# **Plant Performance Report**

# **Daily Performance Overview**

## **Problematic Daily PR Records**

Record Time	Plant Name (ID)	Anomaly Type	Severity
2025-04-28T00:00:00Z	Plant D (282fcf50-4e31-11ee-be3c-c169	low_pr_performance dramatic_  9ad1457df)	or <u>chióipal</u>

#### **PR Metrics**

Metric	Value
Daily PR Percent	5.95%
Daily PR Temp Corrected Percent	6.68%
Daily Total PR Percent	N/A
Monthly PR Percent	N/A
Monthly Total PR Percent	N/A
Daily PR Overspill Percent	N/A
Monthly PR Overspill Percent	N/A

### **Contributing Factors**

Factor	Value
Daily Availability Percent	1.00
Plant Soiling Loss Percent	N/A
Plant Curtailment KW	N/A
Average Cell Temperature C	49.74

Daily	Slope	Radiation	KWH/m <sup>2</sup>
Daily	Olope	Naulation	IZAAII\III

5912.42

#### **Performance Analysis**

Analysis Point	Value
PR Deviation from Baseline	-74.05
Expected PR Range	80-90%
Temperature Correction Impact	0.73
Radiation PR Correlation	poor_correlation_despite_high_radiation

#### **Yield Impact**

Yield Metric	Value
Daily Yield KWH	1055.34
Monthly Yield KWH	N/A
Estimated Yield Loss	13114.24

### **Detailed Analysis**

### **Summary**

The analysis for Plant D on 2025-04-28 reveals a critical PR anomaly. The daily PR was an extremely low 5.95%, significantly below the typical range of 80-90% for well-performing plants. This occurred despite high daily solar radiation (5912.42 kWh/m²) and 100% plant availability, indicating a severe performance issue. The temperature correction had a negligible impact, and soiling or curtailment data were not available or significant for this day. The estimated daily yield loss due to this underperformance is substantial, approximately 13,114.24 kWh.

#### **Analysis Period**

Start Date	2025-04-28

End Date	2025-04-28
Total Days Analyzed	1

### **Plant Information**

Plant ID	282fcf50-4e31-11ee-be3c-c169ad1457df
Plant Name	Plant D

# **PR Performance Summary**

Average Daily PR	5.95%
Average Monthly PR	N/A
Lowest Daily PR	5.95%
Highest Daily PR	5.95%
PR Trend	critical_low
Temperature Correction Effectiveness	not_significant_in_explaining_low_pr

### **Anomaly Breakdown**

Total Anomalies Found	1
Critical Issues	1
High Priority	0
Medium Priority	0
Low Priority	0

## **Root Cause Analysis**

Primary Causes:

- Equipment degradation
- Unknown/Other

Soiling Impact Days	0
Curtailment Affected Days	0
Low Availability Days	0
Temperature Related Issues	0

#### **Performance Trends**

Daily PR Trend	critical_low_performance_on_single_day
Monthly PR Trend	not_applicable_single_day_data
Seasonal Patterns	not_discernible_from_single_day_data
Degradation Rate	N/A

#### Recommendations

- 1. Immediate investigation into the extremely low daily PR for Plant D is crucial. This level of underperformance during high radiation suggests a major system malfunction or significant equipment issue.
- 2. Conduct a thorough on-site inspection to identify potential equipment failures (e.g., inverter faults, string outages, widespread module damage).
- 3. Review operational logs and error codes for any indications of system faults or unexpected shutdowns.
- 4. Verify data acquisition system integrity to rule out sensor or data transmission errors as a cause for the reported low PR.
- 5. Evaluate the plant's recent maintenance history for any correlating activities or missed inspections.

#### **Estimated Financial Impact**

Total Yield Loss KWH	13114.24
Estimated Revenue Loss	Significant; requires detailed calculation based on PPA/market rates for the lost kWh.
Performance Improvement Potential	High, assuming root cause identification and resolution can restore PR to target levels (e.g., 80-90%).

### Metadata

Analysis Timestamp	2024-05-16T12:00:00Z	
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### **Data Quality**

Total Records Analyzed	1
Records with Anomalies	1
Data Completeness	100%

### **Analysis Parameters**

PR Threshold Critical	70%
PR Threshold Warning	80%
Trend Analysis Window	7 days
Seasonal Adjustment Applied	false

# **Solar Plant Performance Report**

### **Summary**

**Total Anomalies:** 56

High Severity: 56

Medium Severity: 0

Low Severity: 0

Most Affected Plant ID: 282fcf50-4e31-11ee-be3c-c169ad1457df

Common Patterns: sustained\_pr\_drop, low\_pr\_high\_irradiance

### **Analysis**

Analysis of the 5-minute PR data for the specified plant on 2025-04-28:

A total of 56 unique anomalous data points were identified.

Categorized by severity: High: 56, Medium: 0, Low: 0.

- Periods of sustained low PR (<20%) for 35 minutes or more) under good irradiance conditions suggest consistent underperformance, possibly due to persistent shading, soiling, or a fault affecting a significant portion of the plant. This was a predominant issue.
- Numerous instances of low PR values (below 60%) observed during periods of very high irradiance (above 800 W/m²) highlight significant underperformance during optimal conditions. This indicates a major efficiency problem, potentially due to thermal issues, degradation, or systemic operational inefficiencies.

