



Estd: 1944

Banwarilal Bhalotia College

Constituent college of the **KAZI NAZRUL UNIVERSITY**, Asansol
(GOVT. SPONSORED **U G & P G** College)
ASANSOL – 713303, WEST BENGAL
(INDIA)

Dr Amitava Basu, M Com, Ph D
Principal

Ref. No.

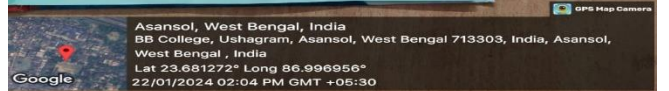
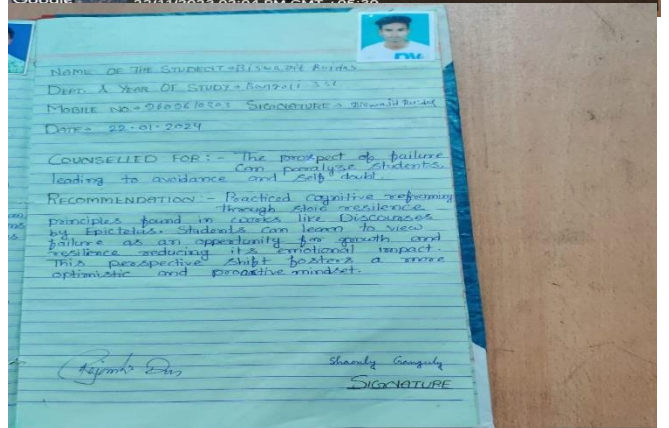
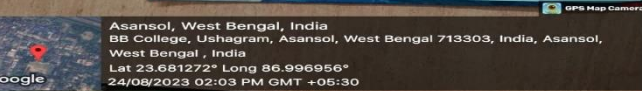
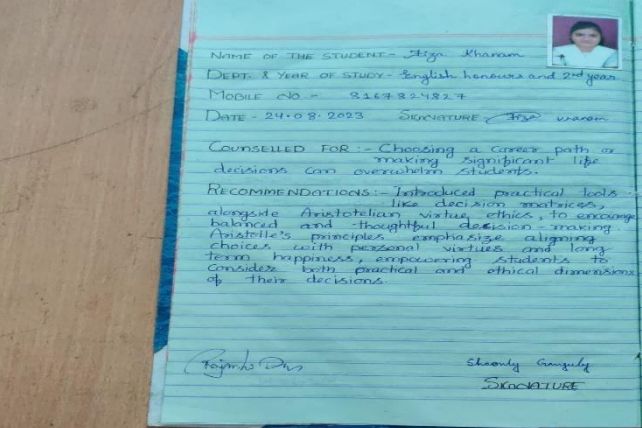
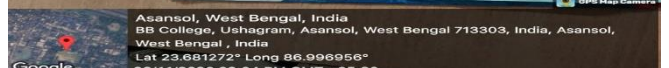
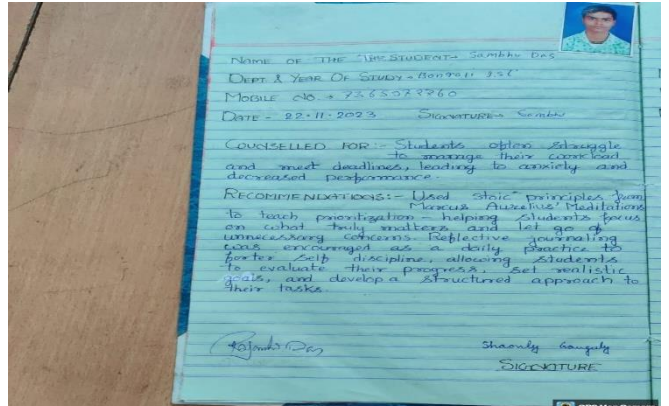
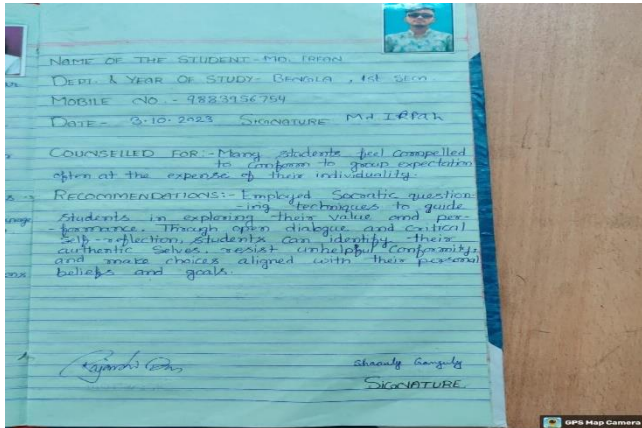
Date: 28.01.2025

Report on New Initiatives by the Central Library of B.B. College (2023-2024)

The Central Library of B.B. College has introduced several innovative services and collaborations during the academic year 2023-2024 to enhance student support, academic integrity, and research resources. These initiatives are aimed at fostering a more holistic learning environment by addressing mental well-being, academic research, and access to standardized information.

1. Mental Counselling Services through Bibliotherapy and Philosophical Concepts

Recognizing the growing concerns around students' mental health and emotional well-being, the Central Library of B.B. College has started providing mental counselling services utilizing bibliotherapy and philosophical concepts. Bibliotherapy, a method that uses carefully selected books to provide psychological support, helps students deal with stress, anxiety, and academic pressures. This initiative integrates philosophical wisdom, offering insights from various philosophical traditions to help students develop resilience, self-awareness, and critical thinking skills. By curating a collection of books and organizing interactive sessions, the library aims to provide a structured yet personalized approach to mental well-being.



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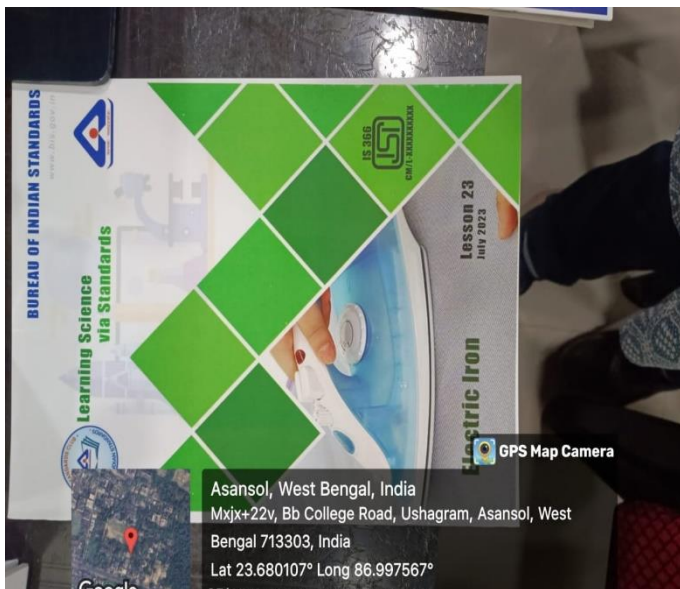
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2. Establishment of a BSI Standards Collection Section

To support academic research and professional development, the library has established a dedicated section containing collections of Bureau of Indian Standards (BSI) guidelines. These standards play a crucial role in ensuring quality, safety, and efficiency in various fields, including engineering, science, and technology. The availability of these resources will benefit students, researchers, and faculty members, enabling them to reference nationally recognized standards in their academic projects and research work. This section is expected to serve as a valuable reference point for those involved in technical and industrial studies, ensuring they adhere to established benchmarks.



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3. Collaboration with Visva Bharati's Central Library for Plagiarism Checking

Maintaining academic integrity is a crucial aspect of higher education, and to uphold these standards, the Central Library of B.B. College in collaboration with the R&D Cell of B.B. College has collaborated with the Central Library of Visva Bharati University for plagiarism-checking services. This partnership allows students, faculties, and researchers to verify the originality of their work before submission to international book chapter publication in e-ConSus, an international conference for sustainable development, reducing instances of unintentional plagiarism and ensuring proper attribution of sources. The plagiarism-checking facility is expected to enhance the credibility of research output and help contributors develop better citation and referencing practices.

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Date: 28.01.2025

Ref. No.


TO WHOM IT MAY CONCERN


This is to certify that Dr. Amitava Basu, Principal of Banwarilal Bhalotia College (B.B. College), Asansol, West Bengal, formally requested Dr. Nimai Chand Saha, Librarian, Visva-Bharati, Santiniketan, considering his vast experience in the related domain to assist for checking similarity index for chapters of edited book(s). This is a purely academic cooperation without involving any monetary involvement from both sides.


In response to this request, Dr. Nimai Chand Saha, as the Librarian of Visva-Bharati, graciously agreed to provide the necessary support as purley voluntary academic cooperation. By using Urkund and Ouriginal plagiarism detection software he has checked the similarity index to ensure the academic integrity of the submitted chapters for edited book volumes spanning the years 2020 to 2023, covering a period of four years.

