Town of Haymarket
15000 Washington Street, #100
Haymarket, VA 20169
703-753-2600

Lydia Schauss
Town Planner

MEMORANDUM

TO: Architectural Review Board
FROM: Lydia M. Schauss
DATE: March 12, 2026
SUBJECT: ZP #2026-003, Installation of Roof Mounted Solar Panels at 15013 Gossom Manor Pl

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APPLICATION SUMMARY:

Business/Applicant: Barklie Estes – NOVA Solar, Inc.

Street Address: 15013 Gosson Manor Pl, Haymarket Va 20169

Proposed Alteration: Existing Solar Panel Addition

Applicant's Brief Description of the Activity: Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.

The applicant will be installing 12.2854kW Solar Photovoltaic System; modifications will include eliminating the use of a string inverter on the side of the house adjacent to the utility meter., We will use microinverters located under and hidden by the solar modules. Use "triple-black" (black frames, black back sheets, black cells) solar modules.

Town Planner Assessment		
Zoning Ordinance	**Application Details**	**Staff Response**
Sec. 58-16.8 Matters to be considered by board in acting on appropriateness of erection, reconstruction, alteration, restoration or demolition of building or structure.	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	The proposed alteration is visible from the public right of way. The Board shall consider the new roof mounted solar panels installation.
Sec. 58-16.8 (1) Exterior architectural features, including all signs, which are subject to public view from a public street, way or place.	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	The proposed alteration is visible from the public right of way. The Board shall consider the new roof mounted solar panels installation.
Sec. 58-16.8 (2) General Design Arrangement	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	The roof mounted solar panels will be flush to the roof and utilize microinverters hidden by the panels, the panels will be "triple black."

Sec. 58-16.8 (3) Texture, material and color	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	The panels are shown in the attached rendering; the applicant intends use of TOPCon Cells (1800 x 1134 x 35mm) made with 3.2mmj tempered glass with anti-reflective coating, weighing 50.7lbs. The new panels will be a triple black color. The frames are devised from anodized aluminum alloy.
Sec. 58-16.8 (4) The relation of the factors, subsections (1), (2), and (3) of this section, to similar features of the buildings and structures in the immediate surroundings	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	The installation closely matches the existing roof surface. Therefore, the system blends with the roof plane rather than contrasting and pulling attention from surrounding homes.
Sec. 58-16.8 (5) The extent to which the building or structure would be harmonious with or obviously incongruous with the old and historic aspect of the surroundings	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	The purposed solar installation incorporates renewable energy in manner that minimizes visual impact on the historic character of the property.
Sec. 58-16.8 (6) In the case of a building to be razed, a primary consideration will be the extent to which its continued existence would tend to protect irreplaceable historic places and preserve the general historic atmosphere of the Town	Not applicable	Not applicable
Sec. 58-16.8 (7) The extent to which the building or structure will promote the general welfare of the Town, and all citizens, by the preservation and protection of historic places and areas	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	Not applicable
Sec. 58-16.8 (8) The extent to which the building or structure will promote the general welfare by: (a) Maintaining and increasing real estate values (b) Generating business (c) Creating new positions (d) Attracting tourists, students, writers,	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing.	These matters are at the discretion of the ARB.

historians, artists and artisans, and new residents (e) Encouraging study of and interest in American history (f) Stimulating interest in and study of architecture and design (g) Educating citizens in American culture and heritage (h) Making the Town a more attractive and desirable place in which to live		
Comprehensive Plan		
Comp Plan 1.5.3 Historic Resource Inventory List	Site – 15013 Gossom Manor Pl	The main structure/site IS NOT listed as a Historic Resource
Comp Plan 1.5.4 Potential Archaeological Site	Site – 15013 Gossom Manor Pl	The site IS NOT one of those listed as a potential archaeological site in the Comprehensive Plan
Architectural Review Board Historic Guidelines		
I. Introduction (E) Community Design and the Comprehensive Plan	Site – 15013 Gosson Manor Pl	Residential Property
II. Streetscape and Site Design		
II. (a) Washington Street Enhancement Project	Not applicable	Not applicable
II. (b) Streetscapes Other Than Washington Street	Not applicable	Not applicable
II. (c) Fences and Walls		
II. (d) Lighting (Free Standing/Posts)	Not Applicable	Not Applicable
II. (e) Telecommunication Dishes, Drums and Towers	Not Applicable	Not Applicable
II. (f) Screening	Not Applicable	Not Applicable
III. New Construction and Additions to Existing Non-Historic and Non-Contributing Structures		
III. (a) General Guidelines	*"To create a more pleasing blend of historic and new elements in the Town, new structures shall be compatible with the prevailing and recognized historic architectural character of the existing adjacent structures"*	These matters are at the discretion of the ARB
III. (b) Colors	Triple Black	At the request of the Sherwood Forest Community Association.

III. (c) Exterior Elements	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing, triple black in color.	All elements are acceptable within the ARB Guidelines and the Town's Zoning Ordinance.
III. (d) Chimneys	Not Applicable	Not Applicable
III. (e) Roofing	Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Mounted flush (parallel) to roofing, triple black in color.	All elements are acceptable within the ARB Guidelines and the Town's Zoning Ordinance.
III. (f) Lighting, (attached to structure)	Not Applicable	Not Applicable
III. (g) Windows and Doors	Not Applicable	Not Applicable
III. (h) Decks	Not Applicable	Not Applicable
III. (i) Handicapped Ramps	Not Applicable	Not Applicable
III. (j) Awnings	Not Applicable	Not Applicable
IV. Guidelines for Alterations or Additions to Historic Structures or Contributing Structures		
IV. (a) General Guidelines	Not Applicable	Not Applicable
V. Signage	Not Applicable	Not Applicable, not historic or contributing
VI. Demolition Guidelines	Not Applicable	Not Applicable
VII. Situations Not Covered, Additional Requirements	Not Applicable	Not Applicable

Discussion:
ARB shall discuss the design of the solar panels and the color palette chosen by the Applicant.

STAFF RECOMMENDATION:

Based on the application submitted, the rendering provided, and additional information received from the applicant, the Zoning Administrator recommends the approval of the Certificate of Appropriateness for 15013 Gossom Manor Pl.

The roof-mounted solar panels are a welcome improvement to the structure providing architectural interest. The new panel triple-black color is in keeping with the zoning ordinance color palette and will not hinder the aesthetics of the structure.

Draft Motion: I move the Architectural Review Board approve ZP #2026-003, Installation of Roof Mounted Solar Panels at 15013 Gossom Manor Pl. The approval includes the following details: the panels as shown in the rendering.

Or alternate motion.

ZONING PERMIT APPLICATION

ZONING PERMIT #: 2026-003

NOTE: This application must be filled out completely and all components of submission requirements must be met before the application can be accepted and scheduled for review/hearing.

ZONING ACTIVITY: ❑New Construction ■Alteration/Repair ❑Addition ❑Sign (See Spec sheet)
(Check all that apply) ❑New Tenant/Use ❑Change of Use ❑Relocation

NAME OF BUSINESS/APPLICANT: Nova Solar, Inc.