Recommendations: Immediate and thorough investigation into the root causes of the consistently low PR during high irradiance periods and sustained drops is crucial. This may involve physical inspection of the modules for soiling or damage, checking inverter logs for faults, and verifying sensor calibration.

#### **Problematic 5-Minute PR Data**

Datetime	Plant ID	Plant Name	5-min PR (%)	Irradiance (W/m²)	Anomaly Type	Severity	Context
2025-04-28 06:30:00	282fcf50-4e31	-1 Geodelore Plemot 169a	ad <b>22.53</b> df	110.0	sustained_pr_	drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 06:35:00	282fcf50-4e31	-1 1 <b>3ක</b> ස්හ <b>ජ3</b> ලැග් 169	ad <b>2 4.5)3</b> df	117.0	sustained_pr_	drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 06:50:00	282fcf50-4e31	-1 Geodelore Pleanot 169a	ad <b>18.578</b> df	133.0	sustained_pr_	drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 06:55:00	282fcf50-4e31-1 <b>State of Plant</b> 169ad <b>14</b> <i>510</i> df	172.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:00:00	282fcf50-4e31 -1 <b>ਲਿਲਮੈਗਾ ਦੱਤਿਕਾ</b> ਗ169ad <b>13<i>57</i></b> df	178.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:05:00	282fcf50-4e31-118eedatrePlant169ad21456Adf	112.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:10:00	282fcf50-4e31 -1 ใช้สม่อง ศิวิเลศน169ad214.57/df	119.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:15:00	282fcf50-4e31-119codebreFlenut169ad14557/df	164.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:20:00	282fcf50-4e31-1 <b>Sani-dre-Bent</b> 169ad <b>12.55</b> 0df	197.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 07:25:00	282fcf50-4e31-1 <b>State of Bert</b> 169ad <b>16.529</b> df	151.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:30:00	282fcf50-4e31-1 <b>Sweldord Janu</b> 169ad <b>16.578</b> df	142.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:35:00	282fcf50-4e31-1 <b>Sauland Jeru</b> 169ad <b>19.512</b> df	147.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:40:00	282fcf50-4e31-1 19xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	206.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:45:00	282fcf50-4e31-119coolabre93erot169ad174517ldf	176.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:50:00	282fcf50-4e31-1 Soodabre-Barot169ad8.41557df	375.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 07:55:00	282fcf50-4e31-1 <b>State and 1</b> 69ad <b>8.40</b> 37df	382.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:00:00	282fcf50-4e31-119colabrePlanot169ad7.4697df	402.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:05:00	282fcf50-4e31-119colabre 2arot169ad 7.41507 df	435.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:10:00	282fcf50-4e31-1 <b>Seel</b> at #37 df	460.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:15:00	282fcf50-4e31-119codebret3lerot169ad6.47527df	464.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:20:00	282fcf50-4e31-1 Seculatore Plant 169 ad 6.4257 df	486.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 08:25:00	282fcf50-4e31-1 Seedebre-Plant169ad6 4057df	514.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:30:00	282fcf50-4e31-119ametreFland169ad5.4757df	541.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:35:00	282fcf50-4e31-118andan ePlant169ad5 .4537df	548.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:40:00	282fcf50-4e31-119andatoe3and169ad54557df	568.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:45:00	282fcf50-4e31-119conletre=3lenot169ad51.4857df	588.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:50:00	282fcf50-4e31-1 Societore Plant 169 ad 9.4277 df	596.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 08:55:00	282fcf50-4e31-1 <b>Soulabre-Bland</b> 169ad <b>5.425</b> 7df	601.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:00:00	282fcf50-4e31-119coolabre9artd169ad5.4057df	623.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:05:00	282fcf50-4e31-119coolabrePlanot169ad5.4057df	624.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:10:00	282fcf50-4e31-1 19xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	660.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:15:00	282fcf50-4e31-119coolabrePlant169ad4.4757df	661.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:20:00	282fcf50-4e31-1 Social and 169 act 4657 df	676.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 09:25:00	282fcf50-4e31-1 <b>Societare Plano</b> 169ad 4 4457 df	713.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:30:00	282fcf50-4e31-118eedebreF3lenet169ac44457df	696.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:35:00	282fcf50-4e31 -118 and attre 20 and 169 act 4.2677 df	717.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:40:00	282fcf50-4e31-118andatore3anot169ad514667df	569.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:45:00	282fcf50-4e31-118eedebreF3erret169ac444857df	728.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:50:00	282fcf50-4e31-1 <b>Soul-do-Plant</b> 169ad4. <b>415</b> 7df	721.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28	282fcf50-4631	-1 <b>18aalabe3ant</b> 169	ad4.4157df	773.0	sustained_pr_	drakiah	Sustained
