

Lidl GB

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Project Name: 1937 - Lidl Bognor Regis
Offer no.: 1937 Bognor Regis

19/11/2019

Your PV system from Square 4 Services Limited

Address of Installation

Oldlands Farm - Bognor Regis



Project Description:
180kWp Solar PV

Project Overview

PV System

Grid-connected PV System

Climate Data	SOUTHAMPTON WX CNTR, GBR (1991 - 2010)
PV Generator Output	180.2 kWp
PV Generator Surface	1,029.5 m ²
Number of PV Modules	530
Number of Inverters	3

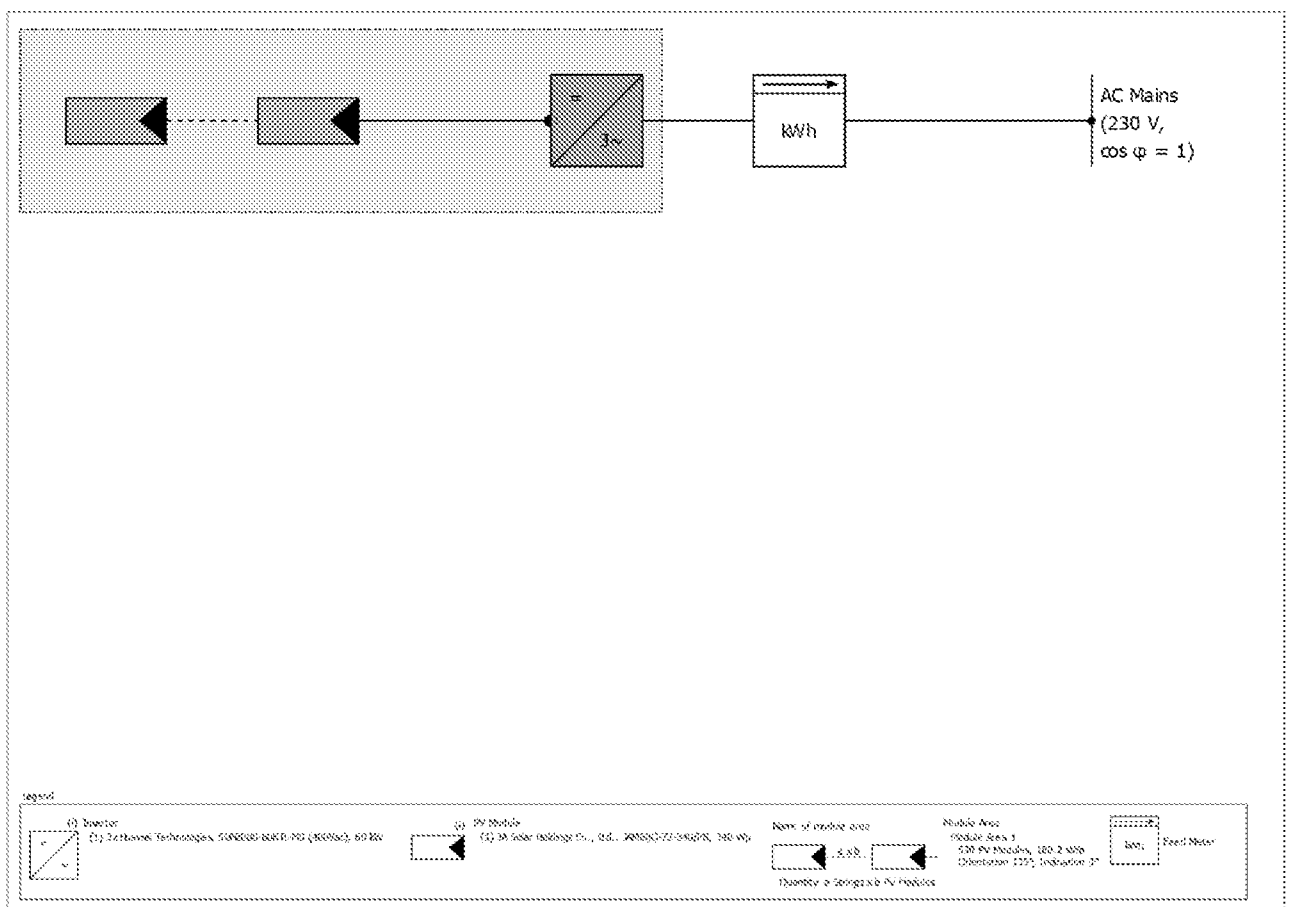


Figure: Schematic diagram

The yield

The yield

PV Generator Energy (AC grid)	164,819 kWh
Grid Feed-in	164,819 kWh
Down-regulation at Feed-in Point	0 kWh
Own Power Consumption	0.0 %
Solar Fraction	0.0 %
Spec. Annual Yield	914.65 kWh/kWp
Performance Ratio (PR)	90.0 %
CO ₂ Emissions avoided	45,655 kg / year

The results have been calculated with a mathematical model calculation from Valentin Software GmbH (PV*SOL algorithms). The actual yields from the solar power system may differ as a result of weather variations, the efficiency of the modules and inverter, and other factors.



Set-up of the System

Overview

System Data

Type of System	Grid-connected PV System
