

## FORM 4.1

### GENERAL INFORMATION ABOUT THE TENDERER

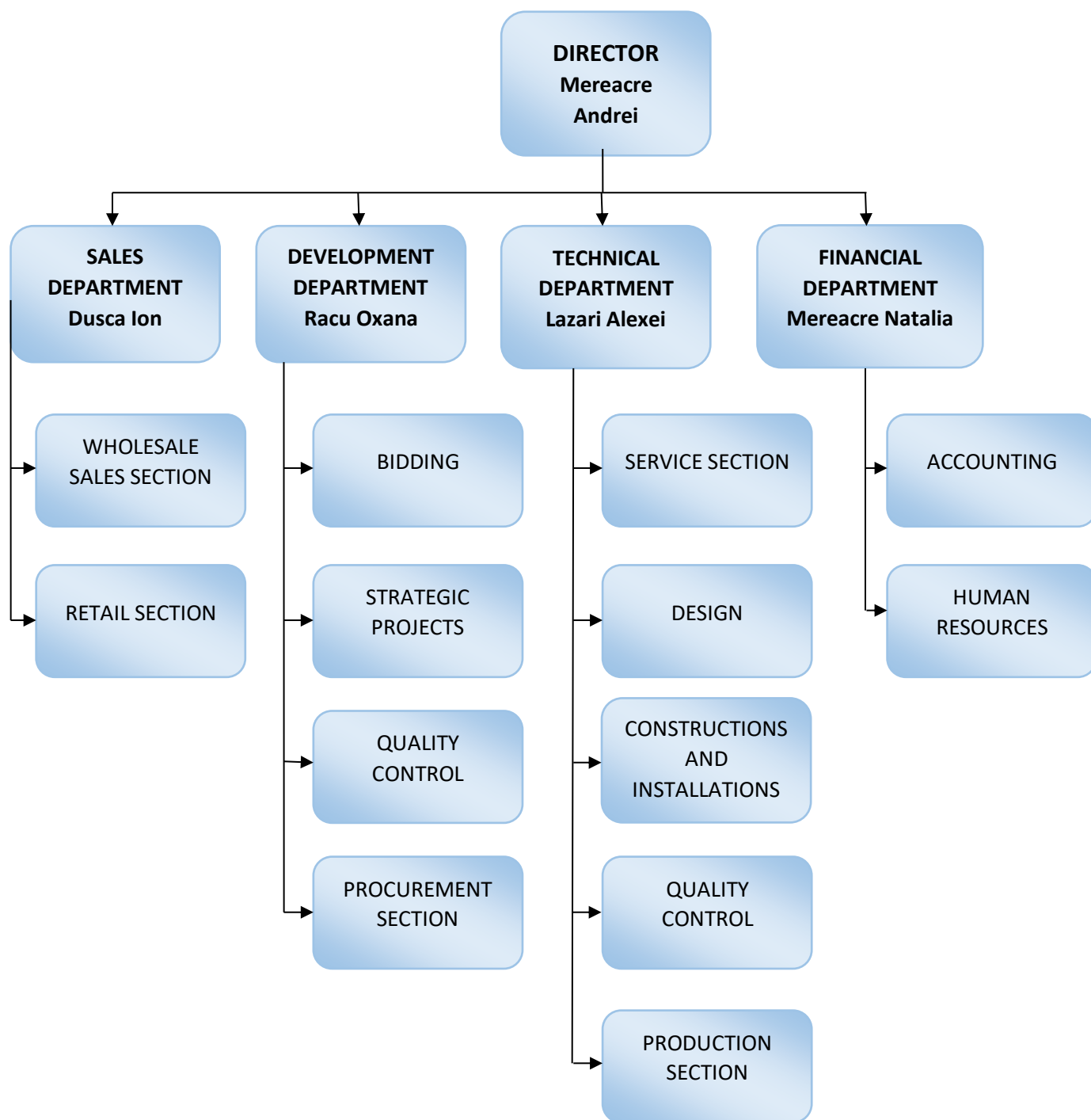
- 4.1.1. Name of company AM Sisteme SRL
- 4.1.2. Registered address Straseni city, Stefan cel Mare street 1a, MD-3702 Republic of Moldova 023725726 Fax. 023725727 E-mail [amsistemessrl@gmail.com](mailto:amsistemessrl@gmail.com)
- 4.1.3. Names and nationalities of principals / directors and associates  
Mereacre Andrei – Republic of Moldova
- 4.1.4. Type of company (natural person, partnership, corporation, etc.) Limited liability company
- 4.1.5. Description of company (e.g. general civil engineering contractor) Contractor for building constructions, installations and technical-building networks, reconstructions
- 4.1.6. Company's nationality Republic of Moldova
- 4.1.7. Number of years' experience as contractor  
- in own country 13 years  
- internationally does not apply, the company operated only on the territory of the Republic of Moldova
- 4.1.8. Registration details registered on 15.12.2010, Registration Certificate no. MD 0104301, Fiscal Code 1010600043517  
Please attach copy of the registration certificate
- 4.1.9. Equity in the company  
Shares (%) Mereacre Andrei, IDNP 2001002093614 – 100%
- 4.1.10. Name(s) and address(es) of companies involved in the project and whether parent/subsidiary/subcontractor/other: SA Darnic Gaz, Straseni city, Stefan cel Mare street 1a, MD-3702 Republic of Moldova
- 4.1.11. If the company is a subsidiary, what involvement, if any, will the parent company have in the project?  
Not applicable, the company is not a subsidiary
- 4.1.12. Foreign companies must state whether they are established in the state of the contracting authority in accordance with applicable regulations (for information only)  
Not applicable

Signature: .....

(a person or persons authorised to sign on behalf of the tenderer)

Date: 20.05.2023

## FORM 4.2 ORGANISATION CHART



Signature.....

(a person or persons authorised to sign on behalf of the tenderer)

Date 20.05.2023

## FORM 4.3

### POWER OF ATTORNEY

Hereby, SRL AM Sisteme having headquarters at Stefan cel Mare street 1a, Straseni, Republic of Moldova, registered under no. 1010600043517, represented by Mr. Mereacre Andrei, as General Director,

empowers Mr. Mereacre Andrei, identified by identity card series B, no. 02055430, CNP 2001002093614, issued by ASP on 01.08.2017, phone +37369365252, e-mail andrei.mereacre@term.md, to represent the company at the tender with the reference: **2020/421-644/6.5./ Construction works of a photovoltaic power generation system**, with the right to submit, sign, receive documents, including signing of the contract and all the documents related to it.

The power of attorney is valid until the end of the project.

General Director of SRL AM Sisteme: Mereacre Andrei

Signature: .....

Date: 20.05.2023

## FORM 4.6.1.1

### OVERVIEW OF THE TENDERER'S -PERSONNEL

#### i - Overview

a - Directors and management	1
b - Administrative personnel	18
c - Technical personnel	
- Engineers	1
- Surveyors	
- Foremen	1
- Mechanics	0
- Technicians	0
- Machine operators	1
- Drivers	2
- Other skilled personnel	5
- Labourers and unskilled personnel	23

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Total	52
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#### ii - Site operatives to be employed on the contract (if relevant)

a - Site management	.....
b - Administrative personnel	.....
c - Technical personnel	
- Engineers	.....
- Surveyors	
- Foremen	.....
- Mechanics	
- Technicians	.....
- Machine operators	
- Drivers	.....
- Other skilled personnel	
- Labourers and unskilled personnel	.....

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Total	=====
-------	-------

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date 20.05.2023



## FORM 4.6.1.2

### STAFF TO BE EMPLOYED ON THE CONTRACT

Position/Name	Nationality	Age	Education	Years of experience (with the company/in construction)	Major works for which responsible (project/value)	Employed by (in case of a joint tender, indicate the name of the consortium member employing the staff)
Project manager / Mereacre Andrei	Moldovan	39	Technical University of Moldova / Faculty of Heating, Gas Supply and Ventilation, Obtained Diploma of Construction	15	<ul style="list-style-type: none"> <li>- ITB 18-01738 Construction of 14 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP / USD- 653 271,52</li> <li>- Reconnection to thermal, water and sewage systems and the reconstruction of the Individual Thermal Point at IMSP Institute of Emergency Medicine in Toma Ciorbă Street 1 / 2 329 967,09 MDL</li> <li>- Increasing the energy efficiency of the "Ion Vătașanu" high school in the city of Strășeni / 28 925 676,41 MDL</li> <li>- Construction of the 312 Kw photovoltaic park in Feștelita village / 4 251 915,37 MDL</li> <li>- Construction of the boiler room and natural gas supply networks at the Public Medical and Sanitary Institution Strășeni District Hospital in T. Ciorbă Street 11/1, Strășeni municipality / 6 481 254,72 MDL</li> </ul>	SRL AM Sisteme

Construction manager / Scobici Serghei	Moldovan	42	Technical University of Moldova / Faculty of Heating, Gas Supply and Ventilation, Obtained Diploma of Construction	20	<ul style="list-style-type: none"> <li>- ITB 18-01738 Construction of 14 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP / USD- 653 271,52</li> <li>- Increasing the energy efficiency of the "Ion Vatamanu" high school in the city of Strășeni / 28 925 676,41 MDL</li> <li>- Rehabilitation and expansion of the water supply and sewage system in Ungheni municipality / 55 043 682,14 MDL</li> <li>- Connection networks at boiler rooms based on biomass from within the 2KR project / 3 586 160,00 MDL</li> </ul>	SRL AM Sisteme
Photovoltaic systems Design Engineer / Rudei Ion	Moldovan				<ul style="list-style-type: none"> <li>- Construction of biomass heating systems in Copanca, Grozesti, Bratuleni, Soltanesti and Sestaci (Lot 1). UNDP.</li> <li>- ITB 17/01555 Construction of 19 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP.</li> <li>- Construction of the 312 Kw photovoltaic park in Feștelita village</li> </ul> <p>The design, complete installation, commissioning, and testing of a 30 Kw on-grid photovoltaic system (PV) at Peace Corps Office</p>	SRL AM Sisteme

Photovoltaic systems construction engineer / Murzin Ion	Moldovan	63	Ceadir-Lunga viticulture technical farm	43	<ul style="list-style-type: none"> <li>- Electrical networks for ITB 18-01738 Construction of 14 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP / USD- 653 271,52</li> <li>- Electrical networks for Reconnection to thermal, water and sewage systems and the reconstruction of the Individual Thermal Point at IMSP Institute of Emergency Medicine in Toma Ciorbă Street 1 / 2 329 967,09 MDL</li> <li>- Electrical networks for Increasing the energy efficiency of the "Ion Vatamanu" high school in the city of Strășeni / 28 925 676,41 MDL</li> <li>- Electrical networks for Construction of the 312 Kw photovoltaic park in Feștelita village / 4 251 915,37 MDL</li> <li>- Electrical networks for Construction of the boiler room and natural gas supply networks at the Public Medical and Sanitary Institution Strășeni District Hospital in T. Ciorbă Street 11/1, Strășeni municipality / 6 481 254,72 MDL</li> </ul>	SRL AM Sisteme
Automation engineer / Mancus Liviu	Moldovan	45	State University of Moldova	16	<ul style="list-style-type: none"> <li>- Construction of biomass heating systems in Congaz, Cazaclia (district Taradia) and Causeni (Lot 1), Taraclia, Corten, Aibota de Jos, Sofievca and Ciurmai (district Taraciia) (Lot 2), UNDP.</li> <li>- Construction of the 312 Kw photovoltaic park in Feștelita village / 4 251 915,37 MDL</li> <li>- Increasing the energy efficiency of the "Ion Vatamanu" high school in the city of Strășeni 28 925 676,41 MDL</li> </ul>	SRL AM Sisteme

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date 17.05.2023

## FORM 4.6.1.3

### PROFESSIONAL EXPERIENCE OF KEY STAFF

#### CURRICULUM VITAE

(Maximum 3 pages + 3 pages of annexes)

Proposed position in the contract:

1. Surname: Mereacre
2. Name: Andrei
3. Date and place of birth: 27.07.1984, Chisinau municipality, Memoriei 25.
4. Nationality: Moldovan
5. Civil status: Married  
Address (phone/fax/e-mail): 069)365252, e-mail: andrei.mereacre@term.md
6. Education: Technical University of Moldova

<b>Institutions:</b>	Technical University of Moldova / Faculty of Heating, Gas Supply and Ventilation, Obtained Diploma of Construction
<b>Date:</b>	
<b>From (month/year)</b>	September 2003
<b>To (month/year)</b>	July 2007
<b>Degree or qualification:</b>	License no. 0126287

7. Language skills

Indicate on a scale of A1 to C2 (from A1 (beginner) to C2 (proficient))<sup>1</sup>:

Language	Level	Passive	Spoken	Written
Romanian	<i>Mother tongue</i>	<i>C2</i>	<i>C2</i>	<i>C2</i>
English	Excellent	<i>C2</i>	<i>C2</i>	<i>C2</i>
Russian	Excellent	<i>C2</i>	<i>C2</i>	<i>C2</i>

8. Membership of professional bodies: AIIRM
9. Other skills (e.g. computer literacy): Autocad, Winsmeta, Microsoft Office, 1C
10. Current position: Director
11. Years of professional experience: 15
12. Key qualifications: Work Organization, Consulting Engineers, Design, Staff Training
13. Specific experience in developing countries:

Country	Date: from (month/year) to (month/year)	Name and brief description of the project
Republic of Moldova	November 2022 – December 2022	Electricity supply of the photovoltaic plant for the administrative block in the Buiucani sector, Sfatul Țării street, 18
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the Ciocana Police Inspectorate
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the Criuleni Police Inspectorate
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the General Police Inspectorate

<sup>1</sup> Levels are based on the Common European Framework of Reference for Languages. See: <https://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale>. The linguistic competencies are to be demonstrated by certificate or by past relevant experience.

Republic of Moldova	July 2022 – December 2022	The design, complete installation, commissioning, and testing of a 30 Kw on-grid photovoltaic system (PV) at Peace Corps Office
Republic of Moldova	July 2022 – September 2022	Reconstruction works of the heating system of the gymnasium, D. Cantemir, from Mîndrești village, Telenești district
Republic of Moldova	April 2022 – October 2022	Autonomous source of heat supply SAAC of the Kindergarten-Gradinita in Constantinovca village, Căușeni district
Republic of Moldova	April 2022 – September 2022	"The capital repair of the culture house in the city. Căinari r. Căușeni (Renovation of the heating system, natural gas supply of the thermal plant"
Republic of Moldova	November 2021 – September 2022	The thermal power plant with engineering networks of the study block of the Vocational School for the study block of the "Ștefan cel Mare și Sfânt" Theoretical High School, Taraclia village, Căușeni district
Republic of Moldova	October 2021 – October 2022	Construction of the boiler room and natural gas supply networks at the Public Medical and Sanitary Institution Strășeni District Hospital in T. Ciorbă Street 11/1, Strășeni municipality
Republic of Moldova	August 2021 – May 2022	Renovation of the heating system of IP Gimnaziul Ștefan cel Mare from Nisporeni
Republic of Moldova	November 2020 – July 2022	Increasing the energy efficiency of the "Ion Văduhanu" high school in the city of Strășeni
Republic of Moldova	July 2020 – May 2021	Construction of the 312 Kw photovoltaic park in Feștelita village
Republic of Moldova	June 2020 – November 2020	Reconnection to thermal, water and sewage systems and the reconstruction of the Individual Thermal Point at IMSP Institute of Emergency Medicine in Toma Ciorbă Street 1
Republic of Moldova	July 2020 – December 2020	Connection networks at boiler rooms based on biomass from within the 2KR project
Republic of Moldova	September 2019 - December 2019	Capital repair of the heating system at preschool institution no. 4 in Fedico str., 8 in Bălți municipality" according to the requirements of the DÎTS of Bălți Municipality
Republic of Moldova	April 2018 – June 2018	Repair works of the self-contained boiler room of the "Ion Văduhanu" Gymnasium Pîrlița, Ungheni
Republic of Moldova	October 2017- May 2018	ITB 17/01555 Construction of 19 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP.
Republic of Moldova	December 2016 – May 2017	Construction of biomass heating systems in Copanca, Grozesti, Bratuleni, Soltanesti and Sestaci (Lot 1). UNDP.
Republic of Moldova	November 2016 – April 2017	Construction of biomass heating systems in Bucovat, Rassvet, Cornesti, Nisporeni, Ungheni and Telenesti, UNDP.
Republic of Moldova	September 2016 – December 2016	Construction of biomass heating systems in Falesti, Soroca, Donduseni and Marculesti district Floresti, UNDP.
	December 2015 – July 2016	Construction of biomass heating systems in Congaz, Cazaclia (district Taraclia) and Causeni (Lot 1), Taraclia, Corten, Aibota de Jos, Sofievca and Ciurari (district Taraclia) (Lot 2), UNDP.

## 14. Professional experience:

<b>Date: from (month/year) to (month/year)</b>	2007 - 2010
<b>Place</b>	Straseni city, Republic of Moldova
<b>Company/organisation</b>	SA Darnic-Gaz
<b>Position</b>	Chief Engineer
<b>Job description</b>	Responsible for assigned construction works; Material supply; Supervision of the operational process during the execution of the works.
<b>Date: from (month/year) to (month/year)</b>	2010 - present
<b>Place</b>	Straseni city, Republic of Moldova
<b>Company/organisation</b>	AM Sisteme srl
<b>Position</b>	Director
<b>Job description</b>	Site master; Responsible for assigned construction works; Analyzing and signing contracts; Administration of the commercial department of the company; Checking the data and status of the gas meters for the designated sector; Entering data into the calculation base

## 15. Others:

15a. Publications and seminars:

15b. References:

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date.....



# DIPLOMA

DE LICENȚĂ  
în învățământ superior

Nr. 0126287

Series A1

În baza hotărârii Comisiei pentru examenul de licență  
din 28 Mareașe June Andrei 2007

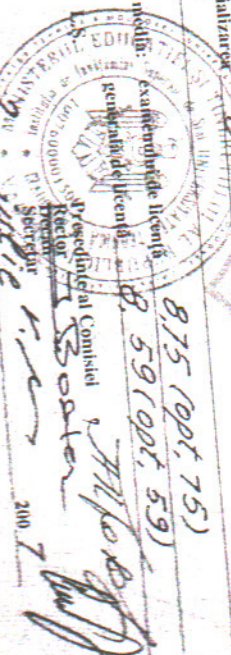
Înmatriculat în anul 2003 absolvent al (9)  
Universității Tehnice a Moldovei

a obținut titlul de Inginer Licențiat  
în Construcții

profilul Alimentația și încălzirea  
specialitatea și gaze, ventilația

specializarea

cu media: 8,75 (opt, 75)  
examenul de licență 8,59 (opt, 59)  
examenul de licență



Eliberată în 28 June 2007  
No. de înregistrare 22  
Semnătura titularului

# DIPLOMA

OF LICENTIATE  
Higher Education

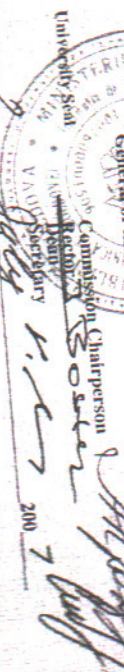
Series A1

According to the decision of the Licence Examination Commission  
of 28 Mareașe June Andrei 2007  
First name, last name  
admitted in 2003 graduate of  
University of Moldova  
Higher Education Institution

has been awarded the degree of Licenced engineer  
in the field of Heat and Gas Supply  
specialty Ventilation

specialization

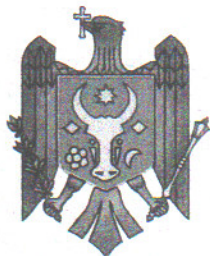
Average Mark: 8,75 (eight, 75)  
Licence examination 8,59 (eight, 59)  
General of the Licence



Issued on 28 June 2007  
Registration No. 22  
Signature of Holder



REPUBLICA



MOLDOVA

**MINISTERUL ECONOMIEI  
ȘI INFRASTRUCTURII**

**CERTIFICAT**

**de atestare tehnico-profesională**

**Seria 2018-DȘ**

**Numărul 0280**

Eliberat domnului (doamnei): **Mereacre Andrei**

Pentru a activa în calitate de: **Diriginte de șantier**

Domeniile:

**1. Construcții civile, industriale și agrozootehnice.**

**Exigențele esențiale:**

- A - rezistență și stabilitate;
- B - siguranță în exploatare;
- C - siguranță la foc;
- D - igienă, sănătatea oamenilor, refacerea și protecția mediului înconjurător;
- E - izolație termică, hidroizolație și economie de energie;
- F - protecție împotriva zgomotului.