This collaborative effort reflects the mutual commitment of both institutions to uphold academic excellence and ethical standards in scholarly publishing.

We sincerely acknowledge the cooperation extended by Dr. Nimai Chand Saha and the Visva-Bharati Central Library team for their diligent efforts in ensuring the quality and originality of the academic work.


Dr. Nimai Chand Saha
Librarian
Visva-Bharati
Santiniketan, West Bengal
পুলকাল্যঅধ্যক্ষ / Librarian
বিশ্বভারতী / Visva-Bharati
শান্তিনিকেতন / Santiniketan




Dr. Amitava Basu
Principal
Banwarilal Bhalotia College
Asansol, West Bengal
DR. AMITAVA BASU
Principal, B. B. College
Ushagram Asansol, P. Bardhaman
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11:16

Fwd: [Original] 37 document(s)
- librarian@visva-bharati.ac.in

Inbox

Dr Nimai Chan... 9/8/2023

to me

From Dr Nimai Chand Saha - librarian@visva-bharati.ac.in
To iwcrssd2020@gmail.com
Date Sep 8, 2023, 4:03 PM
Standard encryption (TLS).
View security details

Dear Dr Rajarshi,
Please find the link of the analysis report of all the 37 papers as you sent.
Two papers are highly across the level and better not to consider.
Final decision of course, will be taken by the Editorial Board.
Thanks and regards

Forwarded message
From: <noreply@urkund.com>
Date: Fri, Sep 8, 2023 at 3:14 PM
Subject: [Original] 37 document(s) - librarian@visva-bharati.ac.in
To: <librarian@visva-bharati.ac.in>

Document sent by: librarian@visva-bharati.ac.in
Document received: 9/8/2023 11:42:00 AM
Report generated 9/8/2023 11:44:54 AM by Ouriginal's system for automatic control.

Student message:

Document : Aditya S Ghosh_Sustainable Resource Management Utilizing Rice Husk Ash as Supplementary Cementing Material for the Construction of Rigid Pavement.doc[D173586338]
IMPORTANT! The analysis contains 1 warning(s).
About 0% of this document consists of text similar to text found in 0 sources. The largest marking is 0 words long and is 0% similar to its primary source.

PLEASE NOTE that the above figures do not automatically mean that there is plagiarism in the document. There may be good reasons as to why parts of a text also appear in other sources. For a reasonable suspicion of academic dishonesty to present itself, the analysis, possibly found sources and the original document need to be examined closely.

Click here to open the analysis:
<https://secure.orkund.com/view/165856560-105577-918328>

Click here to download the document:
<https://secure.ouriginal.com/archive/download/173586338-958923-513264>

Document : Ambalika Biswas_Solving the puzzle of the universe.doc[D173586339]
IMPORTANT! The analysis contains 1 warning(s).
About 94% of this document consists of text similar to text found in 10 sources. The largest marking is 584 words long and is 98% similar to its primary source.

PLEASE NOTE that the above figures do not automatically mean that there is plagiarism in the document. There may be good reasons as to why parts of a text also appear in other sources. For a reasonable suspicion of academic dishonesty to present itself, the analysis, possibly found sources and the original document need to be examined closely.

Click here to open the analysis:
<https://secure.orkund.com/view/165856562-618906-139509>

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Principal

4. Introduction of a Multidisciplinary Course on Information and Media Literacy under NEP 2020

In alignment with the National Education Policy (NEP) 2020, the Central library has launched a multidisciplinary course on Information and Media Literacy during the 2023-2024 academic session. This course aims to equip students with critical skills to navigate, evaluate, and ethically engage with information in the digital age. The course covers:

- **Fundamentals of Information Literacy:** Understanding the credibility and authenticity of information sources.
- **Media Literacy:** Analyzing media content, distinguishing between fact and misinformation, and recognizing biases.
- **Digital Citizenship:** Safe and responsible use of digital platforms.
- **Research and Academic Integrity:** Ethical writing, citation techniques, and avoiding plagiarism.

By offering this course, the library is actively promoting digital literacy, research skills, and responsible media consumption among students, ensuring they are well-prepared for both academic and professional challenges in an information-driven world.

5. Six-Day Short-Term Course on Digital Archiving in Practice

The Rarh-Chive, the digital archive of RARH-Bangla, under the Central Library of B.B. College, Asansol, successfully organized a six-day short-term course on Digital Archiving in Practice in collaboration with several esteemed partners. This event, sponsored by the British Library and patronaged by INFLIBNET, aimed to equip participants with practical skills and



knowledge in the field of digital archiving, preservation, and access management.

The course covered key aspects such as:

- Principles and Practices of Digital Archiving
- Metadata Standards and Digital Cataloguing
- Digitization Techniques and Preservation Strategies
- Ethical and Legal Aspects of Digital Archives
- Software Tools for Digital Archiving
- Case Studies and Hands-on Training

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Participants included students, researchers, librarians, and archivists, who benefited from expert-led sessions, interactive workshops, and practical demonstrations. The collaboration with British Library and INFLIBNET provided access to global best practices and cutting-edge methodologies.

This initiative reflects the Central Library of B.B. College’s commitment to advancing digital preservation, research accessibility, and scholarly resource management, ensuring that archival heritage is effectively maintained and utilized for future generations.



6. Integration of BBA-BCA Library into Central Library

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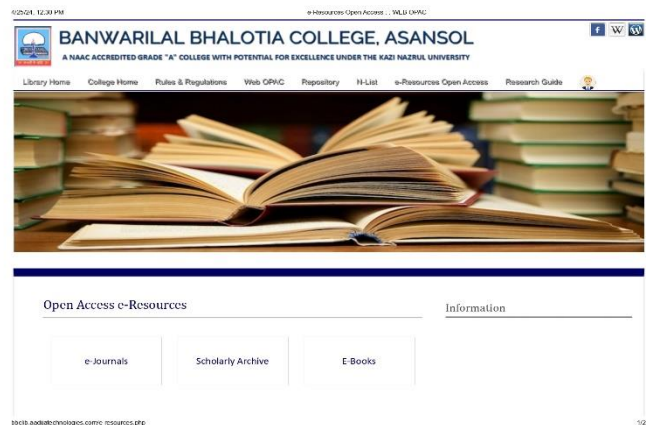
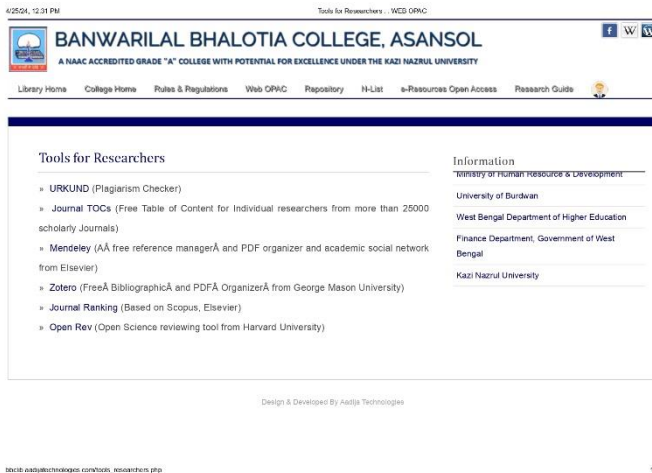
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Principal

The BCA Library has been successfully merged with the Central Library. This integration streamlines access to resources and ensures that all materials are available in a single, centralized location. Students and faculty from the BCA department can now utilize the consolidated collection more efficiently, fostering a unified academic environment.

7. Full Automation of Book Issues and Return

The book issue and return process in the Central Library is now fully computerized. This advancement eliminates manual processing, significantly reducing time and errors in book transactions. The computerized system offers the following benefits:

- *Enhanced Efficiency: Faster processing of book loans and returns.
- *Improved Accuracy: Minimized errors in transaction records.
- *User Convenience: Real-time updates on book availability and transaction history.
- *Streamlined Management: Efficient tracking of overdue books and inventory.



