



Brighter Energy Solutions



[www.solarelectric.ie](http://www.solarelectric.ie)

# Our Company Profile

Company Founded By Tom Foley In 2012

Dedicated 100% to PV

Currently Employs 14 Full-Time Staff

Environmentally Responsible Company

Member of Irish Solar Energy Association (ISEA)

Installed Capacity >6MWp

Photos: Members of the Solar Electric Team outside our Office/Warehouse facilities in Killanne, Rathnure, Co. Wexford & our Solar PV car port.



# Domestic Installations

Up to 6kWp roof and ground mount available

Divert excess power to your immersion

3kWp now c.€5000

Only the highest quality components used

Storage units available (sonnen)



# New SEAI Domestic Grant



SEAI Grant for up to €3800 for homes including joint farmhouse and farming enterprises.

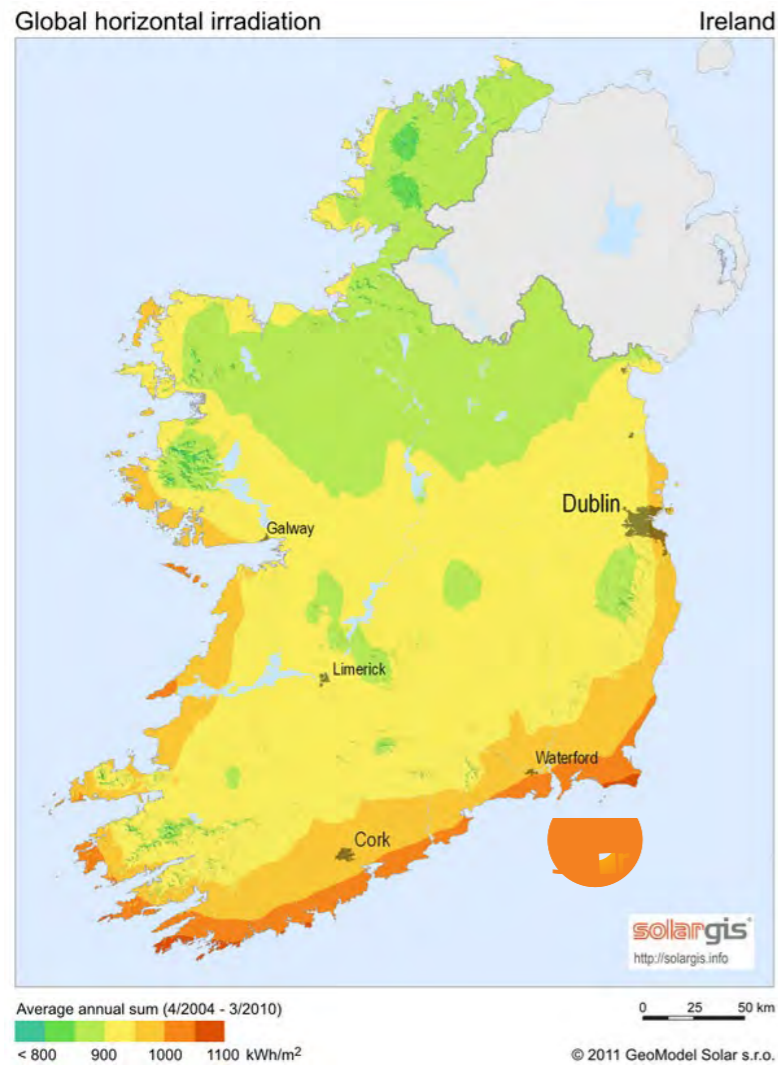
**CONTACT US TODAY**

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053 925 6804



# Solar Resource



Most of the country has a similar solar resource.

Slight increase along coastal areas, especially on the south coast.

Maximum output is 1000 kWh per kW<sub>p</sub> in south-east.

Equal to output in South Wales and Northern Germany.

Output does not vary very much between 10 – 30 degrees from horizontal.