Data eliberării **27 decembrie 2018**

Valabil până la **27 decembrie 2023**



**Anatol USATÎI**

**Secretar de Stat**

REPUBLICA MOLDOVA  
Ministerul Economiei  
și Infrastructurii



LEGITIMAȚIE Seria 2018-DȘ Nr. 0280



Numele Mereacre

Prenumele Andrei

Atestat în calitate de

Diriginte de șantier

Eliberată la 27 decembrie 2018

Valabilă până la 27 decembrie 2023

Anatol USATII

Secretar de Stat

Domeniile:

1. Construcții civile, industriale  
și agrozootehnice.

Exigențele esențiale: A, B, C, D, E, F.





# ENERGIE ȘI BIOMASĂ

Resurse energetice alternative pentru Moldova

## Recomadare

Prin Prezenta Eu Vitalie Vieru activind in calitate de Inginer de proiect al "Moldova Energy and Biomass Project Republic of Moldova" Vreau sa-mi expun gratitudinea si inalta apreciere fata de Inginerul S.A. "Darnic Gaz" Mereacre Andrei.

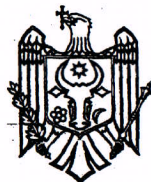
Baza: Lucrarile efectuate in consortiu de S.A. "Darnic-Gaz", SRL "AM-Sisteme", SRL "Montex-Gaz".

Contribuția d-nului Mereacre Andrei la realizarea lucrărilor de construcție a centralelor termice pe biomasă, a fost extrem de importante.

Lucrările la care a participat inginerul, au fost executate cu profesionalism și respect față de beneficiar.

In final, Va putem recomanda pe D-nul Mereacre Andrei in calitate de: diriginte cu executarea lucrarilor specializate și instalatii aferente constructiilor, cu un grad înalt de calificare.

Inginer de proiect MEBP Vitalie Vieru Vieru



Republica Moldova, MD-6801 or. Ialoveni, str. Alexandru cel Bun, 33

Tel. +373 268 2 66 71, Fax +373 268 22692

E-mail: [oficiu.adrc@gmail.com](mailto:oficiu.adrc@gmail.com)

[office@adrcentru.md](mailto:office@adrcentru.md)

### **Scrisoare de recomandare**

In Atentie

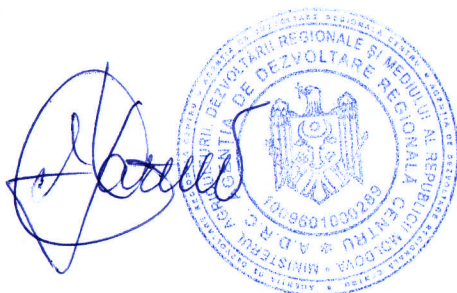
Oricui poate fi interes

Stimati Domni/Doamne

Prin Prezenta “Agentia de Dezvoltare Regionala Centru”, Va comunica despre relatiile de lucru cu Inginerul S.A. “Darnic-Gaz” D-nul. Mereacre Andrei si anume lucrarile efectuate in cadrul proiectului “Apeductul magistral de apa de la punctul de conectare din s.Sociteni , spre satele Bardar,Rusestii Noi, Rusestii Vechi r.Ialoveni” si “Apeduct Prut – Nisporeni, Evacuarea apelor reziduale a or.Nisporeni.” pe care a dus-o al bun sfirsit, dind dovada de disponibilitate, buna organizare, operativitate și calitate buna a lucrarilor efectuate.

Apreciem calitatea serviciilor sale, prin faptul că este un pfesionist si de incredere, Recomandam Inginerul: D-nul Mereacre Andrei pentru oricare alta organizatie cu care va avea ocazia de a intretine relatii de colaborare pe viitor.

**Director**



**Viorel JARDAN**

## FORM 4.6.1.3

### PROFESSIONAL EXPERIENCE OF KEY STAFF

#### CURRICULUM VITAE

(Maximum 3 pages + 3 pages of annexes)

Proposed position in the contract:

1. Surname: Scobici
2. Name: Serghei
3. Date and place of birth: 23.04.1980
4. Nationality: Moldovan
5. Civil status: Married  
Address (phone/fax/e-mail): 069777023, e-mail: sectiatehnica@term.md
6. Education: Technical University of Moldova

<b>Institutions:</b>	Technical University of Moldova, Faculty of Civil, Industrial and Agricultural Constructions. Obtained Diploma of Construction-engineer.
<b>Date:</b>	
<b>From (month/year)</b>	September 1997
<b>To (month/year)</b>	July 2002
<b>Degree or qualification:</b>	License no. 0048104

7. Language skills

Indicate on a scale of A1 to C2 (from A1 (beginner) to C2 (proficient))<sup>1</sup>:

Language	Level	Passive	Spoken	Written
Romanian	<i>Mother tongue</i>	C2	C2	C2
Russian	Excellent	C2	C2	C2

8. Membership of professional bodies:
9. Other skills (e.g. computer literacy): Microsoft Office
10. Current position: Chief Engineer
11. Years of professional experience: 18
12. Key qualifications: Work Organization, Consulting Engineers, Design, Staff Training
13. Specific experience in developing countries:

Country	Date: from (month/year) to (month/year)	Name and brief description of the project
Republic of Moldova	November 2020 – July 2022	Increasing the energy efficiency of the "Ion Vatanu" high school in the city of Strășeni
Republic of Moldova	October 2020 – June 2022	Rehabilitation and expansion of the water supply and sewage system in Ungheni municipality
Republic of Moldova	September 2020 – October 2022	Rehabilitation and expansion of the water supply and sewage system in the city of Calarasi
Republic of Moldova	July 2020 – December 2020	Connection networks at boiler rooms based on biomass from within the 2KR project
Republic of Moldova	June 2019 – June 2020	Construction of water networks and treatment plant in the village. Bahmut nrul Calarasi

<sup>1</sup> Levels are based on the Common European Framework of Reference for Languages. See: <https://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale>. The linguistic competencies are to be demonstrated by certificate or by past relevant experience.

Republic of Moldova	June 2017 – November 2020	Main water aqueduct from the connection point in the village of Sociteni to the villages of Bardar, Rusestii Noi, Rusestii Vechi, Ialoveni district (Stage II)
Republic of Moldova	June 2014 – September 2019	The construction of the drinking water supply and sewage system with the construction of the water purification station in the village of Baimaclia, Cantemir district
Republic of Moldova	October 2017 – July 2018	Construction of 19 biomass based heating systems in conjunction with solar collectors for domestic hot water
Republic of Moldova	August 2017 – January 2018	Construction of 11 biomass based heating systems in conjunction with solar collectors for domestic hot water (3 Lots)
Republic of Moldova	December 2016 – May 2017	Construction of biomass heating systems in Copanca, Grozesti, Bratuleni, Soltanesti and Sestaci (Lot 1)
Republic of Moldova	November 2016 – April 2017	Construction of biomass heating systems in Bucovat, Rassvet, Cornesti, Nisporeni, Ungheni and Telenesti
Republic of Moldova	September 2016 – December 2016	Construction of biomass heating systems in Falesti, Soroca, Donduseni and Marculesti district Floresti
Republic of Moldova	December 2015 – July 2016	Construction of biomass heating systems in Congaz, Cazaclia (district Taradia) and Causeni (Lot 1), Taraclia, Corten, Aibota de Jos, Sofievca and Ciumai (district Taracia) (Lot 2)
Republic of Moldova	August 2014 – August 2015	Assembling of module type boiler plants (24 units) within the 2KR Project.
Republic of Moldova	August 2014 – May 2014	Construction of biomass heating system in Cotuieni village Culture House, Briceni District.
Republic of Moldova	June 2014 – November 2014	Construction of biomass heating systems in Briceni, Ocnita, Dubasari, Edinet and Drochia districts
Republic of Moldova	November 2013 – September 2014	Construction of biomass heating system in Cupcui village Gymnasium, Leova District
Republic of Moldova	October 2013 – December 2014	Construction of biomass heating systems in villages Hirbovat and Saseni from district Calarasi, Bratuleni and Soldanesti from district Nisporeni, Micleuseni and Vorniceni from district Straseni.
Republic of Moldova	September 2012 – April 2013	Construction of biomass heating systems in Biesti, Camencea, Mitoc, Ustia villages of the district Orhei.
Republic of Moldova	June 2012 – December 2012	Construction of biomass heating systems in Camencea, Cuhnesti, Fundurii Vechi, Petrunca and Ustia villages of the district Glodeni.
Republic of Moldova	December 2011 – June 2012	Construction of biomass heating systems in the villages Alexandreni, Biliceni Noi, Bursuceni, Pepeni and Dumbravita of the district Sangerei.
	November 2010 – June 2011	Boiler plant construction of the Nr. 1 Professional School of Criuleni. 800 kW

#### 14. Professional experience:

<b>Date: from (month/year) to (month/year)</b>	2002 - present
<b>Place</b>	Straseni city, Republic of Moldova
<b>Company/organisation</b>	SA Darnic-Gaz
<b>Position</b>	Chief Engineer

**Job description**

Responsible for assigned construction works;  
 Material supply;  
 Supervision of the operational process during  
 the execution of the works.

- 15. Others:
- 15a. Publications and seminars:
- 15b. References:

Signature .....

*(person(s) authorised to sign on behalf of the tenderer)*

Date.....



REPUBLICA



MOLDOVA

MINISTERUL ÎNVĂȚĂMÎNTULUI  
**DIPLOMĂ**

de studii superioare universitare de licență

Nr. 0048104

Seria AL

În baza hotărârii Comisiei pentru examenul de licență

din 21 ianie 2002

Saobici Sergiu

înmătriculat — în anul 1997, absolvent al (a) —

Universității Tehnice a Moldovei  
Instituția de învățământ superior universitar

a obținut titlul de inginer licențiat

profilul Construcții

specialitatea Construcții civile,

industriale și agricole

specializarea

cu medii pe anul de studii 6,52 (sase, 52)

examenului de licență 6,75 (sase, 75)

semnata de 6,56 (sase, 56)

Președinte al Comisiei, V. Vashin

Rector, S. Bostan

Secretar, V. Ciupac

Eliberată la 50 aprilie 2002

Nr. de înregistrare

Semnătura titularului

Tipografia Centrală, 2002



REPUBLICA

MOLDOVA



MINISTERUL EDUCAȚIEI,

ȚINERETULUI ȘI SPORTULUI

# DIPLOMĂ

de calificare profesională suplimentară la studiile superioare

Seria ACS

Nr. 001025

Eliberată

Soboci Sergiu

în baza studiilor la

Universitatea Tehnică a Moldovei

în perioada 03.04.2006 - 25.12.2009

a realizat programul de formare profesională continuă pentru  
obținerea unei noi calificări Ingineria sistemelor de  
alimentare cu căldură și gaze, ventilație

În baza hotărârii Comisiei de Stat din 25.12.2009

i se atribuie calificarea Inginer - Ingineria sisteme-

lor de alimentare cu căldură și gaze, ventilație

Președinte al Comisiei

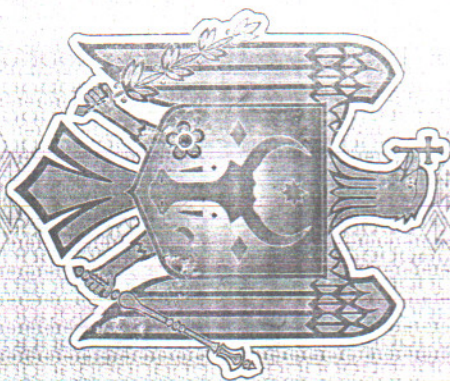
Rector (director)

Secretar

Eliberată la 12 ianuarie 2010 200

Nr. de înregistrare 15 Semnătura titularului

Tipografia Centrală, 2006



Diploma oferă dreptul la activitate profesională

în baza calificării obținute.

Valabilă la prezentarea diplomei de studii superioare.

410048104

seria și numărul diplomei



REPUBLICA



MOLDOVA

**MINISTERUL ECONOMIEI  
ȘI INFRASTRUCTURII**

**CERTIFICAT**

de atestare tehnico-profesională

Seria 2018-DȘ

Numărul 0285

Eliberat domnului (doamnei): **Scobici Sergiu**

Pentru a activa în calitate de: **Diriginte de șantier**

Domeniile:

**1. Construcții civile, industriale și agrozootehnice.**

**Exigențele esențiale:**

- A - rezistență și stabilitate;
- B - siguranță în exploatare;
- C - siguranță la foc;
- D - igienă, sănătatea oamenilor, refacerea și protecția mediului înconjurător;
- E - izolație termică, hidrofușă și economie de energie;
- F - protecție împotriva zgomotului.

Data eliberării **27 decembrie 2018**

Valabil pînă la **27 decembrie 2023**



**Anatol USATÎI**

**Secretar de Stat**



REPUBLICA



MOLDOVA

**MINISTERUL ECONOMIEI  
ȘI INFRASTRUCTURII**

**CERTIFICAT**

de atestare tehnico-profesională

**Seria 2018-DȘ**

**Numărul 0281**

Eliberat domnului (doamnei): **Mereacre Filaret**

Pentru a activa în calitate de: **Diriginte de șantier**

Domeniile:

**1. Construcții civile, industriale și agrozootehnice.**

**Exigențele esențiale:**

A - rezistență și stabilitate;

B - siguranță în exploatare;

C - siguranță la foc;

D - igienă, sănătatea oamenilor, refacerea și protecția mediului înconjurător;

E - izolație termică, hidrofugă și economie de energie;

F - protecție împotriva zgomotului.

Data eliberării **27 decembrie 2018**

Valabil pînă la **27 decembrie 2023**



**Anatol USATÎI**

**Secretar de Stat**



REPUBLICA



MOLDOVA

**MINISTERUL ECONOMIEI  
ȘI INFRASTRUCTURII**

**CERTIFICAT**

de atestare tehnico-profesională

Seria 2019-DLS

Numărul 0133

Eliberat domnului (doamnei): **Scobici Sergiu**

Pentru a activa în calitate de: **Diriginte cu executarea lucrărilor specializate  
și instalațiilor aferente construcțiilor**

Domeniile:

- 1. Instalații și rețele de alimentare cu apă și canalizare.**
- 2. Instalații și rețele de încălzire.**

Exigențele esențiale:

- A - rezistență și stabilitate;**
- B - siguranță în exploatare;**
- C - siguranță la foc;**
- D - igienă, sănătatea oamenilor, refacerea și protecția mediului înconjurător;**
- E - izolație termică, hidrofugă și economie de energie;**
- F - protecție împotriva zgomotului.**

Data eliberării **7 februarie 2019**

Valabil pînă la **7 februarie 2024**



**Anatol Usatîi**

**Secretar de Stat**





Republica Moldova, MD-6801 or. Ialoveni, str. Alexandru cel Bun, 33

Tel. +373 268 2 66 71, Fax +373 268 22692

E-mail: [oficiu.adrc@gmail.com](mailto:oficiu.adrc@gmail.com)

[office@adrcentru.md](mailto:office@adrcentru.md)

### **Scrisoare de recomandare**

In Atentie

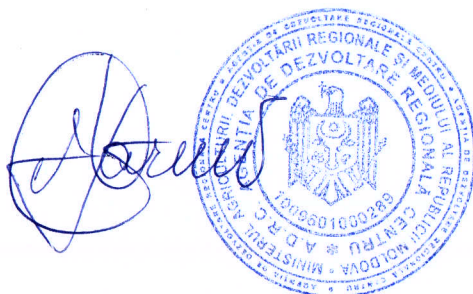
Oricui poate fi interesat

Stimati Domni/Doamne

Prin Prezenta “Agentia de Dezvoltare Regionala Centru”, Va comunica despre relatiile de lucru cu Inginerul S.A. “Darnic-Gaz” D-nul. Scobici Serghei si anume lucrarile efectuate in cadrul proiectului “Apeductul magistral de apa de la punctul de conectare din s.Sociteni , spre satele Bardar,Rusestii Noi, Rusestii Vechi r.Ialoveni” si “Apeduct Prut - Nisporeni. Evacuarea apelor reziduale a or.Nisporeni.” care a fost soldata de o colaborare reusita, in care D-nul Scobis S. a dat dovada de profesionalism, spirit de echipa, ingeniozitate maxima, carea a dus la bun sfirsit toate obiectivele propuse in cadrul proiectelor.

Reesind din experienta D-nului Scobici Serghei- puteti recomanda cu incredere tuturor persoanelor/intreprinderilor care are nevoie de inginer profesionist.

**Director**



**Viorel JARDAN**



**ENERGIE  
ȘI BIOMASĂ**

Resurse energetice alternative pentru Moldova

### Recomadare

Prin Prezenta Eu Vitalie Vieru activind in calitate de Inginer de proiect al "Moldova Energy and Biomass Project Republic of Moldova" Vreau sa-mi expun gratitudinea si inalta apreciere fata de Inginerul S.A. "Darnic Gaz" Scobici Serghei.

Baza: Lucrarile efectuate in consortiu de S.A. "Darnic-Gaz", SRL "AM-Sisteme", SRL "Montex-Gaz".

Va confirm, ca D-nul Scobici Serghei a dat dovada de calificare inalta in gestionarea lucrarilor si a colectivului muncitoresc astfel incit lucrarile au fost efectuate in termenii preconizati iar calitatea este exceptionala.

In final, Va putem recomanda pe D-nul Scobici Serghei ca Diriginte de Santier si Inginer de incredere.

Inginer de proiect MEBP Vitalie Vieru

Vieru



## FORM 4.6.1.3

### PROFESSIONAL EXPERIENCE OF KEY STAFF

### CURRICULUM VITAE

(Maximum 3 pages + 3 pages of annexes)

Proposed position in the contract:

1. Surname: Murzin
2. Name: Ion
3. Date and place of birth: 20.08.1956, Costesti village, Ialoveni district.
4. Nationality: Moldovan
5. Civil status: Married  
Address (phone/fax/e-mail): 068564292, e-mail: ial-electroserv@mail.ru
6. Education: Mechanization Technician

<b>Institutions:</b>	Mechanization Technician
<b>Date:</b>	
<b>From (month/year)</b>	September 1974
<b>To (month/year)</b>	July 1977
<b>Degree or qualification:</b>	License

7. Language skills

Indicate on a scale of A1 to C2 (from A1 (beginner) to C2 (proficient))<sup>1</sup>:

Language	Level	Passive	Spoken	Written
Romanian	<i>Mother tongue</i>	C2	C2	C2
English	Excellent	C2	C2	C2
Russian	Excellent	C2	C2	C2

8. Membership of professional bodies: AIIRM
9. Other skills (e.g. computer literacy): Microsoft Office, 1C
10. Current position: Director
11. Years of professional experience: 40
12. Key qualifications: Work Organization, Consulting Engineers, Design, Staff Training
13. Specific experience in developing countries:

Country	Date: from (month/year) to (month/year)	Name and brief description of the project
Republic of Moldova	November 2020 – July 2022	Electrical works within the project: Increasing the energy efficiency of the "Ion Vatamanu" high school in the city of Strășeni
Republic of Moldova	July 2020 – May 2021	Electrical works within the project: Construction of the 312 Kw photovoltaic park in Feștelita village.
Republic of Moldova	July 2020 – December 2020	Electrical works within the project: Connection networks at boiler rooms based on biomass from within the 2KR project.