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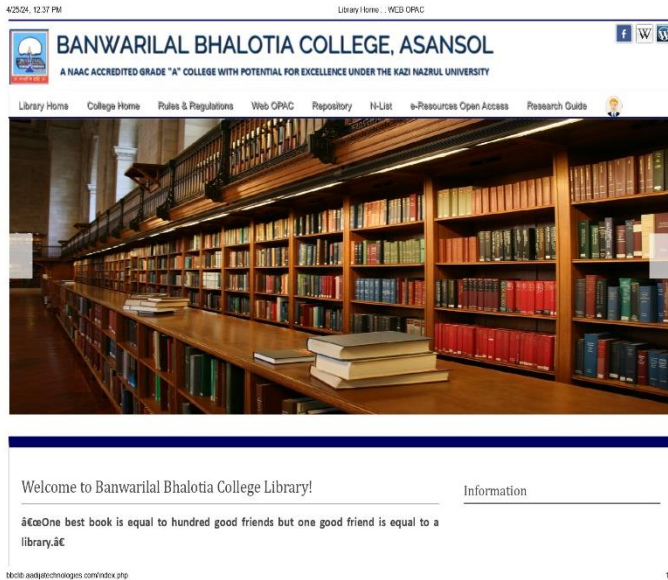


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With these initiatives, the Central Library of B.B. College is taking significant strides towards enhancing student well-being, improving access to critical academic resources, and promoting ethical research practices. By integrating mental health support through bibliotherapy, providing standardized knowledge resources, and ensuring academic integrity through plagiarism checks, the library is positioning itself as a comprehensive support system for students and faculty. These efforts not only enrich the academic environment but also contribute to the holistic development of students, preparing them for both academic and professional challenges.

Yours sincerely,

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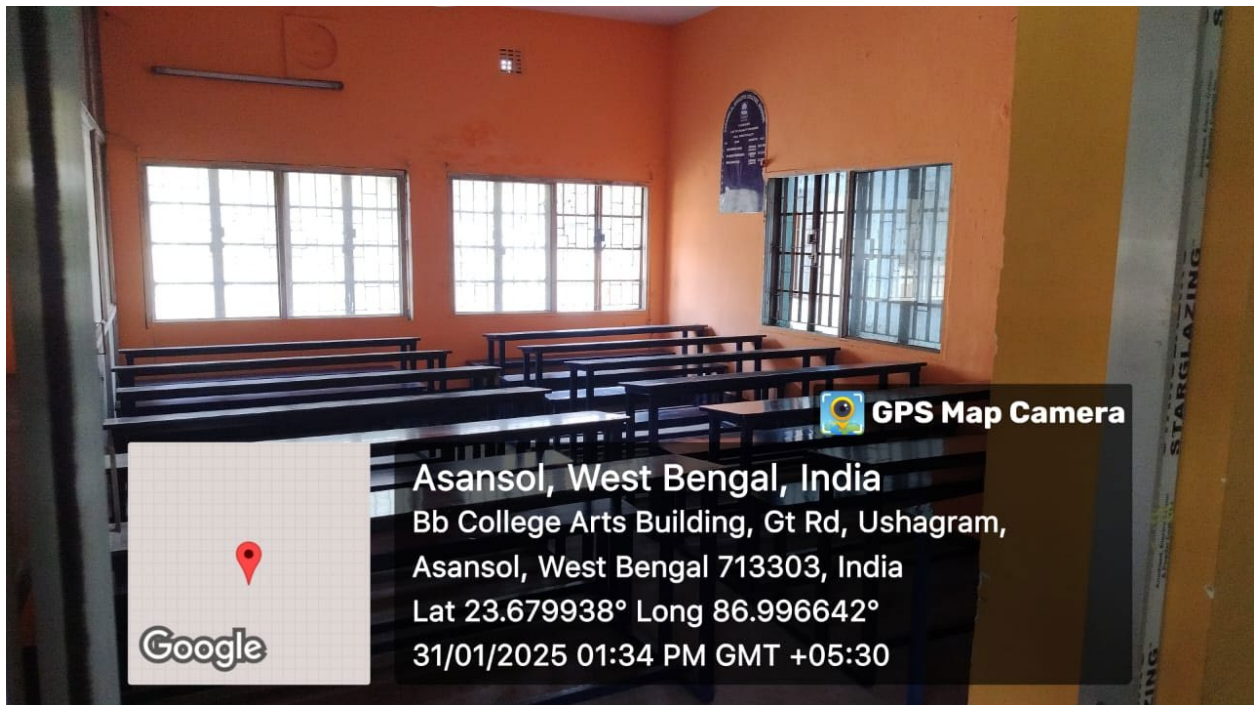
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Expansion of New Classrooms

In the session of 2023- 2024, five new classrooms were constructed as a plan for infrastructure development after shifting and upgrading the the Central Library to the administrative building. Attached below are the screenshots of the new classrooms.





Banwarilal Bhalotia College

Constituent College of Kazi Nazrul University

Govt. sponsored (U.G. & P.G.)

College with potential for Excellence

Asansol-713303, West Bengal (India)

Installation Report

of

85000 kW roof top Solar Power Plant

At a solar plant, the sun's energy is directed and used to create environmentally friendly power. India has a restricted reserve of non-renewable sources of energy, and the nation is intensely

subject to imports to meet its energy needs. Solar power can diminish India's reliance on non-renewable sources of energy, which can assist with lessening the country's energy import bill.

Benefits of solar energy :-

1. Solar energy is clean & green energy
2. Not dependent on other sources of Energy
3. Non-maintenance
4. Safer than Other
5. Renewable Energy
6. Electricity Bill Reduction



Admission & BBA ,BCA Block-B (20 KW)



7. Maximum Usage
8. Technology Development

Altogether, the use of solar panels helps us save electricity and get rid of huge electricity bills just by utilizing the natural energy resource i.e. Sun.

Solar Power Generating Systems (SPGS) were installed on rooftops of Science building, Arts building, Administrative building & Hindi shift building. The plants were established by **Starc Energy Solutions Pvt. Ltd. OVERALL CAPACITY: 85000kW/ 154 Modules / 4 Invertors /..... Unit Per Day Generation.** The Roof top 400KW Solar Power Plant at SKIT was inaugurated on Tuesday, 23rd Dec., 2023 by the Honourable MP, Shri Shatrughan Sinha.

The specifics of the plant are as follows:-

SPGS of 20 kW

Solar Module Model No. : 144MF-SPV module 545wp

Make: Sova Solar

No. of modules: 36

Inverter details

On grid inverter

Model: KSY-20k-5g pro

Make: K Solare

SPGS of 25 kW

Solar Module Model No. : 144MF-SPV module 545wp

Make: Sova Solar

No. of modules: 46

Inverter details

On grid inverter

Model: KSY-25k-5g pro

Make: K Solar

NOTE: Applied for net metering. The excess production gets transferred to the grid.



Arts Building Block-D (20 KW)





Science & Commerce Block-A (25 KW)





Hindi Shift Building (20 KW)





FORM-S1

(Application form for Roof-top solar PV)

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY
LIMITED. (IVRS Number: 1800-345-5221 Website:
<https://www.wbsedcl.in>)
(To be submitted toDIVISION)

Application Date	:	
Consumer Id	:	
Mobile Number	:	
Email Id (Optional)	:	
Aadhar No (optional)	:	
Installed Capacity of the proposed rooftop solar plant (in KWp)	:	

Consumer category for Net-metering : (Please tick the applicable category)

- Hospital/Health centre run by Govt./Private/Private charitable Organisation
- Schools/academic institutions run by Govt/Private/Govt. aided
- Govt. offices/organisations
- Local bodies- Municipalities/Panchayats
- Housing complex
- Commercial/Industrial organisations and any institutions registered under any statute

Declaration : I am agreed to bear the cost of phase conversion/ alteration of service if required.

Place.....

Signature of the Applicant

Design 1 20kw Admin Building BB College bb college

Project Details

Address: bb college
Owner: Sharu Kannoth
Last Modified: 4 minutes ago
Location: (23.680962000000015, 86.987501000000062)
 (GMT 5.5)
Profile: Default Commercial

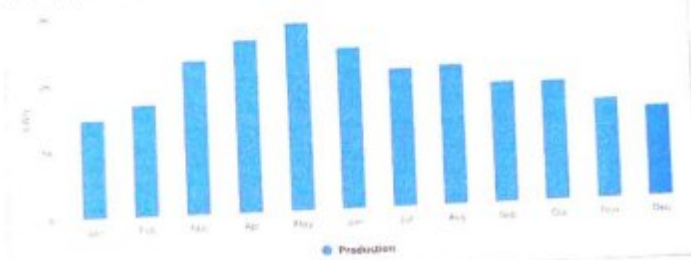


System Metrics

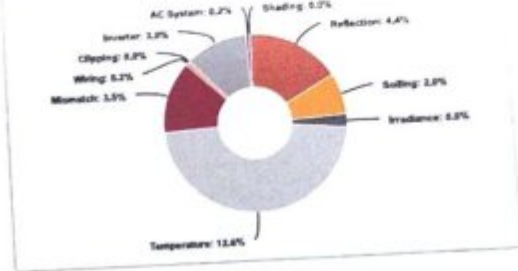
Design: Design 1
Module DC Nameplate: 19.4 kW
Inverter AC Nameplate: 20.0 kW
Annual Production: 24.6 MWh
Performance Ratio: 75.1%
WWh/Wp: 1.235 4
Weather Dataset: TMY, 10km Grid, meteorcom (meteorcom)
Simulator Version: 688396c23-7ef0bedc6a-3ed647093e-951870710f



