



# Innovating Energy for Food

(23<sup>rd</sup> July 2019)

# Our History



- Founded in 1958, DA Hall & Co is a privately owned agribusiness that operates one of the largest poultry operations in Australia. Based at Millmerran, about 2.5 hours west of Brisbane, our family owned and operated business currently supplies more than 10% of Australia's eggs ([www.dahall.com.au](http://www.dahall.com.au))
- In the late 1990's, the Hall and McLean families purchased the outstanding quota holders of the Sunny Queen Egg Co-operative to form Australia's largest egg marketing business. In 2018, Sunny Queen sold in excess of 100 million dozen eggs per annum to both the domestic and international markets.

# Poultry Production



- DA Hall & Co cares for over 1.9 million laying hens (and 0.7 million pullets). The company is represented in all egg categories (caged, barn, free range and organic).
- There are additional “in house” services provided to support the management of each farm. This includes veterinary, nutritional and technical advice.
- In 2018, the company acquired a stakeholding in the local electrician which now leads the development of innovative alternative energy options.



Main Site (Cage Farm, Cage Free Farm , Feed Mill and Grading Floor )



Free Range Farm



Organic Sheds

# Sustainable Farming Initiative

A well established Sustainability program has been in place for 10 years.

Reuse of poultry manure – we have replaced 20% of our Urea requirements and 100% of our MAP fertilisers by using poultry manure on our broad acre grain, cotton and olive oil operations.

The implementation of NIR technology on incoming grains / meals as well as outgoing feed deliveries has seen our total Nitrogen usage decrease by 7% over 5 years.

A large scale solar strategy was developed in 2014 / 15 to reduce power consumption from the grid by 40%.

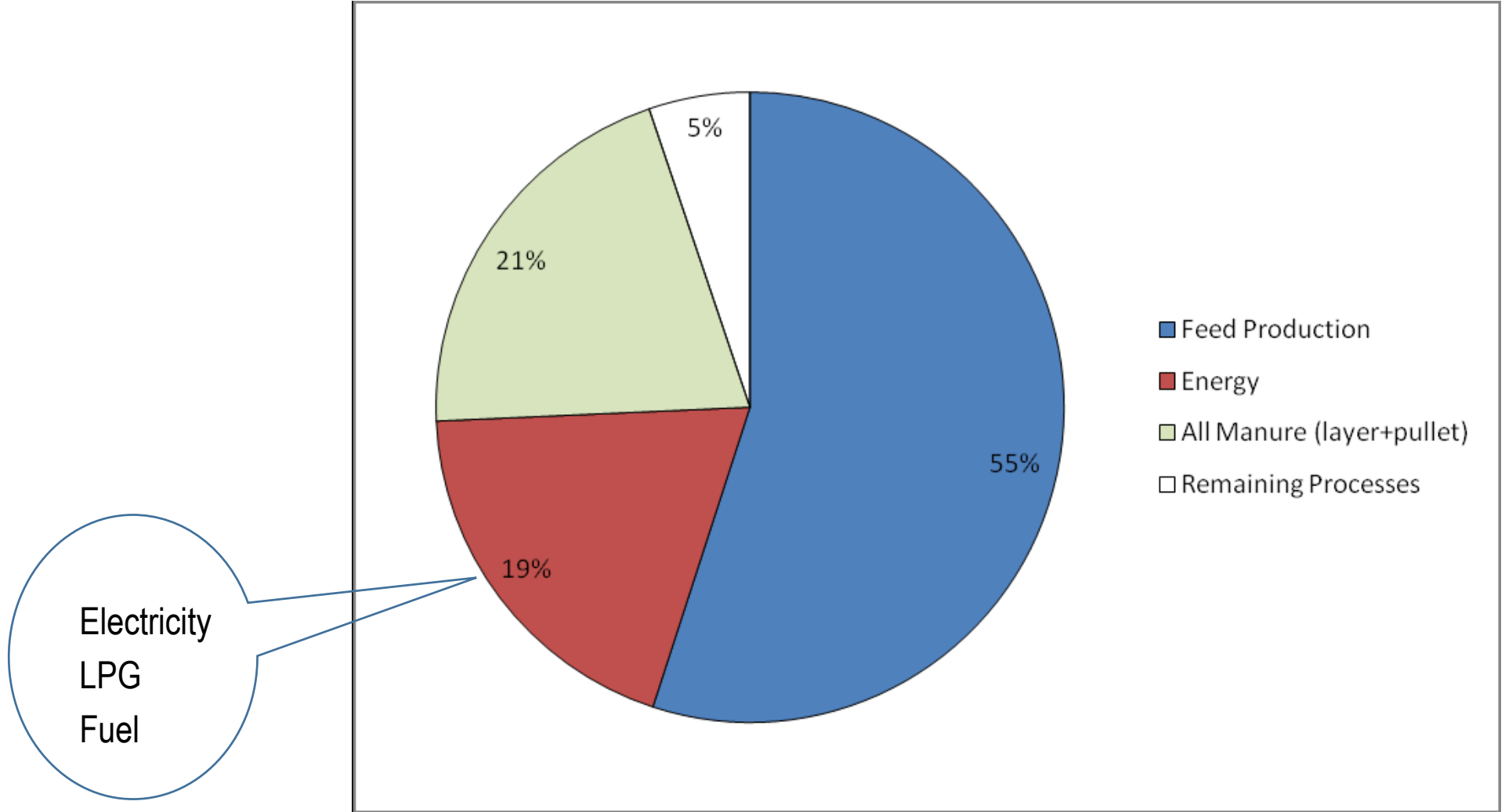
1<sup>st</sup> Off grid solar / battery / diesel generator has been developed (75kW) which powers 8 sheds.