<sup>1</sup> Levels are based on the Common European Framework of Reference for Languages. See: <https://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale>. The linguistic competencies are to be demonstrated by certificate or by past relevant experience.

Republic of Moldova	September 2019 - December 2019	Electrical works within the project: Capital repair of the heating system at preschool institution no. 4 in Fedico str., 8 in Bălți municipality" according to the requirements of the DITS of Bălți Municipality.
Republic of Moldova	October 2017- May 2018	Electrical works within the project: ITB 17/01555 Construction of 19 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP.
Republic of Moldova	December 2016 – May 2017	Electrical works within the project: Construction of biomass heating systems in Copanca, Grozesti, Bratuleni, Soltanesti and Sestaci (Lot 1). UNDP.
Republic of Moldova	November 2016 – April 2017	Electrical works within the project: Construction of biomass heating systems in Congaz, Cazaclia (district Taradia) and Causeni (Lot 1), Taraclia, Corten, Aibota de Jos, Sofievca and Ciurnai (district Taracia) (Lot 2), UNDP.

14. Professional experience:

<b>Date: from (month/year) to (month/year)</b>	2003 - present
<b>Place</b>	Costesti village, Ialoveni district. Republic of Moldova
<b>Company/organisation</b>	IAL-Electroserv SRL
<b>Position</b>	Director
<b>Job description</b>	Responsible for assigned construction works; Material supply; Supervision of the operational process during the execution of the works.

15. Others:

15a. Publications and seminars:

15b. References:

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date 14.03.2023

Domeniile:

**4. Instalații și rețele electrice.**

**Exigențele esențiale: A, B, C, D, E, F.**

**REPUBLICA MOLDOVA**  
**Ministerul Economiei**  
**și Infrastructurii**



**LEGITIMAȚIE Seria 2018-DLS Nr. 0107**

**Numele Murzin**

**prenumele Ion**

**Atestat în calitate de Diriginte cu**  
**executarea lucrărilor specializate și**  
**instalațiilor aferente construcțiilor**

**Eliberată la 20 decembrie 2018**

**Valabilă până la 20 decembrie 2023**

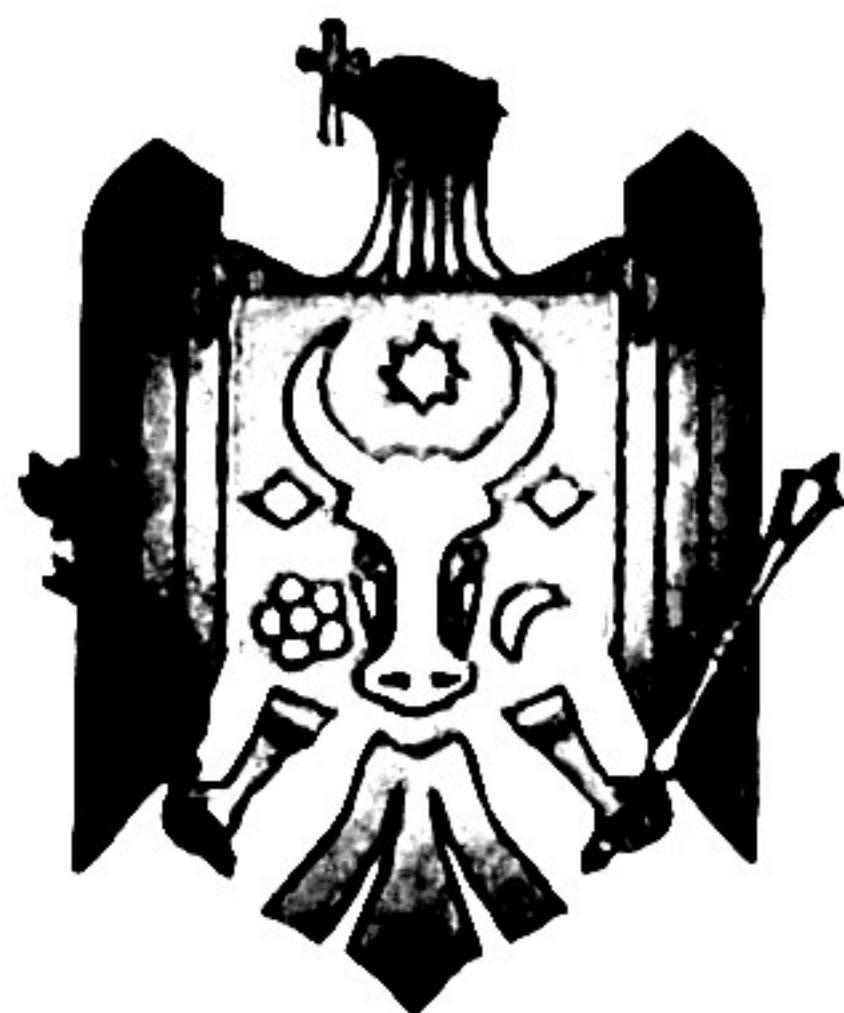
**Anatol USATÎI**

**Secretar de Stat**





**REPUBLICA**



**MOLDOVA**

**MINISTERUL ECONOMIEI  
ȘI INFRASTRUCTURII**

**CERTIFICAT**

**de atestare tehnico-profesională**

**Seria 2018-DLS**

**Numărul 0107**

Eliberat domnului (doamnei): **Nurzin Ion**

Pentru a activa în calitate de: **Diriginte cu executarea lucrărilor specializate  
și instalațiilor aferente construcțiilor**

**Domeniile:**

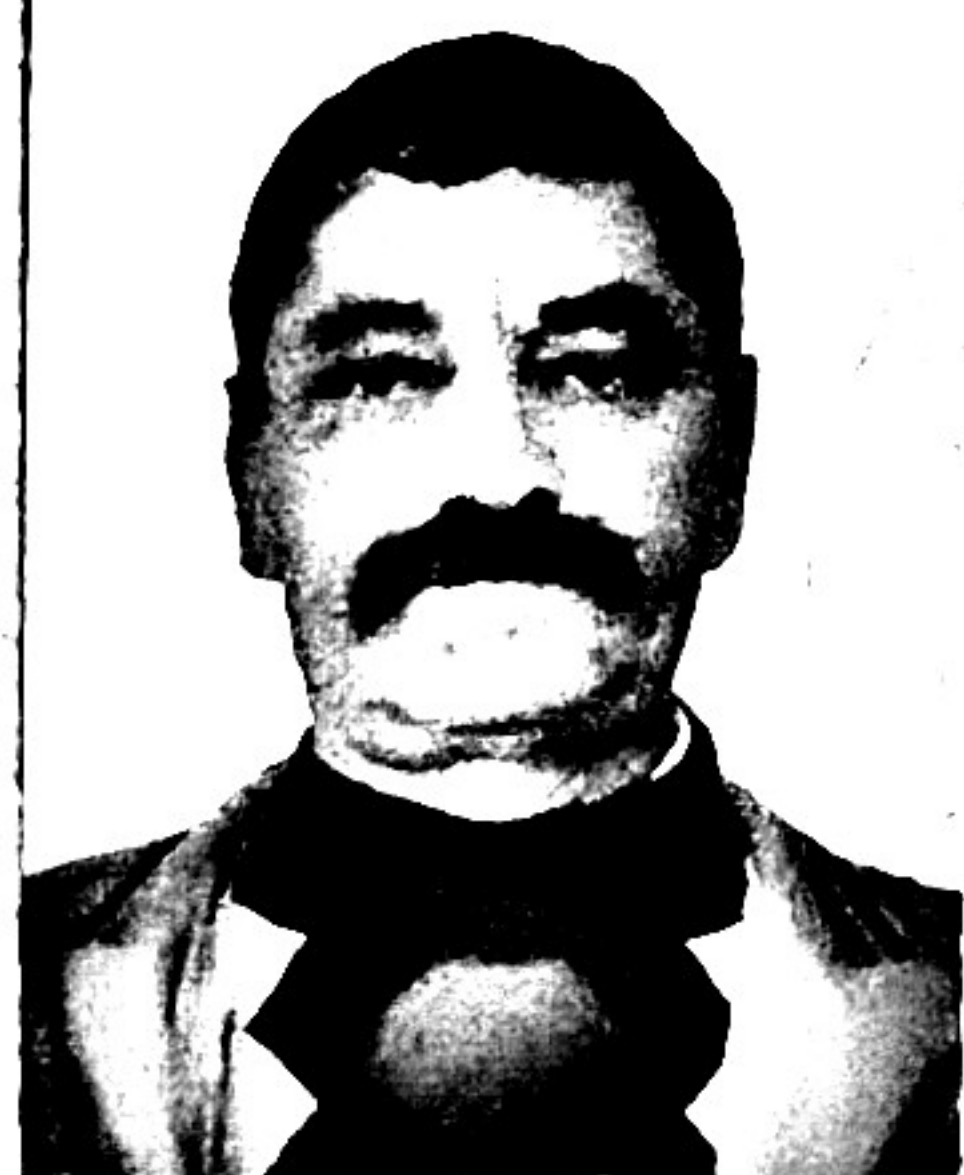
**4. Instalații și rețele electrice.**

**Exigențele esențiale:**

- A - rezistență și stabilitate;**
- B - siguranță în exploatare;**
- C - siguranță la foc;**
- D - igienă, sănătatea oamenilor, refacerea și protecția mediului înconjurător;**
- E - izolație termică, hidrofugă și economie de energie;**
- F - protecție împotriva zgomotului.**

**Data eliberării 20 decembrie 2018**

**Valabil pînă la 20 decembrie 2023**



**Anatol Usatîi**

**Secretar de Stat**



# ЭШОЦИД

9-1 № 143752

Диплома де факто есте dată

Иван Леонидович

кэ ын анул 19.74 а ынтрат ла сөбх озул - тэхицхм

де вимкнути турби завар-Луна  
содержи-механику

менюзавар азрыхта тўри

Прин хотарыра Комисией де квалификаре де стат де ла "29 апрелуе" анул 1977

Л/уручин Иван Леонидович

и се атрибује квалификација де техник - машиник.

Împreună cu Komnen  
de nașturanță de emm

Душентон

*Carpenter*

Светловы  
29 апреля 1977

Nº de antreprima 1659

Beer -

# ДИПЛОМ

Р-1 № 143752

Настоящий диплом выдан

Шурупы  
Шпатель

В том, что он... В 19~~74~~<sup>75</sup> году поступил... в Загор.-Инж. уч.

и в 1977 году окончил ..... полный курс ..... *содерж-темы курсы* ..... *бюджетного*

собрать - механизма

по специальности *Механика*

СЕРЬЕЗНО ПОЖАЛЕЛ

Решением Государственной квалификационной комиссии от 29 апреля 1977 года

Олурзуну Ивану еленировузу

присвоена квалификация ..... Менеджер - Исполнитель

Председатель Государственной  
кавалитационной комиссии

Директор

Серпень

Подпись .....  
Дата ..... года.

Регистрационный № 1625

Московская типография Гознака. 1976



## FORM 4.6.1.3

### PROFESSIONAL EXPERIENCE OF KEY STAFF

#### CURRICULUM VITAE

(Maximum 3 pages + 3 pages of annexes)

Proposed position in the contract:

1. Surname: Mancus
2. Name: Liviu
3. Date and place of birth: 27.07.1984, Edinet district, Grozesti village.
4. Nationality: Moldovan
5. Civil status: Married  
Address (phone/fax/e-mail): 069335633, e-mail: iss.sistemas@mail.ru
6. Education: State Agrarian University of Moldova

<b>Institutions:</b>	State Agrarian University of Moldova
<b>Date:</b>	
<b>From (month/year)</b>	September 1997
<b>To (month/year)</b>	July 2001
<b>Degree or qualification:</b>	License

7. Language skills

Indicate on a scale of A1 to C2 (from A1 (beginner) to C2 (proficient))<sup>1</sup>:

Language	Level	Passive	Spoken	Written
Romanian	<i>Mother tongue</i>	C2	C2	C2
English	Excellent	C2	C2	C2
Russian	Excellent	C2	C2	C2

8. Membership of professional bodies: AIIRM
9. Other skills (e.g. computer literacy): Autocad, Winsmeta, Microsoft Office, 1C
10. Current position: Director
11. Years of professional experience: 18
12. Key qualifications: Work Organization, Consulting Engineers, Design, Staff Training
13. Specific experience in developing countries:

Country	Date: from (month/year) to (month/year)	Name and brief description of the project
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the Ciocana Police Inspectorate
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the Criuleni Police Inspectorate
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the General Police Inspectorate
Republic of Moldova	July 2022 – December 2022	The design, complete installation, commissioning, and testing of a 30 Kw on-grid photovoltaic system (PV) at Peace Corps Office
Republic of Moldova	July 2022 – September 2022	Reconstruction works of the heating system of the gymnasium, D. Cantemir, from Mîndrești village, Telenești district

<sup>1</sup> Levels are based on the Common European Framework of Reference for Languages. See: <https://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale>. The linguistic competencies are to be demonstrated by certificate or by past relevant experience.



Republic of Moldova	April 2022 – October 2022	Autonomous source of heat supply SAAC of the Kindergarten-Gradinita in Constantinovca village, Căușeni district
Republic of Moldova	April 2022 – September 2022	"The capital repair of the culture house in the city. Căinari r. Căușeni (Renovation of the heating system, natural gas supply of the thermal plant"
Republic of Moldova	November 2021 – September 2022	The thermal power plant with engineering networks of the study block of the Vocational School for the study block of the "Ștefan cel Mare și Sfânt" Theoretical High School, Taraclia village, Căușeni district
Republic of Moldova	October 2021 – October 2022	Construction of the boiler room and natural gas supply networks at the Public Medical and Sanitary Institution Strășeni District Hospital in T. Ciorbă Street 11/1, Strășeni municipality
Republic of Moldova	August 2021 – May 2022	Renovation of the heating system of IP Gimnaziul Ștefan cel Mare from Nisporeni
Republic of Moldova	November 2020 – July 2022	Increasing the energy efficiency of the "Ion Vatamanu" high school in the city of Strășeni
Republic of Moldova	July 2020 – May 2021	Construction of the 312 Kw photovoltaic park in Feștelita village
Republic of Moldova	June 2020 – November 2020	Reconnection to thermal, water and sewage systems and the reconstruction of the Individual Thermal Point at IMSP Institute of Emergency Medicine in Toma Ciorbă Street 1
Republic of Moldova	July 2020 – December 2020	Connection networks at boiler rooms based on biomass from within the 2KR project

14. Professional experience:

<b>Date: from (month/year) to (month/year)</b>	2011
<b>Place</b>	Chisinau city, Republic of Moldova
<b>Company/organisation</b>	ISS Sistem SRL
<b>Position</b>	Engineer
<b>Job description</b>	Responsible for assigned construction works; Material supply; Supervision of the operational process during the execution of the works.

15. Others:

15a. Publications and seminars:

15b. References:

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date 14.03.2023

REPUBLICA MOLDOVA

MINISTERUL ÎNȘĂCĂVĂTĂRII  
**DIPLOMĂ**

de studii superioare universitare de licență

№ 0038466

Serie AL

În baza hotărârii Comisiei pentru examenul de licență

din 3 iulie

2001

**Maneuș Liviu**

lașcu, președinte

Înmătrimitat în anul 1997, absolvent al (u)

Universității Agrare

de Stat din Moldova

Licențiat

a obținut titlul de

în profilul Electrotehnică și energetică

specialitatea Electrificarea

agriculturii

specializarea

cu normă de studii 6,69 (șase, 69)

la Academia de Științe 7,50 (șapte, 50)

7,15 (șapte, 15)

Specialitate al Comisiei, Școala

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe

Școala de Științe, Școala de Științe



REPUBLICA



MOLDOVA

## MINISTERUL INFRASTRUCTURII ȘI DEZVOLTĂRII REGIONALE

# CERTIFICAT

de atestare tehnico-profesională

Seria 2021-DLS

Numărul 0546

Eliberat domnului (doamnei): **Mancuș Liviu**

Pentru a activa în calitate de: Diriginte cu executarea lucrărilor specializate  
și instalațiilor aferente construcțiilor

Domeniile:

5. Instalații de automatizare.

7. Instalații de semnalizare.

Exigențele esențiale:

A - rezistență și stabilitate;

B - siguranță în exploatare;

C - siguranță la foc;

D - igienă, sănătatea oamenilor, refacerea și protecția mediului înconjurător;

E - izolație termică, hidrofușă și economie de energie;

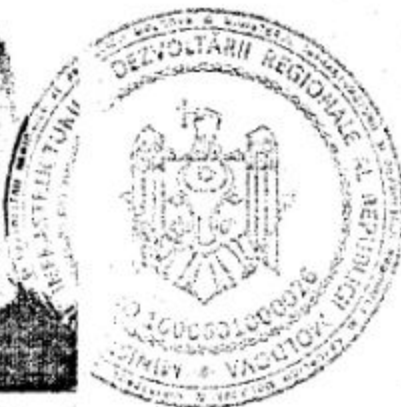
F - protecție împotriva zgomotului.

G - utilizare sustenabilă a resurselor naturale.

Data eliberării **22 septembrie 2021**

Valabil pînă la **22 septembrie 2026**

După ieșirea acestui document,  
ați sosit acțiuni de implicare în acte de corupție.  
Vă rugăm să ne informați la Unitățile anticorupție a  
ministerului 023250535,  
WhatsApp 078777875  
sau mesaj la adresa de  
e-mail: anticorupție@migr.gov.md



**Andrei SPÎNU**

**Viceprim-ministru,  
ministru**



# ENERGIE ȘI BIOMASĂ

Resurse energetice alternative pentru Moldova

## Recomadare

Prin Prezenta Eu Vitalie Vieru activind in calitate de Inginer de proiect al "Moldova Energy and Biomass Project Republic of Moldova" Vreau sa-mi expun gratitudinea si inalta apreciere fata de Automatician S.A. "Darnic Gaz" Liviu Mancus.

Baza: Lucrarile efectuate in consortiu de S.A. "Darnic-Gaz", SRL "AM-Sisteme", SRL "Montex-Gaz".

Va confirm, ca D-nul Liviu Mancus a efectuat lucrari de automatizare conform proiectelor, care ulterior a generat o implicare minima a personalului de deservire a utilajului instalat in cadrul proiectului „MEBP”.

In final, Va putem recomanda pe D-nul Liviu Mancus ca Automatician profesionist si de incredere, cu un grad inalt de calificare.

Inginer de proiect MEBP Vitalie Vieru Vieru



## FORM 4.6.1.3

### PROFESSIONAL EXPERIENCE OF KEY STAFF

### CURRICULUM VITAE

Proposed position in the contract: Photovoltaic systems Design Engineer

1. Surname: Rudei
2. Name: Ion
3. Date and place of birth: 07.10.1978, Chisinau municipality
4. Nationality: Moldovan
5. Civil status: Married  
Address (phone/fax/e-mail): 069276688, e-mail:
6. Education: Technical University of Moldova

<b>Institutions:</b>	Technical University of Moldova / Faculty of electrotechnics and energetics
<b>Date:</b>	
<b>From (month/year)</b>	September 1996
<b>To (month/year)</b>	July 2000
<b>Degree or qualification:</b>	License no. 0030002

7. Language skills

Indicate on a scale of A1 to C2 (from A1 (beginner) to C2 (proficient))<sup>1</sup>:

Language	Level	Passive	Spoken	Written
Romanian	<i>Mother tongue</i>	C2	C2	C2
English	Excellent	C2	C2	C2
Russian	Excellent	C2	C2	C2

8. Membership of professional bodies:
9. Other skills (e.g. computer literacy): Autocad, Winsmeta, Microsoft Office, 1C
10. Current position: Design Engineer
11. Years of professional experience: 20
12. Key qualifications: Work Organization, Consulting Engineers, Design, Staff Training
13. Specific experience in developing countries:

Country	Date: from (month/year) to (month/year)	Name and brief description of the project
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the Ciocana Police Inspectorate
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the Criuleni Police Inspectorate
Republic of Moldova	September 2022 – December 2022	Installation works of photovoltaic panels at the headquarters of the General Police Inspectorate
Republic of Moldova	July 2022 – December 2022	The design, complete installation, commissioning, and testing of a 30 Kw on-grid photovoltaic system (PV) at Peace Corps Office
Republic of Moldova	November 2020 – July 2022	Increasing the energy efficiency of the "Ion Vatamanu" high school in the city of Strășeni

Republic of Moldova	July 2020 – May 2021	Construction of the 312 Kw photovoltaic park in Feștelita village
Republic of Moldova	October 2017- May 2018	ITB 17/01555 Construction of 19 biomass based heating systems in conjunction with solar collectors for domestic hot water, UNDP.
Republic of Moldova	December 2016 – May 2017	Construction of biomass heating systems in Copanca, Grozesti, Bratuleni, Soltanesti and Sestaci (Lot 1). UNDP.

