

Spital Spitalul Clinic de Recuperare, mun.Chisinau, str.Gheorghe Casu37

 Report

Project Name

Spitalul Clinic de Recuperare

Project Address

mun.Chisinau, str.Gheorghe Casu37

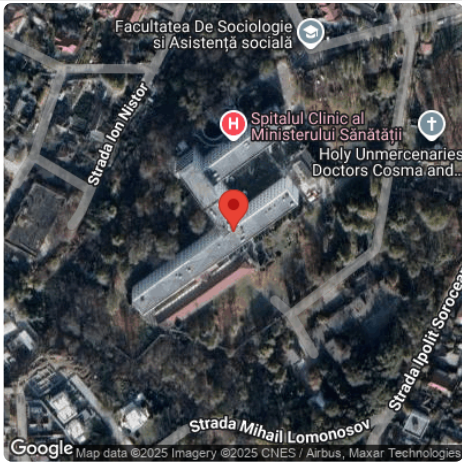
Prepared By

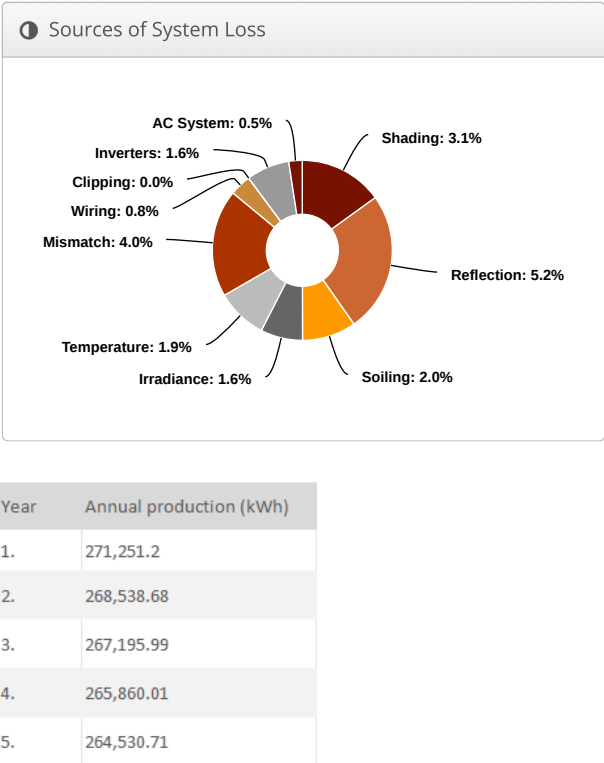
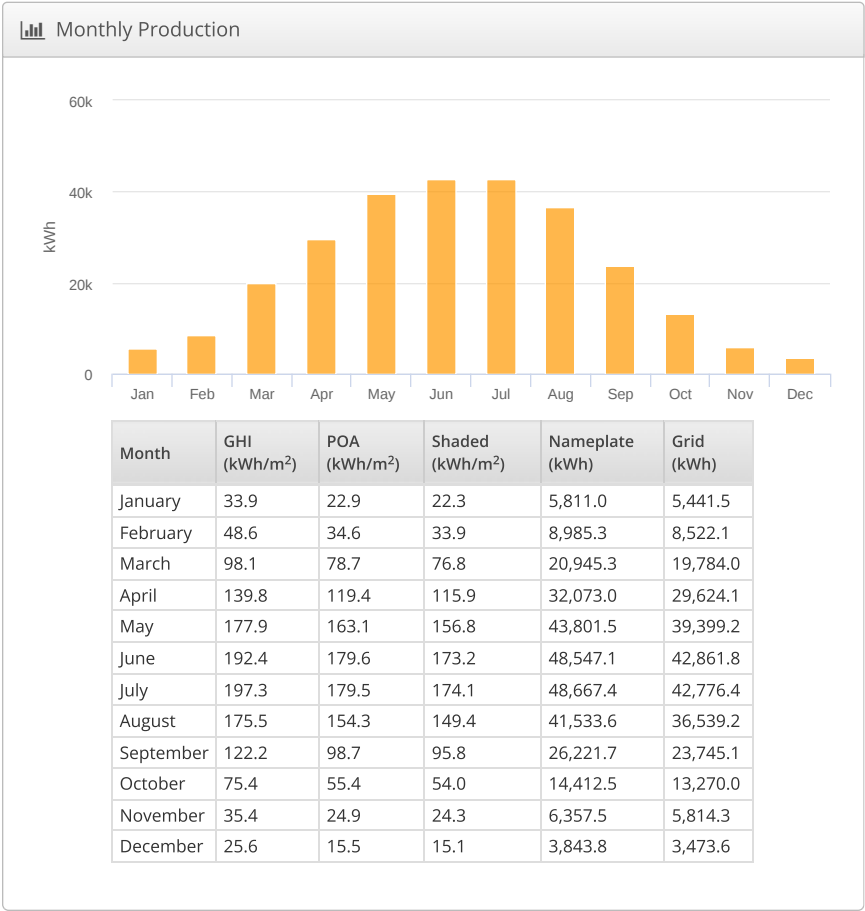
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| System Metrics        |                                             |
|-----------------------|---------------------------------------------|
| Design                | Spital                                      |
| Module DC Nameplate   | 297.0 kW                                    |
| Inverter AC Nameplate | 300.0 kW<br>Load Ratio: 0.99                |
| Annual Production     | 271.3 MWh                                   |
| Performance Ratio     | 81.1%                                       |
| kWh/kWp               | 913.3                                       |
| Weather Dataset       | TMY, 10km Grid, Meteonorm 8 (meteonorm_v8)  |
| Simulator Version     | 79d9e67f04-d82c08ea7e-32cd97f75d-59d64593d1 |