**Over 10 years,**

**Water footprint has reduced from 12lt to 8.5lt per dozen eggs,**

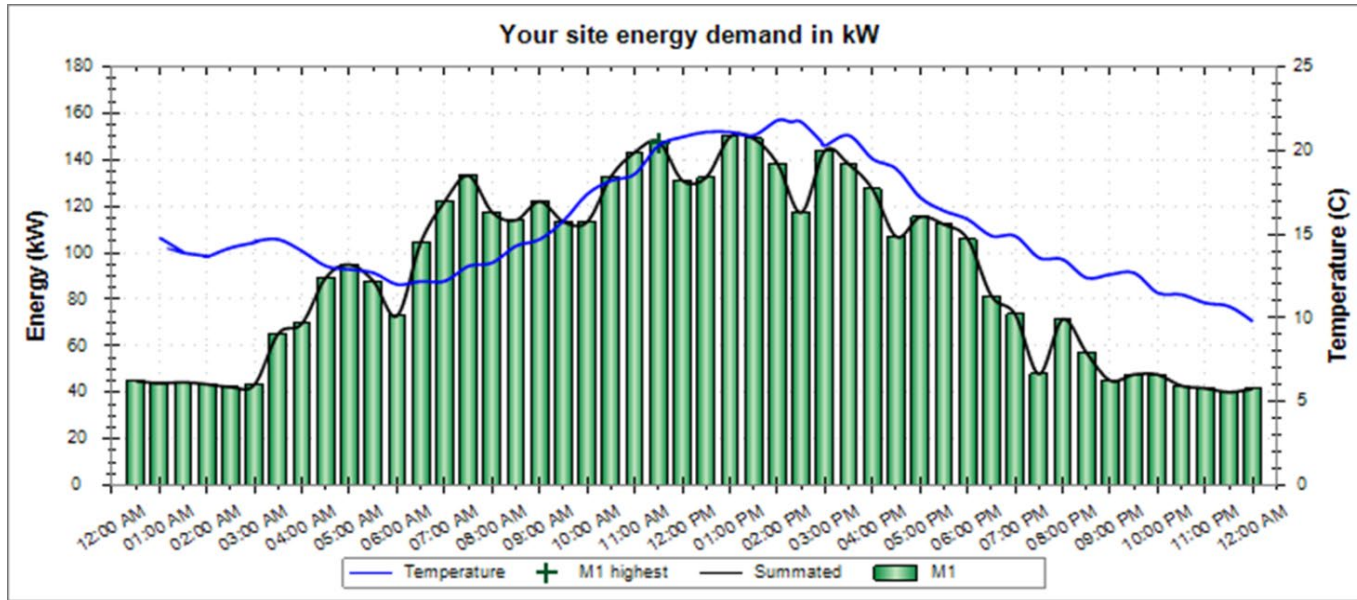
**Carbon footprint has reduced from 1.2 to 0.5kg of CO<sub>2</sub> equiv per dozen eggs.**