Energy Consumption



System Loss



Annual Production

Description	Output	% Delta
Annual Global Horizontal Irradiance	1,785.6	-
Adjusted Global Horizontal Irradiance	1,785.6	-0.0%
POA Irradiance	1,628.1	-8.8%
Shaded Irradiance	1,628.0	-0.0%
Irradiance After Reflection	1,555.7	-4.4%
Irradiance After Soiling	1,524.6	-2.0%
Total Collector Irradiance	1,524.6	0.0%
Nameplate	29,546.9	-
Output at Irradiance Levels	29,489.9	-0.6%
Output at Cell Temperature Derate	25,748.1	-12.6%
Output After Mismatch	24,854.1	-3.5%
Optimal DC Output	24,803.1	-0.2%
Constrained DC Output	24,803.0	-0.0%
Inverter Output	24,658.9	-3.0%
Energy to Grid	24,918.7	-0.2%

Condition Set

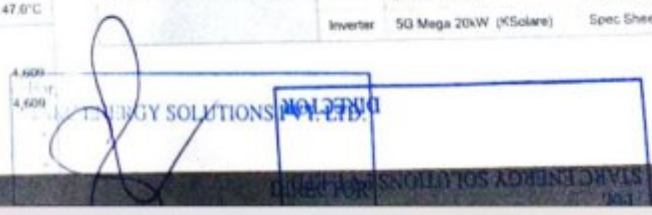
Description	Condition Set 1																						
Weather Dataset	TMY10km Grid(meteorcom(meteorcom))																						
Solar Angle Location	Metro Lat/Lng																						
Transposition Model	Perez Model																						
Temperature Model	Sandia Model																						
Temperature Model Parameters	<table border="1"> <thead> <tr> <th>Rack Type</th> <th>a</th> <th>b</th> <th>Temperature Delta</th> </tr> </thead> <tbody> <tr> <td>Fixed TB</td> <td>-3.56</td> <td>-0.08</td> <td>3.0°C</td> </tr> <tr> <td>Flush Mount</td> <td>-2.81</td> <td>-0.05</td> <td>0.0°C</td> </tr> <tr> <td>East-West</td> <td>-3.56</td> <td>-0.08</td> <td>3.0°C</td> </tr> <tr> <td>Carport</td> <td>-3.56</td> <td>-0.08</td> <td>3.0°C</td> </tr> </tbody> </table>	Rack Type	a	b	Temperature Delta	Fixed TB	-3.56	-0.08	3.0°C	Flush Mount	-2.81	-0.05	0.0°C	East-West	-3.56	-0.08	3.0°C	Carport	-3.56	-0.08	3.0°C		
	Rack Type	a	b	Temperature Delta																			
	Fixed TB	-3.56	-0.08	3.0°C																			
	Flush Mount	-2.81	-0.05	0.0°C																			
	East-West	-3.56	-0.08	3.0°C																			
Carport	-3.56	-0.08	3.0°C																				
Soiling (%)	<table border="1"> <thead> <tr> <th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>A</th><th>S</th><th>O</th><th>N</th> </tr> </thead> <tbody> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td> </tr> </tbody> </table>	J	F	M	A	M	J	J	A	S	O	N	2	2	2	2	2	2	2	2	2	2	2
J	F	M	A	M	J	J	A	S	O	N													
2	2	2	2	2	2	2	2	2	2	2													
Irradiation Variance	5.0%																						
Cell Temperature Spread	4.0°C																						
Module Binning Range	-2.5% to 2.5%																						
AC System Derate	0.50%																						
Component Characterizations	<table border="1"> <thead> <tr> <th>Type</th> <th>Component</th> <th>Characterization</th> </tr> </thead> <tbody> <tr> <td>Module</td> <td>Somera VSMOHT.72.540.05 (Vikram Solar)</td> <td>Spec Sheet Characterization</td> </tr> <tr> <td>Inverter</td> <td>5G Mega 20kW (KSolare)</td> <td>Spec Sheet</td> </tr> </tbody> </table>	Type	Component	Characterization	Module	Somera VSMOHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization	Inverter	5G Mega 20kW (KSolare)	Spec Sheet													
	Type	Component	Characterization																				
	Module	Somera VSMOHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization																				
Inverter	5G Mega 20kW (KSolare)	Spec Sheet																					

Temperature Metrics

Avg. Operating Ambient Temp: 28.2°C
Avg. Operating Cell Temp: 47.0°C

Simulation Metrics

Operating Hours: 4,609
Solved Hours: 4,609
Pending Hours:
Error Hours:



Science Building 25kw- Science Building BB College Project Asansol Banwarilal Bhalotia College

Project Details

Address Banwarilal Bhalotia College
Customer Name Banwarilal Bhalotia College
Owner Sharu Kannoth
Last Modified a minute ago
Location (23.68096290000015, 88.9375620800007) (GMT 5.5)



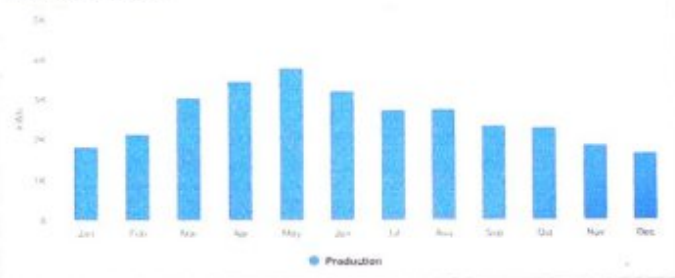
System Metrics

Design Science Building
Module DC Nameplate 24.8 kW
Inverter AC Nameplate 25.6 kW
Load Ratio 0.96
Annual Production 31.6 MWh
Performance Ratio 79.4%
kWh/kWp 1,270.1
Weather Dataset TMY, 10km Grid, meteorom (meteorom)
Simulator Version d88398c03-7ef03edec0a-3ed647693e-951676110f

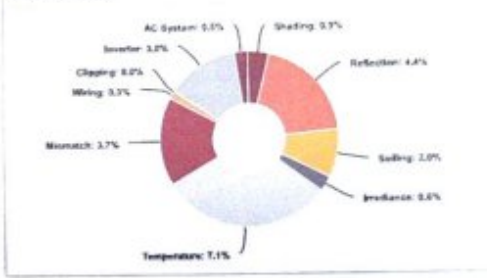
Project Location



Energy Consumption



System Loss



Annual Production

Description	Output	% Delta
Irradiance (kWh/m²)		
Annual Global Horizontal Irradiance	1,785.6	-
Adjusted Global Horizontal Irradiance	1,785.6	-0.0%
PDA Irradiance	1,559.1	-10.4%
Shaded Irradiance	1,585.3	-0.9%
Irradiance After Reflection	1,514.9	-4.4%
Irradiance After Soiling	1,484.6	-2.0%
Total Collector Irradiance	1,484.7	0.6%
Energy (kWh)		
Nameplate	36,893.3	-
Output at Irradiance Levels	36,654.5	-0.6%
Output at Cell Temperature Derate	34,065.5	-7.1%
Output After Mismatch	32,896.8	-3.7%
Optimal DC Output	32,703.3	-0.3%
Constrained DC Output	32,703.2	-0.0%
Inverter Output	31,722.1	-3.0%
Energy to Grid	31,550.5	-0.5%

Temperature Metrics

Avg. Operating Ambient Temp 28.2°C
 Avg. Operating Cell Temp 37.5°C

Simulation Metrics

Operating Hours 4,609
 Solved Hours 4,609
 Pending Hours -
 Error Hours -

Condition Set

Description	Condition Set 1																				
Weather Dataset	TMY10km Grid(meteorom)(meteorom)																				
Solar Angle Location	Metro Lat/Lng																				
Transposition Model	Perez Model																				
Temperature Model	Sandia Model																				
Temperature Model Parameters																					
	<table border="1"> <thead> <tr> <th>Rack Type</th> <th>a</th> <th>b</th> <th>Temperature Delta</th> </tr> </thead> <tbody> <tr><td>Fixed TB</td><td>-3.56</td><td>-0.08</td><td>3.0°C</td></tr> <tr><td>Flush Mount</td><td>-2.81</td><td>-0.05</td><td>0.0°C</td></tr> <tr><td>East-West</td><td>-3.56</td><td>-0.08</td><td>3.0°C</td></tr> <tr><td>Carport</td><td>-3.56</td><td>-0.08</td><td>3.0°C</td></tr> </tbody> </table>	Rack Type	a	b	Temperature Delta	Fixed TB	-3.56	-0.08	3.0°C	Flush Mount	-2.81	-0.05	0.0°C	East-West	-3.56	-0.08	3.0°C	Carport	-3.56	-0.08	3.0°C
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East-West	-3.56	-0.08	3.0°C																		
Carport	-3.56	-0.08	3.0°C																		
Soiling (%)	J F M A M J J A S O N D 2 2 2 2 2 2 2 2 2 2 2 2																				
Irradiance Variance	5.0%																				
Cell Temperature Spread	4.0°C																				
Module Binning Range	-2.5% to 2.5%																				
AC System Derate	0.50%																				
Component Characterizations																					
	<table border="1"> <thead> <tr> <th>Type</th> <th>Component</th> <th>Characterization</th> </tr> </thead> <tbody> <tr> <td>Module</td> <td>Somera VSMOHT.72.540.05 (Vikram Solar)</td> <td>Spec Sheet Characterization.PAN</td> </tr> <tr> <td>Module</td> <td>Somera VSMOHT.72.540.05 (Vikram Solar)</td> <td>Spec Sheet Characterization.PAN</td> </tr> </tbody> </table>	Type	Component	Characterization	Module	Somera VSMOHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization.PAN	Module	Somera VSMOHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization.PAN											
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Module	Somera VSMOHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization.PAN																			

