



CITTA' DI MASSA LOMBARDA

PROGETTO IMPIANTO AGROVOLTAICO

IN VIA PALMIERA SNC, SP117

Foglio 36 mappale 47,52,53P,78,234,265,266,342P,346,396

AUTORIZZAZIONE UNICA AI SENSI DELL'ART.12 D.Lgs.387/2003

Impianto di Energia Elettrica Prodotta da Fonti Energetiche Rinnovabili a Solare Fotovoltaico

Committente:



JUWI ENERGIE RINNOVABILI S.r.l.

MILANO (MI) VIA VITTOR PISANI 20 - 20124
C.F. P.I.V.A. 02600410217
JUWIENERGIERINNOVABILISRL@LEGALMAIL.IT

a cura di:



Studio Rigolli

sustainable landscaping | projects and consulting
via Begatto 1 | 40125 Bologna Italy | +39 051232125
studio2@rigolli.com - r.rigolli@epap.conafpec.it

Coordinamento generale e progettazione

Dott.Agr. Riccardo Rigolli
via Begatto, 1
40125 Bologna
n.784 Ordine DAF (BO)

Relazioni specialistiche

Ing. Franca Conti
tecnico competente in acustica
via Massimo Gorki, 11
40128 Bologna
n.964 Ordine Ingegneri (RA)

Progetto definitivo impianto elettrico

Dott. Ing. Enrico Riccardi
SRCIngegneria S.r.l.
Via Castello 79/58
29121 Piacenza (PC)
n.1003 Ordine Ingegneri (PC)

Progettazione architettonica

Arch. Giuseppe Satta
n.2737 Ordine Architetti

Collaboratori

Dott. Margherita Silverii

Geol. Oberdan Drapelli
via Cerchio, 57 Ravenna
n.938 Ordine Geologi ER

Progetto definitivo mitigazioni ambientali

Dott.Agr. Riccardo Rigolli
Dott.For.Claudia Maccaferri
via Begatto, 1
40125 Bologna

Titolo tavola

PROCEDIMENTO DI VERIFICA DI ASSOGETTABILITÀ A VIA (SCREENING)

ANALISI PRODUCIBILITÀ ELETTRICA

Codice					Redatto
S04_IPV					STUDIO RIGOLLI
Data	Scala	Revisione	N. tavola		
30/11/2023	-	REV.N.00	S	04	IPV

Performance of tracking PV

PVGIS-5 estimates of solar electricity generation

Provided inputs:

Latitude/Longitude: 44.437,11.812

Horizon: Calculated

Database used: PVGIS-SARAH2

PV technology: Crystalline silicon

PV installed: 8208.75 kWp

System loss: 14 %

Simulation outputs

IA* 30

Slope angle [°]: 30

Yearly PV energy production [kWh]: 14267524.75

Yearly in-plane irradiation [kWh/m²]: 2252.96

Year-to-year variability [kWh]: 764192.4

Changes in output due to:

Angle of incidence [%]: -1.53

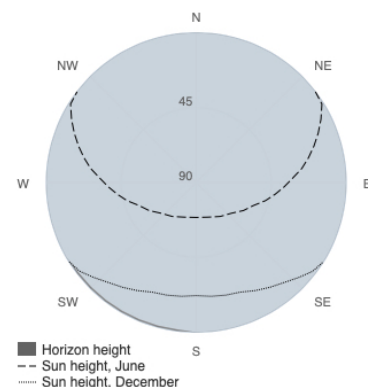
Spectral effects [%]: 1.1

Temp. and low irradiance [%]: -9.89

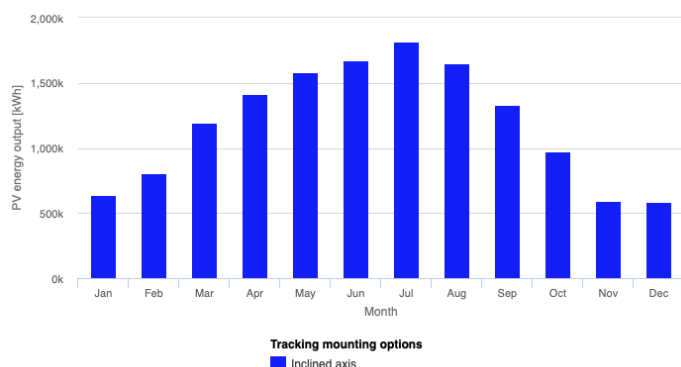
Total loss [%]: -22.85

* IA: Inclined axis

Outline of horizon at chosen location:



Monthly energy output from tracking PV system:



Inclined axis

Month	E_m	H(i)_m	SD_m
January	638494.3	175412.3	
February	808553.3	187992.5	
March	1194676.4	206649.0	
April	1416542.8	194291.6	
May	1581072.3	172601.4	
June	1674102.1	147808.8	
July	1816808.4	116358.4	
August	1650702.5	132696.4	
September	1328462.0	121220.4	
October	973198.3	151000.8	
November	596616.9	139933.8	
December	588283.6	98375.9	

E_m: Average monthly electricity production from the defined system [kWh].

H_m: Average monthly sum of global irradiation per square meter received by the modules of the given system [kWh/m²].

SD_m: Standard deviation of the monthly electricity production due to year-to-year variation [kWh].

Monthly in-plane irradiation for tracking PV system:

