> 1:60:7 THE WITNESS (Stephens): Those talks are in progress. I've had two phone -- phone calls with the fire marshal here in Killingsworth. We discussed the on-site water concern. I talked about, you know, what is located on site and the wetlands around, and **the fire marshal seemed to think that that was sufficient** for his -- for what he had brought to our attention.

Mapping

We submitted additional mapping[51] to further address the obvious deficiencies in the applicant's submissions. These additional maps include one illustrating the DEEP designated core forest areas over a wider portion of the local region. To our knowledge, the petitioner has yet to submit the relevant portion of Killingworth's zoning map..

As noted by the applicant's GIS specialist during the February 2019 evidentiary hearing, the state's parcel layer is inaccurately georegistered in the Killingworth region. This inaccuracy can be quantified: the parcel lines, as depicted on our previously submitted maps, are approximately 130 feet too far to the west and 30 feet too far to the south. The difference between our maps and the applicant's is this was clearly discernible on ours, but this was essentially impossible to detect on the crude, blurry maps submitted by the applicant (*e.g.*, figure 4 of the Environmental Assessment). The resolution of many of the petitioner's maps was of such low resolution that this raises the question of whether this was intentional obfuscation. The failure to illustrate the stone walls present on the property should be considered a significant, intentional omission. As should the failure of the petitioner to present its archaeological consultant for the evidentiary hearings. We submit that more can probably be learned of the cultural history of the property by examining the LIDAR mapping of the walls we submitted, than in the archaeological study.

Since this is a proposed industrial (not commercial) manufacturing use, it would have been appropriate for the petitioner to include a zoning map of the town's industrial zone. Below is the description from the POCD:

> ***Industrial District**. The Industrial District is the area bounded north by Route 80, east by the Deep River Town line, west by the easterly lot line of lot number 36B and south by a line 300 feet south of Route 80. The minimum lot area is two acres.*

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51 https://www.ct.gov/csc/lib/csc/pending_petitions/3_petition_1301through1400/pe1354/kars/pe1354-20190319-karsexhibit-mapping.pdf

Archaeological concerns

In 2004, less than a mile down the road from the property, the Killingworth Planning and Zoning Commision, after input from the State Archaeologist and federal tribal officials, took steps to protect significant Native American ceremonial stone constructions. Mr. Walwer, the petitioner's archaeological consultant, was involved, acting as the developer's consultant for that proposal when it was presented to the Planning and Zoning Commission. Yet he made no mention of these proximate features when enumerating nearby known sites of archaeological import in his report. How this can be anything other than an **intentional material omission** is difficult to reconcile. This is troubling, as is the failure of his attendance at the evidentiary hearings. CGS 10-390 classifies as a Class D felony the intentional desecration, disturbing or alteration of Native American sacred sites. It is not contended here that the property in question possesses such features, only that this can not be known from the defective archaeological report. The failure to present the consultant for examination, and the absence of any mapping of the artificial stone features on the property, are among the deficiencies. This constitutes another example of the petitioner's gratuitous, approach to this process.

Valuable RECs

To provide a frame of reference for the value of the BeFree Solar ZRECs acquired in the 2016 bidding, we can consult the exhibit of the spreadsheet of the results of that process that we submitted. BeFree won two contracts, which Eversource computed had an annual value of $155,500 each, a total of $311,00 annually. This is a total $4,665,000 over their 15-year lifespan. Compare this with the total annual value of all other ZRECs awarded that year: $4,727,538. Thus the BeFree ZRECs were worth **6.6%** of all the rest which were awarded that year. These are exceptionally valuable contracts which dramatically skew the calculated return on investment in this proposal. Every PV panel eliminated from the proposal, for fire code considerations or other reasons, lowers the potential handsome return on investment.

Questions predominate

It would be redundant to itemize here the numerous unanswered questions the petitioner has left scattered across the legal and environmental landscapes. We had hoped to call the petitioner's attorney as a witness to attempt to find answers to at least some of these questions. His response: "I begin by declining to provide testimony on your behalf. As the attorney for the applicant I am ethically obligated to represent my client and I cannot be compelled to provide testimony against my client."[52] Any testimony must be truthful. The inescapable conclusion is the truth would be inimical to his client. Which is our entire conclusion.

Executive order

Under presidential Executive Order 13858 of January 31, 2019, it is against U.S. policy for federally assisted infrastructure projects to use foreign manufactured products.

> (d) "Infrastructure project" means a project to develop public or private physical assets that are designed to provide or support services to the general public in the following sectors: surface transportation, including roadways, bridges, railroads, and transit; aviation; ports, including

[52] Email message, dated February 20, 2019, from Atty. Bruce McDermott, of the firm Murtha Cullina, LLP, said firm being previously of counsel to Enron Corporation (R.I.P., 1985-2007); Connecticut Resource Recovery Authority; Connecticut Municipal Electric Energy Cooperative; and to BeFree Solar (Currently dba BGE, LLC) in the matter of a contract consummated in 2016 with the municipality of Woodstock, CT.

navigational channels; water resources projects; **energy production, generation, and storage, including from** fossil-fuels, **renewable**, nuclear, and hydroelectric sources; electricity transmission;

There are two relevant issues here: 1) Whether 'federally assisted' includes the use of federal tax benefits, and 2) if so, Adani products (and other foreign manufactured panels and components) would be prohibited.