14. Professional experience:

<b>Date: from (month/year) to (month/year)</b>	2002 - 2021
<b>Place</b>	Andrei Doga street 4, Chișinău, Republic of Moldova
<b>Company/organisation</b>	ÎCS Premier Energy SRL
<b>Position</b>	Head of Service of energy acquisition
<b>Job description</b>	Design services and works in electrical installations, technical consultancy on energy issues and other related activities.
<b>Date: from (month/year) to (month/year)</b>	2021 - present
<b>Place</b>	Chisinau municipality, Riscani sector, Studentilor street, 7/10 Republic of Moldova
<b>Company/organisation</b>	RUDEI ENERG PARTNER SRL
<b>Position</b>	Director
<b>Job description</b>	Design services and works in electrical installations, technical consultancy on energy issues and other related activities.

15. Others:

15a. Publications and seminars:

15b. References:

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date 18.05.2023

REPUBLICA MOLDOVA  
MINISTERUL EDUCAȚIEI ȘI ȘTIINȚEI

# DIPLOMĂ

de licență

Seria **AL** Nr. **0030002**

În baza hotărârii Comisiei pentru examenul de licență  
din **24** **iunie** **2000**

**Rudei Ion**

numele, prenumele

înmatriculat în anul **1995**, absolvent al(a)

**Universității Tehnice**

instituția de învățământ superior

**a Moldovei**

facultatea **de Energetică**

a obținut titlul de **inginer**

în profilul **Electrotehnică și energetică**

specialitatea **Electroenergetică**

media **9,25**



Eliberată la **15** **iunie** **2000**

Nr. **15**

semnătura titularului

Moldpres, 2000



REPUBLICA MOLDOVA



MINISTERUL ÎNVĂȚĂMÎNTULUI  
*Universitatea Tehnică*  
Instituția de învățămînt superior  
*a Moldovei*

Instituția de cercetări științifice

# DIPLOMĂ

de Magistru

Seria AM

Nr. 001005

În baza hotărîrii Comisiei pentru evaluarea tezelor de magistrat  
din 26 septembrie 2001

Rudei Ion  
numele, prenumele

înmatriculat la magistrat în anul 2000 în baza  
diplomei de licență Seria AL Nr. 0030002  
a obținut titlul de magistrat în

Electroenergetică

(specializarea)

cu media generală 9,39 (nouă, 39)



Președinte al Comisiei, *[Signature]*  
Rector, *I. Bostan*  
Decan, *[Signature]*  
Secretar, *[Signature]*

Eliberat la

1 noiembrie 2001

Nr. de înregistrare

6

Semnătura titularului

*[Signature]*

Tipografia Centrală, 2001



REPUBLICA MOLDOVA  
Ministerul Infrastructurii  
și Dezvoltării Regionale



LEGITIMAȚIE Seria 2022-P Nr. 0829



Numele **Rudei**

prenumele **Ion**

Atestat în calitate de

**Proiectant**

Eliberată la **23 februarie 2022**

Valabilă până la **23 februarie 2027**

**Andrei SPINU**

Viceprim-ministru, ministru

Domeniul (iile):

**C. Instalații aferente:**

**4. Instalații și rețele electrice.**


Exigențele esențiale: A, B, C, D, E, F, G.

*Dacă la emiterea acestui document,  
ați sesizat acțiuni de implicare în acte de corupție,  
Va rugăm să ne informați la Linia anticorupție a  
ministerului 022250535,  
WhatsApp 078777975  
sau mesaj la adresa de  
e-mail: anticoruptie@midr.gov.md*

## FORM 4.6.2

### PLANT

	DESCRIPTION (type/make/model)	Power / capaci ty	No of units	Age (year s)	Owned (O) or hired (H)/ and percenta ge of ownershi p	Origin (country)	Current approximat e value in euro or national currency	Proposed by (in case of a joint tender, indicate the name of the consortium member proposing the plant)
<b>A)</b>	<b>CONSTRUCTION PLANT</b>							
1.	Air compressor AC 2524	2600W	1	3	O / 100	Rusia	1 448,33	AM Sisteme SRL

	DESCRIPTION (type/make/model)	Power / capaci ty	No of units	Age (years )	Owned (O) or hired (H)/ and percenta ge of ownershi p	Origin (country)	Current approximat e value in euro or national currency	Proposed by (in case of a joint tender, indicate the name of the consortium member proposing the plant)
<b>B)</b>	<b>VEHICLES AND TRUCKS</b>							
1.	The vehicle for transporting materials 2 tons Mercedes Sprinter 515CDI  	2148 cm3  5500 kg	1	12	O / 100	Germany	114 400,63	AM Sisteme SRL
2.	The vehicle for transporting materials 2 tons -DAF AE45LF	2600 cm3  7500 kg	1	10	O / 100	Olanda	135 000	AM Sisteme SRL



4.	Mini excavator for narrow spaces WAKER NEUSON EZ38	3885 cm3 21 Kw 4000 kg	1	5	O / 100	Germania	28 000	AM Sisteme SRL
C)	<b>OTHER PLANT</b>				/			AM Sisteme SRL
7.	Mechanical compactor Waker Neuson BS60		1	2	O / 100	Germania	500 euro	AM Sisteme SRL
8.	Mechanical compactor Waker Neuson AS50		1	3	O / 100	Germania	550 euro	AM Sisteme SRL
9.	Mechanical compactor Honda Gx160 original - trambovca		1	3	O / 100	Japonia	800 euro	AM Sisteme SRL
10	Device for soldering or welding PEHD Weltech MHTW160		2	2	O / 100	Turcia	2000 euro	AM Sisteme SRL
11.	Inverter welding machine Paton		3	4	O / 100	Ucraina	350 euro	AM Sisteme SRL
12.	Inverter welding machine HAMMER 220V/50Hz 200A		1	3	O / 100	China	400 euro	AM Sisteme SRL
13.	Inverter welding machine 160 AH		1	1	O / 100	China	250 euro	AM Sisteme SRL
14.	Inverter welding machine 200A		1	1	O / 100	China	250 euro	AM Sisteme SRL
15.	Generator Hagel 7500 CL 6.0Kw 220 benzina		1	2	O / 100		1000 euro	AM Sisteme SRL
16.	Betoniera CM 200H		1	3	O / 100	China	200 euro	AM Sisteme SRL
17.	Hole puncher Makita HR2470		1	2	O / 100	Japonia	150 euro	AM Sisteme SRL
18.	Hole puncher Makita HR26G 800 W 500 RPM		1	2	O / 100	Japonia	150 euro	AM Sisteme SRL
19.	Rotary impact hammer HR 4003C		1	1	O / 100	China	150 euro	AM Sisteme SRL
20.	Rotary impact hammer SDS-plus 710W		1	3	O / 100	Japonia	150 euro	AM Sisteme SRL
21.	Rotary impact hammer SDSplus Hitachi DH24PH		1	4	O / 100	Japonia	150 euro	AM Sisteme SRL

	730 W							
22.	Angle grinder 2200W D230 mm DeWalt		2	2	O / 100		200 euro	AM Sisteme SRL
23.	Angle grinder 2200W D230 mm Hitachi		1	4	O / 100	Japonia	180 euro	AM Sisteme SRL
24.	Metal container for storing materials		1	1	O / 100	Moldova	21 832,19	AM Sisteme SRL
26.	Containers for construction waste		2	1	O / 100	Moldova		AM Sisteme SRL
28.	Staff barracks		1	3	O / 100	Moldova		AM Sisteme SRL

Signature .....

(person(s) authorised to sign on behalf of the tenderer)

Date 17.05.2023



## FORM 4.6.4

### EXPERIENCE AS CONTRACTOR

#### 4.6.4.1. List of contracts of similar nature and scale performed during the past 3 years

Name of project/type of works	Total value of works the contractor was responsible for	Period of contract	Start date	Percentage of works completed	Contracting authority and place	Prime contractor (P) or subcontractor (S)	Final acceptance issued? - Yes - Not yet (current contracts) - No
<b>A) In home country</b>							
Contract no. W-PV-UE-1 Construction of the 312 Kw photovoltaic park in Feștelita village / Design and installation of a 400 kW installed power photovoltaic park on the ground in Festelita village, with an output to grid of 312 kW	4 251 915 MDL	July 2020 – May 2021	27 July 2020	All works completed	Moldova Social Innovation Fund (MSIF)/ Local Public Authority of Festelita Village, Stefan Voda district	P	Yes
Contract no. Nr. 6/CEE/002/1 Increasing the energy efficiency of the high school "Ion Vatamanu" from Straseni / The works included general energy efficiency rehabilitation measures implemented in Ion Vatamanu lyceum, including a photovoltaic system of 10 kW installed on the building roof	28 925 676 MDL	November 2020 – July 2022	20 November 2020	All works completed	Center Regional Development Agency, Ialoveni city Alexandru cel Bun street, 33	P	Yes

Contract no. W-RCDP3-2 Technical design of 2 on-grid photovoltaic (PV) net-metering systems, their delivery, control, automation and installation at the kindergartens from Mindra village (4,95 KW), and Ratus village (5,4 KW) Telenesti district / Design and installation of 2 roof photovoltaic systems for two social institutions with a total installed power of 10 kW	264 000 MDL	July 2022 – December 2022	29 July 2022	All works completed	Moldova Social Innovation Fund (MSIF)/ Local Public Authority of Ratus Village, Telenesti district	P	Yes
Contract no. PC-261-010050 The design, complete installation, commissioning, and testing of a 30 kW on-grid photovoltaic system (PV) at Peace Corps Office in Chisinau / Design and installation of a 30 kW installed power photovoltaic system on the roof of the Peace Corps office in Chisinau, including connection of the internal monitoring system	48 082,64 USD	July 2022 – December 2022	15 July 2022	All works completed	Peace Corps (The United States of America), Chisinau city, Gr. Ureche street, 12	P	Yes
Contract no. 141-LC Installation works of photovoltaic panels at the headquarters of the General Police Inspectorate / Installation of 1 roof photovoltaic system with a total installed power of 83 kW and with an output of 80 kW to the grid	1 478 396 MDL	September 2022 – December 2022	29 September 2022	All works completed, documentation sent to ANRE	General Police Inspectorate, Chisinau city, Tiraspol street, 11	P	Yes
Contract no. 139-LC Installation works of photovoltaic panels at the headquarters of the Criuleni Police Inspectorate / Installation of 1 roof photovoltaic system with a total installed power of 35 kW and with an output of 30 kW to the grid	665 767 MDL	September 2022 – December 2022	29 September 2022	All works completed, documentation sent to ANRE	General Police Inspectorate, Chisinau city, Tiraspol street, 11	P	Yes



Contract no. 140-LC Installation works of photovoltaic panels at the headquarters of the Ciocana Police Inspectorate / Installation of 1 roof photovoltaic system with a total installed power of 35 kW and with an output of 30 kW to the grid	695 915 MDL	September 2022 – December 2022	29 September 2022	All works completed, documentation sent to ANRE	General Police Inspectorate, Chisinau city, Tiraspol street, 11	P	Yes
Photovoltaic installation for the Nursing Home in the city of Nisporeni / Installation of 1 roof photovoltaic system with a total installed power of 20 kW and with an output of 20 kW to the grid	26 500 EURO	August 2022 – December 2022	01 August 2022	All works completed, commissioning documentation under elaboration	Bundesverband Pro Humanitate Deutschland e.V., Silcherweg, 4,D.	P	Yes
Contract no. 69 of 03.11.2022 Design and installation works of the 10 kw Photovoltaic station and Installation works of the 12 kw Heat Pump at the Dumitru Musteata Social Center in the village of Mihaileni Riscani	381 092 MDL	November 2022 – December 2022	03 November 2022	All works completed	Asociația Culturală de Tineret "Ormax" from Tarigrad, Drochia	P	Yes
Contract no. 25C/2022 Electricity supply of the photovoltaic plant for the administrative block in the Buiucani sector, Sfatul Țării street, 18 / Installation of 1 roof photovoltaic system with a total installed power of 100 kW and with an output of 100 kW to the grid, including the smart metering system	1 872 995 MDL	November 2022 – December 2022	04 November 2022	All works completed	Public Institution Culture and Art Center "Ginta Latina" Chisinau city, Sfatul Țării street, 18	P	Yes
Contract Nr. 70 Installation of the photovoltaic system with a capacity of 30 kw at the children's kindergarten in the town of Bahmut, Călărași district	609 902 MDL	December 2022 – Ianuarie 2023	09 December 2022	All works completed	Bahmut City Hall  Bahmut village, Calarasi district	P	Yes

Contract nr. 25 of 15.02.2023 The design and installation of the 140 kw photovoltaic power plant at the address Causeni, extravillan in the direction of the village of Grigorievca	127 157 EURO	February 2023 – April 2023	15 February 2023	All works completed, documentation sent to ANRE	SC "Mihaivan" SRL Causeni city	P	Yes
Contract nr. 07 of 02.02.2023 Design and installation of the 200 kw photovoltaic power plant at 42 Calea Basarabiei Street, Chisinau	156 150 EURO	February 2023 – April 2023	02 February 2023	All works completed	ÎM BC "Grisan Hamb" SA Chisinau city, Mitropolit Varlaam street, 56	P	Yes

Name of project/type of works	Total value of works the contractor was responsible for <sup>1</sup>	Period of contract	Start date	Percentage of works completed	Contracting authority and place	Prime contractor (P) or subcontractor (S)	Final acceptance issued? - Yes - Not yet (current contracts) - No
<b>B) Abroad</b>							

**4.6.4.2.** Please attach here available references and certificates from the relevant contracting authorities

Signature: .....

(person(s) authorised to sign on behalf of the tenderer)

Date: 18.05.2023

## FORM 4.6.6

### LITIGATION HISTORY

Please provide information on any history of litigation or arbitration resulting from contracts executed, whether as main contractor or as consortium-member, during the last 5 years or currently under execution.

A separate sheet should be used for each partner of a joint venture/consortium.

**NOT APPLICABLE.**

Year	Ruling FOR or AGAINST tenderer	Name of client, cause of litigation, and matter in dispute	Disputed amount (current value in euro or NC)

Signature .....

*(person(s) authorised to sign on behalf of the tenderer)*

Date 25.04.2023



## FORM 4.6.7

### QUALITY ASSURANCE SYSTEM(S)

1. Please provide details of the quality assurance system(s) you propose using to ensure successful completion of the works./ Vă rugăm să furnizați detalii cu privire la sistemul (sistemele) de asigurare a calității pe care le propuneți să utilizați pentru a asigura finalizarea cu succes a lucrărilor.

#### 1. PROVISIONS RELATING TO QUALITY ASSURANCE

Our company ensures the management and quality of the works for **"Construction works of a photovoltaic power generation system"**, as follows:

- through national environmental regulations in the field of public lighting
- through the quality management system, defined and documented according to the requirements of the ISO 9001 standard;
- through the Construction Works Quality Assurance Plan, drawn up and applied for this project.
- The company has created, implemented and maintained a SMC suitable for the activities carried out, respecting the legal provisions and regulations in force, Through SMC are ensured:
- Quality planning;
- The compatibility of the execution process of the objective with the applicable documentation and the application of quality control
- Fulfillment of the conditions related to the measurement and the corresponding checks
- Identification of the physical stage reached during the execution of the objective, traceability and keeping of records related to quality;
- Fulfilling the acceptance and reception conditions. The company has identified all the processes necessary for SMC as well as their sequence and interaction. The processes of the quality management system implemented in the Company are described in:
- System Documented Procedures - PS
- Operational Procedures - PO
- Technical Execution Procedures - PTE
- Work Instructions – IL

**The objectives of this project, in terms of quality, are the following:**

- Satisfying the client's requirements on time, with the planned costs and resources, taking into account the needs and expectations of the client as well as of all interested parties.
- Organization and management of activities in compliance with related and regulatory provisions.

- Demonstration of how the quality assurance requirements are met to achieve the objective,
- Demonstration of the effective way of carrying out the activities through a process that is constantly improved. The objectives of this project from the point of view of labor legislation are:
  - to grant and maintain safety and health conditions;
  - to provide training and to determine the employees to carry out their work in a safe and efficient way;
  - that all the necessary safe components and protective equipment are available and that their use is supervised;
  - to maintain a constant interest in things related to health and safety, applying throughout the project the consultation of employees every time it is possible. The objectives of this project, from the point of view of environmental protection, are:
    - minimizing the impact of site works on natural, semi-natural ecological systems and entropy.
    - minimizing the impact of site works on the community, businesses and the public in general. The main aspects generated by the site works and analyzed are the following:
      - Noise and vibrations
      - Air pollution - dust, smoke
      - Waste generation
      - Damage to areas of cultural and/or historical importance, including the aesthetic/visual aspect
      - Water pollution
      - Action procedure in emergency situations
      - Resource consumption

**The bidder considers the following:**

- Realistic planning of all execution activities for the works provided in the Terms of Reference
- The method of allocating working time for the execution team, during the contract period, respectively the way in which the Bidder planned and organized its resources in time for the optimal performance of the activities.
- Ensuring a team that ensures the fulfillment of all the necessary activities and flexibility in adapting the work plan.
- The execution of the works will be done in compliance with the execution details, the specifications and the labor protection and fire prevention rules, in force. It follows:
  - improving the energy performance of the high school building;
  - environment protection,

- reduction of energy consumption per building;
- increasing the level of comfort for staff and students;
- improving system maintenance standards;
- optimizing the functioning of engineering systems in the building;
- saving energy resources.

## 2. ORGANIZATION AND RELATIONS

- The general organization scheme and relationships necessary for the implementation of the project presents the team established for the design, execution of the works and for quality control and relations with the management of the company.
- The technical staff is made up of construction engineers, installation engineers, site managers, RCQ,. This fact and the experience gained in similar works guarantee the realization of a good management of the works under the quality conditions stipulated by the legislation in force and the execution of the works in accordance with all the specifications in the specifications.
- The components and responsibilities of the executive management team of the works are presented both in the quality manuals and in the system procedures and in the job description specified for each execution management function.
- The technical management appointed for the execution of the works will keep in permanent contact with the representative of the beneficiary and the specialist designer to ensure the operational and authorized solution of the newly arising situations, due to the conditions in the field as well as to carry out all the controls on the decisive execution phases, in accordance with the requirements specified in the specifications.
- The management staff is nominated by internal decision. The heads/site supervisors who directly supervise construction works, architecture, installations, etc. will also be nominated. and their responsibilities will be established according to the specifics of the activities carried out.
- The execution staff are qualified staff, specialized in types of activities, certified by the specialized institutions according to the related provisions.
- The company assumes responsibility for the works executed by subcontracting, including from the point of view of quality, the demands for compliance with the execution schedules as well as the quality requirements will be impure to both the subcontractors and the collaborators, through the contractual requirements.