# Energy Management. . . as part of the SFI project

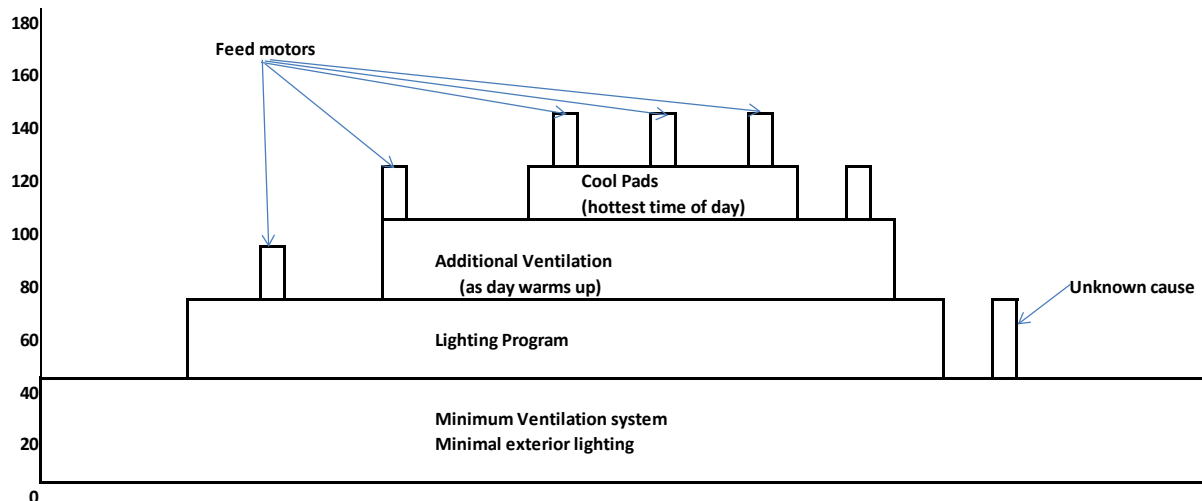




# Energy Management. . . Understanding usage – mapping daily activities



**15% savings in power (kWh)  
over 7 years. . .  
But that was not enough.**



## How far do you go!

- 4,000 ventilation fans and motors
- 2,500 feed motors and associated equipment
- 1000+ egg collection points and transfers

**Bird Welfare is our top priority and cannot be compromised. . .**



# The Solar Journey . . .

2014	99kW trial installation at North end of Main farm. 180,000 kWh per annum	ROI – 12.9%
2015	99kW installation at Free Range farm. 183,000 kWh per annum	ROI – 15.8%
2017	954kW installation back at main farm 1,750,000 kWh per annum	ROI – 17.9%
2018	1 X 99kW installations (third party installation)	ROI – 16.5%
	2 x 99kW installations “in house” supply and service	ROI – >25%

**Leveraging our relationship with our JV electrical partner has driven costs down per kW by 40% for installation and maintenance.**



## **Future projects**

2020

New free range farm will be totally off-grid with solar / battery / diesel generator.

2022

Further extension of solar / battery on main poultry site.

# Powering poultry into the future

Questions

