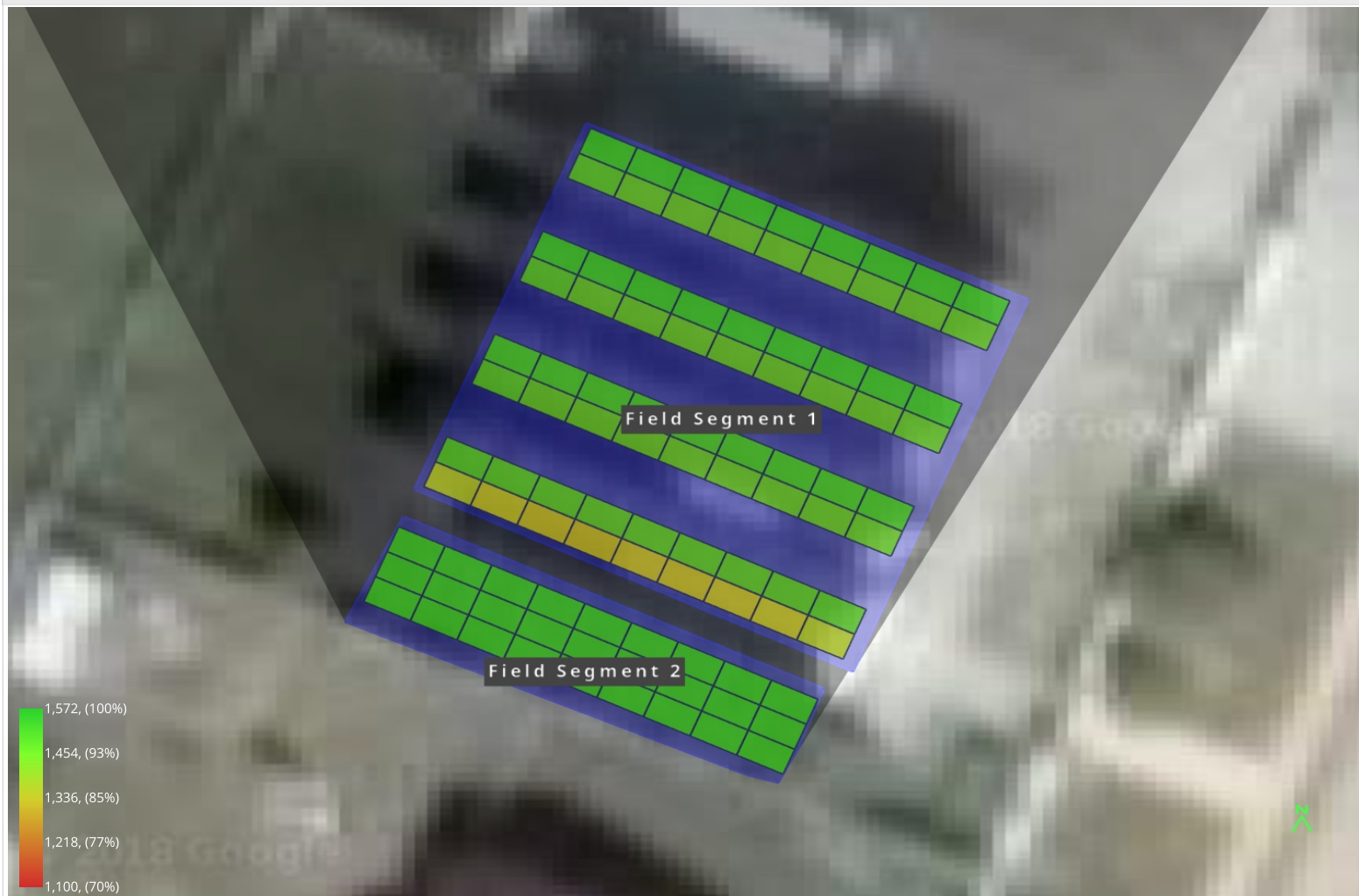


# Design 1

Казацкая 9, Николаев, ул. 1-ая Казацкая,9

## Shading Heatmap



### Shading by Field Segment

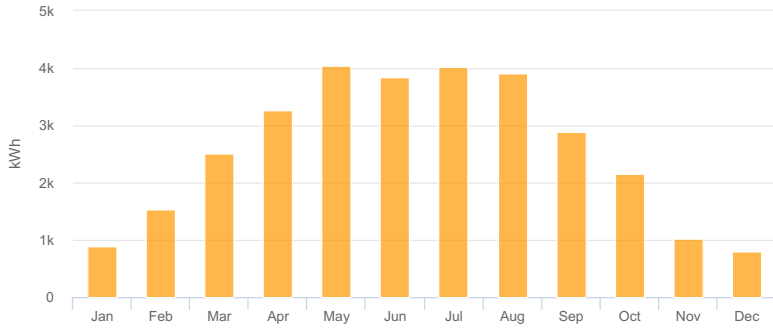
| Description             | Tilt  | Azimuth | Modules | Nameplate | Shaded Irradiance         | AC Energy             | TOF <sup>2</sup> | Solar Access | TSRF <sup>2</sup> |
|-------------------------|-------|---------|---------|-----------|---------------------------|-----------------------|------------------|--------------|-------------------|
| Field Segment 1         | 20.0° | 203.6°  | 72      | 18.0 kWp  | 1,454.7kWh/m <sup>2</sup> | 22.3 MWh <sup>1</sup> | 95.5%            | 96.9%        | 92.5%             |
| Field Segment 2         | 20.0° | 203.6°  | 27      | 6.75 kWp  | 1,500.9kWh/m <sup>2</sup> | 8.59 MWh <sup>1</sup> | 95.5%            | 100.0%       | 95.5%             |
| Totals, weighted by kWp |       |         | 99      | 24.8 kWp  | 1,467.3kWh/m <sup>2</sup> | 30.9 MWh              | 95.5%            | 97.8%        | 93.3%             |

<sup>1</sup> approximate, varies based on inverter performance  