## 3. ORGANIZATION FOR THE EXECUTION OF CONSTRUCTION WORKS

The works of the Project **"Construction works of a photovoltaic power generation system"**, are executed by the company and for certain specialized works, according to the needs, through specialized subcontractors and both the quality requirements are ensured , as well as those for labor protection stipulated in the legislation and in the contract. Only carefully selected suppliers for construction



materials and products will be involved. The management of the construction site is ensured by the following specialized personnel:

- Project Manager
- Construction manager
- Photovoltaic systems Design Engineer
- Photovoltaic systems construction engineer
- Automation engineer
- Responsible for QA
- Responsible for OSH
- Responsible for PSI
- Responsible for the Environment for health and safety

#### **4. DESCRIPTION OF THE QUALITY MANAGEMENT SYSTEM**

##### **4.1. Management and control of documents and records**

The team leader ensures that all documents and records related to the project are kept in the appropriate sections, according to the specifications of the SMC procedures. The documents applicable to the work are kept under control according to the quality system procedures: Control of documents and Control of records. To ensure the legibility of the documents used in the work, the site manager manages these documents so that they are not damaged during use or storage at the work site. To prevent the unintended use of expired documents, if they are kept for any purpose at the work site, the site manager writes "CANCELED" in a visible place on the document.

##### **4.2. Management of purchases and supplies**

The quality assurance measures provide for:

- Selection of suppliers based on quality assurance criteria for the supplied products.
- Verification of supply contracts from the point of view of the inclusion of clauses regarding product quality assurance, environmental protection: quality attestation documentation and the possibility of impact on the environment, quality checks at the reception, solving the causes of non-compliant products. All materials proposed to be used in the execution will be approved by the Beneficiary. reception
- The materials, semi-finished and prefabricated materials, will be introduced into the work only if, in advance, it has been verified by the technical manager of the work that they were delivered with declarations of conformity.
- At supply and reception, the identification of the supplied products is carried out through declarations of conformity issued by manufacturers or suppliers.

- The team leader ensures the reception of the products supplied by the reception teams designated by decision and the signing of the handover-reception documents, the identification of the supplied products on assembly positions, their handling and assembly according to the project.

#### 4.3. Quality planning

Planning is necessary to obtain in a practical and efficient way a high level of the quality of the works to achieve the objective. The technical execution procedures cover the many measures to be taken into account. During the execution, the technical execution conditions stipulated in the technical project are respected, as well as the quality of the materials used, applicable standards and regulations, labor protection, environmental protection, transport conditions, handling, storage, inspections, tests, checks, etc.

#### 4.4. Planning the realization of the object of the contract

The planning and development of the processes necessary for the execution of the contracted objectives is ensured in accordance with the requirements of the other processes of the SMC. Defining and documenting how the quality conditions will be met are:

- Identification of the factors involved in the development of the project;
- Brief description of the works that are the subject of the contract;
- Description of specific practices for the execution of works through technical execution procedures,
- Allocating the necessary resources for the execution of the works and organizing the construction site;
- Selection and employment of subcontractors;
- Description of the applicable quality management system;
- Establishing responsibilities;
- Establishing control stages during execution;
- Identification and elaboration of quality records.

#### 4.5. Control of production and service provision

The development of the work execution processes is ensured in a planned manner with the establishment of clear and well-defined responsibilities for the coordinating personnel of the work execution. For the execution of the work, the following conditions will be observed:

- The works are executed by specialized teams, according to the technical project, respecting the technical execution procedures approved by the Beneficiary;
- The quality of the materials is checked, which must correspond to the specifications in the specifications and the respective technical prescriptions. The materials are accompanied by quality documentation: declarations of conformity, test reports, technical approvals, etc.

- Before starting the works, the Consortium together with the representative of the Beneficiary inspect the land. A handover-acceptance report of the location is drawn up, which will be accompanied by photographs and handed over to the Beneficiary.
- The site organization plan will be presented by the Consortium to the Beneficiary for approval. Adequate spaces are provided for the storage of materials according to the manufacturers' prescriptions and the location of machines close to the place of execution.
- The protection of the neighboring lands and the avoidance of accidents and damages caused to them, until the reception phase, are considered. The equipment, the machines used are the traditional ones, established by the regulated technologies for special processes (welding), the special requirements for attestation of the execution personnel are respected. The execution process is kept under control by the Site Managers nominated for this work. During the execution process, the execution quality is confirmed for the phases established by the technical documentation (determining phases).

#### 4.6. Inspections and tests

Inspections and testing activities are established in accordance with the Contract, technical specifications of the Project and technical procedures. The records associated with the inspection activity are kept in the project documents, according to the SMC procedures and distributed accordingly. The records identify and refer to the inspections/tests made as well as their acceptance/rejection criteria. During the execution, records are kept of the quality control activities of the execution of the works, in accordance with the legislation in force. The documents concluded during the execution are attached to the Construction Technical Book. The control of the works is established according to the technical execution procedures and the technical norms in force. The control stages are presented in the Control, Quality, Checks and Tests Plan (PCCVI) Technical quality control, quality checks and tests are carried out as follows:

- Planned, according to the quality control plan;
- By the personnel responsible in this sense - technical controls at the reception of the products, during the execution;
- By an authorized laboratory, in accordance with the related provisions in force - the tests regarding the control of the quality of the materials used, the quality of the concrete in the work and, if necessary, the testing of the construction elements. All documents issued within the control, inspection and confirmation activities of the quality of the works, contain the identification data of the execution personnel, as well as the data of their performance. Sampling
- For materials, sampling and specific tests will be carried out in accordance with the provisions of the related technical regulations.

4.7. Non-conformity control The activity of detecting and treating the non-conformities that appeared in the execution is presented in the "Non-conforming product control" system procedure. The staff of CQ, RTE, the consultant, the site managers or the project designer will immediately notify the site manager and the project manager about the deficiency found in the execution or the quality of the materials put into the work. The Project Manager and the head of the construction site are obliged to take immediate measures to remove the non-compliant material or to isolate the area with deficiencies, until the remedial solution is developed by the designer. The solution to resolve the non-conformity is given by the designer, in writing, with a site plan with or without plans. The remedial solution will be respected



precisely by the head of the work point and the subordinate staff. The construction site disposition is sent to the executor. The remediation is carried out, according to the construction site provision. After the application of the remedial solution, the head of the subcontractor's work point will convene his own RCQ and Site Managers, together with the Project Manager, the Beneficiary's Representative and the Designer who will confirm the acceptance of the remedial work, by drawing up a report of hidden works. Following the acceptance of the remediation, the work can continue, with the observation that all the records related to the non-conformities that have arisen and how to remedy them, will be archived and handed over to the beneficiary at the end of the work, as they represent parts of the technical book of the construction. The verification of the application and compliance of the reference documents for the execution of the works as well as the SMC documentation implemented in the company is done through internal audits established and scheduled by the Management Representative. Nonconformities related to the quality of products or execution will be treated in accordance with the provisions of the company's own management system, namely:

- Minor non-conformities found during the execution works will be corrected by the site manager and checked by RCQ, RTE under the conditions established by the legislation in force.
- Major non-conformities will be recorded in non-conformity reports. Their treatment will be done after analyzing the causes by the site manager, RCQ, RTE and if necessary by the Company Representative.
- Non-conformity that requires restoration or modification of elements will be brought to the attention of the project designer, the state inspection bodies and the client.

#### 4.8 Management analyzes and progress evaluations

The team leader analyzes the quality management system within the project at planned intervals to ensure that it is still appropriate, adequate, effective and efficient. The client, suppliers and subcontractors, as well as other parties interested in the success of the project, can participate in these analyzes carried out by the project management. As part of the analyzes carried out by the project manager, an evaluation of the progress is made. Outputs from progress assessments provide information on project performance and establish accountability for actions to be taken. Progress assessments are used to:

- to evaluate how well the project processes are synchronized and correlated;
- to identify and evaluate the activities and results that could negatively or favorably affect the achievement of the project's objectives;
- to facilitate communication between parties involved in the successful implementation of the project;
- lead the improvement of the processes in the project, by identifying deviations and changing risks. The evaluation of progress within the project is analyzed through monthly project meetings.

4.9 The documentation used for the execution of the Works The technical documentation for the execution of the Works includes:

- Contract documents regarding the execution of the Works:
- The technical project drawn up for the Work - written part and drawn part
- Specifications for specialties

- Standards and technical norms applicable to the Project
- Specifications, Instructions of the suppliers of equipment and materials, approved within the Project
- Operation and maintenance manuals of equipment suppliers
- Technical and legal documentation regarding the execution of the Works
- The Work Execution Organization Plan
- OSH plan • Environmental Management Plan – PMM Plan
- Traffic Management Plan – MT Plan

#### 4.10 Quality system documents for the Project

Quality System documents applicable to the Project

- The Integrated Quality Management Manual - Environment
- The quality plan drawn up for Work - PC
- Quality Control Plan, Tests and Verifications - PCCVI drawn up for the Work
- Specifications, Instructions of the suppliers of equipment and materials, approved within the Project
- Operation and maintenance manuals of equipment suppliers

#### 5. Quality records

Our company has established a project record keeping system. Project records are kept throughout the duration of the contract to demonstrate the compliance of the executed works with the specified conditions and the efficient functioning of the quality management system. The documents confirming the quality of the works drawn up during the execution, for each category of works separately and separately for the whole of the works, are filed in the Construction Technical Book and recorded chronologically in the document slip for the Technical Book. These records prepared by the works managers are kept under the care of the Team Leader. The SMC related forms will be used, as well as forms taken from the external factors involved in the execution activities.

#### 6. Control of the quality plan

The quality plan is drawn up by the Management Representative for each individual contract. The approval of the Quality Plan is done by the Contract Representative. If it is a specified condition, the plan is subject to external approval, according to the contractual clauses. The Quality Plan is reviewed throughout the execution of the works, in order to take into account the changes that have occurred along the way and the provisions for organization and quality assurance. Diffusion of the plan is controlled or uncontrolled. Controlled copies are broadcast based on the Broadcast List, and uncontrolled copies are broadcast with the consent of the General Director/Contract Representative for informational purposes. The Quality Plan as well as the technical execution procedures are confidential documents of the company and are its property.

## 7. Personal training

The Company's staff is periodically trained on the provisions of the S.M.C. documents. own adopted and whenever the case is. For the work presented, the staff involved is trained and qualified and knows the technical and quality requirements specified in the specifications, the Technical Execution Procedures and the applicable technical norms, the staff involved knows and applies the list of forms drawn up for the execution of this work. The responsibilities of the staff and the appropriate subordinations to the management functions are presented in the organizational chart.

## 8. Behavior tracking works over time

The documents, the monitoring minutes, containing the data obtained from these measurements, are handed over to the beneficiary at the end of the monitoring period and will be kept in the Construction Technical Book". The execution works will not negatively affect the resistance and stability of the neighboring buildings.

## 9. Reception of the Work and preparation of the technical documentation for the technical book of the construction

### PREPARATION AND DELIVERY OF DOCUMENTATION REGARDING EXECUTION - TECHNICAL BOOK (PURSUANT TO HG 285 of 23.05.1996)

The technical documentation regarding the execution will include:

- the minutes of handing over the site and the general leveling mark
- the permanent quality records made during the execution of the works, as well as the other documentation drawn up according to the technical regulations, certifying the quality of the works (the results of the tests carried out, the technical approvals, the certificates of conformity and performance of the products put into operation, the condition of concretes,
- the register of hidden works minutes, the control documents concluded by the control bodies, the single register of site communications and dispositions, the minutes of specific and special evidence, etc.);
- the minutes of reception of the foundation land, the foundations and the resistance structure, the minutes of admission of the determining phases;
- the minutes regarding the installation of the measuring installations provided by the project for special monitoring of the constructions, if applicable, as well as the recording of the initial readings from which the measurements begin;
- technical expertise, field checks or additional research carried out outside of those provided for by the technical regulations or specifications, results as necessary, as a result of technical accidents occurring during execution or as a result of execution errors;
- the attachment notebooks, the diary of the main events (floods, earthquakes, excessive temperatures, etc.), reports on the status of the construction

The documentation will be handed over to the investor or his representative with a slip, at the end of the works stipulated in the contract or monthly if requested by the client (investor), the quality records are



kept in files grouped by chapters until they are handed over to the client. The reception of the Work, both the WORK COMPLETION phase and the FINAL RECEPTION phase will be performed according to the legal and contractual provisions, being the responsibility of the Beneficiary.

Signature: Andrei Mereacre

*(person(s) authorised to sign on behalf of the tenderer)*

Date 26.04.2023

**FORM 4.6.3****PROPUNEREA TEHNICA PRIVIND EXECUTIA LUCRĂRILOR**

4.6.3.1 State the proposed location of your main office on the site, stations (steel/concrete/asphalt structures), warehouses, laboratories, accommodation, etc. (sketches to be attached as required)./

Not applicable

4.6.3.2 Give a brief outline of your programme for completing the works in accordance with the required method of construction and stated time of completion, including period from provisional acceptance and final acceptance. /

The first stages for implementing the project is the site visit to each site, needed for acknowledging the real situation on each site and obtain all the papers and information for the design documentation. At this stage all the needed documentation work regarding the contracted power increasing procedure will be performed. Immediately after, the notice to connect the new electrical photovoltaic plants shall be requested and once it is approved, the design works for photovoltaic plants shall start. After the design stage is finished and all the approvals for it are obtained, all the needed papers for installation works starting shall be obtained by the beneficiary upon executor's request. A very important step at the start is the planning of all teams' members and their distribution to sites, so that all the volumes of works would be executed in time and at needed stages. The department responsible for procurement shall place all orders for mail equipment at the very beginning after the contract is signed, taking in account the delivery time for main equipment and the necessity to supply them in time without stopping the process of work. The company has sufficient machines and human resources to start works at all sites simultaneously. As a result of the works completion, the responsible staff from within the company shall prepare and send the documentation to the competent institutions in order the system to be connected to the national electrical system. All the delivered main equipment shall follow the requirements from tender documentation and contract. The proposed monitoring system is the one provided by the inverter manufactures directly on the cloud appliance. The mounting structures are going to be aluminium short rails designed for the metal roofs or galvanised steel in case of the flat roof installation. All works are planned to be executed within three months from the contract signing.

4.6.3.3 Attach a critical milestone bar chart (schedule of execution) representing the construction programme and detailing relevant activities, dates, allocation of labour and plant resources, etc./

The chart is attached

4.6.3.4 If the tenderer plans to subcontract part of the works, he must provide the following details/

Not applicable

Work intended to be subcontracted	Name and details of subcontractors	Value of subcontracting as percentage of the total cost of the project	Experience in similar work (details to be specified)
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#### 4.6.3.5. Metodologia de lucru aplicata practic pentru a asigura nivelul calitativ al lucrarilor:

##### **Project Management Structure:**

The execution of compartment of capital construction, network engineering and installation works of photovoltaic panels:

1. Project Manager – Mereacre Andrei;
2. Constrution manager – Scobici Serghei;
3. Photovoltaic systems Desingn Engineer – Rudei Ion ;
4. Photovoltaic systems construction engineer– Ion Murzin;
5. Automation engineer – Mancus Liviu.

##### **Quality assurance procedures and risk mitigation measures.**

In its activity, the consortium is aiming at full equality effective cooperation partnership with beneficiaries, services consumers, business partners, staff and civil society, through the following values:

1. Continuous improvement of quality of installation works and design
2. Environmental protection
3. Industrial safety and staff health
4. Mutual respect and constructive and transparent dialogue

##### **Risk Management:**

Risk management shall be conducted by companys, which should, before the works start, identify the assumed risk. Risk management process will include three phases: risk identification, risk analysis and risk response. For AM-Sisteme SRL will hold meetings to identify and analyze their risks. As a result, checklists with reaction methodologies shall be developed, including measures and actions to reduce, eliminate or distribute risk.

## Organization's commitment to sustainability.

The company is fighting for the decrease the negative impact of its activity on the environment and is pleading for the protection of natural resources. Being aware of the responsibility for production activities impact on the environment, the Company tends to diminish the technological factor on the environment.

The main goal - ensuring environmental safety of the production process, ensuring favourable life conditions for staff and people living near the construction sites.

### Company commitments:

- Compliance with the environmental legislation, compliance with the established environmental standards.
- Performance of environmental protection management in compliance with the requirements of international and local standards.
- To constantly develop the system applied by the environmental management.
- Implementation of up-to-date technologies, equipment and materials, which decrease the negative impact on the environment.
- To periodically perform quality monitoring of compliance with the environmental norms in accordance with the environmental laws.
- Prevention of emergencies and their consequences decrease.
- Continuous training of company's staff in order to raise skills and responsibility for the ecological security and environmental protection.
- Disclosure to contractors and subcontractors the company's policy on quality, environment, health and industrial safety, as well as just execution of such requirements.
- To systematically inform the civil society and maintain an open and transparent dialogue with all parties concerned in environmental protection material.

Signature: Mereacre Andrei

Date: 19.05.2023

## Construction works of a photovoltaic power generation system

nr.	Activity	year	June				July				August			
		Responsible	1	2	3	4	1	2	3	4	1	2	3	4
1	Obtaining the authorisations, notices, increasing the contracting power, development of designs for Electrical and Photovoltaic systems	RUDEI, MEREACRE, MURZIN												
2	Delivery of main materials to the site, preparation	MEREACRE, MURZIN, SCOBICI, MANCUS												
3	Installation of main equipment: photovoltaic panels, inverters;	MEREACRE, MURZIN, SCOBICI, MANCUS												
4	Completion and obtaining the permissive documentation from regulatory organizations	RUDEI, MEREACRE, MURZIN												
5	Connection the photovoltaic systems to existent electrical network and commissioning	MEREACRE, MURZIN, MANCUS												
6	Reception at the end of the works	RUDEI, MEREACRE, MURZIN, SCOBICI, MANCUS												

\* The start date is just indicative and shall be adjusted according to the effective contract signing date for a real execution framework



## Declarație

Prin prezenta, AM-Sisteme SRL în persoana Directorului Mereacre Andrei, declară, că perioada de garanție:

- pentru lucrări: 5 ani;
- pentru panouri fotovoltaice: 12 ani;
- invertoare: 5 ani;
- construcțiile metalice: 12 ani;
- sistem de monitoring inteligent: 2 ani.