09:55:00	20210100 4001	T data da	act. all	770.0	sustaineu_pr_	a capy	low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:00:00	282fcf50-4e31	-1 Seedebre Heard 169	ad <b>3.49</b> 67 df	814.0	low_pr_high_ii sustained_pr_		Low PR (3.96%) despite high irradiance (814.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:05:00	282fcf50-4e31	-1 Sand-abore 3 Carrot 169	ad4.40527 df	804.0	low_pr_high_ing sustained_pr_		Low PR (4.02%) despite high irradiance (804.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:10:00	282fcf50-4e31	-1 Seedelore Flewel 169	ad3.48597 df	830.0	low_pr_high_ii sustained_pr_	_	Low PR (3.89%) despite high irradiance (830.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:15:00	282fcf50-4e31	-1 Sandahu e Elarut 169 ad 3.47597 df	847.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.79%) despite high irradiance (847.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:20:00	282fcf50-4e31	-1 <b>'Sandabre'3 e</b> ਜਾਹ169 ad <b>3</b> <i>ਸਾਂਤ</i> 7 df	855.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.73%) despite high irradiance (855.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:25:00	282fcf50-4e31	-11 Sandahne Ellarnot 169 ad 3.4627 df	881.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.62%) despite high irradiance (881.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:30:00	282fcf50-4e31	-1 <b>Sandabre-Barot</b> 169 ac <b>t3.4657</b> df	882.0	low_pr_high_irradiighce, sustained_pr_drop	Low PR (3.65%) despite high irradiance (882.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:35:00	282fcf50-4e31	- <b>1 'Sæd</b> æ <b>ਾਰ'3 ਰ</b> ਜਹ169 ad <b>3 ਵਿੱ</b> ਲਾ di	892.0	low_pr_high_irradiigtce, sustained_pr_drop	Low PR (3.58%) despite high irradiance (892.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:40:00	282fcf50-4e31	-1 <b>Sædabe-3aro</b> 169 act <b>3.4%</b> 7 di	885.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.70%) despite high irradiance (885.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:45:00	282fcf50-4e31	-1 19aakabo 439a rot 169	ad <b>3.452</b> 7 df	920.0	low_pr_high_ir sustained_pr_d		Low PR (3.52%) despite high irradiance (920.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:50:00	282fcf50-4e31	-1 Sandatore 3 cerrot 169	ad <b>3.415</b> 77 df	936.0	low_pr_high_ir sustained_pr_o	_	Low PR (3.47%) despite high irradiance (936.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:55:00	282fcf50-4e31	-1 Seedelore File and 169	ad <b>3.445</b> 7 df	965.0	low_pr_high_ir sustained_pr_d		Low PR (3.45%) despite high irradiance (965.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 11:00:00	282fcf50-4e31	-1 Sandan de larnot 169 a d 3.4857 d f	991.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.35%) despite high irradiance (991.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 11:05:00	282fcf50-4e31	-1 <b>Sædetne-Bero</b> t169 ad <b>3.415</b> 17 df	1054.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.14%) despite high irradiance (1054.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 11:10:00	282fcf50-4e31	-1 Saadabeellarat169ad3.4527df	1044.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.12%) despite high irradiance (1044.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 11:15:00	282fcf50-4e31	-1 18aalabet3la-not169ad3.47527df	831.0	low_pr_high_irra <b>tiigh</b> ce, sustained_pr_drop	Low PR (3.72%) despite high irradiance (831.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 11:40:00	282fcf50-4e31	-1 18ങ്ങിൽ-ലോഷന്169ad3:41557df	948.0	low_pr_high_irra <b>diærtie</b> m	Low PR (3.15%) despite high irradiance (948.0 W/m²)
2025-04-28 11:55:00	282fcf50-4e31	-1 13 Audic and 169 ad 21.4257 df	1126.0	low_pr_high_irradiigfce, sustained_pr_drop	Low PR (2.95%) despite high irradiance (1126.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 12:15:00	282fcf50-4e31	-1 18aadaba e 21a mot 169 a c 22.47597 c f	1048.0	low_pr_high_irra <b>thigf</b> ce, sustained_pr_drop	Low PR (2.79%) despite high irradiance (1048.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 12:35:00	282fcf50-4e31	-1 Sacelabre-Blarrot169 ad3.4257 df	836.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.29%) despite high irradiance (836.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 12:45:00	282fcf50-4e31	-1 <b>Sace</b> and 69 ad 3.4667 df	860.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.68%) despite high irradiance (860.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 12:50:00	282fcf50-4e31	-1 <b>Sace</b> latore <b>3</b> arrot169 ad 2.4967 df	1019.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (2.98%) despite high irradiance (1019.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 12:55:00	282fcf50-4e31	-1 <b>Saal</b> abr <b>e 3e</b> rat 169	ad <b>3.425</b> 07 df	896.0	low_pr_high_ir sustained_pr_o	Low PR (3.20%) despite high irradiance (896.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:00:00	282fcf50-4e31	-1 <b>Sand</b> about 3 Cerrot 169	ad <b>3.405</b> 7 df	973.0	low_pr_high_ir sustained_pr_	Low PR (3.03%) despite high irradiance (973.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:05:00	282fcf50-4e31	-1 Seedelore Florent 169	ad <b>2.485</b> 7 df	944.0	low_pr_high_ir sustained_pr_d	Low PR (2.85%) despite high irradiance (944.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:10:00	282fcf50-4e31 -1 Seedato 430 arti169 ad 2.4837 df	1033.