



VILLAGE OF  
**Scarsdale**

# Scarsdale Solar Policy and Permitting Guidance

Village of Scarsdale  
Conservation Advisory Council

October 2016

# Introduction

...the Village Board hereby refers to the Conservation Advisory Council the following questions for their research and recommendation of municipal best practices for regulating solar energy systems in our local context:

**What are the appropriate circumstances, conditions, and design choices under which residential solar energy system installations should be authorized in Scarsdale? Specific consideration shall be given to the following (without limitations):**

- **Should solar panels be authorized for installation upon the front elevation of residential properties and, if so, what are the appropriate rules, procedural requirements, or installation guidelines (including aesthetic guidelines), taking into consideration pending New York State 2016 building and fire prevention code amendments?**
- **Should solar panels be authorized for installation on the ground and, if so, what are the appropriate rules, procedural requirements, or guidelines?**
- **Should property owners be authorized to modify their tree canopy to accommodate necessary solar exposure and, if so, what are the appropriate rules, procedural requirements, or guidelines? and be it further**

# Summary of Recommendations

- **Should solar panels be authorized for installation upon the front elevation of residential properties:**
  - Surveyed opinion is decidedly in favor, potentially subject to aesthetic constraints.
- **Should solar panels be authorized for installation on the ground?**
  - Yes, subject to BAR review that is guided by CAC-developed approval criteria.
- **Should property owners be authorized to modify their tree canopy?**
  - Not any more so than currently allowed, which the CAC believes is more than adequate.

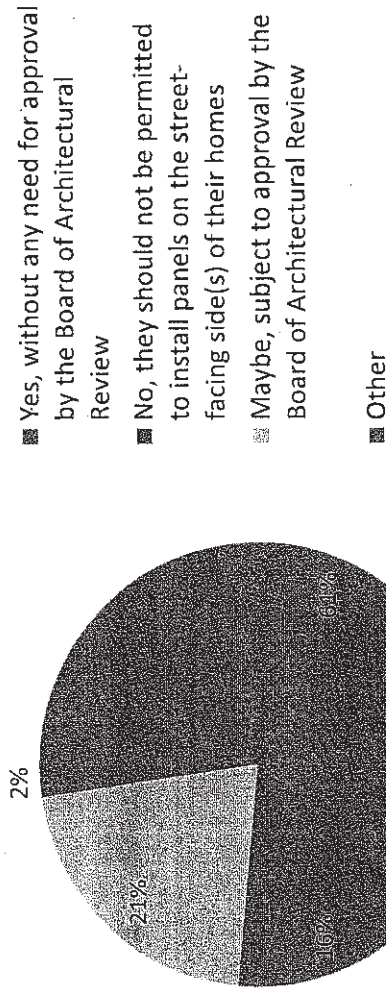
In addition:

- The Village should adopt the NYS Unified Solar Permit.
- The NYS Unified Solar Permit should be amended with quick approval criteria developed by the CAC; otherwise applications should be subject to BAR approval.

# “Should solar panels be authorized for installation upon the front elevation\* of residential properties”

To answer this question, the CAC surveyed resident attitudes. Notice of this survey was made in the *Inquirer*, *Scarsdale10583*, the “Scarsdale Moms” Facebook Group, Scarsdale Forum and League of Women Voters, and Neighborhood Associations . It has received 259 responses.

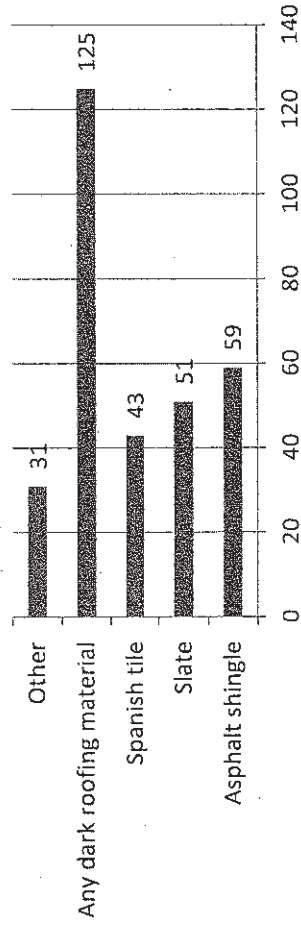
## Should residents be permitted to install solar panels on the street-facing roof of their homes?