For,
STARC ENERGY SOLUTIONS PVT. LTD.
 DIRECTOR

New Hindi Building 20kw New Hindi Building BB College BB college

Project Details

Address BB college
Owner Sharu Kanoth
Last Modified a minute ago
Location (23.6896210000015, 85.9276203899997)
 (GMT 5.5)
Profile Default Commercial



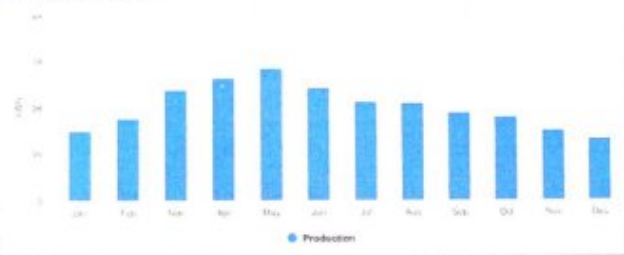
System Metrics

Design New Hindi Building
Module DC Nameplate 20.0 kW
Inverter AC Nameplate 20.0 kW
Load Ratio 1.00
Annual Production 24.7 MWh
Performance Ratio 75.0%
kWh/kWp 1,235.1
Weather Dataset TMY, 10km Grid, meteorom (meteorom)
Simulator Version d88394ec53-7ef3edecba-3ed847033e-951676210f

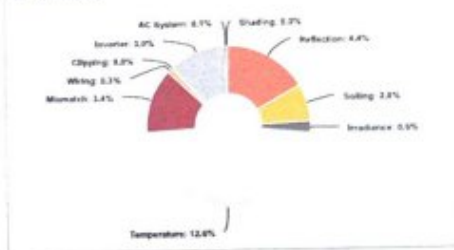
Project Location



Energy Consumption



System Loss



Annual Production

Description	Output	% Delta
Annual Global Horizontal Irradiance (kWh/m ²)	1,785.6	-
Adjusted Global Horizontal Irradiance	1,785.6	-0.0%
POA Irradiance	1,627.7	-8.8%
Shaded Irradiance	1,627.7	-0.0%
Irradiance After Reflection	1,555.3	-4.4%
Irradiance After Soiling	1,524.2	-2.0%
Total Collector Irradiance	1,524.2	0.0%
Nameplate	30,467.2	-
Output at Irradiance Levels	30,285.3	-0.6%
Output at Cell Temperature Derate	26,461.8	-12.6%
Output After Mismatch	25,552.1	-3.4%
Optimal DC Output	25,474.9	-0.3%
Constrained DC Output	25,474.7	-0.0%
Inverter Output	24,710.5	-3.0%
Energy to Grid	24,677.4	-0.1%

Temperature Metrics	
Avg. Operating Ambient Temp	26.2°C
Avg. Operating Cell Temp	47.0°C

Simulation Metrics	
Operating Hours	4,609
Solved Hours	4,609
Pending Hours	-
Error Hours	-

Condition Set

Description	Condition Set 1																								
Weather Dataset	TMY10km Grid(meteorom)/meteorom)																								
Solar Angle Location	Metro Lat,Lng																								
Transposition Model	Perez Model																								
Temperature Model	Sandia Model																								
Temperature Model Parameters	<table border="1"> <thead> <tr> <th>Rack Type</th> <th>a</th> <th>b</th> <th>Temperature Delta</th> </tr> </thead> <tbody> <tr> <td>Fixed Tilt</td> <td>-3.56</td> <td>-0.08</td> <td>3.0°C</td> </tr> <tr> <td>Flush Mount</td> <td>-2.81</td> <td>-0.05</td> <td>0.0°C</td> </tr> <tr> <td>East-West</td> <td>-3.56</td> <td>-0.08</td> <td>3.0°C</td> </tr> <tr> <td>Carport</td> <td>-3.56</td> <td>-0.08</td> <td>3.0°C</td> </tr> </tbody> </table>	Rack Type	a	b	Temperature Delta	Fixed Tilt	-3.56	-0.08	3.0°C	Flush Mount	-2.81	-0.05	0.0°C	East-West	-3.56	-0.08	3.0°C	Carport	-3.56	-0.08	3.0°C				
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	Flush Mount	-2.81	-0.05	0.0°C																					
	East-West	-3.56	-0.08	3.0°C																					
Carport	-3.56	-0.08	3.0°C																						
Soiling (%)	<table border="1"> <thead> <tr> <th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th><th>J</th><th>A</th><th>S</th><th>O</th><th>N</th><th>D</th> </tr> </thead> <tbody> <tr> <td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td> </tr> </tbody> </table>	J	F	M	A	M	J	J	A	S	O	N	D	2	2	2	2	2	2	2	2	2	2	2	2
J	F	M	A	M	J	J	A	S	O	N	D														
2	2	2	2	2	2	2	2	2	2	2	2														
Irradiation Variance	5.0%																								
Cell Temperature Spread	4.0°C																								
Module Binning Range	-2.5% to 2.5%																								
AC System Derate	0.50%																								
Component Characterizations	<table border="1"> <thead> <tr> <th>Type</th> <th>Component</th> <th>Characterization</th> </tr> </thead> <tbody> <tr> <td>Module</td> <td>Somera VSM-DHT.72.540.05 (Vikram Solar)</td> <td>Spec Sheet Characterization_PAN</td> </tr> <tr> <td>Inverter</td> <td>5G Mega 20kW (KSolare)</td> <td>Spec Sheet</td> </tr> </tbody> </table>	Type	Component	Characterization	Module	Somera VSM-DHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization_PAN	Inverter	5G Mega 20kW (KSolare)	Spec Sheet															
	Type	Component	Characterization																						
	Module	Somera VSM-DHT.72.540.05 (Vikram Solar)	Spec Sheet Characterization_PAN																						
Inverter	5G Mega 20kW (KSolare)	Spec Sheet																							


 STARC ENERGY SOLUTIONS PVT. LTD.
 DIRECTOR

Arts Building Arts building 20kw BB college Banwarlal Bhalota College, asansol

Project Details

Address: Banwarlal Bhalota College, asansol
Customer Name: Banwarlal Bhalota College
Owner: Sharu Kannaiah
Last Modified: 2 minutes ago
Location: (23.607967900000015, 86.007562000000036) (GMT 5.3)



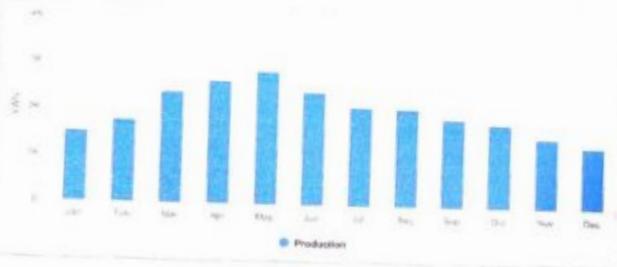
System Metrics

Design: Arts Building
Module DC Nameplate: 20.0 kW
Inverter AC Nameplate: 20.0 kW
Load Ratio: 1.00
Annual Production: 24.7 MWh
Performance Ratio: 75.8%
kWh/kWp: 1,237.0
Weather Dataset: TMY, 10km Grid, meteorom (meteorom)
Simulator Version: @MS39ec03-7ef0@electra-3rd647053e-50187010f