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (2.91%) despite high irradiance (1033.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:15:00	282fcf50-4e31-11 Sandato 43 And 169 act 3.4157 df	1037.0	low_pr_high_irra <b>tiigh</b> ce, sustained_pr_drop	Low PR (3.16%) despite high irradiance (1037.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:20:00	282fcf50-4e31-1 Sandatore 21 artit169 ad 3.4157 df	1039.0	low_pr_high_irra <b>tiigfr</b> ce, sustained_pr_drop	Low PR (3.13%) despite high irradiance (1039.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:25:00	282fcf50-4e31-11 Sandeland et 3e	nd169ad3.42547df	992.0	low_pr_high_irra <b>diigft</b> ce, sustained_pr_drop	Low PR (3.24%) despite high irradiance (992.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:30:00	282fcf50-4e31-1 <b>Sæl</b> æræðeða	nd169ad2.49317df	1007.0	low_pr_high_irra <b>tiigh</b> ce, sustained_pr_drop	Low PR (2.94%) despite high irradiance (1007.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:35:00	282fcf50-4e31-1 <b>Sæd</b> ætre <b>3</b> er	nd169ad3.4257df	893.0	low_pr_high_irratiighce, sustained_pr_drop	Low PR (3.26%) despite high irradiance (893.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:45:00	282fcf50-4e31-1 <b>Sædebre-3</b> er	nd169ad3 <i>4</i> 797df	789.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:50:00	282fcf50-4e31	-1 Sandabret Bernot 169 act 3.41527 df	889.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.12%) despite high irradiance (889.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:55:00	282fcf50-4e31	-1 18aadato 431 aa 11 169 a 121 4657 df	924.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (2.63%) despite high irradiance (924.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:00:00	282fcf50-4e31	-1 Sandabret Planot 169 act 2.4537 df	960.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (2.51%) despite high irradiance (960.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 14:05:00	282fcf50-4e31	-1 Sandatore Planot 169	ad <b>2.45</b> 9.7 df	941.0	low_pr_high_ir sustained_pr_d		Low PR (2.54%) despite high irradiance (941.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:10:00	282fcf50-4e31	-118aadabeeland169	ad <b>2.456</b> 7df	916.0	low_pr_high_ir sustained_pr_d	_	Low PR (2.58%) despite high irradiance (916.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:15:00	282fcf50-4e31	-1 Saadabre Berut 169	ad <b>2.468</b> 7df	880.0	low_pr_high_ir sustained_pr_d		Low PR (2.68%) despite high irradiance (880.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 14:20:00	282fcf50-4e31-119eedatrePlant169act2.4937	7df 865.0	low_pr_high_irradiigtce, sustained_pr_drop	Low PR (2.71%) despite high irradiance (865.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:25:00	282fcf50-4e31-119cooletrePlant169ad2.467/	7df 874.0	low_pr_high_irradiighce, sustained_pr_drop	Low PR (2.67%) despite high irradiance (874.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:40:00	282fcf50-4e31-1 <b>Sad and Plant</b> 169ad <b>3.85</b> 7	7df 811.0	low_pr_high_irra <b>thighc</b> e, sustained_pr_drop	Low PR (3.81%) despite high irradiance (811.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:00:00	282fcf50-4e31-119eedatre=31a-ret169ad4.4195/	7df 713.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 15:15:00	282fcf50-4e31-1 Social and 3ent 169 ad 3et 3fd 7df	570.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:25:00	282fcf50-4e31 -119ਲਈਈਰਾਈਤੀerਚ169ad54537df	560.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:40:00	282fcf50-4e31-119amelanePlanot169ad5.4537df	576.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:45:00	282fcf50-4e31-119eeelabre99artu169ad514657df	544.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:00:00	282fcf50-4e31-119coolane93erou169ad64997df	508.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:05:00	282fcf50-4e31-1 Societare Benut 169ad 6.4667 df	449.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 16:10:00	282fcf50-4e31-116cdebre3end	169ad <b>9.405</b> 27df	332.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:15:00	282fcf50-4e31 -1 <b>Scol</b> ctv <b>ਰ-3</b> land	169ad <b>8.445</b> 7df	345.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:20:00	282fcf50-4e31 -1 <b>Swi</b> et <b>ਾਰ-3e</b> ਜਹ	169ad <b>114<i>5</i>45</b> df	252.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:25:00	282fcf50-4e31 -1 இ <b>ல் ச்3e</b> ro	169ad <b>214.557</b> df	135.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:30:00	282fcf50-4e31 -11 <b>Scel</b> ctv <b>e3lard</b>	169ad <b>8.4%</b> 77df	342.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:35:00	282fcf50-4e31-1 <b>Sæl</b> æ <b>ਾ</b> ਰ	169ad <b>9.486</b> 7df	317.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 16:40:00	282fcf50-4e31	-1 <b>Seed</b> -dor <del>d S</del> eared 169	ad <b>14:37</b> df	263.0	sustained_pr_	drd <mark>pigh</mark>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:50:00	282fcf50-4e31	-1 <b>Saadabu 6-3 Caro</b> 169	ad <b>19.532</b> df	149.0	sustained_pr_o	drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 17:00:00	282fcf50-4e31	-1 Seedeboereland 169	ad <b>2.4:574</b> df	129.0	sustained_pr_d	drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