Start of Operation	19/11/2019

Climate Data

Location	SOUTHAMPTON WX CNTR, GBR (1991 - 2010)
Resolution of the data	1 h
Simulation model used:	
- Diffuse Irradiation onto Horizontal Plane	Hofmann
- Irradiance onto tilted surface	Hay & Davies

Inverter configuration

Configuration 1

Module Area	Module Area 1
Inverter 1	
Manufacturer	Huawei Technologies
Model	SUN2000-60KTL-M0 (400Vac)
Quantity	1
Sizing Factor	99.7 %
Configuration	MPP 1: 2 x 14
	MPP 2: 2 x 14
	MPP 3: 2 x 15
	MPP 4: 2 x 15
	MPP 5: 2 x 15
	MPP 6: 2 x 15
Inverter 2	
Manufacturer	Huawei Technologies
Model	SUN2000-60KTL-M0 (400Vac)
Quantity	1
Sizing Factor	99.7 %
Configuration	MPP 1: 2 x 14
	MPP 2: 2 x 14
	MPP 3: 2 x 15
	MPP 4: 2 x 15
	MPP 5: 2 x 15
	MPP 6: 2 x 15
Inverter 3	
Manufacturer	Huawei Technologies
Model	SUN2000-60KTL-M0 (400Vac)
Quantity	1
Sizing Factor	100.9 %
Configuration	MPP 1: 2 x 14
	MPP 2: 2 x 15
	MPP 3: 2 x 15
	MPP 4: 2 x 15
	MPP 5: 2 x 15
	MPP 6: 2 x 15

AC Mains

AC Mains

Number of Phases	3
Mains Voltage (1-phase)	230 V
Displacement Power Factor (cos phi)	+/- 1

Simulation Results

Results Total System

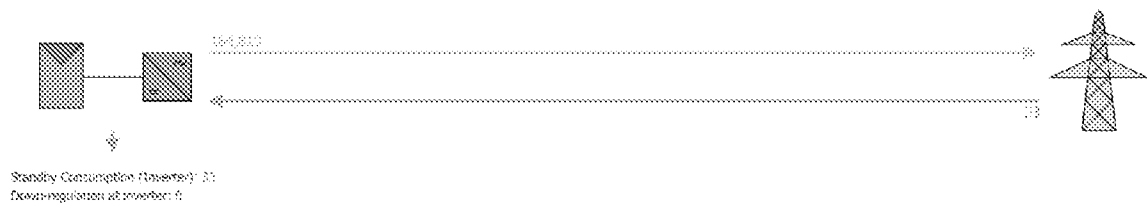
PV System

PV Generator Output	180.2 kWp
Spec. Annual Yield	914.65 kWh/kWp
Performance Ratio (PR)	90.0 %