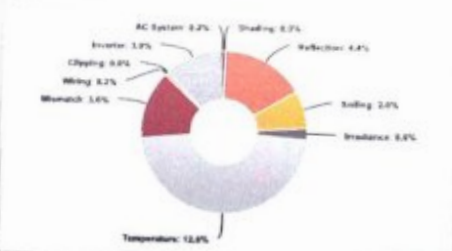
Project Location



Energy Consumption



System Loss



Annual Production

Description	Output	% Delta
Irradiance (kWh/m ²)		
Annual Global Horizontal Irradiance	1,785.6	-
Adjusted Global Horizontal Irradiance	1,785.6	-0.0%
POA Irradiance	1,633.0	-8.5%
Shaded Irradiance	1,632.9	-0.0%
Irradiance After Reflection	1,560.6	-4.4%
Irradiance After Soiling	1,528.4	-2.0%
Total Collector Irradiance	1,528.4	0.0%
Nameplate	30,566.7	-
Output at Irradiance Levels	30,386.1	-0.6%
Output at Cell Temperature Derate	26,542.8	-12.6%
Output After Mismatch	25,585.1	-3.8%
Optimal DC Output	25,534.2	-0.2%
Constrained DC Output	25,534.1	-0.0%
Inverter Output	24,768.1	-3.0%
Energy to Grid	24,715.7	-0.2%
Energy (kWh)		
Temperature Metrics		
Avg. Operating Ambient Temp	28.2°C	
Avg. Operating Cell Temp	47.1°C	
Simulation Metrics		
Operating Hours	4,609	
Soiled Hours	4,600	
Pending Hours	-	
Error Hours	-	

Condition Set

Description	Condition Set 1		
Weather Dataset	TMY10km Grid/meteorom(meteorom)		
Solar Angle Location	Metro LaRLng		
Transposition Model	Perez Model		
Temperature Model	Sandia Model		
Temperature Model Parameters	Rack Type	a	b
	Fixed TR	-3.56	-0.08
	Flush Mount	-2.81	-0.05
	East-West	-3.56	-0.08
Soiling (%)	Carport	-3.56	-0.08
Irradiation Variance	5.0%		
Cell Temperature Spread	4.0°C		
Module Binning Range	-2.5% to 2.5%		
AC System Derate	0.50%		
Component Characterizations	Type	Component	Characterization
	Module	Somera VSMOHT.72.540.05 (Vikram Solar)	Spec Sheet; Characterization.PAN
	Inverter	SG Mega 20kW (KSolare)	Spec Sheet

For, STARC ENERGY SOLUTIONS PVT. LTD.

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GST Invoice

(ORIGINAL FOR RECIPIENT)

Starc Energy Solutions Pvt. Ltd F-9, 8th Avenue, Randh Road, Chattarpur, New Delhi-110074 GSTIN/UIN 07AAXCS2953E1ZX Contact 9989123078 E-Mail info@starcenergy.com	Invoice No. SESP-2023-24-043	Dated 10-02-2024
	Delivery Note	Mode/Terms of Payment
	Supplier's Ref.	Other Reference(s)
Consignee BANWARILAL BHALOTIA COLLEGE CONSTITUENT COLLEGE OF KAZI NAZRUL UNIVERSITY ASANSOL- 713303 West Bengal GSTIN: URP	Buyer's Order No.	Dated
	Dispatch Document No.	Delivery Note Date
	Dispatched through	Destination: Asansol, WB
Buyer (if other than consignee) BANWARILAL BHALOTIA COLLEGE	Terms of Delivery:	

Annexure-3

CERTIFICATE OF FITNESS

SPGS of 20 kW

Date of Installation:

Solar Module Model No. 144MF-SPV module,545wp	Make: Sova Solar	No. of Modules:36 nos Individual Capacity: 545wp	Total Capacity (kW): 20kwp
Inverter Details: K solare on grid inverter	Make: K solare	Model No.:KSY-20k-5g pro	
No. of Inverters Installed: 1 nos	AC Capacity of individual inverter (kW): 20kw	Total AC capacity of Inverter (kW): 20kw	Serial No(s): 144MF152305050044 to 144MF152305050080
GPS Co-ordinates of the SPGS Installation: 23.6809669,86.9949872		SPGS with battery back-up: (Yes/No)	

Installed at premises no. _____
 , Kolkata _____

[Pursuant to our engagement by _____ [name of Eligible Consumer], we have inspected the above captioned SPGS on _____] "or" [I / We, [name of the Eligible Consumer], have carried out the test in presence of representatives of CESC Limited on].

Upon such inspection it is hereby certified that the SPGS with installed capacity of 20 kW, manufactured by, conforms to the specifications mandated by the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013as amended by the First Amendment Regulations, 2020 (hereinafter for brevity's sake referred to as 'the Regulations'). In particular and without prejudice to the foregoing, the said SPGS conforms to correct operation of islanding, generation of harmonics and other Power Quality parameters as per limits specified in the Regulations. The SPGS is found to be technically fit and suitable for connectivity with the distribution network of the Distribution Licensee.

This certificate is valid for a period of one year and is subject to periodic renewal. The validity of this certificate is further subject to operation, maintenance and rectification of any defect in the SPGS in a manner which ensures that its connectivity does not pose any threat or damage to the distribution network.

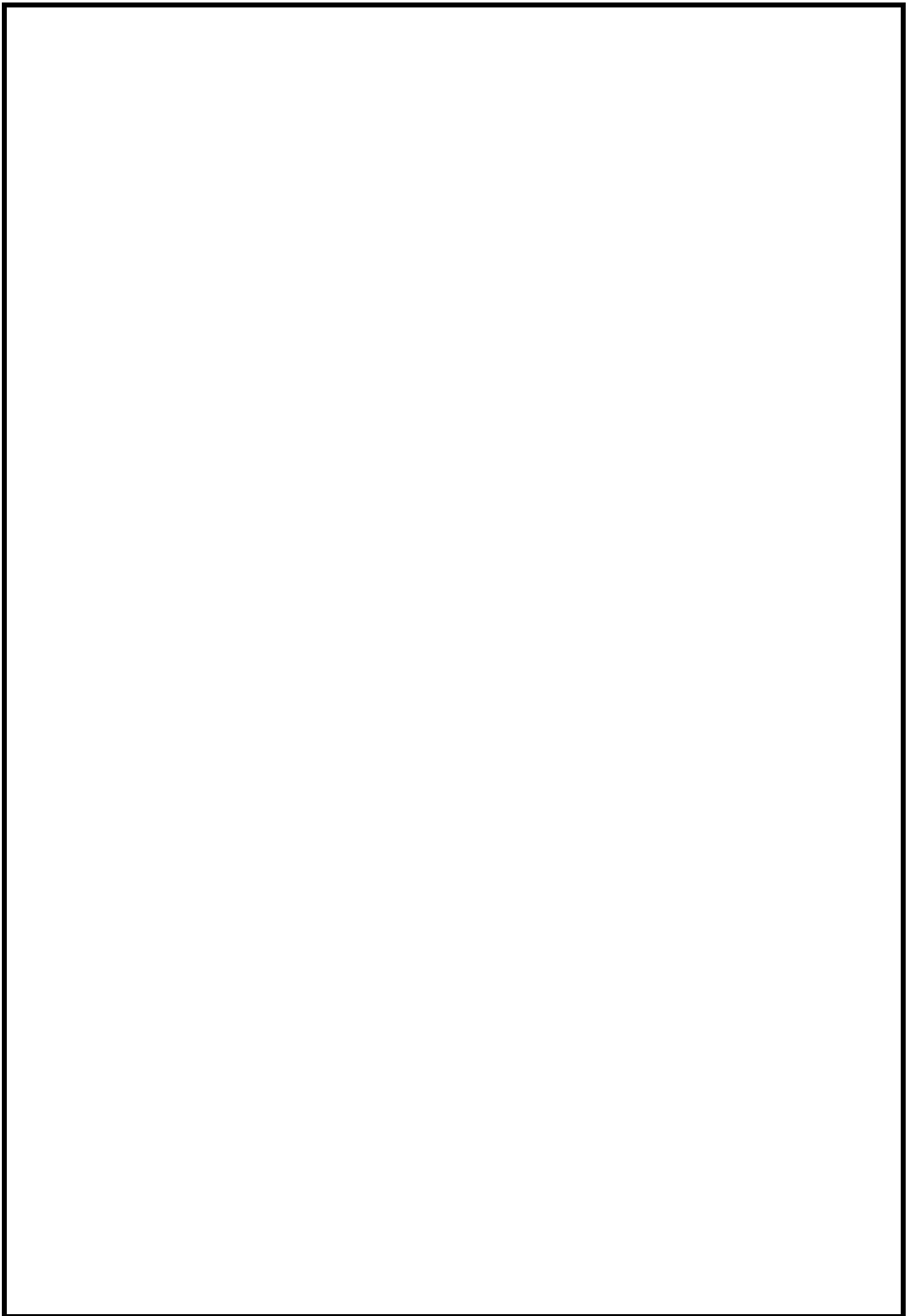
[Signature with seal]

Of the Authorized Vendor / Eligible Consumer

Date :

Place :





**Test Format for
Issuance of Certificate of Fitness of Solar Power Generating System (SPGS)**

Reference No. : Date :

Consumer Name :

Consumer No :

Address :

Test for : New Installation / Periodic Checking (✓ the appropriate)