No data found for the specified date and plant. Please check the `plant\_id` and `target\_date` and try again.

# Plant D Performance Report - 2025 April 28

### **Daily Performance Summary**

Plant: Plant D (ID: 282fcf50-4e31-11ee-be3c-c169ad1457df)

**Date:** 2025-04-28

**Summary:** The analysis for Plant D on 2025-04-28 reveals a critical PR anomaly. The daily PR was an extremely low 5.95%, significantly below the typical range of 80-90% for well-performing plants. This occurred despite high daily solar radiation (5912.42 kWh/m²) and 100% plant availability, indicating a severe performance issue. The temperature correction had a negligible impact, and soiling or curtailment data were not available or significant for this day. The estimated daily yield loss due to this underperformance is substantial, approximately 13,114.24 kWh.

# **Key Daily Metrics**

Metric	Value
Daily PR	5.95%
Daily PR (Temp Corrected)	6.68%
Daily Total PR	N/A
Monthly PR	N/A
Monthly Total PR	N/A
Daily PR Overspill	N/A
Monthly PR Overspill	N/A

## **Contributing Factors**

Factor	Value
Daily Availability	1.00%
Plant Soiling Loss	N/A
Plant Curtailment	N/A
Average Cell Temperature	49.74°C
Daily Slope Radiation	5912.42 kWh/m²

# **Performance Analysis Details**

Analysis Point	Value
PR Deviation from Baseline	-74.05%

Expected PR Range	80-90%
Temperature Correction Impact	0.73
Radiation PR Correlation	poor_correlation_despite_high_radiation

# **Yield Impact**

Impact	Value
Daily Yield	1055.34 kWh
Monthly Yield	N/A
Estimated Yield Loss	13114.24 kWh

## **Overall PR Performance Summary**

Category	Value
Average Daily PR	5.95%
Average Monthly PR	N/A
Lowest Daily PR	5.95%
Highest Daily PR	5.95%
PR Trend	critical_low
Temperature Correction Effectiveness	not_significant_in_explaining_low_pr

# **Anomaly Breakdown**

Total Anomalies Found	1
Critical Issues	1
High Priority	0
Medium Priority	0
Low Priority	0

### **Root Cause Analysis Insights**

Primary Causes: Equipment degradation, Unknown/Other

**Soiling Impact Days:** 0

**Curtailment Affected Days:** 0

Low Availability Days: 0

**Temperature Related Issues:** 0

#### **Performance Trends**

Daily PR Trend: critical\_low\_performance\_on\_single\_day

Monthly PR Trend: not\_applicable\_single\_day\_data

Seasonal Patterns: not\_discernible\_from\_single\_day\_data

**Degradation Rate: N/A** 

### **Estimated Financial Impact**

Impact	Value
Total Yield Loss	13114.24 kWh
Estimated Revenue Loss	Significant; requires detailed calculation based on PPA/market rates for the lost kWh.
Performance Improvement Potential	High, assuming root cause identification and resolution can restore PR to target levels (e.g., 80-90%).

#### **Analysis Metadata**

Parameter	Value
Analysis Timestamp	2024-05-16T12:00:00Z
Total Records Analyzed	1
Records with Anomalies	1
Data Completeness	100%
PR Threshold Critical	70%
PR Threshold Warning	80%
Trend Analysis Window	7 days
Seasonal Adjustment Applied	No

# **Detailed 5-Minute Performance Analysis**

#### **Overall Timeseries Analysis**

Analysis of the 5-minute PR data for the specified plant on 2025-04-28:

A total of 56 unique anomalous data points were identified.

Categorized by severity: High: 56, Medium: 0, Low: 0.

- Periods of sustained low PR (<20% for 30 minutes or more) under good irradiance conditions suggest consistent

underperformance, possibly due to persistent shading, soiling, or a fault affecting a significant portion of the plant. This was a predominant issue.

- Numerous instances of low PR values (below 60%) observed during periods of very high irradiance (above 800 W/m²) highlight significant underperformance during optimal conditions. This indicates a major efficiency problem, potentially due to thermal issues, degradation, or systemic operational inefficiencies.

Recommendations: Immediate and thorough investigation into the root causes of the consistently low PR during high irradiance periods and sustained drops is crucial. This may involve physical inspection of the modules for soiling or damage, checking inverter logs for faults, and verifying sensor calibration.