# Ireland's Largest PV System

**COMPANY:** O'Shea Farms

**LOCATION:** Piltown, Co. Kilkenny

**PROJECT SIZE:** 250kWp

**MODULES:** 960 x Conergy Power Plus 260Wp Modules

**INVERTERS:** 8 x SMA Sunny Tripower 25,000TL

**ORIENTATION:** East-West

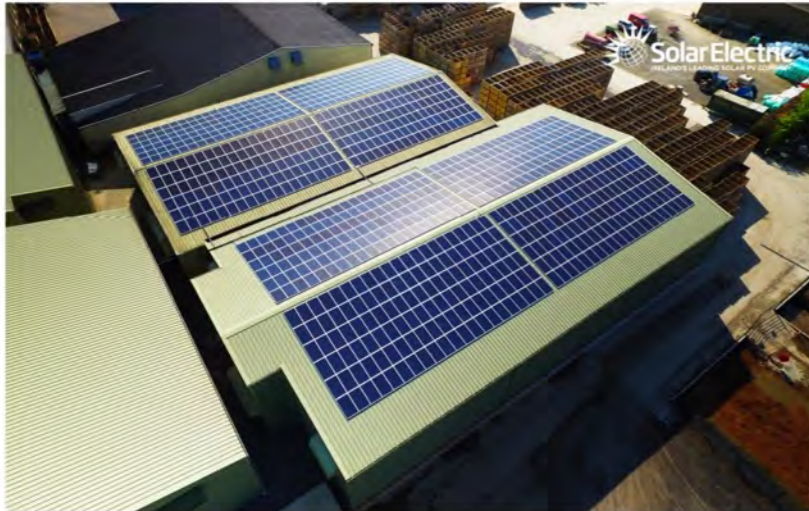
**YIELD:** 208,000kWp/year

**CONSTRUCTION:** September 2015



O'Shea Farms

# Ireland's Largest PV System



# Servier – Groundmount System

Predicted Yield – 11,490kWh per year

Real Yield – 12,987kWh per year





# Ireland's Leading Solar PV Company

**COMPANY:** Robert Hogg Pig Farm

**LOCATION:** Co. Wexford

**PROJECT SIZE:** 94.61kWp

**MODULES:** Conergy

**INVERTERS:** SMA

**ORIENTATION:** South West

**YIELD:** 83,395kWh/year

**CONSTRUCTION:** January 2017



# Pig Farm 92 kWp - Actual Data

Month	Actual kWh	Forecast kWh
Jan (est.)	2144	2257
Feb (est.)	3693	3887
Mar (est.)	6668	7019
April (est.)	9601	10106
May	11998	12601
June	12169	12322
July	11862	11566
August	9541	10299
Sept	7209	7661
Oct	3585	4910
Nov	2464	2551
Dec	1461	1767
<b>Total</b>	<b>82395</b>	<b>86946</b>
<b>Output</b>	<b>95%</b>	

PAYBACK SCHEDULE	
Electricity	€0.14
Saving	€11,535
Investment	€82,800
Grant	€32,000
Net	€50,800
<b>Payback</b>	<b>4.40 Years</b>

# Robert Hogg Pig Farm 2019

Project	
Name of Project	Robert Hogg
Location	Clohamon, Bunclody, Co. Wexford.
Installed Capacity (kW)	108.54 kWp
Year of Installation	2019
Module type and number	324 no. 335w JA Solar Modules JAM60S10-335?PR Mono's
Inverter type and number	3x SMA STP50-40 CORE1 (3 Phase Inverters)
Project Description	Installation of a 108.54 KWp PV Array split as <ul style="list-style-type: none"> <li>- 54.27KWp / 162 Panels East Facing</li> <li>- 54.27KWp / 162 Panels West Facing</li> </ul>
Estimated Yield Sunny Design	89,048 KWh per annum
Production Estimated v Actual	No data currently available
Resources used on site (as main contractor)	4 Roof Installers, 2 Electricians
Completed Date	Friday 15 <sup>th</sup> Nov. 2019
Duration of Works	8 days in total on site.
Any Additional Information	