PROPOSED USE: Existing - Solar Panel Addition Size (Sq. Ft./Length) of Construction: 592.90 ft²

SITE ADDRESS: 15013 Gossom Manor Pl, Haymarket, VA 2016 Parcel ID #: 7298-80-7494

Subdivision Name: Sherwood Forest Lot Size: .2296 Acres

ZONING DISTRICT: ■ R-1 ❑ R-2 ❑ B-1 ❑ B-2 ❑ I-1 ❑

C-1 Special Use Permit Required: ❑ Yes ☒ No Site Plan Required: ❑ Yes ■ No

Off-Street Parking: Spaces Required: _____ Spaces Provided: _____

BRIEF DESCRIPTION OF ACTIVITY: (*i.e. previous use, height/length of fencing, deck specs, etc.*)
Installation of a 27-panel, 12.285kW roof mounted solar (PV) system. Flush (parallel) mounted to roof surface.

Supporting Documentation (*attached*): ■ Narrative ■ Plan/Plat ❑ Specification Sheet

FEE: ■ $50.00 Residential ❑ $100.00 Commercial

CERTIFICATE OF APPROPRIATENESS

ADDITIONAL DESCRIPTION: (*i.e. color, type of material, font style, etc. See Sign Spec Sheet for Signage detail)*

All-Black Solar Panels

Supporting Documentation (*attached*): ■ Specification Sheet ❑ Photograph(s)

PERMIT HOLDER INFORMATION

Barklie Estes - Nova Solar, Inc.
Name

3305 Dye Drive
Address

Falls Church VA 22042
City State Zip

703-679-8607 novasolarinc@gmail.com
Phone# Email

PROPERTY OWNER INFORMATION

Tilak Kharel
Name

15013 Gossom Manor Pl
Address

Haymarket VA 20169
City State Zip

240-481-9503 tilak801@gmail.com
Phone# Email

APPLICANT / PROPERTY OWNER SIGNATURE ********REQUIRED********

I, as owner or authorized agent for the above-referenced parcel, do hereby certify that I have the authority to make the foregoing application and that the information provided herein is correct. Construction of improvements described herein and as shown on the attached plat, plan and/or specifications will comply with the ordinances of the Town of Haymarket and any additional restrictions and/or conditions prescribed by the Architectural Review Board (ARB), Planning Commission, or the Town Council and all other applicable laws.

Barklie Estes _____ _____

Applicant Signature Property Owner Signature

OFFICE USE ONLY

Date Filed: _____ Fee Amount: _____ Date Paid: _____

DATE TO ZONING ADMINISTRATOR: _____

❑APPROVED ❑DISAPPROVED ❑TABLED UNTIL: _____ ❑DEFERRED UNTIL: _____

_____

SIGNATURE *PRINT*

CONDITIONS:

_____

_____

DATE TO ARCHITECTURAL REVIEW BOARD (ARB): _____

❑APPROVED ❑DISAPPROVED ❑TABLED UNTIL: _____ ❑DEFERRED UNTIL: _____

_____

SIGNATURE *PRINT*

CONDITIONS:

_____

_____

DATE TO TOWN COUNCIL (IF APPLICABLE): _____

❑APPROVED ❑DISAPPROVED ❑TABLED UNTIL: _____ ❑DEFERRED UNTIL: _____

TOWN COUNCIL {where required): _____

SIGNATURE *PRINT*

CONDITIONS:

_____

_____

INSTRUCTIONS FOR COMPLETING APPLICATION

In addition to applying for a Certificate of Appropriateness, the applicant is responsible for obtaining any other required permits and approvals applicable to the project.

1. Provide name, phone number, and email address of business or individual requesting approval for proposed work. If different from property owner, please provide contact information for property owner as well.
2. Indicate site address
3. Indicate mailing address of applicant and owner (if different).
4. Describe in detail work proposed and then attach all required and any additional documentation or material that will describe the project in detail to the reviewing authority. Adequate documentation must be provided. Applicant should provide any necessary item(s), in addition to the items listed on the checklist below.

Check List

Signs/Fences/New Building/Additions/Remodel

The Completed application must be submitted to the Town Clerk's office no later than 4:30pm one week prior to the meeting date.

1) One copy of the Plat-showing location of sign/fence/addition on the façade or grounds
2) Photograph of the existing structure and closest neighboring structures
3) Photograph/drawings, including measurements, of the proposed change
4) Material specifications
5) Color/material samples
6) Description of method of mounting and description of hardware to be used
7) Landlord/HOA approval letter where indicated
8) Copy of business or occupational license if contractor has designed or will install
9) Narrative, if special requests or exceptions to the ARB Guidelines are being requested.
10) Applicant or a representative **must** be present at the ARB meeting, on the scheduled Wednesday of every month at 7:00pm. If a representative is not present at the meeting to answer any questions that may arise, your application may be deferred or denied until the next regularly scheduled meeting. Please check the Town's website for a list of the Town's scheduled meetings. It is the applicant's responsibility to keep apprised of the Town's meeting schedule.
11) If an interpreter is required, the applicant needs to bring one with them.

Please mail application and all applicable information and materials to:
Town of Haymarket
15000 Washington Street, Suite 100
Haymarket, VA 20169

SIGN SPECIFICATION SHEET

SIGN 1:

Type of Sign: ❑Wall ❑Hanging ❑Freestanding ❑Menu ❑Individual Letter ❑Window ❑Other _____

Height above Ground at Signs: Lower Edge: _____ Upper Edge: _____

Height of Sign Structure:_____ Sign Width:_____ Length:_____ Area in Sq Ft:_____

Number of Faces: _____ Sign Material/Color/Font:_____

Location of Sign (Include photo): _____

Lighting Type/Fixture (No internal illumination is allowed): _____

_____

SIGN 2:

Type of Sign: ❑Wall ❑Hanging ❑Freestanding ❑Menu ❑Individual Letter ❑Window ❑Other _____

Height above Ground at Signs: Lower Edge: _____ Upper Edge: _____

Height of Sign Structure:_____ Sign Width:_____ Length:_____ Area in Sq Ft:_____

Number of Faces: _____ Sign Material/Color/Font:_____

Location of Sign (Include photo): _____

Lighting Type/Fixture (No internal illumination is allowed):_____

_____

SIGN 3:

Type of Sign: ❑Wall ❑Hanging ❑Freestanding ❑Menu ❑Individual Letter ❑Window ❑Other _____

Height above Ground at Signs: Lower Edge: _____ Upper Edge: _____

Height of Sign Structure:_____ Sign Width:_____ Length:_____ Area in Sq Ft:_____

Number of Faces: _____ Sign Material/Color/Font:_____

Location of Sign (Include photo): _____

Lighting Type/Fixture (No internal illumination is allowed): _____

_____

SIGN 4:

Type of Sign: ❑Wall ❑Hanging ❑Freestanding ❑Menu ❑Individual Letter ❑Window ❑Other _____

Height above Ground at Signs: Lower Edge: _____ Upper Edge: _____

Height of Sign Structure:_____ Sign Width:_____ Length:_____ Area in Sq Ft:_____

Number of Faces: _____ Sign Material/Color/Font:_____

Location of Sign (Include photo): _____

Lighting Type/Fixture (No internal illumination is allowed): _____

_____

FREQUENTLY ASKED QUESTIONS

1. *What projects require architectural review?*

   Any project involving alterations to the exterior of an existing building, visible from public view (e.g. fences, signs, awnings, mechanical equipment, landscaping, façade changes) and the construction of new buildings, all require an architectural review.

2. *How long does the architectural review process take?*

   The time required to process an application will vary depending on the size of the project. Once the application has been deemed complete, the architectural review process can take between four to eight weeks, to complete, if no changes/revisions are required by any of the reviewing body throughout the process. Vague or incomplete description of the project or failure to provide any pertinent information regarding the project will delay the review process.

