

Installation of the permanent regeneration system – continuous results

The EICERO PID Doctor regeneration system was installed permanently on both converters in the middle of July 2015.

The first control measurement was made after about one month. It was verified on a random sample of panels that output grew significantly already after such a short period of time.

To verify the effectiveness of the photovoltaic panel regeneration, voltage was measured on several selected strings. The measurement took place on panels that were in use: voltage was measured on the panel closest to the positive string end and on four panels that were the closest to the negative string. The table shows some selected measurements. The string identification "R3 Z2" means "Row 3 String 2" from the west. The data and charts bring evidence of a voltage increase and hence of higher panel output.

R1 Z1	measured on July 7, 2015	measured on Aug 24, 2015	R2 Z1	measured on July 7, 2015	measured on Aug 24, 2015
panel order from + to -	voltage[V]	voltage[V]	panel order from + to -	voltage[V]	voltage[V]
1 (+)	25.4	26.0	1(+)	26.0	26.1
17	25.2	25.7	17	25.7	26.0
18	24.2	25.5	18	24.4	25.8
19	23.1	25.5	19	19.9	25.4
20(-)	19.9	25.1	20(-)	13.4	25.0

R3 Z1	measured on July 7, 2015	measured on Aug 24, 2015	R2 Z1	measured on July 7, 2015	measured on Aug 24, 2015
panel order from + to -	voltage[V]	voltage[V]	panel order from + to -	voltage[V]	voltage[V]
1 (+)	25.7	26.0	1(+)	25.5	26.2
17	23.5	26.0	17	25.0	26.0
18	22	25.6	18	24.8	25.9
19	18.3	25.5	19	16.8	25.4
20(-)	15.6	25.2	20(-)	12.2	24.7

Chart No. 4

Graphic representation of the difference in results as measured prior to and after regeneration.