**Project:** Hoggs Hogs Ltd 2018 Building 3      **Location:** Ireland / Wexford  
**Project number:** 2018XD3349

Grid voltage: 230V (230V / 400V)


## System overview


**162 x Shanghai JA Solar Technology Co. Ltd. JAM60S10-335/PR (1000V) (03/2019) (PV array A)**

Azimuth angle: -60 °, Tilt angle: 22 °, Mounting type: Roof, Peak power: 54.27 kWp


**162 x Shanghai JA Solar Technology Co. Ltd. JAM60S10-335/PR (1000V) (03/2019) (PV array B)**

Azimuth angle: 120 °, Tilt angle: 22 °, Mounting type: Roof, Peak power: 54.27 kWp

 1 x STP 50-40

 1 x STP 50-40

## System Monitoring

 Sunny Portal

## PV design data

Total number of PV modules:	324	Annual energy yield*:	89,048.21 kWh
Nominal AC power of the PV inverters:	100.00 kW	Energy usability factor:	100 %
Peak power:	108.54 kWp	Performance ratio*:	86.9 %
Number of PV inverters:	2	Spec. energy yield*:	820 kWh/kWp
AC active power:	100.00 kW	Line losses (in % of PV energy):	0.22 %
Active power ratio:	92.1 %	Unbalanced load:	0.00 VA

# Robert Hogg Pig Farm 2019



# Teagasc – Moorepark Project

Project	
Name of Project	Teagasc, Moorepark
Location	Moorepark, Fermoy, Co. Cork
Installed Capacity (kW)	9 kWp
Year of Installation	2019
Module type and number	30 no. 300w Sharp Modules NU-AK300B Mono's
Inverter type and number	1 x SMA SIP8000TL-20 3 Phase Inverter
Project Description	Installation of a 9kWp PV Array split as <ul style="list-style-type: none"> <li>- 4.2kWp / 14 Panels East Facing</li> <li>- 4.8kWp / 16 panels West Facing</li> </ul>
Estimated Yield Sunny Design	7,139 kWh per annum
Production Estimated v Actual	Actual data available from May to Nov ( See screen shot below) Up by 8.4% on predicated yield for this time period
Resources used on site (as main contractor)	2 Roof Installers, 1 Electrician
Completed Date	Wednesday 15 <sup>th</sup> May.
Duration of Works	3 days in total on site.
Any Additional Information	



## System overview

### 14 x Sharp NU-AK300B (West Array)

Azimuth angle: 105 °, Tilt angle: 25 °, Mounting type: Roof, Peak power: 4.20 kWp

### 16 x Sharp NU-AK300B (East Array)

Azimuth angle: -75 °, Tilt angle: 25 °, Mounting type: Roof, Peak power: 4.80 kWp