3. *What does the ARB look for in a project?*

   Refer to the Town of Haymarket Architectural Review Design Guidelines.

4. *What happens after I submit my application?*

   After an application is submitted, a town clerk will review it for its completeness (not for the accuracy or content of the submission). If the application is incomplete, the missing materials will be required BEFORE the application can be forwarded for review. If complete, the application (and all required supporting documentation) will continue with the review process.

5. *What is the review process?*

   For any submission, there are two reviewing bodies in the Town. The Zoning Administrator, and the Architectural Review Board (If applicable). All reviewing bodies in the Town meet once a month. (A schedule of all the meetings is available on our website at www.townofhaymarket.org/meetings).

6. *Is there a submission deadline?*

   An application must be submitted to the Town Clerk and verified as complete one week prior to the meeting date for proper review.

7. *What happens at the ARB meeting?*

   The ARB reviews any development project(s) to promote and maintain the historic architectural flavor of the Town consistent with the Town's Comprehensive Plan. The ARB reviews any proposal/project which currently or in the future could be visible from any public view.

8. *What should I present at my review?*

   To facilitate a more streamlined review of an application, it is required that an applicant (or representative) be present at the meeting(s) during the review of their proposed project. A brief overview of the project, site, and architecture should be presented. Speak briefly to the design and landscaping features, parking and circulation, delivery routes/access, drainage, lighting, signage, and trash enclosures. Provide sample(s) of colors and materials. For larger development projects, you will need to be able to discuss traffic impacts.

9. *When can I submit my plans for a building permit?*

   If the project is approved by all applicable Boards, the applicant can then receive their building permit (if a permit is required for the project).

Document History

SignNow E-Signature Audit Log

All dates expressed in MM/DD/YYYY (US)

Document name: 10 Zoning Permit Application
Document created: 02/10/2026 21:23:57
Document pages: 5
Document ID: 10e4fa09566149beb16109871f806c70960dc97d
Document Sent: 02/10/2026 21:24:33 UTC
Document Status: Signed
02/10/2026 21:33:31UTC

Sender: novasolarinc@gmail.com
Signers: tilak801@gmail.com
CC:

Client	Event	By	Server Time	Client Time	IP Address
SignNow Web Application	Uploaded the Document	novasolarinc@gmail.com	02/10/2026 21:23:57 pm UTC	02/10/2026 21:23:52 pm UTC	71.191.50.203
SignNow Web Application	Viewed the Document	novasolarinc@gmail.com	02/10/2026 21:24:00 pm UTC	02/10/2026 21:24:01 pm UTC	71.191.50.203
SignNow Web Application	Signed the Document	novasolarinc@gmail.com	02/10/2026 21:24:29 pm UTC	02/10/2026 21:24:29 pm UTC	71.191.50.203
SignNow Web Application	Document Saved	novasolarinc@gmail.com	02/10/2026 21:24:29 pm UTC	02/10/2026 21:24:29 pm UTC	71.191.50.203
SignNow Web Application	Invite Sent to: tilak801@gmail.com	novasolarinc@gmail.com	02/10/2026 21:24:33 pm UTC	02/10/2026 21:24:33 pm UTC	71.191.50.203
SignNow Web Application	Viewed the Document	tilak801@gmail.com	02/10/2026 21:32:45 pm UTC	02/10/2026 21:33:30 pm UTC	71.191.30.207
SignNow Web Application	Viewed the Document	tilak801@gmail.com	02/10/2026 21:32:57 pm UTC	02/10/2026 21:32:57 pm UTC	24.56.144.101
SignNow Web Application	Unfinished Document	tilak801@gmail.com	02/10/2026 21:33:10 pm UTC	02/10/2026 21:33:56 pm UTC	10.50.92.115
SignNow Web Application	Signed the Document	tilak801@gmail.com	02/10/2026 21:33:31 pm UTC	02/10/2026 21:34:16 pm UTC	71.191.30.207
SignNow Web Application	Document Saved	tilak801@gmail.com	02/10/2026 21:33:31 pm UTC	02/10/2026 21:34:16 pm UTC	71.191.30.207
SignNow Web Application	Signer tilak801@gmail.com received a signed document copy	tilak801@gmail.com	02/10/2026 21:33:38 pm UTC	02/10/2026 21:34:16 pm UTC	71.191.30.207
SignNow Web Application	Sender novasolarinc@gmail.com received a signed document copy	novasolarinc@gmail.com	02/10/2026 21:33:38 pm UTC	02/10/2026 21:34:16 pm UTC	71.191.30.207

3305 Dye Dr
Falls Church, VA 22042
(703) 679-8607
NovaSolarInc@gmail.com

Aesthetic Design Considerations

To Whom it May Concern:

Nova Solar is proposing to install a 27-panel, 12.285kW Solar Photovoltaic System at the following address:

15013 Gossom Manor Pl, Haymarket, VA 20169

In order to satisfy HOA aesthetic considerations for the proposed project, Nova Solar, Inc. will make the following design considerations:

- Eliminate the use of a string inverter on the side of the house adjacent to the utility meter. We will use microinverters located under and hidden by the solar modules
- Use “triple-black” (black frames, black back sheets, black cells) solar modules

Below is a photograph of a similar system with the effects of the aforementioned design considerations on display.

Parcels (1 record located)

GPIN: 7298-80-7494
Parcel Address:
15013 GOSSOM MANOR PL
HAYMARKET, VA 20169
Subdivision: SHERWOOD FOREST
Lot Number: 26
Driving Directions

Real Estate Assessment Information:
Owner Contact:
KHAREL TILAK
15013 GOSSOM MANOR PL
HAYMARKET, VA 20169
Deeded Acreage: 0.2296
Instrument No.: 201301020000666
Real Estate Account: 246055

List Adjoiners | Less Info.

Elementary School: Haymarket Elementary
Middle School: Reagan Middle
High School: Gainesville High
Jurisdiction: Town of Haymarket
Precinct: 409 - Tyler
Magisterial District: Gainesville
Congressional District: 10th
VA Senate District: 30th
VA House District: 21th
Voting Place:
Tyler Elementary School
14500 John Marshall Highway
Gainesville, VA 20155
RPA on Parcel: NO
Private Septic: NO
FEMA 100YR Floodplain: NO
LOMA Information: Not applicable
Parent Parcel: 7298-80-8782
Child Parcel: No CHILDREN

1 : 600

TILAK KHAREL
NEW GRID-INTERACTIVE PHOTOVOLTAIC SYSTEM
DC SYSTEM SIZE (12.285KW)

SYSTEM DETAILS

DESCRIPTION	NEW GRID-INTERACTIVE PHOTOVOLTAIC SYSTEM WITH NO BATTERY STORAGE
DC RATING OF SYSTEM	SYSTEM SIZE :12.285KW DC STC
AC RATING OF SYSTEM	8.640KW
AC OUTPUT CURRENT	35.91 A
NO. OF MODULES	(27) CANADIAN SOLAR CS6.1-54TM-455H(455W) SOLAR MODULES
NO. OF INVERTERS	(27) ENPHASE IQ8MC-72-M-US MICROINVERTERS
POINT OF CONNECTION	LINE SIDE TAP IN THE MSP
ARRAY STRINGING	(1) STRING OF 10 MODULES (1) STRING OF 9 MODULES (1) STRING OF 8 MODULES