Details of Solar PV Generator

Solar Module Model No.: 545	Make: Sova Solar	No. of Modules: 36nos	Total Capacity (kW _p): 20kwp
Inverter Details:	Make: K solare	Individual Capacity: 545wp	
		Model No.: KSY-20Kw-5G pro	
AC Capacity of inverter (kW): 20kw	GPS (up to 5 decimal places):		
Inverter Serial No.: KSY0523HT2163	SPGS with battery back-up: Yes/No (✓ the appropriate)		
	If Yes, Capacity of Battery:		

The performance/functionality of the Inverter along with Solar PV Generator was checked/tested for the following parameters:

a) Anti-islanding test (As per IEC 62116/IEC 61727):

Voltage at the inverter terminal (with grid synchronized for testing purpose) : R-N: 224V Y-N: 223V B-N: 224V
 Voltage at inverter terminal after grid failure : R-N: 0V Y-N: 0V B-N: 0V
 Anti-islanding (As per IEC 62116/IEC 61727) : **Ok / Not Ok** (✓ the appropriate)

b) % THD in Voltage - Measured At 16:30 pm IST hours, during load-off condition:

Permissible Voltage Distortion Limits (As per IEEE 519 : 2014)		Voltage Distortion			
Voltage Level	THD (%)	Voltage Level: 440V			
		THD (%) Measured			
		R-N	Y-N	B-N	Overall
V < 1.0 kV	8.0				
1kV <V<= 69 kV	5.0	5.2	5.3	5.2	5.2
69 kV <V<= 161 kV	2.5	2.6	2.5	2.6	2.6

As per IEEE-519 : **Ok/Not Ok** (✓ the appropriate)

Power Generated by SPGS (as available in the inverter display panel / measured 5015 Watt
 Current by SPGS (during SPGS ON without load): Measured : 12.0A : Inverter Display 12.2 A

c) Manual Isolation Switch for Battery Back-up System : Yes/No (✓ the appropriate)

d) Other Observations/Remarks (if any).....NA.....

e) Test Equipment Used:

Type: power quality analyzer; Make: Fluke ; SI No.: SESPL-PQA-01; Last Calibration
 Details: 10.10.2023

Test Carried Out By Authorized Agency / Eligible Consumer: Name :
 Signature:

Encl : a) Single Line Diagram schematic diagram (to be furnished by the customer) : **Yes/No** CESC
 b) Manufacturer's test certificates (to be furnished by the customer) : **Yes/No** Limited

N.B : Empaneled Third Party agency has carried out the test / the Eligible Consumer carried out the test in presence of CESC representative.



This sheet is to be used for one inverter. For multiple inverters, kindly use multiple sheets.

CERTIFICATE OF FITNESS

SPGS of 25 kW

Date of Installation:

Solar Module Model No. 144MF-SPV module,545wp	Make: Sova Solar	No. of Modules:46 nos Individual Capacity: 545wp	Total Capacity (kW): 25kwp
Inverter Details: On grid inverter	Make: K solare	Model No.:KSY-25k-5g pro	
No. of Inverters Installed: 1 nos	AC Capacity of individual Inverter (kW): 25kw	Total AC capacity of Inverter (kW): 25kw	Serial No(s): 144MF152305050118 to 144MF152305050164
GPS Co-ordinates of the SPGS Installation:		SPGS with battery back-up:	

**Test Format for
Issuance of Certificate of Fitness of Solar Power Generating System (SPGS)**

Reference No. :

Consumer Name : Date :

Consumer No :

Address :

Test for :
New Installation / Periodic Checking (✓ the appropriate)

Details of Solar PV Generator

Solar Module Model No.:545	Make: Sova Solar	No. of Modules:46nos Individual Capacity:545wp	Total Capacity (kW _p): 25kwp
Inverter Details:	Make:K solare	Model No.:KSY-25Kw-5G pro	
AC Capacity of Inverter (kW):25kw	GPS (up to 6 decimal places):		
Inverter Serial No.:KSY0423HT0066	SPGS with battery back-up: Yes/No (✓ the appropriate) If Yes, Capacity of Battery:		

The performance/functionality of the Inverter along with Solar PV Generator was checked/tested for the following parameters:

a) Anti-islanding test (As per IEC 62116/IEC 61727):

Voltage at the inverter terminal (with grid synchronized for testing purpose) : R-N:224V Y-N:223V B-N:224V

Voltage at inverter terminal after grid failure : R-N:0V Y-N:0V B-N:0V

Anti-islanding (As per IEC 62116/IEC 61727) : **Ok / Not-Ok** (✓ the appropriate)

b) % THD in Voltage - Measured At 16:30 pm IST hours, during load-off condition:

Voltage Level	THD (%)
V < 1.0 kV	8.0
1kV < V <= 69 kV	5.0
69 kV < V <= 161 kV	2.5

Voltage Level: 440V					
Condition	THD (%) Measured				Overall
	R-N	Y-N	B-N		
SPGS OFF	5.2	5.3	5.2		5.2
SPGS ON	2.6	2.5	2.6		2.6

As per IEEE-519 : **OK/Not-Ok** (✓ the appropriate)

Power Generated by SPGS (as available in the inverter display panel / measured 5015 Watt
Current by SPGS (during SPGS ON without load): Measured :12.0A : Inverter Display 12.2 A

c) Manual Isolation Switch for Battery Back-up System : **Yes/No** (✓ the appropriate)

d) Other Observations/Remarks (if any).....NA.....

e) Test Equipment Used:

Type: power quality analyzer; Make: Fluke ; SI No.:SESPL-PQA-01; Last Calibration
Details:10.10.2023

Test Carried Out By Authorized Agency / Eligible Consumer: Name :

Encl : a) Single Line Diagram schematic diagram (to be furnished by the customer)
b) Manufacturer's test certificates (to be furnished by the customer)

N.B : Empaneled Third Party agency has carried out the test / the Eligible Consumer carried out the test in presence of CESC representative.



Work Completion Report
(To be submitted by the Applicant)

To
The Divisional Manager,
..... Division, WBSEDCL.

Sub: Submission of work completion report

Ref: Application No : dated

Dear Sir / Madam,

This is in reference to my above application for installation of RTSPV system I / We hereby confirm you that I / we have completed the work of installation of the RTSPV system of capacity 20kw and submit the following basic information for your perusal and request you to inspect and commission the system.

S. No.	Particulars	Information
A.	Details of the Solar module	545wp mono perc half cut
1.	Model No.	545wp -144 cell
2.	Name and address of manufacturer	Sova Solar, Durgapur, West Bengal
3.	Capacity of each Module (Wp)	545wp
4.	No. of Modules	36nos
5.	Total Capacity (kWp)	20kw
6.	Date of Installation	25.08.2023
7.	Applicable Standard (BIS/IEC)	IEC
B.	Details of the Inverter	
8.	Name and address of the inverter manufacturer	K solare, Pune, Maharashtra
9.	Brand Name of the inverter	K solare
10.	Model No.	KSY-20K-5g pro
S. No.	Particulars	Information
11.	AC Capacity of individual inverter (kW)	20kw
12.	No. of inverters installed	1nos
13.	Total AC capacity of inverter (kW)	20kw

FORM-S8

FORM-S8

FORM-S8

FORM-S8

Work Completion Report
(To be submitted by the Applicant)

To
The Divisional Manager,
..... Division, WBSSEDCL.

Sub: Submission of work completion report

Ref: Application No.: dated

Dear Sir / Madam,

This is in reference to my above application for installation of RTSPV system I / We hereby confirm you that I / we have completed the work of installation of the RTSPV system of capacity 20kw and submit the following basic information for your perusal and request you to inspect and commission the system.