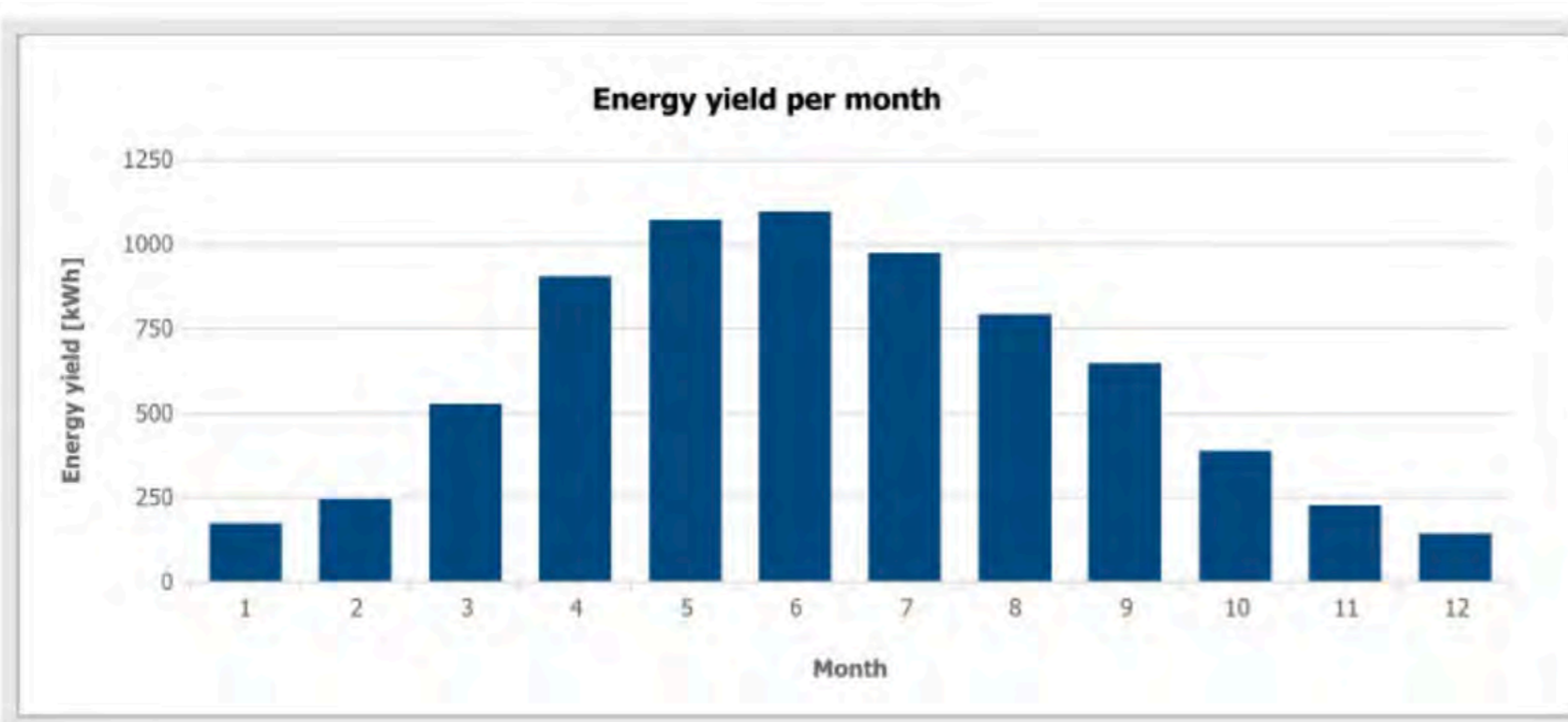


**1 x STP 8000TL-20**

## PV design data

Total number of PV modules:	30	Annual energy yield*:	7,139.88 kWh
Nominal AC power of the PV inverters:	8.00 kW	Energy usability factor:	100 %
Peak power:	9.00 kWp	Performance ratio*:	86.1 %
Number of PV inverters:	1	Spec. energy yield*:	793 kWh/kWp
AC active power:	8.00 kW	Line losses (in % of PV energy):	---
Active power ratio:	88.9 %	Unbalanced load:	0.00 VA