SITE DETAILS

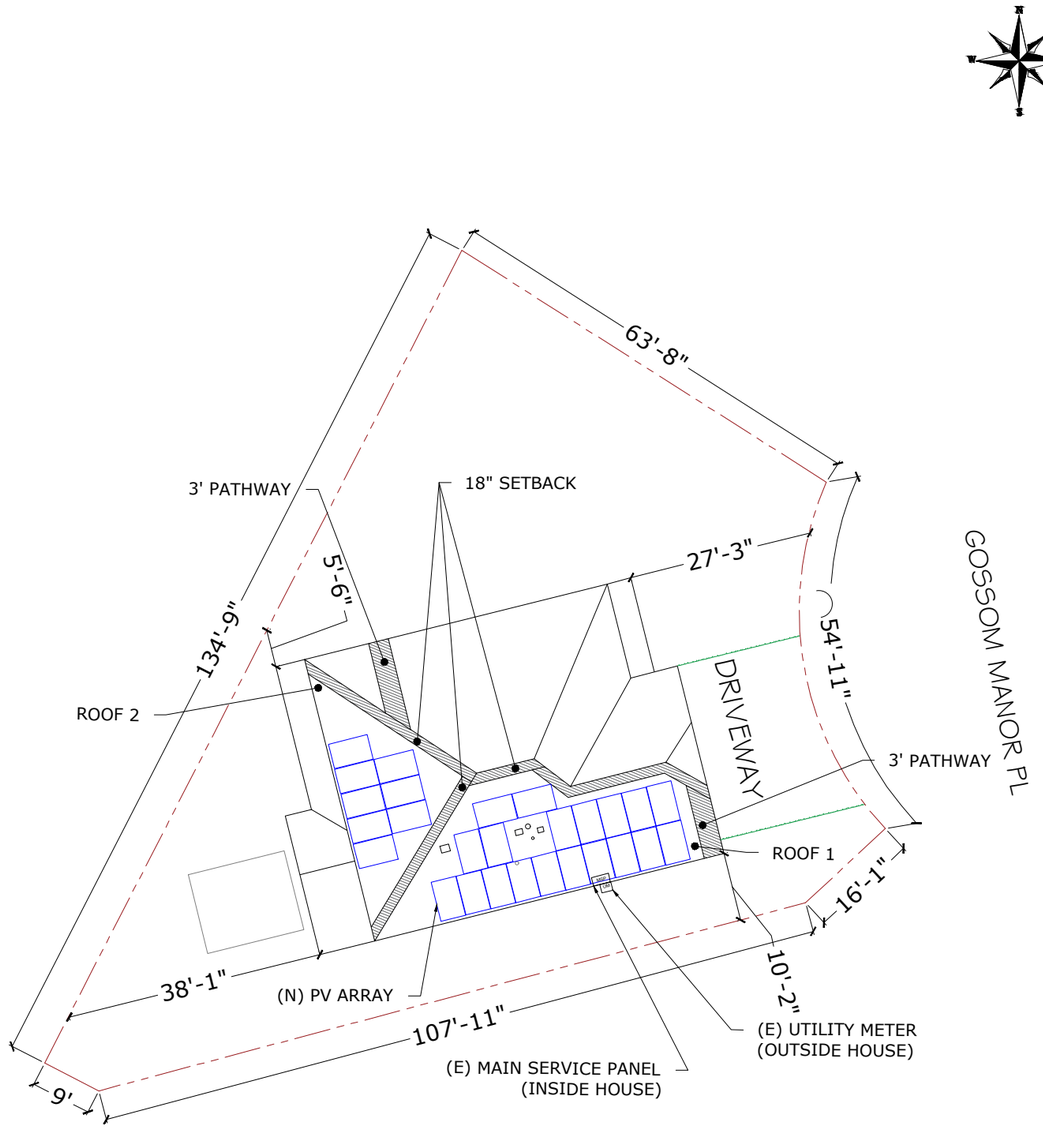
ASHRAE EXTREME LOW	-17°C
ASHRAE 2% HIGH	34°C
GROUND SNOW LOAD	30 PSF
WIND SPEED	90MPH
RISK CATEGORY	II
WIND EXPOSURE CATEGORY	B
AHJ	PRINCE WILLIAM COUNTY

GOVERNING CODES

VIRGINIA RESIDENTIAL CODE 2021
VIRGINIA CONSTRUCTION CODE 2021
VIRGINIA STATEWIDE FIRE PREVENTION CODE 2021(VSFPC 2021)
NATIONAL ELECTRIC CODE, NEC 2020 CODE BOOK, NFPA 70

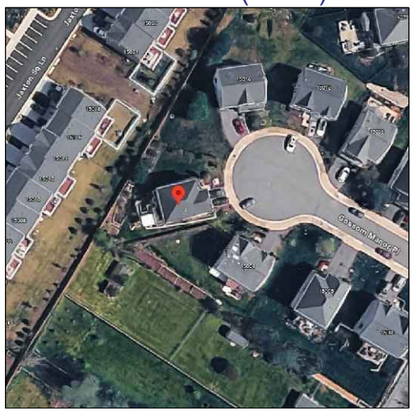
SHEET INDEX

SHEET NO.	SHEET NAME
A - 00	SITE MAP & VICINITY MAP
A - 01	ROOF PLAN & MODULES
S - 01	ARRAY LAYOUT & STRUCTURAL ATTACHMENT DETAIL
E - 01	ELECTRICAL LINE DIAGRAM
E - 02	WIRING CALCULATIONS
E - 03	SYSTEM LABELING
DS - 01	MODULE DATASHEET
DS - 02	INVERTER DATASHEET
DS - 03	JUNCTION BOX DATASHEET
DS - 04	ATTACHMENT DATASHEET
DS - 05	RACKING DATASHEET



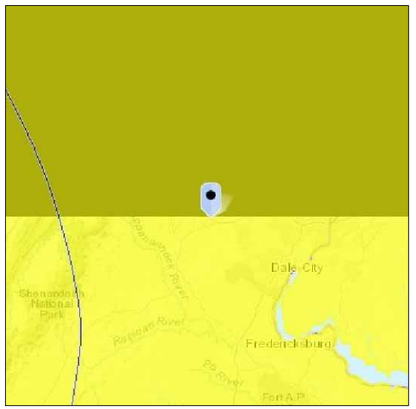
DRAWING SCALE:- 3/32" = 1'-0"

SITE MAP (N.T.S)



VICINITY MAP

WIND FLOW MAP



Nova Solar

NOVA SOLAR, INC.
3305 DYE DR, FALLS CHURCH, VA 22042

Signature with Seal

TILAK KHAREL

15013 GOSSOM MANOR PL, HAYMARKET, VA 20169

Green World Renewable Energy
Clean, Safe, Renewable

4408, RICKIE HWY, BALTIMORE, MD 21225, USA.