\_\_\_\_\_/Mereacre Andrei  
(numele, prenumele)  
(semnătura)

L. Ș.

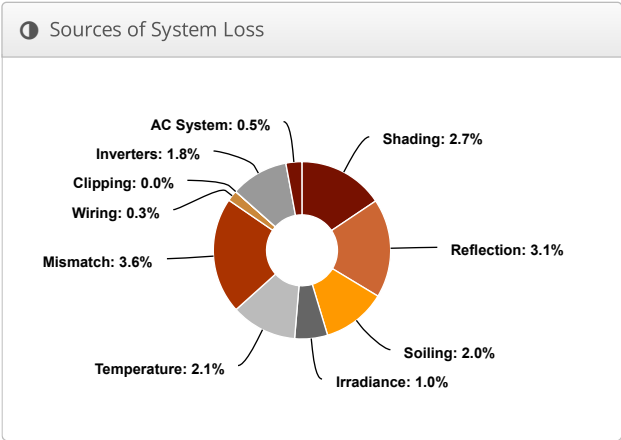
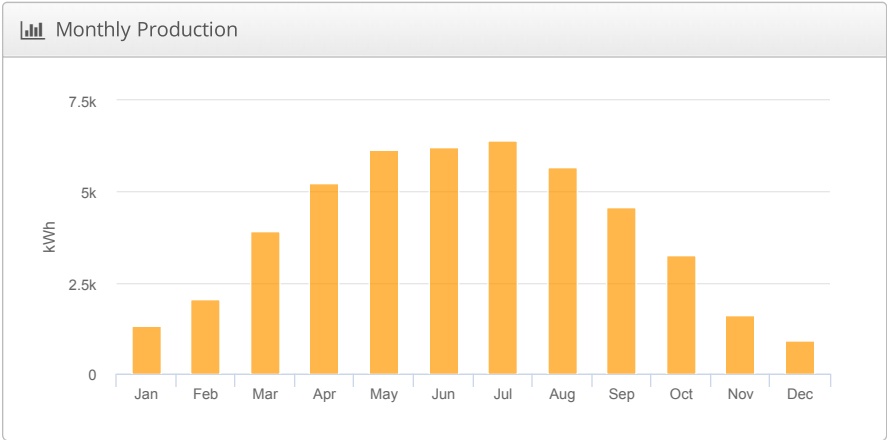
# Sincu Ivan Longi 580 Cladirea Casei de Cultura Edinet, Edinet Alexandr Puskin

Report

Project Name	Cladirea Casei de Cultura Edinet
Project Address	Edinet Alexandr Puskin
Prepared By	Catalin Sirbu sirbucatalin@term.md

System Metrics	
Design	Sincu Ivan Longi 580
Module DC Nameplate	40.6 kW
Inverter AC Nameplate	40.0 kW Load Ratio: 1.02
Annual Production	47.32 MWh
Performance Ratio	84.1%
kWh/kWp	1,165.5
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	e0419dc019-dcabad097e-4d5d0f02fa-0e176ffd8f

Project Location



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,206.3	
	POA Irradiance	1,385.1	14.8%
	Shaded Irradiance	1,348.1	-2.7%
	Irradiance after Reflection	1,306.6	-3.1%
	Irradiance after Soiling	1,280.4	-2.0%
	Total Collector Irradiance	1,280.5	0.0%
Energy (kWh)	Nameplate	52,012.4	
	Output at Irradiance Levels	51,479.3	-1.0%
	Output at Cell Temperature Derate	50,421.6	-2.1%
	Output After Mismatch	48,593.3	-3.6%
	Optimal DC Output	48,429.0	-0.3%
	Constrained DC Output	48,428.7	0.0%
	Inverter Output	47,557.0	-1.8%
	Energy to Grid	47,319.2	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		12.9 °C	
Avg. Operating Cell Temp		20.5 °C	
Simulation Metrics			
Operating Hours			4582
Solved Hours			4582

☁ Condition Set													
Description	Condition Set 1												
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)												
Solar Angle Location	Meteo Lat/Lng												
Transposition Model	Perez Model												
Temperature Model	Sandia Model												
Temperature Model Parameters	Rack Type			a		b			Temperature Delta				
	Fixed Tilt			-3.56		-0.075			3°C				
	Flush Mount			-2.81		-0.0455			0°C				
	East-West			-3.56		-0.075			3°C				
	Carport			-3.56		-0.075			3°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	
Irradiation Variance	5%												
Cell Temperature Spread	4° C												
Module Binning Range	-2.5% to 2.5%												
AC System Derate	0.50%												
Module Characterizations	Module				Uploaded By			Characterization					
	LR5-72HTH-580M (Longi)				HelioScope			Spec Sheet Characterization, PAN					
Component Characterizations	Device						Uploaded By			Characterization			
	SOFAR 40KTLX-G3 (Sofar Solar)						HelioScope			Spec Sheet			

📦 Components		
Component	Name	Count
Inverters	SOFAR 40KTLX-G3 (Sofar Solar)	1 (40.0 kW)
Strings	10 AWG (Copper)	5 (142.3 m)
Module	Longi, LR5-72HTH-580M (580W)	70 (40.6 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-17	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Fixed Tilt	Landscape (Horizontal)	25°	180°	1.3 m	1x0	N/A	70	40.6 kW




Detailed Layout



Ivan Sincu Longi 580 W Cladirea Primariei Edinet, Edinet Str. Octavian Cirimpei

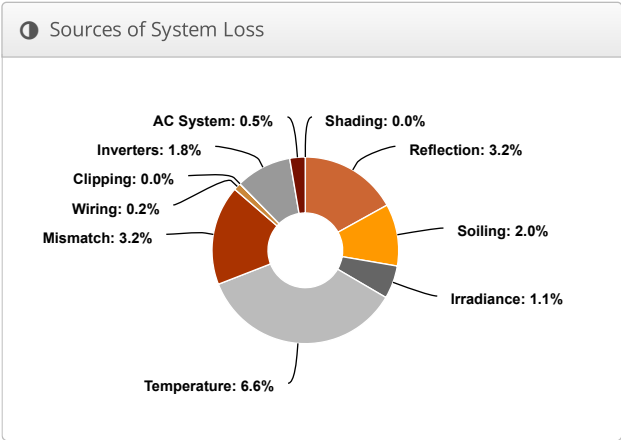
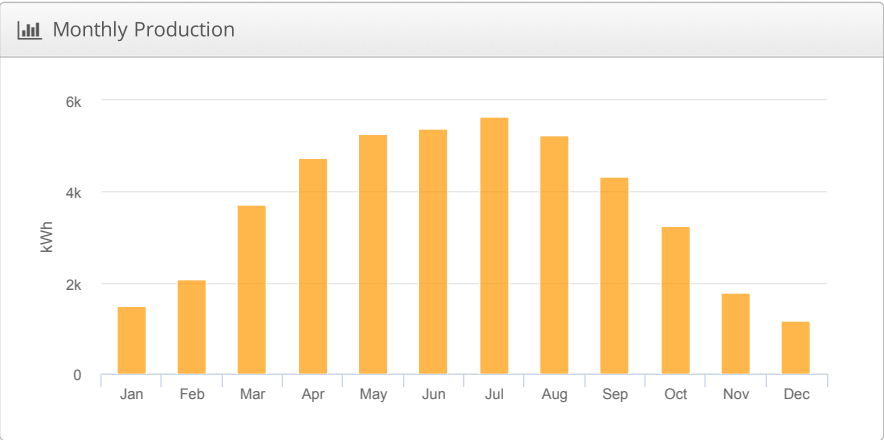
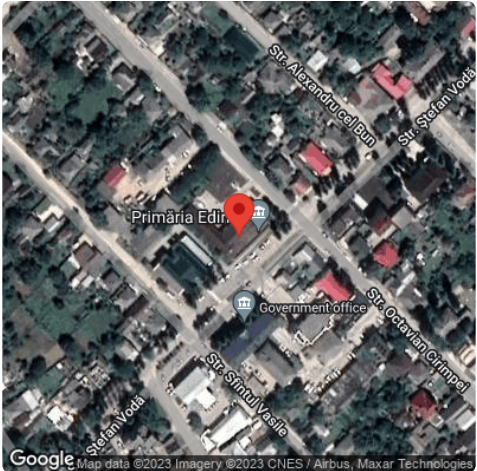
Report

Project Name	Cladirea Primariei Edinet
Project Address	Edinet Str. Octavian Cirimpei
Prepared By	Catalin Sirbu sirbucatalin@term.md



System Metrics	
Design	Ivan Sincu Longi 580 W
Module DC Nameplate	40.6 kW
Inverter AC Nameplate	40.0 kW Load Ratio: 1.02
Annual Production	44.07 MWh
Performance Ratio	82.7%
kWh/kWp	1,085.5
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	e0419dc019-dcabad097e-4d5d0f02fa-0e176ffd8f

Project Location



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,206.3	
	POA Irradiance	1,311.9	8.8%
	Shaded Irradiance	1,311.9	0.0%
	Irradiance after Reflection	1,270.5	-3.2%
	Irradiance after Soiling	1,245.1	-2.0%
	Total Collector Irradiance	1,245.1	0.0%
Energy (kWh)	Nameplate	50,573.4	
	Output at Irradiance Levels	50,033.1	-1.1%
	Output at Cell Temperature Derate	46,712.6	-6.6%
	Output After Mismatch	45,211.2	-3.2%
	Optimal DC Output	45,103.2	-0.2%
	Constrained DC Output	45,102.9	0.0%
	Inverter Output	44,291.1	-1.8%
	Energy to Grid	44,069.6	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		12.9 °C	
Avg. Operating Cell Temp		27.6 °C	
Simulation Metrics			
Operating Hours			4582
Solved Hours			4582

☁ Condition Set													
Description	Condition Set 1												
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)												
Solar Angle Location	Meteo Lat/Lng												
Transposition Model	Perez Model												
Temperature Model	Sandia Model												
Temperature Model Parameters	Rack Type			a		b			Temperature Delta				
	Fixed Tilt			-3.56		-0.075			3°C				
	Flush Mount			-2.81		-0.0455			0°C				
	East-West			-3.56		-0.075			3°C				
	Carport			-3.56		-0.075			3°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	
Irradiation Variance	5%												
Cell Temperature Spread	4° C												
Module Binning Range	-2.5% to 2.5%												
AC System Derate	0.50%												
Module Characterizations	Module				Uploaded By			Characterization					
	LR5-72HTH-580M (Longi)				HelioScope			Spec Sheet Characterization, PAN					
Component Characterizations	Device						Uploaded By			Characterization			
	SOFAR 40KTLX-G3 (Sofar Solar)						HelioScope			Spec Sheet			

📦 Components		
Component	Name	Count
Inverters	SOFAR 40KTLX-G3 (Sofar Solar)	1 (40.0 kW)
Strings	10 AWG (Copper)	5 (106.3 m)
Module	Longi, LR5-72HTH-580M (580W)	70 (40.6 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-17	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	45°	222.3°	0.0 m	1x1	70	70	40.6 kW



Detailed Layout



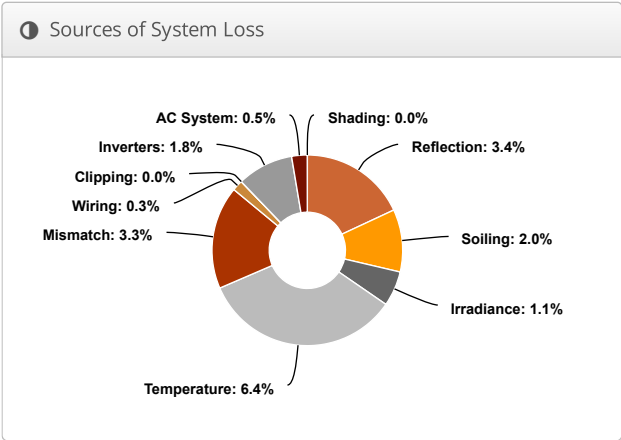
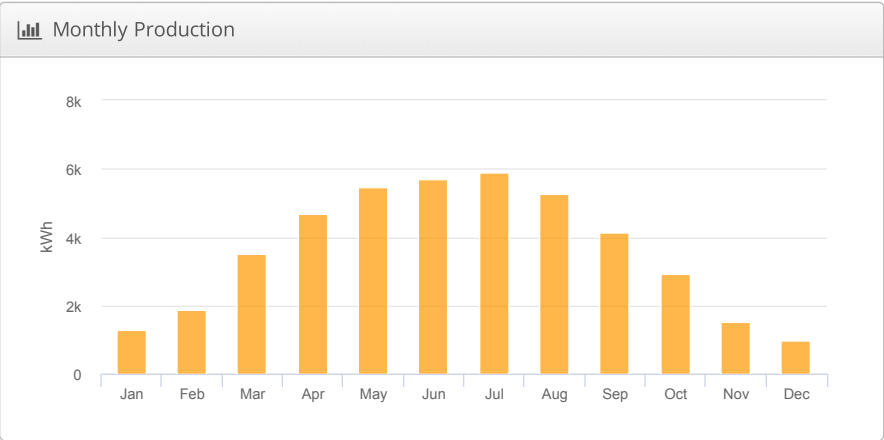
# Design 1 Cladirea tinerilor tehnicieni, 48.176147, 27.297223

Report

Project Name	Cladirea tinerilor tehnicieni
Project Address	48.176147, 27.297223
Prepared By	Catalin Sirbu sirbucatalin@term.md

System Metrics	
Design	Design 1
Module DC Nameplate	40.6 kW
Inverter AC Nameplate	40.0 kW Load Ratio: 1.02
Annual Production	43.32 MWh
Performance Ratio	82.5%
kWh/kWp	1,067.0
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	e0419dc019-dcabad097e-4d5d0f02fa-0e176ffd8f

Project Location



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,206.3	
	POA Irradiance	1,293.1	7.2%
	Shaded Irradiance	1,293.0	0.0%
	Irradiance after Reflection	1,248.9	-3.4%
	Irradiance after Soiling	1,224.0	-2.0%
	Total Collector Irradiance	1,224.0	0.0%
Energy (kWh)	Nameplate	49,715.2	
	Output at Irradiance Levels	49,158.0	-1.1%
	Output at Cell Temperature Derate	46,008.0	-6.4%
	Output After Mismatch	44,488.5	-3.3%
	Optimal DC Output	44,336.7	-0.3%
	Constrained DC Output	44,336.5	0.0%
	Inverter Output	43,538.4	-1.8%
	Energy to Grid	43,320.7	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		12.9 °C	
Avg. Operating Cell Temp		27.4 °C	
Simulation Metrics			
Operating Hours			4582
Solved Hours			4582

☁ Condition Set													
Description	Condition Set 1												
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)												
Solar Angle Location	Meteo Lat/Lng												
Transposition Model	Perez Model												
Temperature Model	Sandia Model												
Temperature Model Parameters	Rack Type			a		b			Temperature Delta				
	Fixed Tilt			-3.56		-0.075			3°C				
	Flush Mount			-2.81		-0.0455			0°C				
	East-West			-3.56		-0.075			3°C				
	Carport			-3.56		-0.075			3°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	
Irradiation Variance	5%												
Cell Temperature Spread	4° C												
Module Binning Range	-2.5% to 2.5%												
AC System Derate	0.50%												
Module Characterizations	Module				Uploaded By			Characterization					
	LR5-72HTH-580M (Longi)				HelioScope			Spec Sheet Characterization, PAN					
Component Characterizations	Device						Uploaded By			Characterization			
	SOFAR 40KTLX-G3 (Sofar Solar)						HelioScope			Spec Sheet			

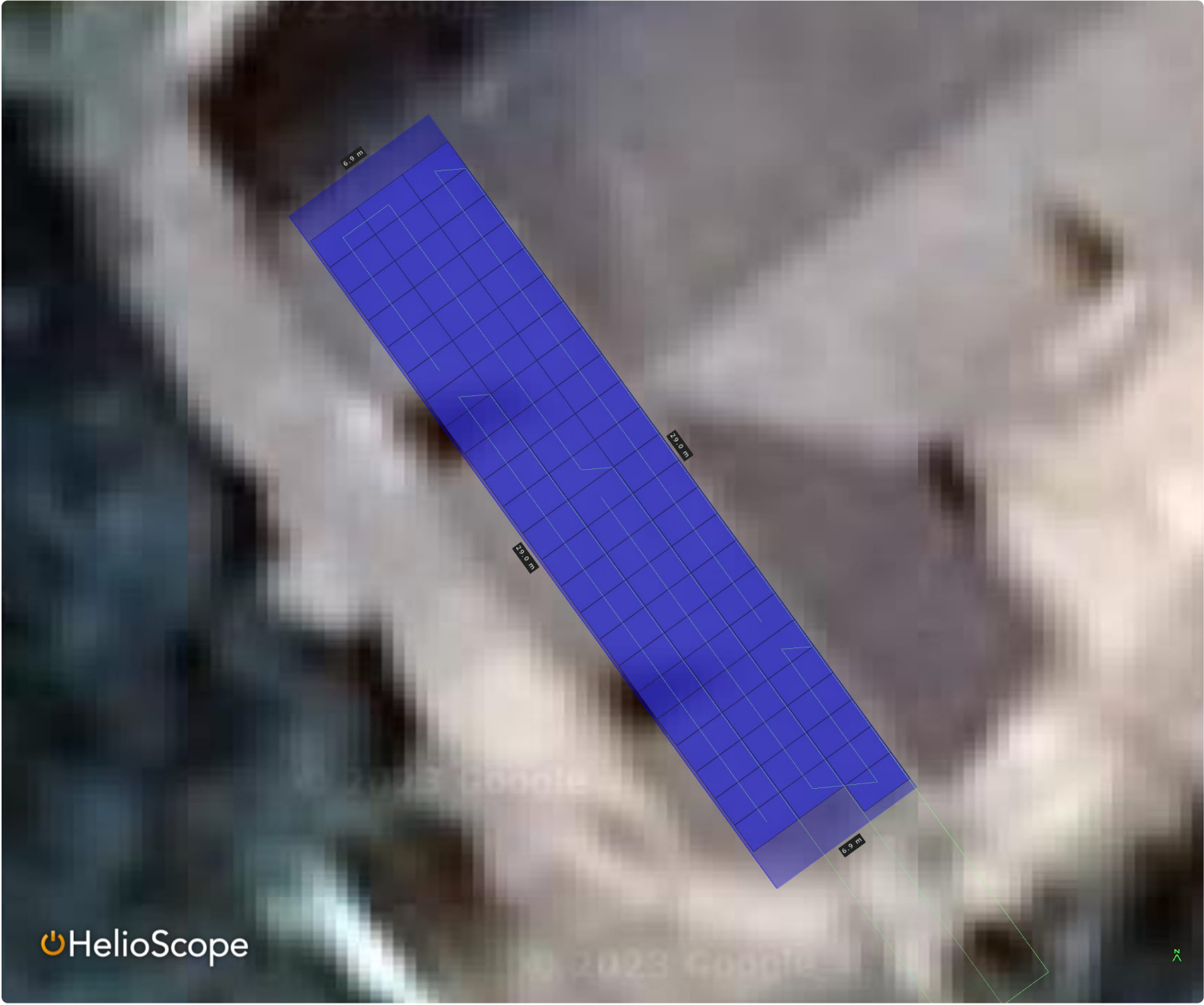
📦 Components		
Component	Name	Count
Inverters	SOFAR 40KTLX-G3 (Sofar Solar)	1 (40.0 kW)
Strings	10 AWG (Copper)	4 (295.2 m)
Module	Longi, LR5-72HTH-580M (580W)	70 (40.6 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-19	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	30°	234°	0.0 m	1x1	70	70	40.6 kW



Detailed Layout



# Hi-MO 6

Explorer

## LR5-72HTH 560~580M

- Suitable for Distribution Market
- Simple design embodies modern style
- Better energy generation performance
- High-quality module guarantees long-term reliability

15

15-year Warranty for  
Materials and Processing

25

25-year Warranty for Extra  
Linear Power Output

### Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO9001:2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

# LONGi



**22.5%**  
MAX MODULE  
EFFICIENCY

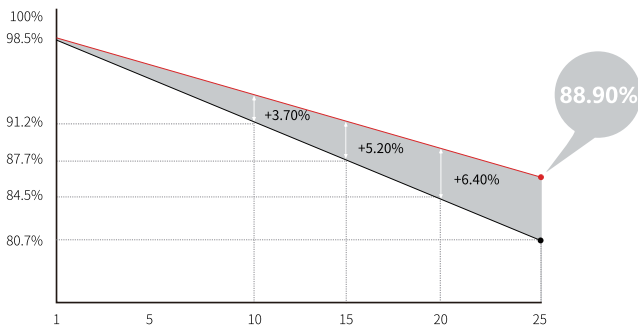
**0~3%**  
POWER  
TOLERANCE

**<1.5%**  
FIRST YEAR  
POWER DEGRADATION

**0.40%**  
YEAR 2-25  
POWER DEGRADATION

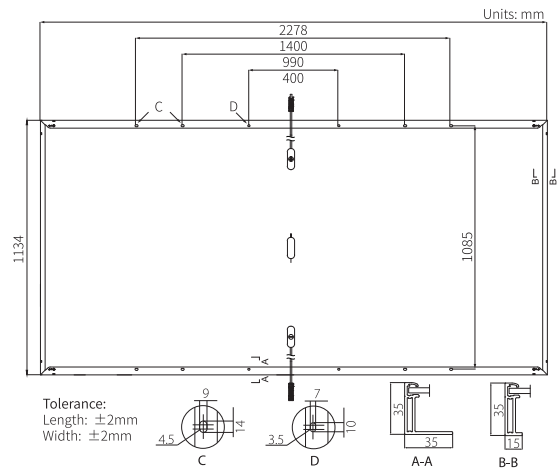
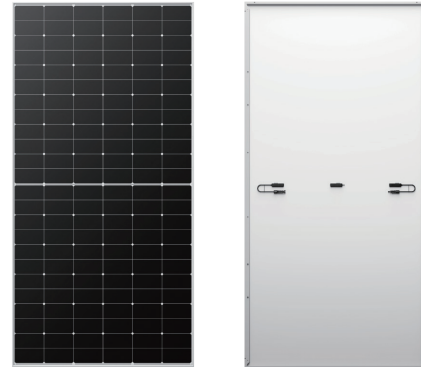
## Additional Value