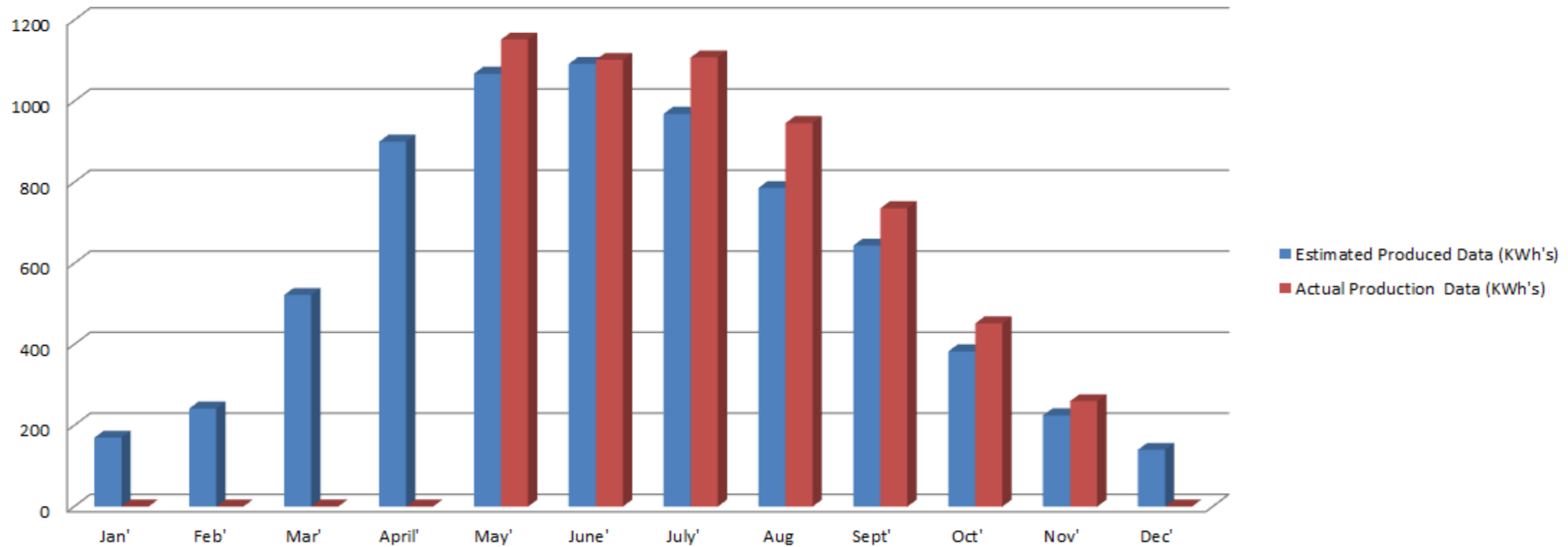
# Energy Yield Per Month



Month	Energy yield [kWh]	Performance ratio
1	170 (2.4 %)	82 %
2	242 (3.4 %)	84 %
3	522 (7.3 %)	87 %
4	900 (12.6 %)	88 %
5	1068 (15.0 %)	87 %
6	1092 (15.3 %)	87 %
7	969 (13.6 %)	86 %
8	786 (11.0 %)	85 %
9	644 (9.0 %)	86 %
10	383 (5.4 %)	85 %
11	225 (3.1 %)	83 %
12	140 (2.0 %)	81 %



**Estimated v's Actual May - Nov 2019**  
**Estimated 5,307 KWh's**  
**Actual 5,756 KWh's**  
**Increase of 8.46%**



# Operations & Maintenance

Fit and forget system

Minimal O&M costs

No moving parts

Modules are largely self cleaning

Cleaning once per year depending on local conditions – dust, bird droppings, etc.

No specialist equipment required, same as cleaning windows

Modules performance guaranteed for 25 years

Inverters come with standard 5 year warranty – can be extended to 25 years



# Our Partners



sonnenBatterie Center  
Leinster



# Our Client List



Stafford Bakeries - 518KWp	O Reilly Mushrooms - 150KWp
Casement Aerodrome - 378KWp	Stablefields Ltd - 90KWp
O Shea Farms - 250KWp	Helsinn Birex - 50KWp
Dublin Port - 208KWp	Gurteen Agricultural College - 50KWp
Robert Hogg - 200KWp	Noonan Construction - 144KWp
Tipperary Co. Co. - 192KWp	Servier - 24KWp
Univet - 165KWp	Port of Waterford - 19.28KWp
Kildare Co. Co. - 73.4KWp	Michael Bennett Group - 18KWp
Castletown Bere Fisherman's CoOp - 250KWp	Ballyvolane Fire Station - 10.2KWp
Defence Forces Ireland - 559KWp	