PERMIT DEVELOPER	
DATE	01/30/2026
DESIGNER	ORP
REVIEWER	

SHEET NAME

SITE MAP & VICINITY MAP

SHEET NUMBER

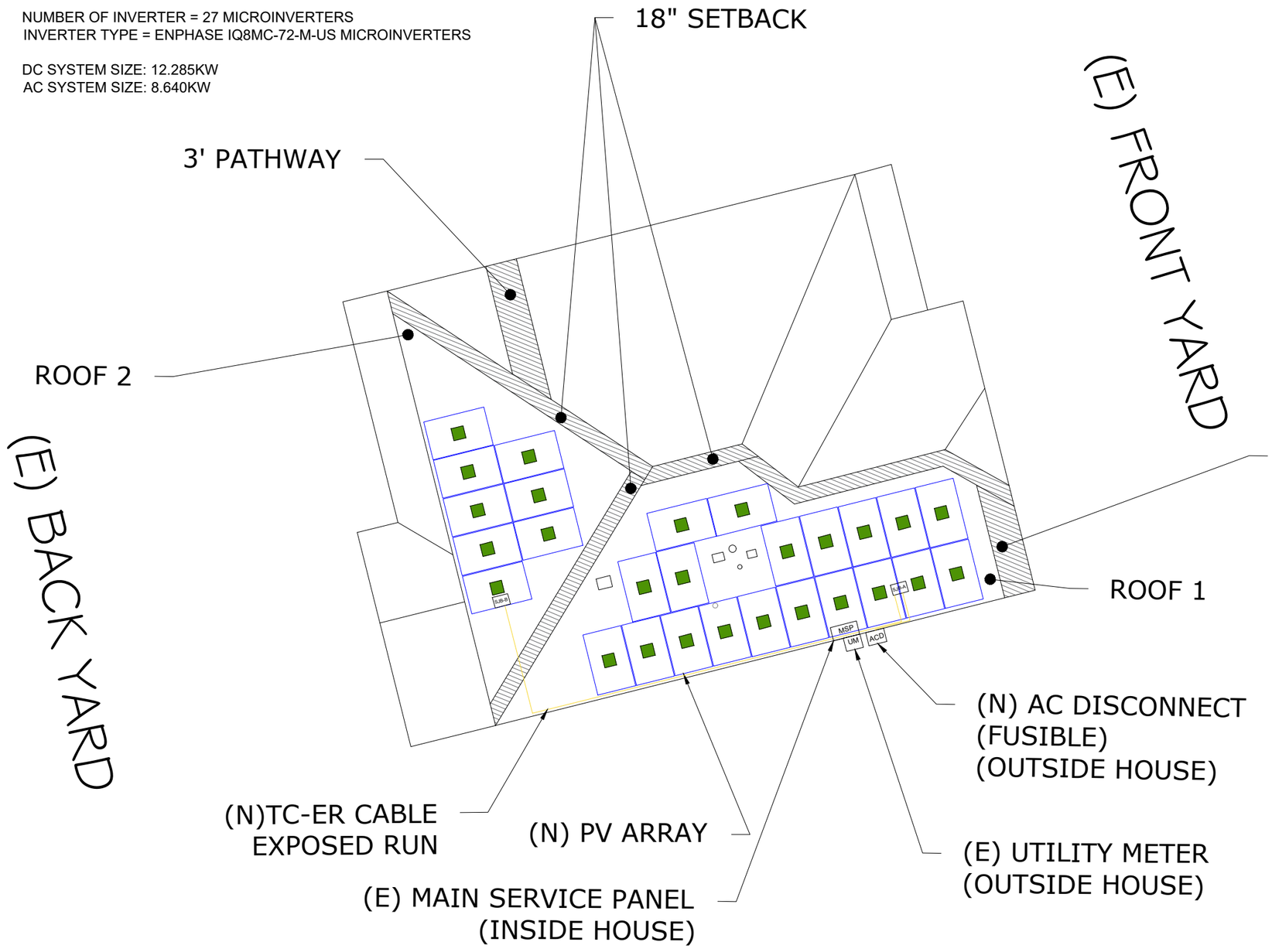
A-00

MODULE TYPE, DIMENSIONS & WEIGHT

NUMBER OF MODULES = 27 MODULES
MODULE TYPE = CANADIAN SOLAR CS6.1-54TM-455H(455W) SOLAR MODULES
WEIGHT =50.7LBS / 23.0KG.
MODULE DIMENSIONS = 70.9" X 44.6" = 21.96 SF

NUMBER OF INVERTER = 27 MICROINVERTERS
INVERTER TYPE = ENPHASE IQ8MC-72-M-US MICROINVERTERS

DC SYSTEM SIZE: 12.285KW
AC SYSTEM SIZE: 8.640KW



ROOF AREA: 2152 SQ. FT
PV AREA: 592.90SQ.FT
ROOF COVERAGE % :27.55%

LEGENDS

- UM - UTILITY METER
- MSP - MAIN SERVICE PANEL
- ACD - AC DISCONNECT
- SJB - JUNCTION BOX
- - FIRE SETBACK
- - MICROINVERTERS
- - VENT, ATTIC FAN (ROOF OBSTRUCTION)
- CABLE

DRAWING SCALE:- 3/16" = 1'-0"

Nova Solar
NOVA SOLAR, INC.
3305 DYE DR, FALLS CHURCH, VA 22042

Signature with Seal

TILAK KHAREL

15013 GOSSOM MANOR PL, HAYMARKET, VA 20169

Green World Renewable Energy
Clean, Safe, Renewable
4408, RICKIE HWY, BALTIMORE, MD 21225, USA.

PERMIT DEVELOPER	
DATE	01/30/2026
DESIGNER	ORP
REVIEWER	

SHEET NAME
ROOF PLAN & MODULES

SHEET NUMBER
A-01

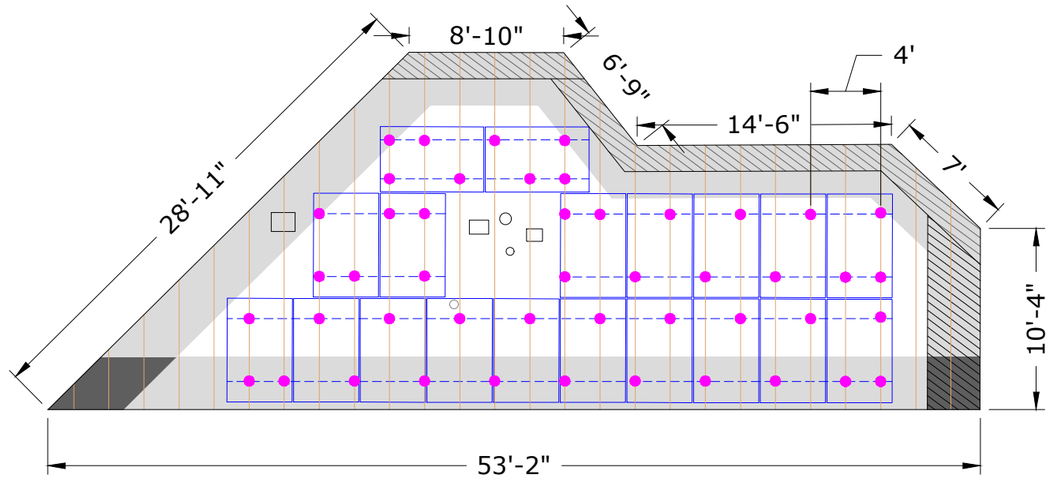
ROOF DESCRIPTION:

(ROOF #1)

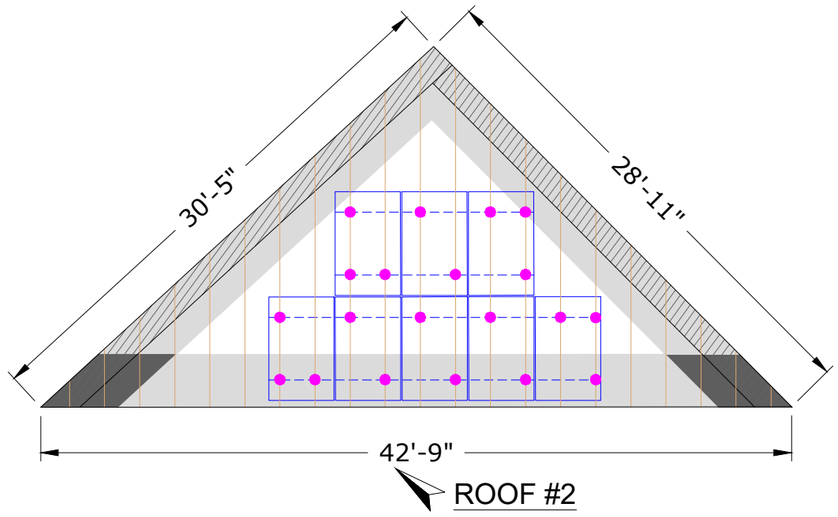
MODULES - 19
ROOF TILT - 41°
ROOF AZIMUTH - 163°
TRUSSES SIZE - 2"X4" @ 24" O.C.