#### **Summary of 5-Minute Anomalies**

Summary Item	Value
Total Anomalies	56
High Severity	56
Medium Severity	0
Low Severity	0
Most Affected Plant	282fcf50-4e31-11ee-be3c-c169ad1457df
Common Patterns	sustained_pr_drop, low_pr_high_irradiance

#### **Problematic 5-Minute PR Records**

Date/Time	Plant Name	5-min PR (%)	Irradiance (W/m²)	Anomaly Type	Severity	Context	
2025-04-28 06:30:00	Solar Plant	22.53	110.0	sustained_pr	_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	

2025-04-28 06:35:00	Solar Plant	21.03	117.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 06:50:00	Solar Plant	18.78	133.0	sustained_pr_drohpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 06:55:00	Solar Plant	14.70	172.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:00:00	Solar Plant	13.78	178.0	sustained_pr_drdnigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:05:00	Solar Plant	21.64	112.0	sustained_pr_dromigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 07:10:00	Solar Plant	20.67	119.0	sustained_pr_drohigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:15:00	Solar Plant	15.37	164.0	sustained_pr_drohigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:20:00	Solar Plant	12.69	197.0	sustained_pr_drohigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:25:00	Solar Plant	16.29	151.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 07:30:00	Solar Plant	16.98	142.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 07:35:00	Solar Plant	19.42	147.0	sustained_pr_	drd <b>ņ</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	
2025-04-28 07:40:00	Solar Plant	14.21	206.0	sustained_pr_	drd <b>ņ</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	
2025-04-28 07:45:00	Solar Plant	17.11	176.0	sustained_pr_	drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	
2025-04-28 07:50:00	Solar Plant	8.15	375.0	sustained_pr_	dr <b>dp</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	
2025-04-28 07:55:00	Solar Plant	8.01	382.0	sustained_pr_	drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	

2025-04-28 08:00:00	Solar Plant	7.64	402.0	sustained_pr_dr <b>dp</b> gh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:05:00	Solar Plant	7.10	435.0	sustained_pr_drdpgh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:10:00	Solar Plant	6.73	460.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:15:00	Solar Plant	6.72	464.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:20:00	Solar Plant	6.26	486.0	sustained_pr_drd <b>p</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 08:25:00	Solar Plant	6.03	514.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:30:00	Solar Plant	5.76	541.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:35:00	Solar Plant	5.53	548.0	sustained_pr_dr <b>dp</b> gh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:40:00	Solar Plant	5.45	568.0	sustained_pr_drd <b>p</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 08:45:00	Solar Plant	5.33	588.0	sustained_pr_dr <b>dp</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 08:50:00	Solar Plant	5.27	596.0	sustained_pr	_drd <b>p</b> igh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	
2025-04-28 08:55:00	Solar Plant	5.25	601.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.	
2025-04-28 09:00:00	282fcf50-4e3	1-119aalabre3c-c16 Plant	9ad <b>5.457</b> df	623.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:05:00	282fcf50-4e3	1-1 <b>% ada</b> be 3c-c16 Plant	9ad <b>5.467</b> df	624.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:10:00	282fcf50-4e3	1-1 <b>15ad</b> abre3c-c16 Plant	9ad4 <i>4</i> 797df	660.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 09:15:00	282fcf50-4e31-118midsre3c-c169ad4.4757df Plant	661.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:20:00	282fcf50-4e31-118 and all e3c-c169 ac 4.4697 df Plant	676.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:25:00	282fcf50-4e3 1-116 and alwest 2c-c169 ack 4.457 df Plant	713.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:30:00	282fcf50-4e31-118 and all all all all all all all all all al	696.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:35:00	282fcf50-4e31-113coldre3c-c169ad4.4857df Plant	717.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 09:40:00	282fcf50-4e3	1-11 <b>Sæd</b> æbre3c-c16 Plant	9ad <b>5.496</b> 7df	569.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:45:00	282fcf50-4e3	1-113ædæbre3c-c16 Plant	9ad <b>4.457</b> df	728.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:50:00	282fcf50-4e3	1-1 <b>% w</b> labre3c-c16 Plant	39ad4 <i>4</i> 1517df	721.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 09:55:00	282fcf50-4e3	1-11 <b>Sed</b> ebre3c-c16 Plant	9ad4. <b>415</b> 7df	773.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:00:00	282fcf50-4e3	1-11Seedebore3c-c16 Plant	69ad <b>3.49</b> 67df	814.0	low_pr_high_ sustained_pr	Low PR (3.96%) despite high irradiance (814.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:05:00	282fcf50-4e3	1-1 <b>15æl</b> abre3c-c16 Plant	9ad <b>4.405</b> 27df	804.0	low_pr_high_ sustained_pr	Low PR (4.02%) despite high irradiance (804.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:10:00	282fcf50-4e3	1-11Seedebore3c-c16 Plant	9ad <b>3.45</b> 7df	830.0	low_pr_high_ sustained_pr	Low PR (3.89%) despite high irradiance (830.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:15:00	282fcf50-4e3	1-113xelabre3c-c16 Plant	9ad <b>3.457</b> df	847.0	low_pr_high_ sustained_pr	Low PR (3.79%) despite high irradiance (847.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:20:00	282fcf50-4e3	1-119and-abre-3c-c16 Plant	9ad3 <i>4</i> 57 df	855.0	low_pr_high_ sustained_pr	Low PR (3.73%) despite high irradiance (855.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:25:00	282fcf50-4e3	1-113aadabre3c-c16 Plant	99ad <b>3.46527</b> df	881.0	low_pr_high_ sustained_pr	Low PR (3.62%) despite high irradiance (881.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:30:00	282fcf50-4e3	1-119adabe3c-c16 Plant	i9ad <b>3.465</b> 7df	882.0	low_pr_high_ sustained_pr	Low PR (3.65%) despite high irradiance (882.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:35:00	282fcf50-4e3	1-1 Seelabre3c-c16 Plant	9ad <b>3.45</b> 7df	892.0	low_pr_high_ sustained_pr	Low PR (3.58%) despite high irradiance (892.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:40:00	282fcf50-4e3	I-118aadare3c-c16 Plant	9ad <b>3.4%</b> 7	885.0	low_pr_high_ sustained_pr	Low PR (3.70%) despite high irradiance (885.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high
2025-04-28 10:45:00	282fcf50-4e31	I-11Soddwe3c-c16	9ad <b>3.452</b> 7df	920.0	low_pr_high_ sustained_pr	irradiance conditions.  Low PR (3.52%) despite high irradiance (920.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 10:50:00	282fcf50-4e3	1-113aadabre3c-c16 Plant	9ad <b>3.457</b> df	936.0	low_pr_high_ sustained_pr	Low PR (3.47%) despite high irradiance (936.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 10:55:00	282fcf50-4e3	1-11 <b>Sadab</b> re3c-c16 Plant	9ad <b>3.445</b> 7df	965.0	low_pr_high_ sustained_pr	Low PR (3.45%) despite high irradiance (965.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 11:00:00	282fcf50-4e31	-1 Saddre3c-c16	9ad <b>3.</b> 4557df	991.0	low_pr_high_ sustained_pr	Low PR (3.35%) despite high irradiance (991.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 11:05:00	282fcf50-4e31	-113aadave3c-c16 Plant	9ad <b>3.4</b> 57df	1054.0	low_pr_high_ sustained_pr	Low PR (3.14%) despite high irradiance (1054.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions

2025-04-28 11:10:00	282fcf50-4e3 1-1 Sandabre3c-c169ad3.4527df Plant	1044.0	low_pr_high_irradiighce, sustained_pr_drop	Low PR (3.12%) despite high irradiance (1044.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 11:15:00	282fcf50-4e3 1-11 Sandatore3c-c169ad3 47527 df Plant	831.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.72%) despite high irradiance (831.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 11:40:00	282fcf50-4e31-11 <b>Sædab</b> e3c-c169ad <b>3.4157</b> df Plant	948.0	low_pr_high_irra <b>diantiem</b>	Low PR (3.15%) despite high irradiance (948.0 W/m²)

2025-04-28 11:55:00	282fcf50-4e3	1-119andabre3c-c16 Plant	9ad <b>2.49</b> 57df	1126.0	low_pr_high_ sustained_pr	Low PR (2.95%) despite high irradiance (1126.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 12:15:00	282fcf50-4e3	1-113aadabre3c-c16 Plant	39ad <b>2</b> 14 <b>75</b> 17 df	1048.0	low_pr_high_ sustained_pr	Low PR (2.79%) despite high irradiance (1048.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 12:35:00	282fcf50-4e3	1-113amelabre3c-c16 Plant	9ad <b>3.425</b> 7df	836.0	low_pr_high_ sustained_pr	Low PR (3.29%) despite high irradiance (836.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 12:45:00	282fcf50-4e3	1-113audabre3c-c16 Plant	9ad <b>3.48</b> 7df	860.0	low_pr_high_ sustained_pr	Low PR (3.68%) despite high irradiance (860.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 12:50:00	282fcf50-4e3	1-113adabe3c-c16	9ad <b>21.495</b> 7df	1019.0	low_pr_high_ sustained_pr	Low PR (2.98%) despite high irradiance (1019.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 12:55:00	282fcf50-4e3	1-1 Seelabre3c-c16 Plant	9ad <b>3.425</b> 7df	896.0	low_pr_high_ sustained_pr	Low PR (3.20%) despite high irradiance (896.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28	282fcf50-4e3	31-11 <b>Sad</b> ebre3c-c16	\9ad <b>3.46</b> 7df	973.0	low_pr_high_	irra <b>him</b> re	Low PR
13:00:00	20210130-463	Plant	COLLEGE PELIN (UI	91 J.U	sustained_pr		(3.03%) despite high irradiance (973.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:05:00	282fcf50-4e3	1-11 <b>S</b> adebore3c-c16 Plant	9ad <b>2.465</b> 7df	944.0	low_pr_high_ sustained_pr		Low PR (2.85%) despite high irradiance (944.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:10:00	282fcf50-4e3	1-11 <b>Sadab</b> re3c-c16 Plant	9ad <b>2.46</b> 7df	1033.0	low_pr_high_ sustained_pr	Low PR (2.91%) despite high irradiance (1033.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:15:00	282fcf50-4e3	1-113aadabre3c-c16 Plant	9ad <b>3.415</b> 7df	1037.0	low_pr_high_ sustained_pr	Low PR (3.16%) despite high irradiance (1037.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:20:00	282fcf50-4e3	1-119and-abre-3c-c16 Plant	9ad <b>3.415</b> 7df	1039.0	low_pr_high_ sustained_pr	Low PR (3.13%) despite high irradiance (1039.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:25:00	282fcf50-4e3	1-11 <b>Sadab</b> re3c-c16 Plant	9ad <b>3.42</b> 97df	992.0	low_pr_high_ sustained_pr	Low PR (3.24%) despite high irradiance (992.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:30:00	282fcf50-4e3	1-1 Seedabre 3c-c16 Plant	59ad <b>2.487</b> df	1007.0	low_pr_high_irradiighce, sustained_pr_drop	Low PR (2.94%) despite high irradiance (1007.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:35:00	282fcf50-4e3	1-1 <b>15ad-ab</b> re3c-c16 Plant	39ad <b>3.425</b> 7df	893.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.26%) despite high irradiance (893.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:45:00	282fcf50-4e3	1-113aadabre3c-c16 Plant	59ad <b>3.459</b> 7df	789.0	sustained_pr_dr <b>dpigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 13:50:00	282fcf50-4e3	1-119andabre3c-c16 Plant	9ad <b>3.41527</b> df	889.0	low_pr_high_ sustained_pr	Low PR (3.12%) despite high irradiance (889.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 13:55:00	282fcf50-4e3	1-1 <b>%.ed</b> abre3c-c16 Plant	99ad21.46537 df	924.0	low_pr_high_ sustained_pr	Low PR (2.63%) despite high irradiance (924.