# Ireland's Leading Solar PV Company

**COMPANY:** Andrew Bird Dairy Farm

**LOCATION:** East Cork

**PROJECT SIZE:** 10.8kWp

**MODULES:** Conergy

**INVERTERS:** SMA STP10000TL

**ORIENTATION:** SSW

**YIELD:** 10,014kWh/year

**CONSTRUCTION:** August 2018



# Andrew Bird



# Ireland's Leading Solar PV Company

**COMPANY:** J&M Dairies

**LOCATION:** Kilkenny

**PROJECT SIZE:** 9.54kWp & 10kWh Battery

**MODULES:** Conergy

**INVERTERS:** SMA STP9000TL

**ORIENTATION:** SSW

**YIELD:** 9,233kWh/year

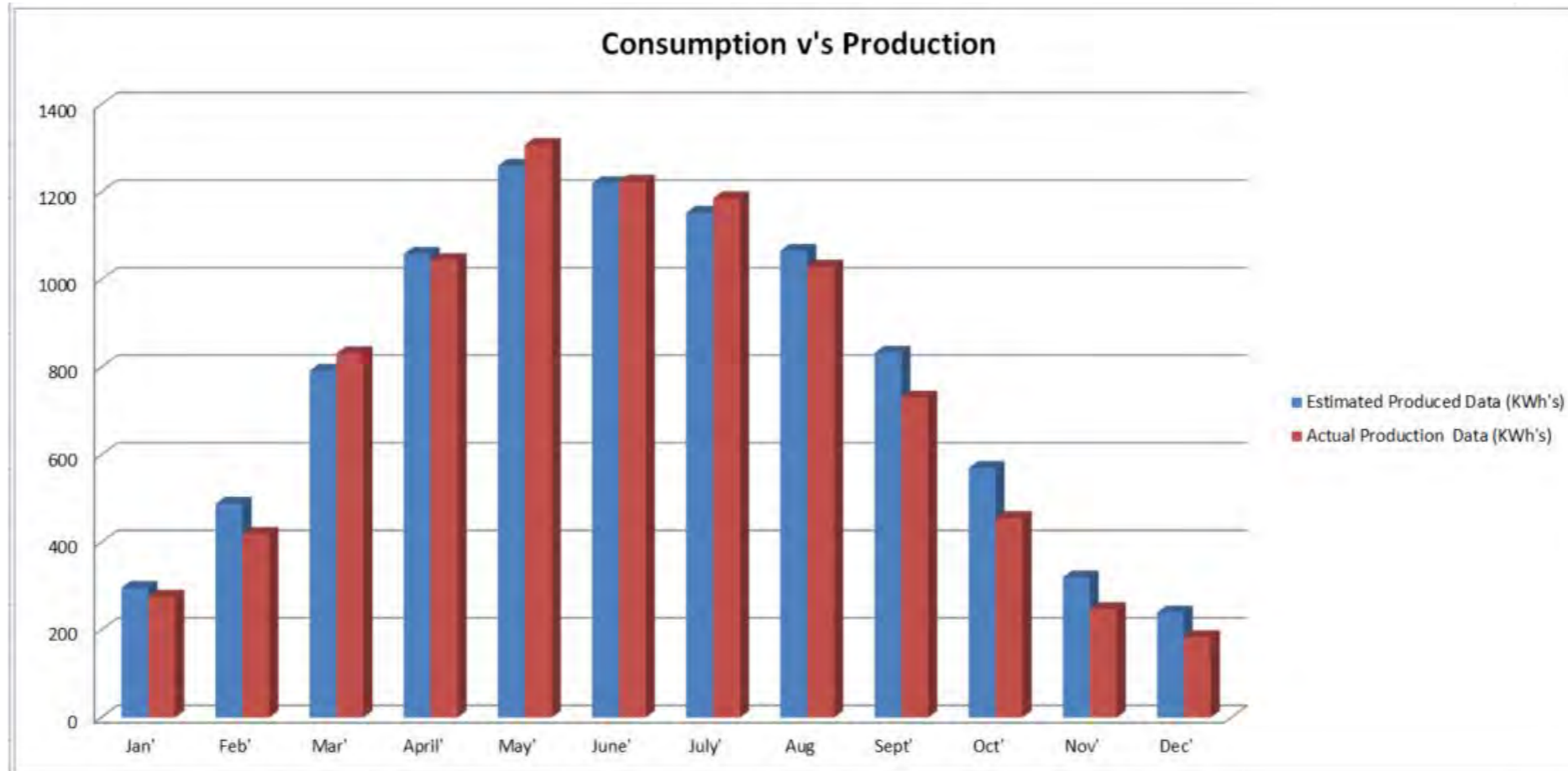
**CONSTRUCTION:** June 2018

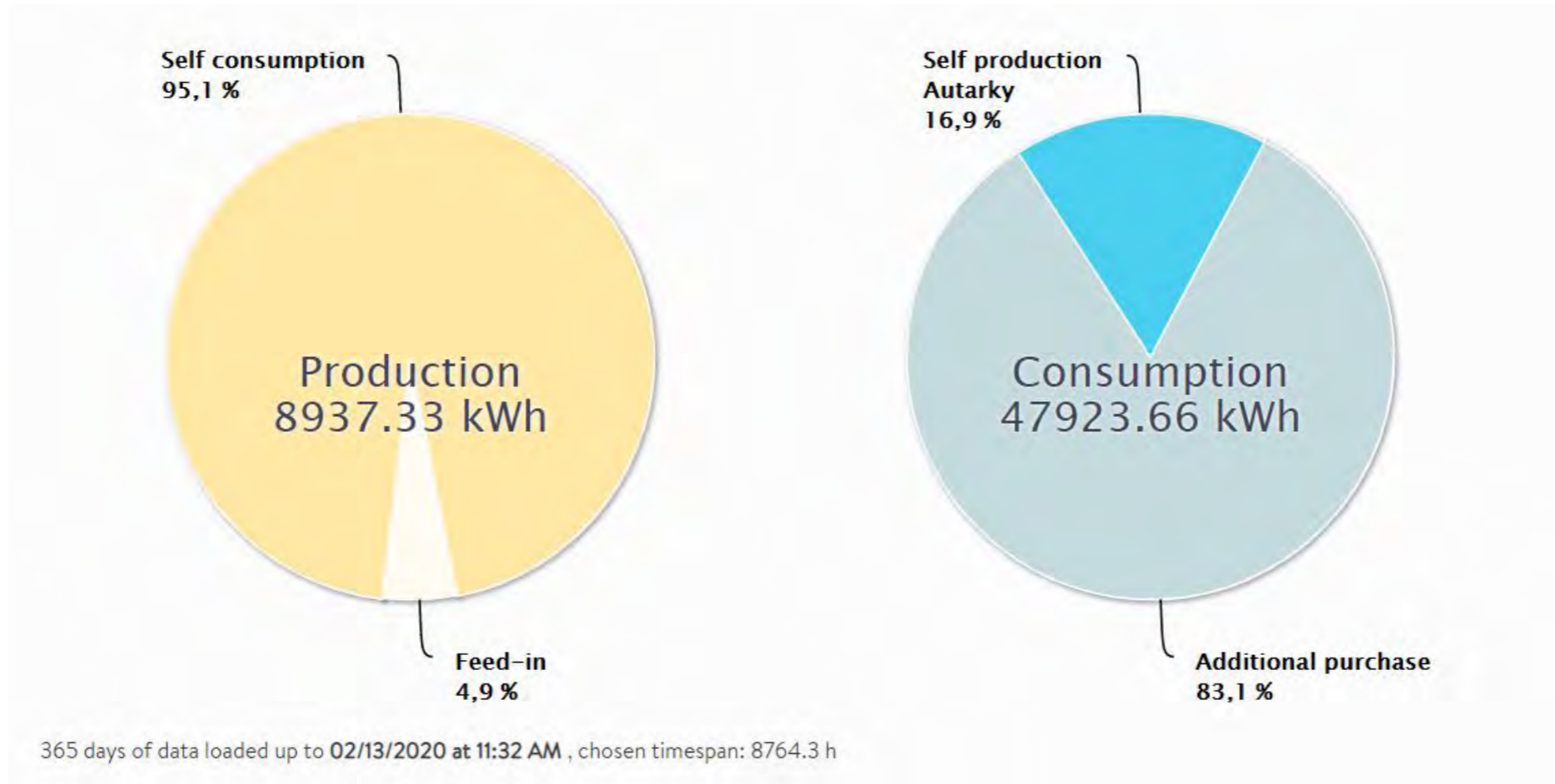