(ROOF #2)

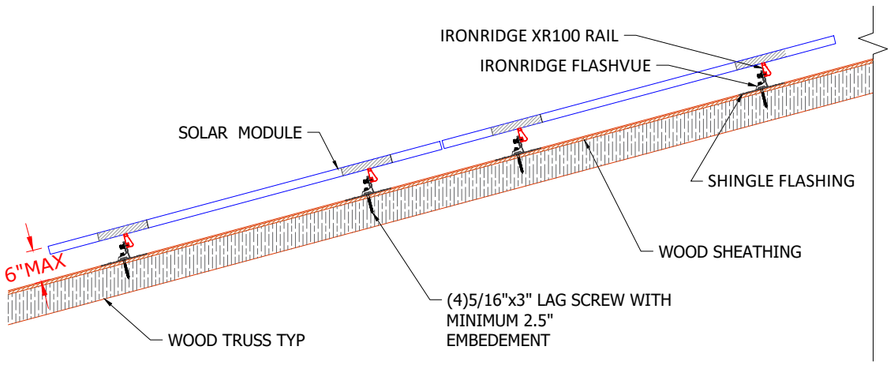
MODULES - 08
ROOF TILT - 41°
ROOF AZIMUTH - 253°
TRUSSES SIZE - 2"X4" @ 24" O.C.

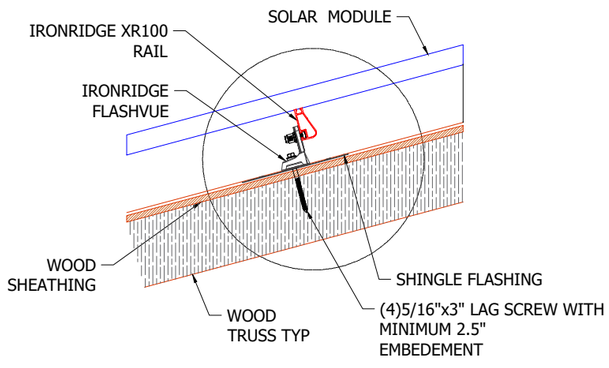


ROOF #1



ROOF #2





STRUCTURAL DETAILS

NOTE:PANELS WILL BE INSTALL PARALLEL TO THE ROOF SURFACE.

LEGENDS

- VENT, ATTIC FAN (ROOF OBSTRUCTION)
- PV ROOF ATTACHMENT
- RAILS
- RAFTERS / TRUSSES
- METAL SEAM
- WIND ZONE I
- WIND ZONE II
- WIND ZONE III

Nova Solar
NOVA SOLAR, INC.
3305 DYE DR, FALLS CHURCH, VA 22042

Signature with Seal

TILAK KHAREL

15013 GOSSOM MANOR PL, HAYMARKET, VA 20169

Green World Renewable Energy
Clean, Safe, Renewable
4408, RICKIE HWY, BALTIMORE, MD 21225, USA.

PERMIT DEVELOPER	
DATE	01/30/2026
DESIGNER	ORP
REVIEWER	

SHEET NAME
ATTACHMENT DETAILS

SHEET NUMBER
S-01

NEW

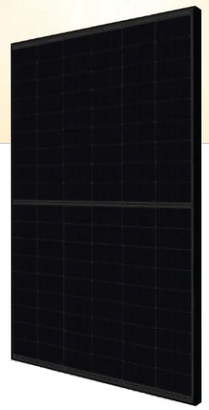
CanadianSolar

TOPHiKu6 (All-Black)

N-type TOPCon Technology

445 W ~ 470 W

CS6.1-54TM-445|450|455|460|465|470H



MORE POWER

- Module power up to 470 W
  Module efficiency up to 23.0 %
- Excellent anti-LeTID & anti-PID performance.
  Low power degradation, high energy yield
- Lower temperature coefficient (Pmax): -0.29%/°C, increases energy yield in hot climate
- Lower LCOE & system cost

MORE RELIABLE

- Minimizes micro-crack impacts
- Heavy snow load up to 8100 Pa, wind load up to 6000 Pa*

25 Years Industry Leading Product Warranty on Materials and Workmanship*

30 Years Linear Power Performance Warranty*

1st year power degradation no more than 1%
Subsequent annual power degradation no more than 0.4%

*Subject to the terms and conditions contained in the applicable Canadian Solar Limited Warranty Statement. Also this 25-year limited product warranty is available only for products installed and operating on rooftops in certain regions.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety
IEC62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730
IEC 61701 / IEC 62716 / IEC 60068-2-68
Take-e-way

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

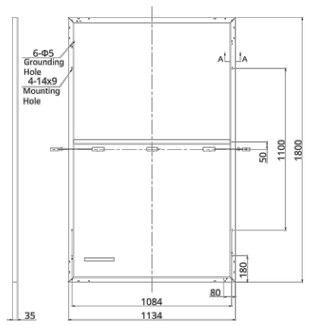
CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 22 years, it has successfully delivered over 100 GW of premium-quality solar modules across the world.

* For detailed information, please refer to the Installation Manual.

Canadian Solar (USA) Inc.
1350 Treat Blvd. Suite 500, Walnut Creek, CA 94597 | www.csisolar.com/na | service.ca@csisolar.com

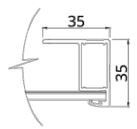
ENGINEERING DRAWING (mm)

Rear View

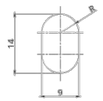


Frame Cross Section

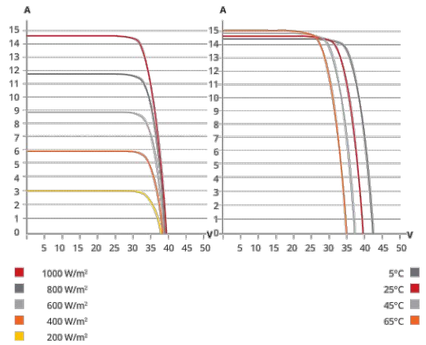
A - A



Mounting Hole



CS6.1-54TM-455H / I-V CURVES



ELECTRICAL DATA | STC*

CS6.1-54TM	445H	450H	455H	460H	465H	470H
Nominal Max. Power (Pmax)	445 W	450 W	455 W	460 W	465 W	470 W
Opt. Operating Voltage (Vmp)	32.8 V	33.0 V	33.2 V	33.4 V	33.6 V	33.8 V
Opt. Operating Current (Imp)	13.59 A	13.66 A	13.72 A	13.78 A	13.85 A	13.91 A
Open Circuit Voltage (Voc)	38.7 V	38.9 V	39.1 V	39.3 V	39.5 V	39.7 V
Short Circuit Current (Isc)	14.48 A	14.55 A	14.61 A	14.69 A	14.77 A	14.86 A
Module Efficiency	21.8%	22.0%	22.3%	22.5%	22.8%	23.0%
Operating Temperature	-40°C ~ +85°C					
Max. System Voltage	1500V (IEC/UL) or 1000V (IEC/UL)					
Module Fire Performance	TYPE 1 (UL 61730 1500V) or TYPE 2 (UL 61730 1000V) or CLASS C (IEC 61730)					
Max. Series Fuse Rating	25 A					
Application Classification	Class A					
Power Tolerance	0 ~ + 10 W					

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m2, spectrum AM 1.5 and cell temperature of 25°C.