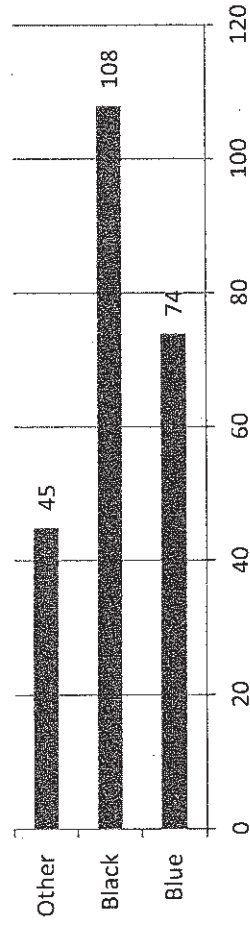
\* The CAC recommends the terminology “street facing” be used in place of “front elevation”. We believe that this term more accurately addresses the context being referred to.

# Additional Survey Questions

2. On which roofing materials should street-facing solar panels be permitted? You may wish to examine the photo montage above for guidance.

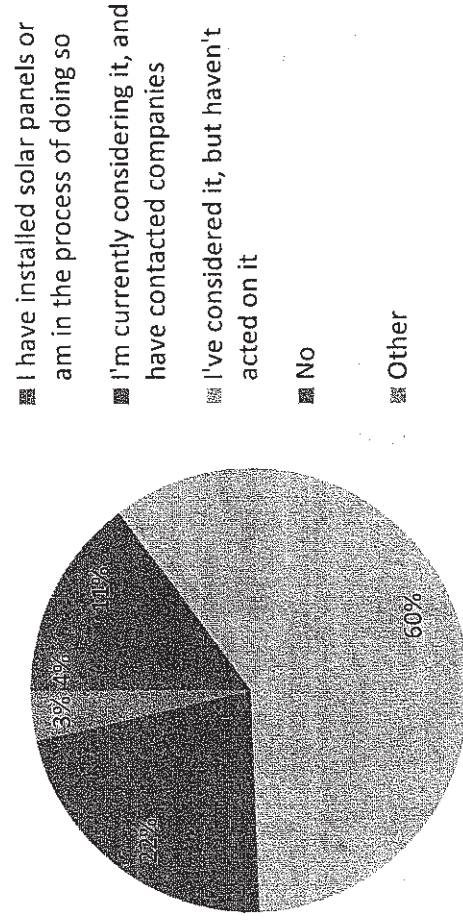


3. What colors should be permitted for street-facing solar panels?



# Survey (continued)

4. Have you considered installing solar panels? (250 responses)



How many respondents answered "No BAR approval needed" versus the responses above:

- 12% "No"
- 66% "I've considered it but haven't acted on it"
- 16% "I'm currently considering it..."
- 6% "I have installed solar panels..."

# Community Input From Survey Open Responses

These responses capture the general theme in responses:

- “As much as I want to encourage use of alternate sources of energy, solar panels take away from the character of a neighborhood. If people want to add them, that is fine, but they should be obligated to keep them out of sight.”
- “I am not sure that the Board should have the right to determine who gets to use the sun and who doesn't.”
- “the B.A.R. allows so many unattractive features, at least this w[oul]d be beneficial.”

# Survey Reliability

The survey was conducted in two phases:

- The first phase was publicized via Inquirer, Scarsdale10583 and Scarsdale Moms (on Facebook).
- About two weeks later, the second phase was publicized via SNAP.
- ✓ Similar results from both survey phases.
- ✓ Proportions over time have been consistent.
- ✓ Number of respondents: 259

**Given a population of 17,885 with 11858 adults, assuming systemically unbiased responses, survey accuracy is better than +/- 6.1% with 95% confidence.**



“Should property owners be authorized to modify their tree canopy to accommodate necessary solar exposure?”

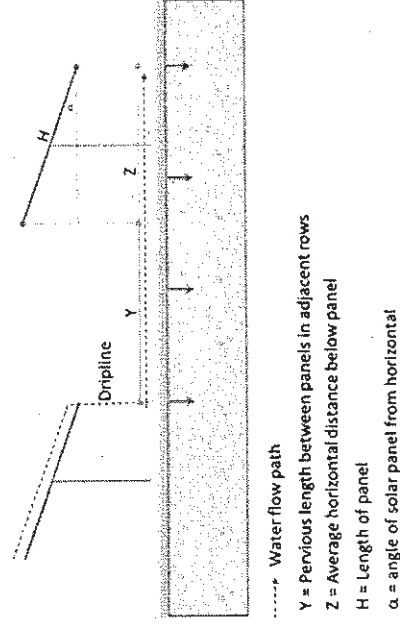
The CAC recommends that:

- Homeowners should have no added right to tree removal. Current law permits two trees to be removed per year as of right, and there are no restrictions on pruning.
- Neighbors should not be compelled to accommodate, nor to maintain solar access. ‘Solar access’ laws do exist but are uncommon.

# “Should solar panels be authorized for installation on the ground?”

The CAC recommends that ground-mounted installations should be allowed subject to the following:

- BAR review – The CAC has prepared guidance for expedited review by the BAR (next slide).
- Applicable lot coverage and setback restrictions.
- Impervious surface limits – The Minnesota Storm Water Manual provides guidance and calculations which may be of use.



From [http://stormwater.pca.state.mn.us/index.php/information\\_for\\_determining\\_stormwater\\_management\\_impacts\\_for\\_solar\\_projects](http://stormwater.pca.state.mn.us/index.php/information_for_determining_stormwater_management_impacts_for_solar_projects)

# Ground-Mounted Solar Installations

## - Guidance For the BAR

### Location

- Backyard only.
- Backyard on a corner lot is allowed only with sufficient screening from the street.

### Height

The maximum height of the entire structure, measured at its highest point, should be no more than 6' from the original ground level (e.g. can't build a mound and measure from top of mound).

### Glare

- Panels must have anti-glare (aka anti-reflective) coating.
- Accessory equipment (brackets, spacer, etc.) must use non-reflective paints or finishes.
- The onus is on the homeowner to ensure glare onto neighboring properties is minimized.

### Screening

- Screening is required between the system and the property line, either using a fence or evergreens, so that the installation is concealed from neighbors' view to an extent that is reasonably possible.
- The homeowner must maintain screening as long as the installation exists.

# **Making the Permit Process More Efficient**

# CAC Recommendations for Improving Permitting Efficiency

- Scarsdale should adopt a variant of the NYS Unified Solar Permit.
- Systems meeting design requirements will allow for a “Simplified Review” and approval process without BAR review.
- Systems that don’t meet design requirements are still allowed but subject to BAR review.

# Use A Modified Version of NYS Unified Permit



## New York State Unified Solar Permit

The Unified Solar Permit for Small-Scale Solar Electric Systems (USP) is a one-stop permit for the installation of solar electric systems on residential, commercial, and industrial properties. The USP is a modified version of the Unified Permit for Small-Scale Solar Electric Systems (USP) and is designed to streamline the permitting process for solar electric systems. The USP is a one-stop permit for the installation of solar electric systems on residential, commercial, and industrial properties. The USP is a modified version of the Unified Permit for Small-Scale Solar Electric Systems (USP) and is designed to streamline the permitting process for solar electric systems.

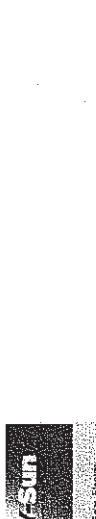
1. Unified Solar Permit for Small-Scale Solar Electric Systems (USP) - Part 1
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Permit Review and Inspection Timeline  
 Permit applications to the community will be reviewed by the community. The community will review the application and provide feedback. The community will review the application and provide feedback. The community will review the application and provide feedback.

Permit Fee Amount  
 The permit fee is a one-time fee for the installation of solar electric systems. The permit fee is a one-time fee for the installation of solar electric systems. The permit fee is a one-time fee for the installation of solar electric systems.

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## Cover page



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## Checklist

1. Property Owner: Provide owner's name, address, and phone number.
2. Existing System: Provide details of any existing solar electric systems, including manufacturer, model, and capacity.
3. Proposed System: Provide details of the proposed solar electric system, including manufacturer, model, and capacity.
4. Electrical Diagram: Provide a detailed electrical diagram of the proposed system, showing all components and wiring.
5. Safety: Provide information on safety measures, including electrical safety and fire safety.
6. Environmental: Provide information on environmental impacts, including shading and noise.
7. Other: Provide any other relevant information, such as permits or approvals.

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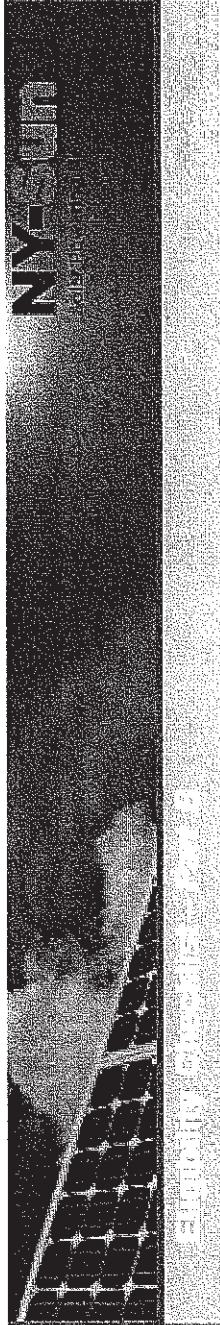
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# NYS Unified Permit - Eligibility Checklist



To determine if you are eligible for the expedited permitting process, answer the questions below.