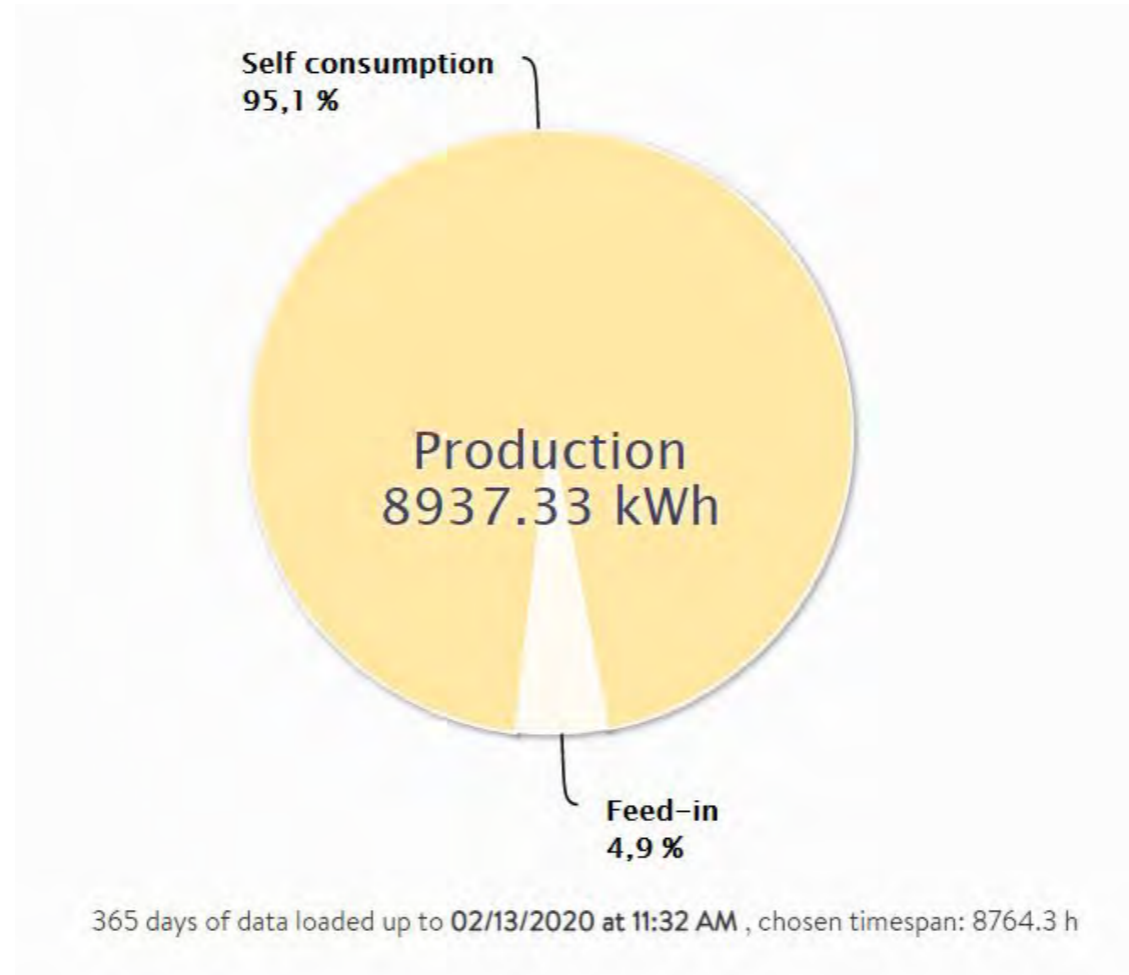
# J&M Dairies













We have installed over 20,000 panels since 2012 and we're still counting!

Join us in creating a better energy landscape!!



**Tom Foley**

Sales & Operations Director

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