Project Location





| ⚡ Annual Production         |                                     |           |         |
|-----------------------------|-------------------------------------|-----------|---------|
|                             | Description                         | Output    | % Delta |
| Irradiance (kWh/m²)         | Annual Global Horizontal Irradiance | 1,322.3   |         |
|                             | POA Irradiance                      | 1,126.5   | -14.8%  |
|                             | Shaded Irradiance                   | 1,091.5   | -3.1%   |
|                             | Irradiance after Reflection         | 1,034.5   | -5.2%   |
|                             | Irradiance after Soiling            | 1,013.8   | -2.0%   |
|                             | Total Collector Irradiance          | 1,013.8   | 0.0%    |
| Energy (kWh)                | Nameplate                           | 301,199.6 |         |
|                             | Output at Irradiance Levels         | 296,488.4 | -1.6%   |
|                             | Output at Cell Temperature Derate   | 290,884.2 | -1.9%   |
|                             | Output After Mismatch               | 279,266.6 | -4.0%   |
|                             | Optimal DC Output                   | 277,048.7 | -0.8%   |
|                             | Constrained DC Output               | 277,047.0 | 0.0%    |
|                             | Inverter Output                     | 272,614.2 | -1.6%   |
|                             | Energy to Grid                      | 271,251.2 | -0.5%   |
| Temperature Metrics         |                                     |           |         |
| Avg. Operating Ambient Temp |                                     | 13.9 °C   |         |
| Avg. Operating Cell Temp    |                                     | 19.6 °C   |         |
| Simulation Metrics          |                                     |           |         |
| Operating Hours             |                                     | 4640      |         |
| Solved Hours                |                                     | 4640      |         |

| ☁ Condition Set                      |                                            |                                        |   |         |   |                   |   |                                  |   |   |   |   |
|--------------------------------------|--------------------------------------------|----------------------------------------|---|---------|---|-------------------|---|----------------------------------|---|---|---|---|
| Description                          | Condition Set 1                            |                                        |   |         |   |                   |   |                                  |   |   |   |   |
| Weather Dataset                      | TMY, 10km Grid, Meteororm 8 (meteororm_v8) |                                        |   |         |   |                   |   |                                  |   |   |   |   |
| 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 & Component Characterizations | Type                                       | Component                              |   |         |   |                   |   | Characterization                 |   |   |   |   |
|                                      | Module                                     | RSM110-8-540M (Risen Solar Technology) |   |         |   |                   |   | Spec Sheet Characterization, PAN |   |   |   |   |
|                                      | Inverter                                   | MAX 100KTL3-X LV (Growatt)             |   |         |   |                   |   | Spec Sheet                       |   |   |   |   |

| 📦 Components |                                              |                 |
|--------------|----------------------------------------------|-----------------|
| Component    | Name                                         | Count           |
| Inverters    | MAX 100KTL3-X LV (Growatt)                   | 3 (300.0 kW)    |
| Strings      | 10 AWG (Copper)                              | 24 (6,569.9 ft) |
| Module       | Risen Solar Technology, RSM110-8-540M (540W) | 550 (297.0 kW)  |

| 🔌 Wiring Zones |                |             |                    |
|----------------|----------------|-------------|--------------------|
| Description    | Combiner Poles | String Size | Stringing Strategy |
| Wiring Zone    | -              | 7-26        | Along Racking      |

| 🏗 Field Segments |            |                        |             |              |                  |            |        |         |          |
|------------------|------------|------------------------|-------------|--------------|------------------|------------|--------|---------|----------|
| Description      | Racking    | Orientation            | Tilt        | Azimuth      | Intrarow Spacing | Frame Size | Frames | Modules | Power    |
| Field Segment 1  | Fixed Tilt | Landscape (Horizontal) | Module: 18° | Module: 325° | 1.0 ft           | 1x1        | 360    | 360     | 194.4 kW |
| Field Segment 2  | Fixed Tilt | Landscape (Horizontal) | Module: 18° | Module: 324° | 1.0 ft           | 1x1        | 149    | 149     | 80.5 kW  |
| Acoperis 1       | Fixed Tilt | Landscape (Horizontal) | Module: 18° | Module: 325° | 2.0 ft           | 1x1        | 41     | 41      | 22.1 kW  |

Detailed Layout2