- Yes  No 1. Solar installation has a rated capacity of 12 kW or less.
- Yes  No 2. Solar installation is not subject to review by an Architectural or Historical Review Board.
- Yes  No 3. Solar installation does not need a zoning variance or special use permit/conditional use permit.
- Yes  No 4. Solar installation is to be mounted on a permitted roof structure of a building, or on a legal accessory structure. If on a legal accessory structure, a diagram showing existing electrical connection to structure is attached.
- Yes  No 5. Solar installation is compliant with all applicable electrical and building codes.
- Yes  No 6. Solar installation is compliant with New York State Fire Code.
- Yes  No 7. The Solar Installation Contractor complies with all licensing and other requirements of the jurisdiction and the State.
- Yes  No 8. The proposed equipment is permitted by code and equipment meets all relevant certification standards.
- Yes  No 9. The solar electric system and all components will be installed per the manufacturer's specifications.
- Yes  No 10. The project will comply with adopted National Electrical Code® requirements.
- Yes  No 11. The roof has no more than a single layer of roof covering (in addition to the solar equipment).
- Yes  No 12. The system is to be mounted parallel to the roof surface, or tilted with no more than an 18 inch gap between the module frame and the roof surface.
- Yes  No 13. The system will have a distributed weight of less than 5 pounds per square foot and less than 45 pounds per attachment point to roof.

See "Minimum Design Requirements for Simplified Review"

See "Minimum Design Requirements for all residential rooftop systems"

# Establishing Minimum Aesthetic Requirements



# Minimum Requirements For All Residential Rooftop Systems

- **Setbacks from sides of roof:** Fire code requirements per NYS code.
- **Panel placement:** As reasonably possible:
  - Should be as inconspicuous as possible and match to best degree possible with existing materials.
  - All accessories (wire, inverter, etc.) should be placed out of sight from street.
- **Glare:**
  - Require panel to have anti-glare (aka non-reflective) coating. Panels should all have this already.
  - Accessory equipment (brackets, spacers, etc.) must use non-reflective paints or finishes.
  - Onus is on homeowner to ensure glare is minimized.
- **Height:**
  - Panels should be mounted no higher than twelve inches above the roof surface.
  - Panels that exceed the roof peak are subject to BAR review.

# **Minimum Design Requirements For Simplified Review (Not Involving BAR)**

- **Tilt (angle) of panels:**
  - Panels must match slope of the roof.
- **Panel Placement:**
  - Parallel to roof line (while suspended no more than 12 inches above roof surface).
  - All panel edges must be aligned and continuous.
  - All accessory equipment/wires not visible on roof or front of house.
- **Color of panels and equipment:**
  - Panels and observable (from street) equipment within reason match color of roof.
- **Additional**
  - Include this language:

*Notwithstanding the requirements set forth in this code, if the building inspector in his or her judgment feels the application does not meet the intent of this code, the application may be referred to the BAR for approval.*

# All Other Installations

- Any system not identified in this presentation would go through a BAR review.
- At discretion of building inspector, a full site plan could be required.

# Research

The CAC engaged in the following:

- Review of published guidance
  - Connecticut Solar Survey, 2014
  - NYS Model Solar Energy Law Toolkit, Sustainable CUNY, 2016
  - NYS NYSolar Smart Survey, 2014
  - Survey of Solar Permitting Practices in Pennsylvania Municipalities
  - Planning and Zoning for Solar Energy FAQ, American Planning Assoc.
  - Solar Code Sections with NYS Supplemental, International Code Council
  - Barrier Removal for Solar Permitting Resource Guide, Solarize Westchester
  - Minnesota Stormwater Manual
  - Siting Solar Panels under the Zoning Laws of New York State, Albany Law School, 2012
- Discussion with stakeholders: Pace University, Solarize Westchester, Bedford 2020, Columbia University
- Comparative review: codes as implemented in Greenburgh, Mamaroneck, Bronxville and Larchmont
- Survey: published in *Inquirer*, *Scarsdale10583*, *Facebook*, and promoted through major local institutions.