Grid Feed-in	164,819 kWh/year
Grid Feed-in in the first year (incl. module degradation)	164,819 kWh/year
Standby Consumption (Inverter)	33 kWh/year
CO ₂ Emissions avoided	45,655 kg / year

Energy Flow Graph

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AC Output in kWh
Grid Feed-in kWh, Losses due to grid connection
Losses due to grid connection

Figure: Energy Flow Graph

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Square 4 Services Limited

Project Number: 1937 Bognor Regis

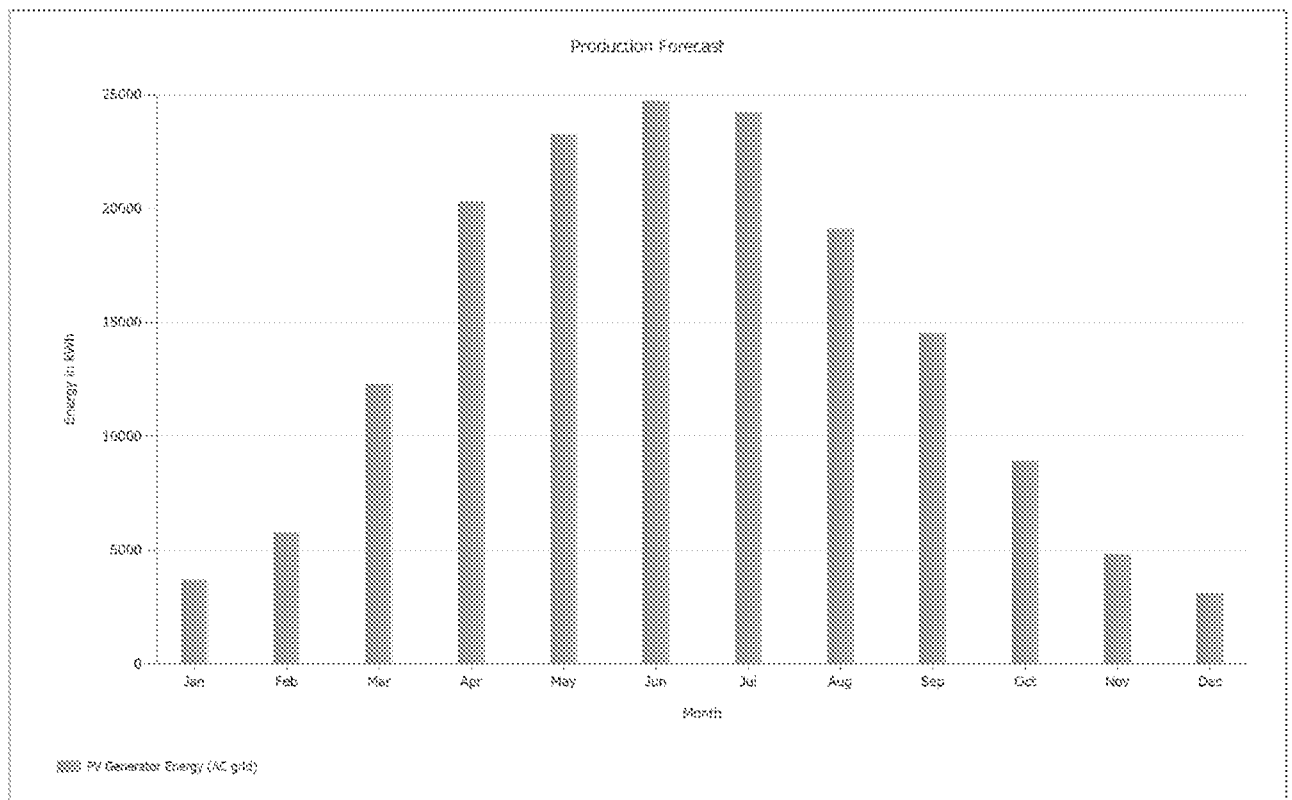


Figure: Production Forecast

Plans

Circuit Diagram

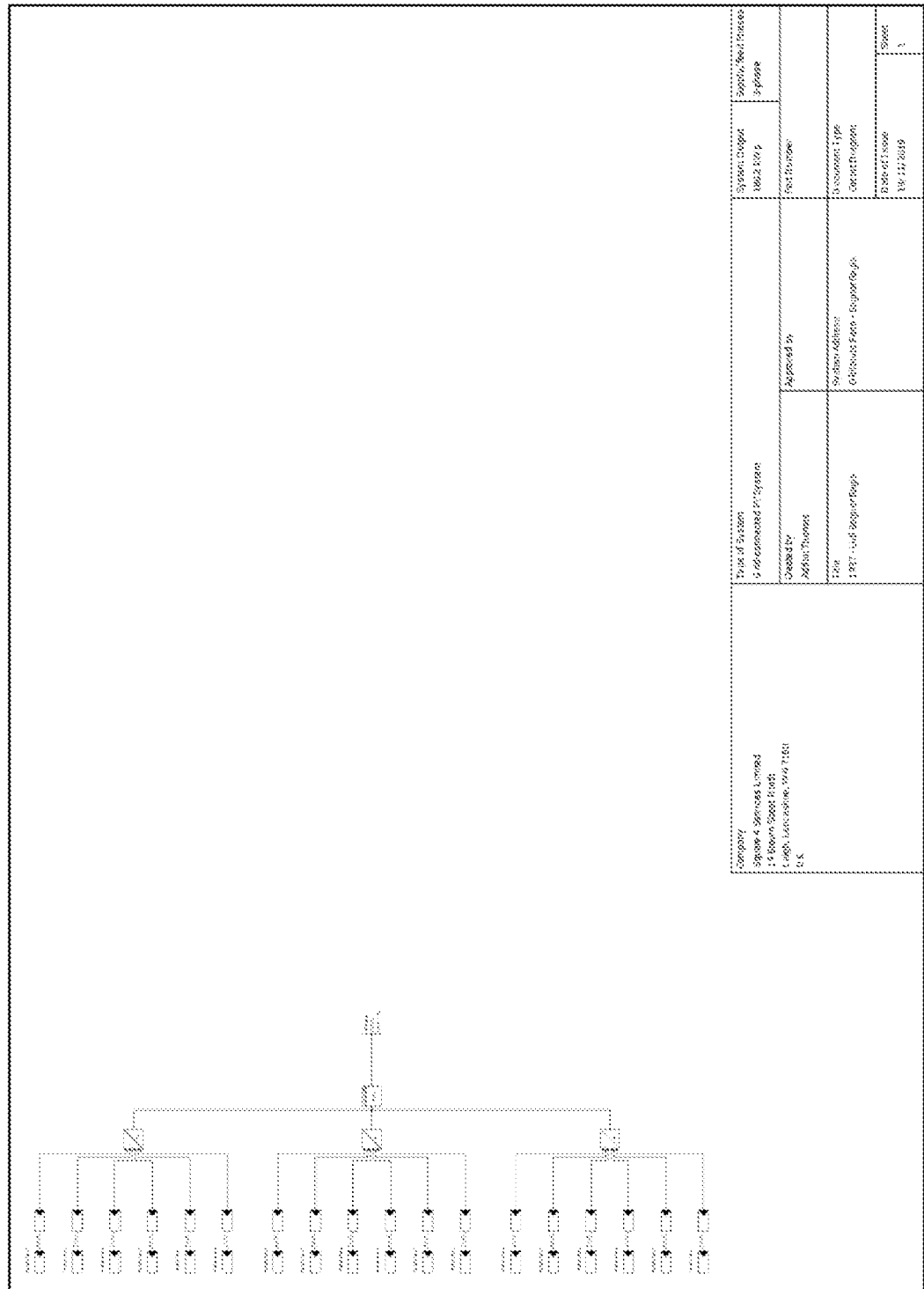


Figure: Circuit Diagram