Timeline of principal events

- 12/28/2004 Standar Solar, Inc. registers as a Delaware corporation, using Corporation Service Company, CSC
- 2013 property purchase by BeFree Solar principals
- 8/14/2013 Rajvilla LLC registered with CTSOS 1115284
- 9/10/2014 BeFree application for forest designation
- 11/14/2014 BeFree Green Bank hearing to appeal previous suspension
- 8/16/2016 Green Bank suspends Befree from RISP program
- 12/12/2016 BeFree large ZRECs, L5-3814 and L5-3816 DTSD **10/1/2017**
- 2/8/2017 Eversouce petition for Green Hill Rd substation upgrade
- 3/1/2017 BeFree settlement agreement with CT Green Bank; lifetime ban from Green Bank funding
- 4/26/2017 SSI sold itself to NNEEC, a little over 12 years after founding
- 3/14/2018 STANDARD SOLAR REC, LLC registration number 6798148 DE Secretary of State, using CSC (whether this registration relates to Killingworth is presently unclear)
- 4/30/2018 CSF registration number 6866004 DE Secretary of State, using CSC
- April-May 2018 Killingworth ZEO contacted[53] by Standard Solar
- **5/24/2018 CT Legislature ends REC program**
- 8/3/2018 Request of Solar Connecticut, Inc. to PURA For a Declaratory Ruling Relating to Net Metering and ZREC/LREC Contracts
- 8/2018 SSI allegedly appears in Killingworth, begins environmental surveys
- **9/12/2018 PURA draft decision**
- **9/12/2018 First selectwoman support letter** (while BeFree still owned RECs), 41 days prior to petition to CSC, claims consistent with town's POCD **PREDICATE ACT 1?**
- 9/19/2018 PURA rules existing RECs grandfathered in PURA. Full docket
- 9/25/2018 SSI purchases ZRECs from BeFree - almost 1 year after original DTSD
- 9/27/2019 Request to PURA for 6 month extension to 4/1/2019
- 10/23/2018 SSI petition to CSC "The Project will provide 2.35 MWs of clean renewable energy." "Project is consistent with local, state, and federal land use plans, including the Killingworth 2018 Plan of Conservation and Development." **PREDICATE ACT 2?**
- 12/4/2018 A2 survey
- 12/6/2018 CSC schedules hearing
- 12/17/2018 Eversource completed Green Hill Rd. substation work
- 12/21/2018 Petition to PURA for 6 month extension to **10/1/2019**

Conclusion

At the beginning of this document we included a quotation:

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[53] 3:122:7 THE WITNESS (Partyka): We contacted Cathie Jefferson [ZEO] with the town. MR. SCHWARTZ: About when did that occur? THE WITNESS (Partyka): April or May of 2018.

> *We're answering all the questions that are being presented. We're being as cooperative as possible throughout the entire process. And Standard Solar is committed to sustainable and responsible development practices in all projects which we participate nationwide.*

Three claims are made:

1. All questions answered.
2. Full cooperation.
3. Responsible developer.

The truth is the converse of each of these three claims.

Broken system

The abuses present in this petition highlight serious deficiencies in the current regulations and statutes. Our conclusions are being shared with the Council of Environmental Quality, *et al.*, along with recommendations for legislative adjustments to help prevent what happened in Killingworth from occurring elsewhere. Once an environmental Humpty Dumpty falls, it is impossible to piece together the *status quo ante*. Our objective is to outline how he can fall and how best to anticipate and avoid this and the ensuing negative consequences. When residential neighborhoods in quiet towns are treated like third world resources to be exploited by colonial interlopers, **the system is broken**.

It is our position that the sorts of elementary deficiencies and abuses of process witnessed in this petition highlight the need for, and warrant, a **temporary moratorium** on solar projects in Connecticut until such time as the Council and its staff have time to investigate the general subject of appropriate siting and construction of solar installations, hold public hearings for input, and then produce a primer to guide applicants in the minimal requirements for successful petitions and applications. Basic (and significant) considerations such as firefighting, natural disasters, functional decommissioning plans and disclosure of the chemical contents of photovoltaic panels were absent from this petition.

The solar industry is doubling capacity every two years. It is now all too obvious that enhanced scrutiny is required to ensure public and environmental safety, among other considerations. This is a new industry, exhibiting exponential growth. As such there is an increasingly obvious requirement for enhanced oversight. In short, the current legislation and regulation lack necessary specificity. Bright line boundaries are required. The Council's job obviously becomes far easier with the clarity and uniformity such bright lines would introduce. No one can know everything about so complex an industry, but we all need to know much more.

Our general concerns about the overall process and the current regulatory regime are being submitted as a separate addendum to this brief, as they are not very relevant to a specific determination of a substantial adverse environmental impact for this petition.

ATTACHMENT D

Bruce McDermott

From:	Bruce McDermott
Sent:	Wednesday, February 20, 2019 10:45 AM
To:	'killingworthforesponsiblesolar@gmail.com'
Cc:	'Bachman, Melanie'
Subject:	Petition 1354

Dear Ms. Sekban: Melanie Bachman has been kind enough to forward me your various correspondence to the Council concerning Petition 1354. By this email I request that you copy me on all filings you make with and correspondence you have with the Council concerning the merits of the Petition. There is no need to provide me with hard copies but rather I wish only to receive electronic copies.