25-Year Power Warranty



## Mechanical Parameters

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm <sup>2</sup> , +400, -200mm/±1400mm length can be customized
Glass	Single glass, 3.2mm coated tempered glass
Frame	Anodized aluminum alloy frame
Weight	27.5kg
Dimension	2278×1134×35mm
Packaging	31pcs per pallet / 155pcs per 20' GP / 620pcs per 40' HC



## Electrical Characteristics

STC : AM1.5 1000W/m<sup>2</sup> 25°C

NOCT : AM1.5 800W/m<sup>2</sup> 20°C 1m/s

Test uncertainty for Pmax: ±3%

Module Type	LR5-72HTH-560M		LR5-72HTH-565M		LR5-72HTH-570M		LR5-72HTH-575M		LR5-72HTH-580M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	560	418	565	422	570	426	575	430	580	433
Open Circuit Voltage (Voc/V)	51.61	48.46	51.76	48.60	51.91	48.74	52.06	48.88	52.21	49.02
Short Circuit Current (Isc/A)	13.94	11.26	14.01	11.31	14.07	11.36	14.14	11.42	14.20	11.47
Voltage at Maximum Power (Vmp/V)	43.46	39.66	43.61	39.79	43.76	39.93	43.91	40.07	44.06	40.20
Current at Maximum Power (Imp/A)	12.89	10.55	12.96	10.61	13.03	10.67	13.10	10.72	13.17	10.78
Module Efficiency(%)	21.7		21.9		22.1		22.3		22.5	

## Operating Parameters

Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Fire Rating	UL type 1 or 2 IEC Class C

## Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

## Temperature Ratings (STC)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.230%/°C
Temperature Coefficient of Pmax	-0.290%/°C



**SOFAR**

## 25K~50KTLX-G3

25000 / 30000 / 33000 / 36000 / 40000 / 45000 / 50000 W

### THREE-PHASE

Up to 4 MPPTs with DC overload capability (up to 150%)

Type II SPD for both DC and AC side

Low start-up voltage, wide MPPT voltage range

I-V curve scanning function

Intelligent monitoring, remote operation

### THREE TO FOUR MPPTS

Max. efficiency up to 98.90%

Prolonged AC overload capability (110%)

Compatible with 500 W+ modules

## Datasheet

Datasheet	SOFAR 25KTLX-G3	SOFAR 30KTLX-G3	SOFAR 30KTLX-G3-A	SOFAR 33KTLX-G3	SOFAR 36KTLX-G3	SOFAR 40KTLX-G3	SOFAR 45KTLX-G3	SOFAR 50KTLX-G3	SOFAR 40KTLX-G3-HV	SOFAR 50KTLX-G3-HV	
Input (DC)											
Recommended max. PV input power (Wp)	37500	45000	45000	49500	54000	60000	67500	75000	60000	75000	
Max. DC power for single MPPT(W)	25000										
Number of MPP trackers	3					4			3	4	
Number of DC inputs	2 for each MPPT										
Max. input voltage (V)	1100										
Start-up voltage (V)	200										
Rated input voltage (V)	620								725	725	
MPPT operating voltage range (V)	180-1000										
Full power MPPT voltage range (V)	480–850			510-850	540–850	480–850	510–850	540–850	620–850	650–850	
Max. input MPPT current (A)	3*40					4*40			3*40	4*40	
Max. input short circuit current per MPPT (A)	3*50					4*50			3*50	4*50	
Output (AC)											
Rated power (W)	25000	30000	29900	33000	36000	40000	45000	50000	40000	50000	
Max. AC power (VA)	28000	34000	29900	37000	40000	44000	50000	55000	44000	55000	
Max. output current (A)	42.4	51.5	45.3	56.0	60.6	66.7	75.8	83.3	53	66.2	
Rated grid voltage	3 / N / PE, 220 V / 380 Vac, 230 V / 400 Vac								3/N/PE or 3/PE, 277/480 Vac		
Grid voltage range	310 - 480 Vac (according to local standard)								422 - 528 VaC (according to local standard)		
Rated grid frequency	50 Hz / 60 Hz										
Grid frequency range	45 Hz–55 Hz / 54 Hz–66 Hz (according to local standard)										
Active power adjustable range	0~100%										
THDi	< 3%										
Power factor	1 default (adjustable +/-0.8)										
Performance											
Max. efficiency	98.60%					98.80%				98.90%	
European efficiency	98.20%										
Protection											
DC reverse polarity protection	Yes										
Anti-islanding protection	Yes										
Leakage current protection	Yes										
Ground fault monitoring	Yes										
PV-array string fault monitoring	Yes										
Feed-in limitation function	Yes										
DC switch	Yes										
Input / output SPD	PV: type II standard, AC: type II standard										
Communication											
Standard Communication mode	RS485/USB/Bluetooth Optional: WiFi/Ethernet/LTE										
General Data											
Ambient temperature range	-30°C~+60°C										
Self-consumption at night (W)	<3										
Topology	Transformerless										
Degree of protection	IP65										
Allowable relative humidity range	0~100%										
Max. operating altitude	4000 m										
Noise	< 60 dB										
Weight (kg)	36					37					
Cooling	Fan										
Dimension (mm)	585*480*220										
Display	LCD, App via Bluetooth										
Warranty	5 years, Optional: 7&10 years										
Standard											
EMC	EN 61000-6-1, EN 61000-6-2,EN 61000-6-3, EN 61000-6-4										
Safety standards	IEC 62109-1/2, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 60255										
Grid standards	AS/NZS 4777, VDE V 0124-100, V 0126-1-1, VDE-AR-N 4105, CEI 0-21/CEI 0-16, UNE 206 007-1, EN 50549, G98/G99, EN 50530, NB/T32004										

SOFAR 25K / 30K / 30K-A / 33K / 36K / 40K / 45K / 50KTLX-G3\_EN\_202204



无锡英臻科技有限公司  
IGEN Tech Co.,Ltd.

# SOLARMAN Pro WEB Operation Instructions





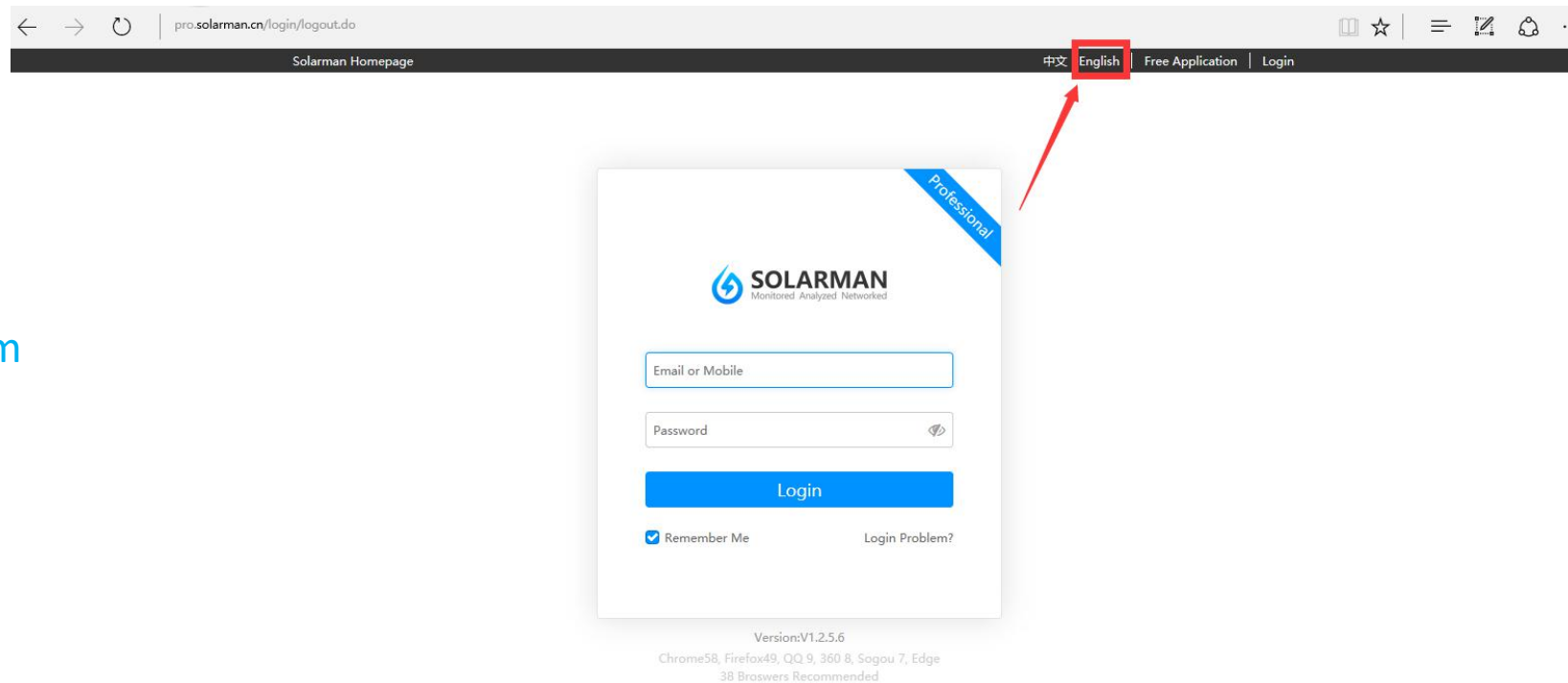
# Login

- Please kindly enter into SOLARMAN website for Pro version at <http://pro.solarman.cn/> and choose English version.
- Type your account ID(Email or Mobile) and password to login. Then you can enter into Pro version website portal.

IGEN demo Account for your reference:

Account ID: zedlital@gmail.com

Password:12345678



# Contents



- [1. How to build a new plant ?](#)
- [2. How to add device\(data logger\) for the plant?](#)
- [3. How to add device\(inverter\) for the plant?](#)
- [4. How to create sub-accounts?](#)
- [5. How to correlate other accounts?](#)

# 1. How to build a new plant?

Step 1: enter the Plant Center, single click **【Add a New Project】** at the top right corner.

The screenshot displays the SOLARMAN Plant Center interface. The top navigation bar includes 'Plant Center', 'Device Center', 'Alert Center', and 'Report Center'. A search bar and a notification icon are also present. The main content area is divided into several sections:

- Operating Status:** A circular gauge shows 21 Number of Plants. Below it, a table lists: Under Construction (8), Online (9), Offline (2), and Alerts (2).
- Generation Overview:** A circular gauge shows 275.21 kW Current Power and 2.37MWp Site Capacity. Below it, a table lists: Today's Generation (12.69MWh), Monthly Generation (81.42MWh), Annual Generation (921.45MWh), and Total Generation (1.34GWh).
- Alerts Today:** A circular gauge shows 251 Alerts. Below it, a table lists: Warnings (56) and Failures (195).

A red arrow points to the 'Add a New Project' button in the top right corner. Below the main content area is a 'Map Mode' section with a world map showing various countries and regions. The bottom left corner displays the time '16:47:56' and the date '2017-06-15 Thursday (UTC+08:00)'. The bottom right corner has buttons for 'Link All Owners', 'Unlink All', and 'Delete All'.



# 1. How to build a new plant?

Step 2: Fill Name, Project Type, On-grid type and Location.

**SOLARMAN** Plant Center Device Center Alert Center Report Center Search Records IGEN Demo

Plant Center > Project Management > Add a New Project

Project Management

Project Overview

Project Diagrams

1 Confirm Project Description 2 Confirm Correlation Details

Name: IGEN

Project Type: ☒ Residential ☐ Commercial ☐ Industrial ☐ Utility-scale

On-grid Type: ☐ All On-grid ☒ Partly On-grid ☐ Off-grid ☐ Storage System ☐ Energy Storage System

Location: ChinaJiangsu ShengWuxi ShiBinhu Qu

Map Satellite

17:00:27  
2017-06-15 Thursday  
(UTC+08:00)  
Version: V1.2.5.6

# 1. How to build a new plant?

Step 3: click Satellite and switch to map mode, convenient to describe roof shape.

The screenshot displays the SOLARMAN web application interface for adding a new project. The top navigation bar includes links to Plant Center, Device Center, Alert Center, and Report Center, along with a search bar and a notification icon. The left sidebar shows the Project Management menu with options for Project Overview and Project Diagrams. The main content area shows the 'Add a New Project' form with the following fields:

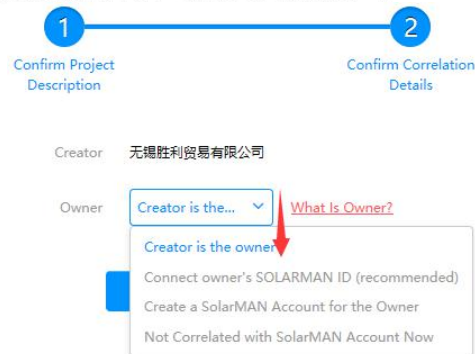
- Name:** IGEN
- Project Type:** ☒ Residential ☐ Commercial ☐ Industrial ☐ Utility-scale
- On-grid Type:** ☐ All On-grid ☒ Partly On-grid ☐ Off-grid ☐ Storage System ☐ Energy Storage System
- Location:** ChinaJiangsu ShengWuxi ShiBinhu Qui

The location map view shows a satellite image of a building with a red pin. A red arrow points to the 'Satellite' button in the top right corner of the map view.

17:05:43  
2017-06-15 Thursday  
(UTC+08:00)  
Version: V1.2.5.6

# 1. How to build a new plant?

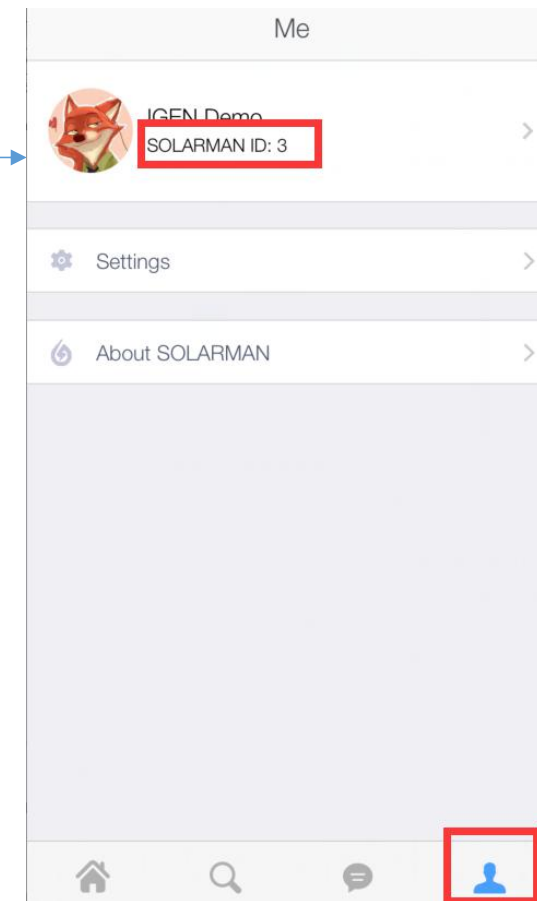
Step 4 : confirm the owner's information and choose "Connect owner's SOLARMAN ID(recommended)" or "Create a SolarMAN account for the Owner".



"Owner" drop-down options illustration:

- A. "Creator is the owner ": if you yourself is the owner, choose this option.
- B. "Connect owner's SOLARMAN ID(recommended) ": if your customer logged in Solarman home APP before, choose this option and ask customer to offer his **Solarman ID**.
- C. "Create a SolarMAN account for the Owner ": if your customer has never used Solarman home version before and hope to know about plant profit, choose this option.
- D. "Not Correlated with SolarMAN Account Now": if your customer does not care about plant status or profit at all, choose this option.

How to find Solarman ID?





# 1. How to build a new plant?

Step 5: click “Complete” and system will lead you a question that “ do you want to add a new device now ?”, if you know the data logger’s SN, we recommend you click “yes” and system will lead you to “Add a New Device” and type the data logger SN numbers one by one.

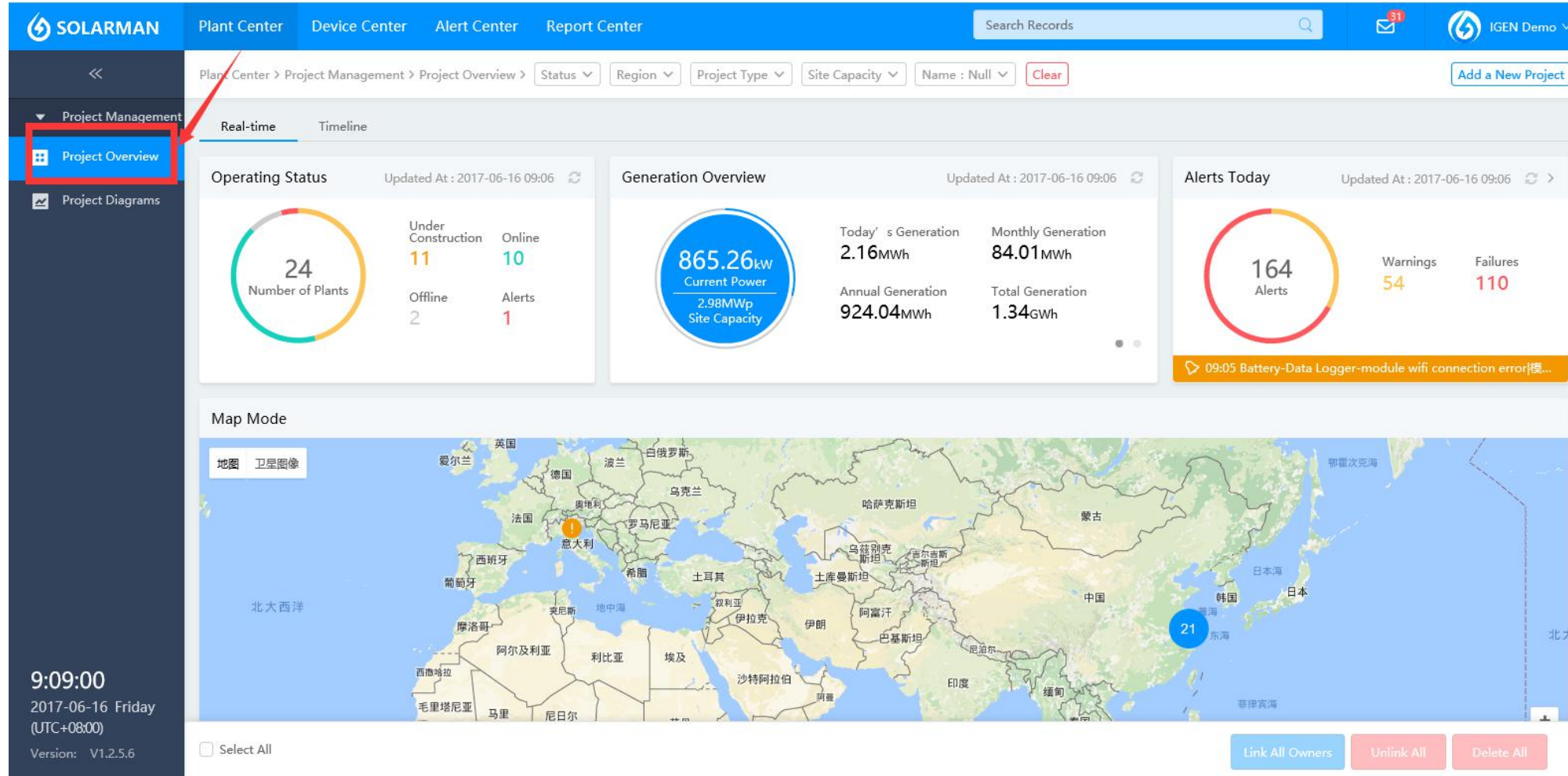
The image displays two screenshots of the SOLARMAN web interface, illustrating the steps to add a new device.