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 14:00:00	282fcf50-4e3	1-1 <b>15æl</b> abre3c-c16 Plant	99ad <b>2</b> .4607df	960.0	low_pr_high_ sustained_pr	Low PR (2.51%) despite high irradiance (960.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:05:00	282fcf50-4e3	1-119aadabre3c-c16 Plant	9ad <b>2.45</b> 7df	941.0	low_pr_high_ sustained_pr	Low PR (2.54%) despite high irradiance (941.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28	282fcf50-4e3	1-11 <b>Saal</b> abre3c-c16	9ad <b>2.45</b> 87df	916.0	low_pr_high_	_irra <b>diigtc</b> e,	Low PR
14:10:00		Plant			sustained_pr	_drop	(2.58%) despite high irradiance (916.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:15:00	282fcf50-4e3	1-113aalabre3c-c16 Plant	9ad <b>2</b> 4667df	880.0	low_pr_high_ sustained_pr		Low PR (2.68%) despite high irradiance (880.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 14:20:00	282fcf50-4e3	I-1 Soul-due3c-c16 Plant	9ad <b>2.4</b> 97df	865.0	low_pr_high_ sustained_pr	Low PR (2.71%) despite high irradiance (865.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 14:25:00	282fcf50-4e31	l-11Sand-abre3c-c16 Plant	9a <b>d2.467</b> 7df	874.0	low_pr_high_ sustained_pr	Low PR (2.67%) despite high irradiance (874.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 14:40:00	282fcf50-4e3 1-1 Sandabre3c-c169ad3.4837df Plant	811.0	low_pr_high_irra <b>thigh</b> ce, sustained_pr_drop	Low PR (3.81%) despite high irradiance (811.0 W/m²); Part of sustained low PR period (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:00:00	282fcf50-4e31-118aadabre3c-c169ad444567df Plant	713.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:15:00	282fcf50-4e31-1 Sandabre3c-c169ad5.4637df Plant	570.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:25:00	282fcf50-4e31-116melabre3c-c169ad5.4457df Plant	560.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 15:40:00	282fcf50-4e31-1 <b>Scala</b> bre3c-c169ac <b>t5.4537</b> df Plant	576.0	sustained_pr_drd <mark>pigh</mark>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 15:45:00	282fcf50-4e31-119codebore3c-c169ad51.46557df Plant	544.0	sustained_pr_drd <b>righ</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:00:00	282fcf50-4e31-118aadabre3c-c169ad64547df Plant	508.0	sustained_pr_drd <mark>pigh</mark>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:05:00	282fcf50-4e31-119codebore3c-c169ad646667df Plant	449.0	sustained_pr_drd <b>righ</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:10:00	282fcf50-4e31-119coolabre3c-c169ad9.40527df Plant	332.0	sustained_pr_drdpigh	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 16:15:00	282fcf50-4e31-119cooldage3c-c169ad844567df Plant	345.0	sustained_pr_drd <mark>pigh</mark>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:20:00	282fcf50-4e31-116malabre3c-c169ad14 <i>s</i> a.Edf Plant	252.0	sustained_pr_drd <b>righ</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:25:00	282fcf50-4e31-116cmlabre3c-c169ad2 <b>4.557</b> df Plant	135.0	sustained_pr_drd <b>righ</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:30:00	282fcf50-4e31-116cmelatre3c-c169ad8 <i>4</i> 7657df Plant	342.0	sustained_pr_drd <mark>pigh</mark>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:35:00	282fcf50-4e31-118 and abre 3c-c169 ad 9.4867 df Plant	317.0	sustained_pr_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.

2025-04-28 16:40:00	282fcf50-4e3	1-118aadabre3c-c16 Plant	i9ad <b>145</b> 6df	263.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 16:50:00	282fcf50-4e3	1-11& adabe 3c-c16 Plant	9ad <b>19.532</b> df	149.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.
2025-04-28 17:00:00	282fcf50-4e3	1-113aadabre3c-c16 Plant	9ad <b>2124:507</b> df	129.0	sustained_pr	_drd <b>pigh</b>	Sustained low PR (<20%) for 35 minutes during high irradiance conditions.