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
Cell Arrangement	108 [2 X (9 X 6)]
Dimensions	1800 × 1134 × 35 mm (70.9 × 44.6 × 1.38 in)
Weight	23 kg (50.7 lbs)
Front Cover	3.2 mm tempered glass with anti-reflective coating
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 12 AWG (UL)
Connector	T6, MC4, MC4-EVO2 or MC4- EVO2A
Cable Length (Including Connector)	1550 mm (61.0 in) (+) / 1100 mm (43.3 in) (-)
Per Pallet	31 pieces
Per Container (40' HQ)	744 pieces

ELECTRICAL DATA | NMOT*

CS6.1-54TM	445H	450H	455H	460H	465H	470H
Nominal Max. Power (Pmax)	335 W	339 W	343 W	347 W	351 W	354 W
Opt. Operating Voltage (Vmp)	30.9 V	31.1 V	31.3 V	31.5 V	31.7 V	31.9 V
Opt. Operating Current (Imp)	10.85 A	10.91 A	10.96 A	11.02 A	11.07 A	11.12 A
Open Circuit Voltage (Voc)	36.5 V	36.7 V	36.9 V	37.1 V	37.3 V	37.5 V
Short Circuit Current (Isc)	11.68 A	11.74 A	11.79 A	11.85 A	11.92 A	11.99 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m² spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	42 ± 3°C

PARTNER SECTION

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice. Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

Nova Solar

NOVA SOLAR, INC.
3305 DYE DR, FALLS CHURCH, VA 22042

Signature with Seal

TILAK KHAREL

15013 GOSSOM MANOR PL, HAYMARKET, VA 20169

Green World Renewable Energy
Clean, Safe, Renewable

4408, RICKIE HWY, BALTIMORE, MD 21225, USA.

PERMIT DEVELOPER	
DATE	01/30/2026
DESIGNER	ORP
REVIEWER	

SHEET NAME

MODULE DATASHEET

SHEET NUMBER

DS-01

ENPHASE.

DATA SHEET

IQ8MC Microinverter

Our newest IQ8 Series Microinverters are the industry's first microgrid-forming*, software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently. The brain of the semiconductor-based microinverter is our proprietary application-specific integrated circuit (ASIC), which enables the microinverter to operate in grid-tied or off-grid modes. This chip is built in advanced 55-nm technology with high-speed digital logic and has superfast response times to changing loads and grid events, alleviating constraints on battery sizing for home energy systems.

Part of the Enphase Energy System, IQ8 Series Microinverters integrate with the IQ Battery, IQ Gateway, and the Enphase App monitoring and analysis software.

Enphase 25 year limited warranty

IQ8 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 25 years.

Connect PV modules quickly and easily to the IQ8 Series Microinverters that have integrated MC4 connectors.

CERTIFIED SAFETY

IQ8 Series Microinverters are UL Listed as PV rapid shutdown equipment and conforms with various regulations when installed according to the manufacturer's instructions.

*Meets UL 1741 only when installed with IQ System Controller 2 and 3.

Easy to install

- Lightweight and compact with plug-and-play connectors
- Power line communication (PLC) between components
- Faster installation with simple two-wire cabling

High productivity and reliability

- Produces power even when the grid is down*
- More than one million cumulative hours of testing
- Class II double-insulated enclosure
- Optimized for the latest high-powered PV modules

Microgrid-forming

- Complies with the latest advanced grid support
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles
- Meets CA Rule 21 (UL 1741-SA) and IEEE 1547:2018 (UL 1741-SB)

NOTE:

- IQ8 Microinverters cannot be mixed together with previous generations of Enphase microinverters (IQ7 Series, IQ6 Series, etc.) in the same system.
- IQ Gateway is required to change the default grid profile at the time of installation to meet the local Authority Having Jurisdiction (AHJ) requirements.

IQ8MC Microinverter

INPUT DATA (DC)	UNITS	IQ8MC-72-M-US
Commonly used module pairings [1]	W	260–460
wModule compatibility		To meet compatibility, PV modules must be within the following max. input DC voltage and max. module I_{sc} Module compatibility can be checked at https://enphase.com/installers/microinverters/calculator.
MPPT voltage range	V	25–45
Operating range	V	18–58
Min./Max. start voltage	V	22/58
Max. input DC voltage	V	60
Max. continuous operating DC current	A	14
Max. input DC short-circuit current	A	25
Max. module I_{sc}	A	20
Overvoltage class DC port		II
DC port backfeed current	mA	0
PV array configuration		Ungrounded array; no additional DC side protection required; AC side protection requires max 20 A per branch circuit

OUTPUT DATA (AC)	UNITS	IQ8MC-72-M-US @240 VAC	IQ8MC-72-M-US @208 VAC
Peak output power	VA	330	315
Max. continuous output power	VA	320	310
Nominal grid voltage (L-L)	V	240, split-phase (L-L), 180°	208, single-phase (L-L), 120°
Min./Max. grid voltage [2]	V	211–264	183–229
Max. continuous output current	A	1.33	1.49
Nominal frequency	Hz	60	
Extended frequency range	Hz	47–68	
AC short circuit fault current over three cycles	A_{rms}	2.70	
Max. units per 20 A (L-L) branch circuit [3]		12	10
Total harmonic distortion	%	<5	
Overvoltage class AC port		III	
AC port backfeed current	mA	18	
Power factor setting		1.0	
Grid-tied power factor (adjustable)		0.85 leading ... 0.85 lagging	
Peak efficiency	%	97.4	97.2
CEC weighted efficiency	%	97.0	96.5
Nighttime power consumption	mW	33	25

MECHANICAL DATA	UNITS
Ambient temperature range	-40°C to 65°C (-40°F to 149°F)
Relative humidity range	4% to 100% (condensing)
DC connector type	Stäubli MC4
Dimensions (H × W × D); Weight	212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2"); 1.1 kg (2.43 lbs)
Cooling	Natural convection – no fans
Approved for wet locations; Pollution degree	Yes; PD3
Enclosure	Class II double-insulated, corrosion-resistant polymeric enclosure
Environ. category; UV exposure rating	NEMA Type 6; outdoor

COMPLIANCE	
Certifications	CA Rule 21 (UL 1741-SA), UL 62109-1, IEEE 1547:2018 (UL 1741-SB), FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV rapid shutdown equipment and conforms with NEC 2014, NEC 2017, NEC 2020, and NEC 2023 section 690.12 and C22.1-2018 Rule 64-218 rapid shutdown of PV systems for AC and DC conductors when installed according to the manufacturer's instructions.

(1) No enforced DC/AC ratio.
(2) Nominal voltage range can be extended beyond nominal if required by the utility.
(3) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

IQ8MC-MC4-DSH-00049-3.0-EN-US-2023-10-18

Nova Solar

NOVA SOLAR, INC.
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Signature with Seal

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15013 GOSSOM MANOR PL, HAYMARKET, VA 20169

Green World Renewable Energy
Clean, Safe, Renewable

4408, RICKIE HWY, BALTIMORE, MD 21225, USA.