**Left Screenshot:** Shows the 'Add a New Project' dialog. The process is divided into two steps: 1. Confirm Project Description and 2. Confirm Correlation Details. A large blue checkmark icon is displayed, indicating successful completion. Below the icon, the text reads: 'Project created successfully, do you want to add a new device now?'. Two buttons are visible: 'No, Next Time' and 'Yes'. The 'Yes' button is highlighted with a red box and a red circle with the number 1, indicating it should be clicked. A red arrow points from this button to the right screenshot.

**Right Screenshot:** Shows the 'Add a New Device' dialog. The 'Device Type' is set to 'Data Logger' and the 'Brand' is set to 'SolarMAN'. The 'SN Number' field is highlighted with a red box, and the 'Add' button is also highlighted with a red box and a red circle with the number 2, indicating it should be clicked.

## 2.How to add device (data logger) for the plant?

Step 1 : enter 【Project Overview】 and choose plant which needs add advice.



## 2.How to add device (data logger) for the plant?

Step 2: single click the option 【Device】 at the top of the plant.

The screenshot displays the SOLARMAN web interface. The top navigation bar includes 'Plant Center', 'Device Center', 'Alert Center', and 'Report Center'. The 'Device Center' tab is highlighted, and a red box with an arrow points to the 'Device' sub-tab in the secondary navigation bar. The main content area shows project details for '张大陆' (Zhang Dalu), including location, weather, and alerts. The 'Generation' and 'Power Grid' sections are also visible.

**Project Details:**

- Project Name: 张大陆
- Location: 中国江苏省无锡市滨湖区太湖大道202号
- Project Type: Residential...
- Owner: 无锡胜利贸易有限公司
- On-grid Type: Partly On-grid
- SOLARMAN ID: --
- Site Capacity: 7.20kWp
- Mobile: --
- Area: 120.00m²
- Email: --
- Contact Number: --

**Location:**

Map Satellite

**Weather:**

19°C  
阴, 多云

Sunrise Time: 04:53  
Sunset Time: 19:05

**Alerts Today:**

0 Alerts

Warnings: 0  
Failures: 0

**Generation:**

Current Power	Daily Effective Hours	Total Generation	Today's Generation	Monthly Generation	Annual Generation
--	--	--	--	--	--

**Power Grid:**

On-grid Power	Power Grid Status	Total On-grid Generation	Total Energy Purchased	Today's On-grid Energy	Today's Energy Purchased	Monthly On-grid Energy
--	--	--	--	--	--	--

Monthly Energy Purchased: --  
Annual On-grid Energy: --  
Annual Energy Purchased: --

9:12:28  
2017-06-16 Friday  
(UTC+08:00)  
Version: V1.2.5.6



## 2.How to add device (data logger) for the plant?

Step 3: single click “Add a New Device” at the top right corner and add **data logger** device.

The screenshot displays the SOLARMAN web application interface. At the top, there is a navigation bar with tabs for Plant Center, Device Center, Alert Center, and Report Center. A search bar labeled 'Search Records' is also present. In the top right corner, there is a button labeled 'Add a New Device' which is circled with a red '1'. Below this, the main content area shows a breadcrumb trail: Plant Center > Project Management > Project Overview > 张大陆. The 'Device' tab is selected, and the 'Data Logger' sub-tab is active. A modal dialog box titled 'Add a New Device' is open in the center. It contains a 'Device Type' dropdown set to 'Data Logger', a 'Brand' dropdown set to 'SolarMAN', and an 'SN Number' input field which is circled with a red '2'. There are 'Add' and 'Import' buttons next to the SN Number field. Below the input fields, there is a table with columns 'SN Number' and 'Action', and a row with the value '(Not Available)'. The bottom left corner of the interface shows the time '9:15:30', the date '2017-06-16 Friday (UTC+08:00)', and the version 'V1.2.5.6'.

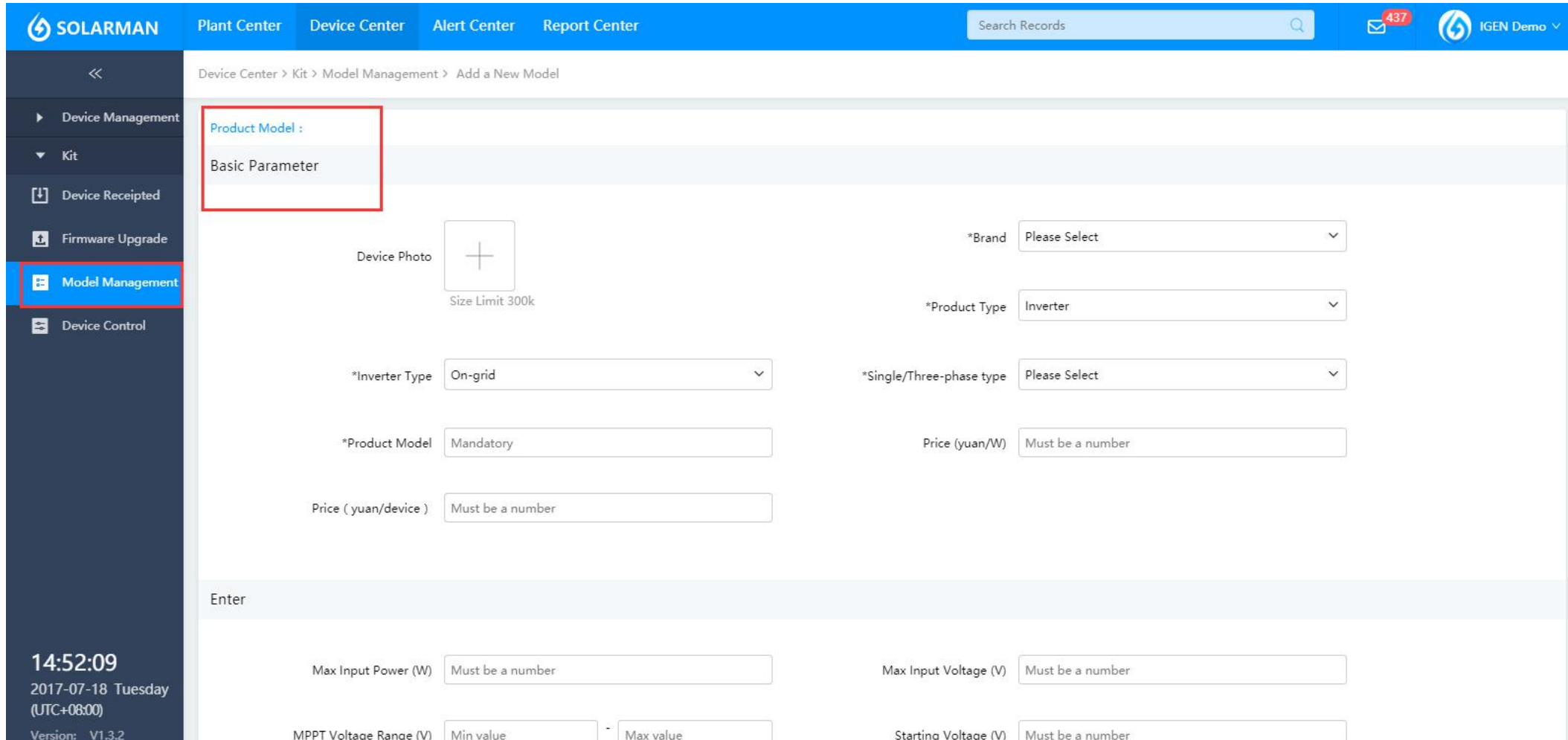
### 3. How to add device(inverter) for the plant?

- step 1: click “Device Center” at top and click “Model Management” at left side, then click “Add a New Model” at top right corner.

The screenshot displays the SOLARMAN web application interface. At the top, the navigation bar includes 'Plant Center', 'Device Center' (highlighted with a red box), 'Alert Center', and 'Report Center'. A search bar and a notification icon with '437' are also present. On the left sidebar, 'Model Management' is highlighted with a red box. A red arrow points from this sidebar item to the 'Add a New Model' button in the top right corner. Another red arrow points from the 'Device Center' tab to the 'Model Management' sidebar item. The main content area shows a table with columns: Product ..., Brand, Product Model, Product T..., Inverter Type, Single/Three-phase type, Unit Price, Updated Time, and Action. Below the table, a message states: 'Product model not available, click here to create a product model'. At the bottom left, the time is 14:48:30, date is 2017-07-18 Tuesday (UTC+08:00), and version is V1.3.2. At the bottom right, there is a 'Delete All' button.

### 3. How to add device(inverter)for the plant?


- step 2: fill the full information of Basic Parameter.



SOLARMAN Plant Center Device Center Alert Center Report Center Search Records 437 IGEN Demo

Device Center > Kit > Model Management > Add a New Model

Product Model :  
Basic Parameter

Device Photo  Size Limit 300k

\*Brand Please Select

\*Product Type Inverter

\*Inverter Type On-grid

\*Single/Three-phase type Please Select

\*Product Model Mandatory

Price (yuan/W) Must be a number

Price ( yuan/device ) Must be a number

Enter

Max Input Power (W) Must be a number

Max Input Voltage (V) Must be a number

MPPT Voltage Range (V) Min value - Max value

Starting Voltage (V) Must be a number

14:52:09  
2017-07-18 Tuesday  
(UTC+08:00)  
Version: V1.3.2



### 3. How to add device(inverter) for the plant?

- step 3: click “Save”.

The screenshot displays the SOLARMAN web interface. The top navigation bar includes 'Plant Center', 'Device Center', 'Alert Center', and 'Report Center'. The left sidebar shows 'Device Management', 'Kit', 'Device Receipted', 'Firmware Upgrade', 'Model Management' (highlighted), and 'Device Control'. The main content area is titled 'Device Center > Kit > Model Management > Add a New Model'. It contains a form with the following fields:

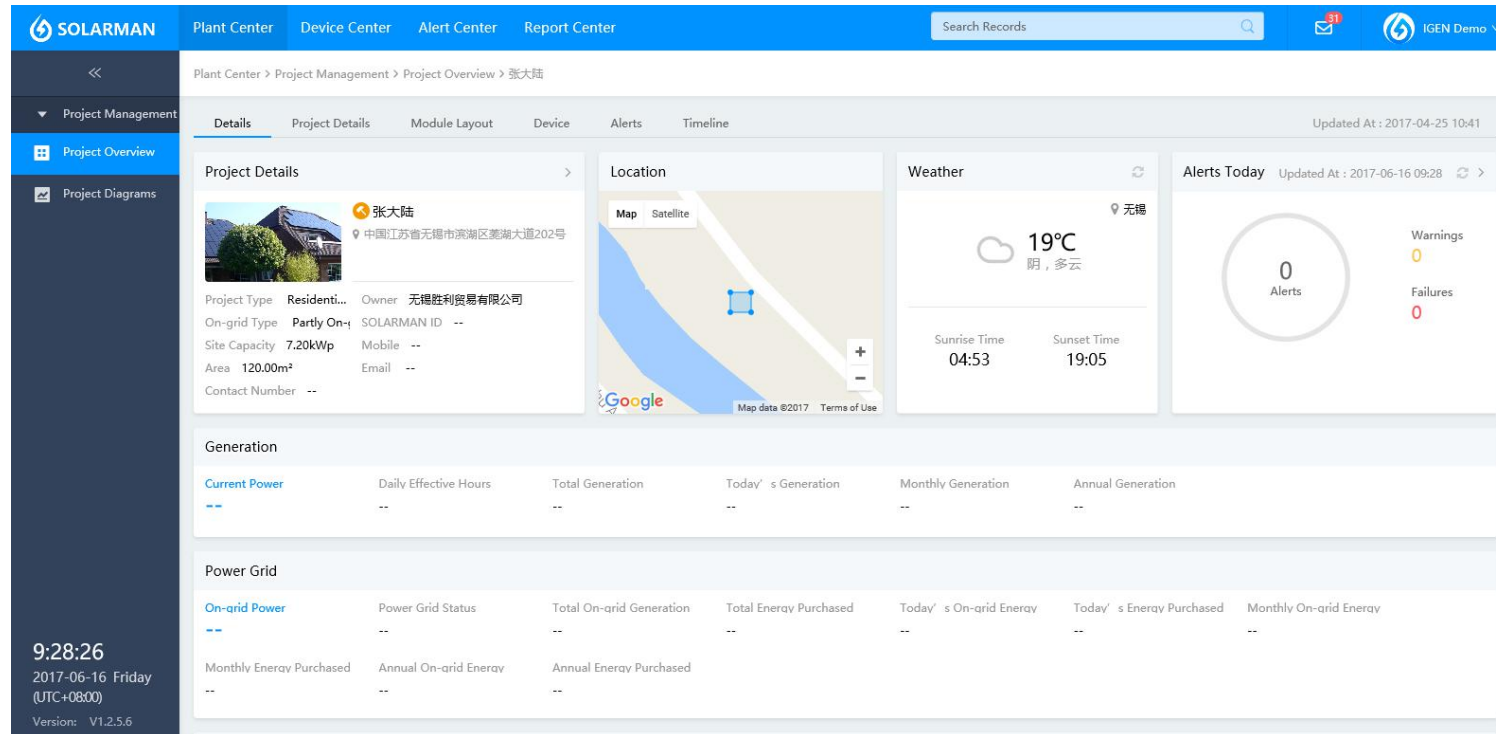
- Max Output Power (W): Must be a number
- Rated Input Power (W): Must be a number
- Rated On-grid Voltage (V): Must be a number
- Rated On-grid Frequency (Hz): Must be a number
- Max Output Current (A): Must be a number
- On-grid Voltage Range (V): Min value - Max value. Must be a number, and max value should outrun min value.
- On-grid Frequency Range (Hz): Min value - Max value. Must be a number, and max value should outrun min value.
- Efficiency section:
  - Max Frequency (%): Must be a number
  - Euro Efficiency (%): Must be a number
  - MPPT Efficiency (%): Must be a number

At the bottom right, there are 'Cancel' and 'Save' buttons. The 'Save' button is highlighted with a red box.

## 2&3.How to add device for the plant?

After finishing adding, plant will be “under construction”. The system is waiting for data logger to upload data. Please ensure data logger is powered on and normal connection between inverter and data logger.

If GPRS data logger, data will update after 10 minutes. If WiFi data logger, please download SolarMAN Pro App for WiFi setting.



Solarman Pro APP



# 4.How to create sub-accounts?

When users apply SOLARMAN account successfully, this account ID will be main account by default (have super administrator rights) , click avatar to enter 【Organization】 - 【Internal Organization】 , click 【Add New Accounts】 for sub-accounts and also can define the roles for each account, e.g. Administrator, Customer Service, Engineer, etc.

The screenshot displays the SOLARMAN web application interface. The top navigation bar includes links for Plant Center, Device Center, Alert Center, and Report Center, along with a search bar and a notification icon. The left sidebar shows the Organization menu expanded, with 'Internal Organization' selected. The main content area shows the 'Add New Accounts' section with a list of existing accounts. The table lists accounts with columns for My Profile, Company, Email, Mobile, and Last Login. The bottom of the page shows pagination controls and a 'Delete All' button.

My Profile	Company	Email	Mobile	Last Login
<input type="checkbox"/> IGEN Demo Super Admin	无锡胜利贸易有限公司	zedlital@gmail.com	--	09:02 2017-06-16
<input type="checkbox"/> 121 Admin	无锡胜利贸易有限公司	1313@qq.com	--	--
<input type="checkbox"/> 1121 Admin	无锡胜利贸易有限公司	111@qq.com	--	--
<input type="checkbox"/> SusanWang Admin	无锡胜利贸易有限公司	418251064@qq.com	--	--



# 4. Correlate Other Org's Accounts

- Step 1 : click avatar to enter 【Organization】 - single click 【Correlate External Org】 to correlate this account to other organizations' accounts to make authorization easier ( for example, after Manufacturer and Installor correlate the accounts, M can choose to provide inverter information to Installor; after accounts correlation, parent company can authorize device information to sub-company.

The screenshot displays the SOLARMAN web application interface. The top navigation bar includes 'Plant Center', 'Device Center', 'Alert Center', and 'Report Center'. The left sidebar shows the 'Organization' menu with 'Internal Organization' and 'Correlate External Org' (highlighted with a red box and an arrow). The main content area is titled 'Organization > Correlate External Organizations' and features a table of external organizations. The table has columns for Logo, Name, Address, Business Type, Manager, Number of accounts, and Action. Two organizations are listed: '无锡英臻科技上海分公司' and '张大陆测试'. Each row has a 'Cancel the Correlation' button. At the bottom, there is a 'Select All' checkbox and a 'Cancel All Correlation' button. The footer shows the time '10:35:17', date '2017-06-16 周五 (UTC+08:00)', and version 'V1.2.5.6'.

Logo	Name	Address	Business Type	Manager	Number o...	Action
	无锡英臻科技上海分公司	上海凌空SOHO	Device Manufa...	Airline	1	Cancel the Correlation
	张大陆测试	上海市嘉定区纬五路188号	Device Manufa...	张大陆111	5	Cancel the Correlation

# 5. Correlate Other Org's Accounts

Step 2: single click 【Add New Correlated Accounts】 at the top right corner, type the orgnization name ( company name) which needs correlation in the Search bar, click “Send Correlation Request”.

The screenshot displays the SOLARMAN web interface. At the top, there's a navigation bar with 'Plant Center', 'Device Center', 'Alert Center', and 'Report Center'. A search bar labeled 'Search Records' is present. In the top right corner, there's a button labeled 'Add New Correlated Accounts' highlighted with a red box and a red arrow pointing to it. Below this, the 'Correlate External Organizations' page is visible, showing a table of organizations. A modal dialog box titled 'Add New Correlated Accounts' is open in the center. It contains a search bar with '中国EPC' entered, a list of results, and a 'Send Correlation Request' button highlighted with a red box. The dialog box also displays details for the selected organization: '中国EPC', '无锡新区太湖大道', 'Business Type: Installer', 'Number of Employee: 2', and 'Manager: EPC'. At the bottom of the dialog box, there's a 'Send Correlation Request' button highlighted with a red box. The background shows the 'Correlate External Organizations' page with a table of organizations. The table has columns: Logo, Name, Address, Business Type, Manager, Number o..., and Action. The table lists two organizations: '无锡英臻科技上海分公司' and '张大陆测试'. The bottom of the page shows a timestamp '13:22:06', date '2017-06-16 Friday (UTC+08:00)', and version 'Version: V1.2.5.6'. There are also pagination controls and a 'Cancel All Correlation' button.

Logo	Name	Address	Business Type	Manager	Number o...	Action
	无锡英臻科技上海分公司		fa...	Airline	1	Cancel the Correlation
	张大陆测试		fa...	张大陆111	5	Cancel the Correlation

# 5. Correlate Other Org's Accounts

Step 3: after sending request, it will show “waiting for the Response”and “Resend”. Once agreed, correlation successful.

The screenshot shows the SOLARMAN web interface. The top navigation bar includes 'Plant Center', 'Device Center', 'Alert Center', and 'Report Center'. The left sidebar has 'Organization' selected, with 'Correlate External Org' highlighted. The main content area shows 'Organization Lists' and 'New Correlated Accounts'. A modal dialog titled 'Add New Correlated Accounts' is open, displaying details for '中国EPC' (China EPC) with a logo and address. The dialog includes fields for 'Business Type' (Installer), 'Number of Employee' (2), and 'Manager' (EPC). At the bottom of the dialog, there are two buttons: 'Wait for the Response' and 'Resend', which are highlighted with a red box. The background shows a table of organizations with columns for Logo, Name, Address, Business Type, Manager, Number o..., and Action. The bottom status bar shows the time '13:24:29', date '2017-06-16 Friday (UTC+08:00)', and version 'V1.2.5.6'.



# THANK YOU



SOLARMAN HOME APP



SOLARMAN PRO APP



Wechat



Facebook

Any question, please call Customer Service : +86-400-181-0512