<sup>2</sup> based on location Optimal POA Irradiance of 1,571.9kWh/m<sup>2</sup> at 35.6° tilt and 181.9° azimuth

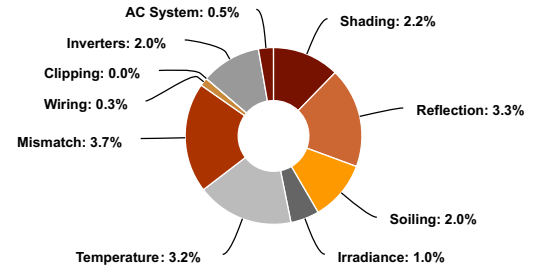
### Solar Access by Month

| Description                   | jan   | feb     | mar     | apr     | may     | jun     | jul     | aug     | sep     | oct     | nov     | dec   |
|-------------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| Field Segment 1               | 90%   | 95%     | 97%     | 98%     | 98%     | 98%     | 98%     | 98%     | 98%     | 96%     | 92%     | 87%   |
| Field Segment 2               | 100%  | 100%    | 100%    | 100%    | 100%    | 100%    | 100%    | 100%    | 100%    | 100%    | 100%    | 100%  |
| Solar Access, weighted by kWp | 92.5% | 96.7%   | 98.1%   | 98.5%   | 98.6%   | 98.5%   | 98.6%   | 98.7%   | 98.3%   | 97.4%   | 93.9%   | 90.4% |
| AC Power (kWh)                | 897.7 | 1,543.7 | 2,519.7 | 3,271.5 | 4,034.8 | 3,845.7 | 4,032.7 | 3,918.6 | 2,894.8 | 2,155.5 | 1,017.4 | 789.9 |

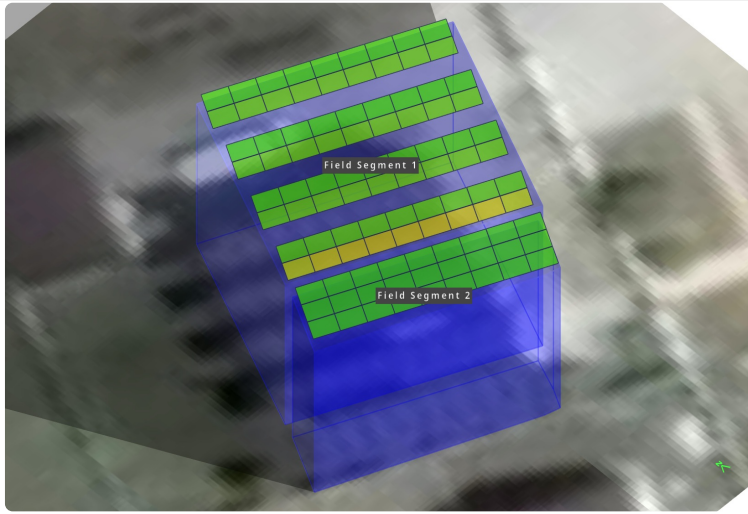
## Monthly Production



## Sources of System Loss



## Southwestern Angle



## Southeastern Angle