PERMIT DEVELOPER	
DATE	01/30/2026
DESIGNER	ORP
REVIEWER	

SHEET NAME

INVERTER DATASHEET

SHEET NUMBER

DS-02

Tech Brief

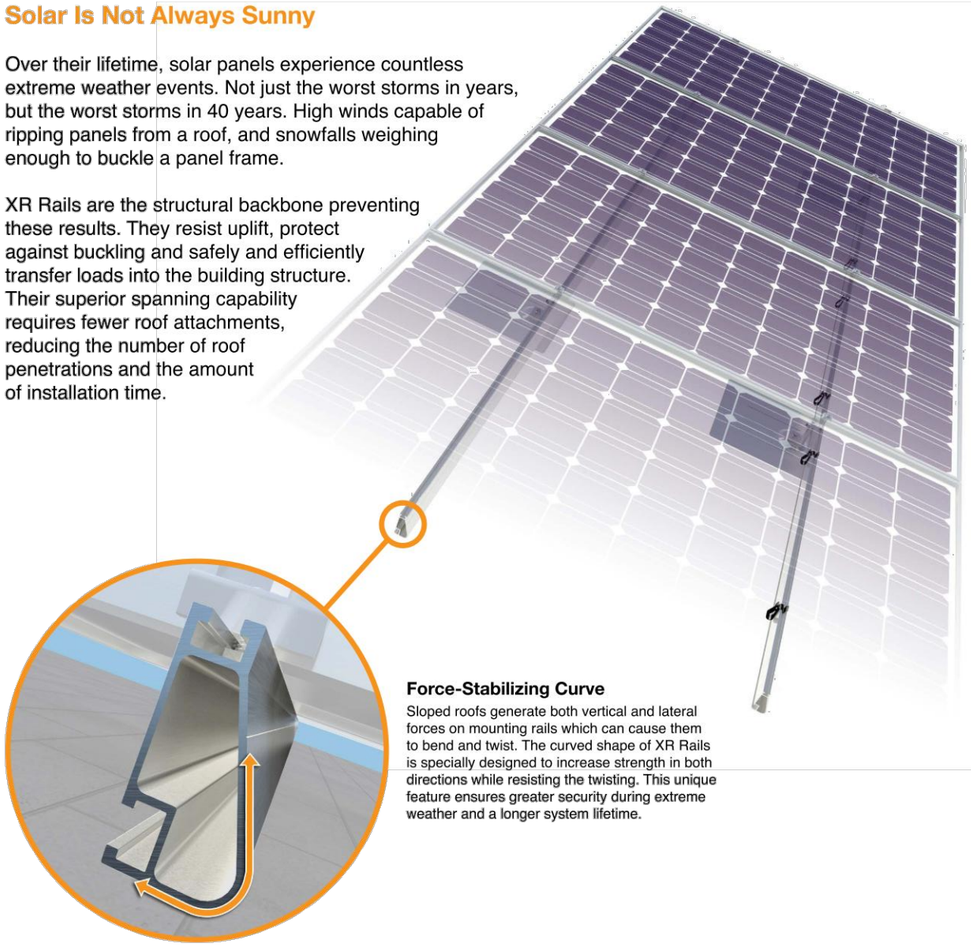
IRONRIDGE

XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.



Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

Compatible with Flat & Pitched Roofs

XR Rails are compatible with FlashFoot and other pitched roof attachments.

IronRidge offers a range of tilt leg options for flat roof mounting applications.

Corrosion-Resistant Materials

All XR Rails are made of marine-grade aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.

Tech Brief

XR Rail Family

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match.

XR10

XR10 is a sleek, low-profile mounting rail, designed for regions with light or no snow. It achieves 6 foot spans, while remaining light and economical.

- 6' spanning capability
- Moderate load capability
- Clear anodized finish
- Internal splices available

XR100

XR100 is the ultimate residential mounting rail. It supports a range of wind and snow conditions, while also maximizing spans up to 8 feet.

- 8' spanning capability
- Heavy load capability
- Clear & black anodized finish
- Internal splices available

XR1000

XR1000 is a heavyweight among solar mounting rails. It's built to handle extreme climates and spans 12 feet or more for commercial applications.

- 12' spanning capability
- Extreme load capability
- Clear anodized finish
- Internal splices available

Rail Selection

The following table was prepared in compliance with applicable engineering codes and standards. Values are based on the following criteria: ASCE 7-10, Roof Zone 1, Exposure B, Roof Slope of 7 to 27 degrees and Mean Building Height of 30 ft. Visit IronRidge.com for detailed span tables and certifications.

Load		Rail Span					
Snow (PSF)	Wind (MPH)	4'	5' 4"	6'	8'	10'	12'
None	100	XR10		XR100		XR1000	
	120						
	140						
	160						
10-20	100						
	120						
	140						
	160						
30	100						
	160						
40	100						
	160						
50-70	160						
80-90	160						

Nova Solar

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Signature with Seal

TILAK KHAREL

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4408, RICKIE HWY, BALTIMORE, MD 21225, USA.

PERMIT DEVELOPER	
DATE	01/30/2026
DESIGNER	ORP
REVIEWER	

SHEET NAME

RACKING DATASHEET

SHEET NUMBER

DS-05

Davinder Singh
Sukhdeep Kaur
14981 Gossom Manor Place
Haymarket, VA 20169

February 27 2026

RE: Solar Panels

Dear Davinder,

We have received your request for the following:

Receive approval to install solar panels on the rear roof.

We are happy to inform you that your request has been approved by the Architectural Committee with the following conditions: . If you have any questions, please contact Sofia Parker at sparker@intempus.net.

Sincerely,

Sofia Parker

Sofia Parker
on behalf of Sherwood Forest Community Association, Inc

Tilak Raj Kharel
15013 Gossom Manor Place
Haymarket, VA 20169

February 27 2026

RE: Solar Panels

Dear Tilak Raj,

We have received your request for the following:

Association: Sherwood Forest Community Association, Inc
Date: 02/01/2026 08:57:23 PM
Owner Name: Tilak Raj Kharel
Account Number: 23962
Unit:
Address: 15013 Gossom Manor Place, Haymarket, VA 20169
Home Phone:
Cell Phone: 2404819503
Email Address: tilak801@hotmail.com
Planned Start Date: 3/1/2026 12:00:00 AM
Planned Completion Date: 3/31/2026 12:00:00 AM
ACC Type: Solar Panels
Detailed Description of the Project: Installation of a27-panel, 12.285Kw roof mounted solar system, Black on black panels Flush mounted (parallel) to roof surface
Work will be performed by Contractor or Homeowner?: Contractor, Nova Solar
Name of Contractor, if applicable: Nova Solar, 703-679-8607, novasolarinc@gmail.com
By clicking submit, I hereby agree and certify to each of the following:
I have read the instructions on this form and familiarized myself with the Architectural Standards in the Governing Documents for my Association.
I agree that I may be required to alter or remove my improvement if it does not follow the plan as submitted and approved by the Architectural Committee.
I agree to not begin my project before receiving formal approval by the Architectural Committee.

We are happy to inform you that your request has been approved by the Architectural Committee with the following conditions: Approved.. If you have any questions, please contact Sofia Parker at sparker@intempus.net.

Sincerely,

Sofia Parker
on behalf of Sherwood Forest Community Association, Inc