S. No.	Particulars	Information
A.	Details of the Solar module	545wp mono perc half cut
1.	Model No.	545wp -144 cell
2.	Name and address of manufacturer	Sova Solar, Durgapur, West Bengal
3.	Capacity of each Module (Wp)	545wp
4.	No. of Modules	36nos
5.	Total Capacity (kWp)	20kwp
6.	Date of installation	25.08.2023
7.	Applicable Standard (BIS/IEC)	IEC
B.	Details of the Inverter	
8.	Name and address of the inverter manufacturer	K solare, Pune, Maharashtra
9.	Brand Name of the inverter	K solare
10.	Model No.	KSY-20K-5g pro
S. No.	Particulars	Information
11.	AC Capacity of individual inverter (kW)	20kw
12.	No. of inverters installed	1nos
13.	Total AC capacity of inverter (kW)	20kw

14.	Serial Nos.	KSY0523HT2116
15.	Date of Installation	25.08.2023
16.	Applicable Standard (BIS/IEC)	IEC 62116, IEC 62109
C. Details of the Cables: DC		
17.	Make / Name of manufacturer	SSI cables pvt ltd, Meerut, Uttar Pradesh
18.	Size & Type	4 sqmm -1C CU PTFE
19.	Applicable Standard (IEC)	IEC 62930
D. Details of the AC wiring		
20.	Make / Name of manufacturer	Polycab India
21.	Size & Type	16 sqmm - 4C Al armored
22.	Applicable Standard (IEC)	60502-1
E. Details of the DC distribution box		
23.	Make / Name of manufacturer	SE
24.	Serial No.	SE-01
25.	DC Surge Protection Device	Type-II , 1000V DC
26.	MCB / Isolator quantity & capacity	32A- elmex x 1 nos
27.	Size & Type	32A, 1000V
28.	Applicable Standard (IEC)	61643-31
F. Details of the AC distribution box		
29.	Make / Name of manufacturer	SE
30.	Serial No.	SE-02
31.	AC Surge Protection Device	Type-II , 480V AC
32.	MCB / MCCB quantity & capacity	32A 4pole x 1 nos
33.	Size & Type	32A 4pole
34.	Applicable Standard (IEC)	61643-31
G. Details of the Earthing*		
35.	Earth resistance (shall be less than 2 ohms)	1.5 ohms
36.	Size of the Earth wire / flat*	25x3mm GI strip
37.	Two separate Earthing points Modules & DC Surge arrester	Yes / No


	Inverter, AC Surge protection device & Lightening Arrester	Yes / No
38.	Size & Type	6sqmm -1C Cu
39.	Applicable Standard (BIS / IEC)	62930
	Note: * Earthing shall be done in accordance IS 3043-1986, provided that Earthing conductors shall have a minimum size of 6 mm ² copper wire or 10 mm ² aluminum wire or 3 mm ² X 70 mm ² hot dip galvanized steel flat.	
H.	Details of the Caution signage	
40.	Caution Signage	Danger board x 1 nos
I.	Provision of manual and automatic switches: Yes / No	
41.	Manual / Automatic Switches	YES
J.	G.P.S. Co-ordinates of the RTSPV System Installation	
42.	Latitude / Longitude	23.6809669,86.9949872
K.	Operation and Maintenance	
43.	Whether Operation and Maintenance Manual provided to the consumer: Yes / No	YES

Standards Certificate / Standard Number BIS / IEC / etc. to be mentioned, wherever applicable.

Certification:

I / We certify that the above said RTSPV system is installed and the equipment used in the system comply the Technical and Safety Standards as specified in the regulations notified by the MNRE / CEA / WBSERC for the net metering of RTSPV systems.

Signature of the Applicant

For,

STAR ENERGY SOLUTIONS PVT. LTD.
 Name and Signature of the System Installer
DIRECTOR

Name and Address with Seal

Name of the firm and Address

Name:

Starc Energy Solutions Pvt ltd
 F-9, 8th Avenue, Bandh Road,
 Chhatarpur, New Delhi-110047

Date:

Date:

Enclosures:

1. Copy of the IEC / IS Test certificates of PV modules, Inverter, Cable etc.
2. Data sheets / Drawing for the array mounting System.
3. Actual Single line wiring diagram (SLD) of the SPV System.
4. Signed Agreement in duplicate.

N.B: Online Applicant should provide above documents during Connectivity Inspection

Work Completion Report
(To be submitted by the Applicant)

To
The Divisional Manager,
..... Division, WBSEDCL.

Sub: Submission of work completion report

Ref: Application No.: dated

Dear Sir / Madam,

This is in reference to my above application for installation of RTSPV system I / We hereby confirm you that I / we have completed the work of installation of the RTSPV system of capacity 20kw and submit the following basic information for your perusal and request you to inspect and commission the system.

S. No.	Particulars	Information
A.	Details of the Solar module	545wp mono perc half cut
1.	Model No.	545wp -144 cell
2.	Name and address of manufacturer	Sova Solar, Durgapur, West Bengal
3.	Capacity of each Module (Wp)	545wp
4.	No. of Modules	36nos
5.	Total Capacity (kWp)	20kw
6.	Date of Installation	25.08.2023
7.	Applicable Standard (BIS/IEC)	IEC
B.	Details of the Inverter	
8.	Name and address of the inverter manufacturer	K solare, Pune, Maharashtra
9.	Brand Name of the inverter	K solare
10.	Model No.	KSY-20K-5g pro
S. No.	Particulars	Information
11.	AC Capacity of individual inverter (kW)	20kw
12.	No. of inverters installed	1nos
13.	Total AC capacity of inverter (kW)	20kw

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14.	Serial Nos.	KSY0523HT2105
15.	Date of Installation	25.08.2023
16.	Applicable Standard (BIS/IEC)	IEC 62116, IEC 62109
C. Details of the Cables: DC		
17.	Make / Name of manufacturer	SSI cables pvt ltd, Meerut, Uttar Pradesh
18.	Size & Type	4 sqmm -1C CU PTFE
19.	Applicable Standard (IEC)	IEC 62930
D. Details of the AC wiring		
20.	Make / Name of manufacturer	Polycab India
21.	Size & Type	16 sqmm - 4C AI armored
22.	Applicable Standard (IEC)	60502-1
E. Details of the DC distribution box		
23.	Make / Name of manufacturer	SE
24.	Serial No.	SE-01
25.	DC Surge Protection Device	Type-II , 1000V DC
26.	MCB / Isolator quantity & capacity	32A- elmex x 1 nos
27.	Size & Type	32A, 1000V
28.	Applicable Standard (IEC)	61643-31
F. Details of the AC distribution box		
29.	Make / Name of manufacturer	SE
30.	Serial No.	SE-02
31.	AC Surge Protection Device	Type-II , 480V AC
32.	MCB / MCCB quantity & capacity	32A 4pole x 1 nos
33.	Size & Type	32A 4pole
34.	Applicable Standard (IEC)	61643-31
G. Details of the Earthing*		
35.	Earth resistance (shall be less than 2 ohms)	1.5 ohms
36.	Size of the Earth wire / flat*	25x3mm GI strip
37.	Two separate Earthing points Modules & DC Surge arrester	Yes / No

14.	Serial Nos.	KSY0523HT2105
15.	Date of Installation	25.08.2023
16.	Applicable Standard (BIS/IEC)	IEC 62116, IEC 62109
C. Details of the Cables: DC		
17.	Make / Name of manufacturer	SSI cables pvt ltd, Meerut, Uttar Pradesh
18.	Size & Type	4 sqmm -1C CU PTFE
19.	Applicable Standard (IEC)	IEC 62930
D. Details of the AC wiring		
20.	Make / Name of manufacturer	Polycab India
21.	Size & Type	16 sqmm - 4C Al armored
22.	Applicable Standard (IEC)	60502-1
E. Details of the DC distribution box		
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25.	DC Surge Protection Device	Type-II , 1000V DC
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31.	AC Surge Protection Device	Type-II , 480V AC
32.	MCB / MCCB quantity & capacity	32A 4pole x 1 nos
33.	Size & Type	32A 4pole
34.	Applicable Standard (IEC)	61643-31
G. Details of the Earthing*		
35.	Earth resistance (shall be less than 2 ohms)	1.5 ohms
36.	Size of the Earth wire / flat*	25x3mm GI strip
37.	Two separate Earthing points Modules & DC Surge arrester	Yes / No

FORM-S8

Inverter, AC Surge protection device & Lightening Arrester		Yes / No
38.	Size & Type	6sqmm - IC Cu
39.	Applicable Standard (BIS / IEC)	62930
<p>Note: * Earthing shall be done in accordance IS 3043-1986, provided that Earthing conductors shall have a minimum size of 6 mm² copper wire or 10 mm² aluminum wire or 3 mm² X 70 mm² hot dip galvanized steel flat.</p>		
H. Details of the Caution signage		
40.	Caution Signage	Danger board x 1 nos
I. Provision of manual and automatic switches: Yes / No		
41.	Manual / Automatic Switches	YES
J. G.P.S. Co-ordinates of the RTSPV System Installation		
42.	Latitude / Longitude	23.6809669,86.9949872
K. Operation and Maintenance		
43.	Whether Operation and Maintenance Manual provided to the consumer: Yes / No	YES

Standards Certificate / Standard Number BIS / IEC / etc. to be mentioned, wherever applicable.

Certification:

I / We certify that the above said RTSPV system is installed and the equipment used in the system comply the Technical and Safety Standards as specified in the regulations notified by the MNRE / CEA / WBSERC for the net metering of RTSPV systems.

Signature of the Applicant

Name and Signature of the System Installer

Name and Address with Seal

Name of the firm and Address **DIRECTOR**

Name:

Starc Energy Solutions Pvt Ltd
F-9, 8th Avenue, Bandh Road,
Chhatarpur, New Delhi-110047

Date:

Date:

Enclosures:

1. Copy of the IEC / IS Test certificates of PV modules, Inverter, Cable etc.
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