

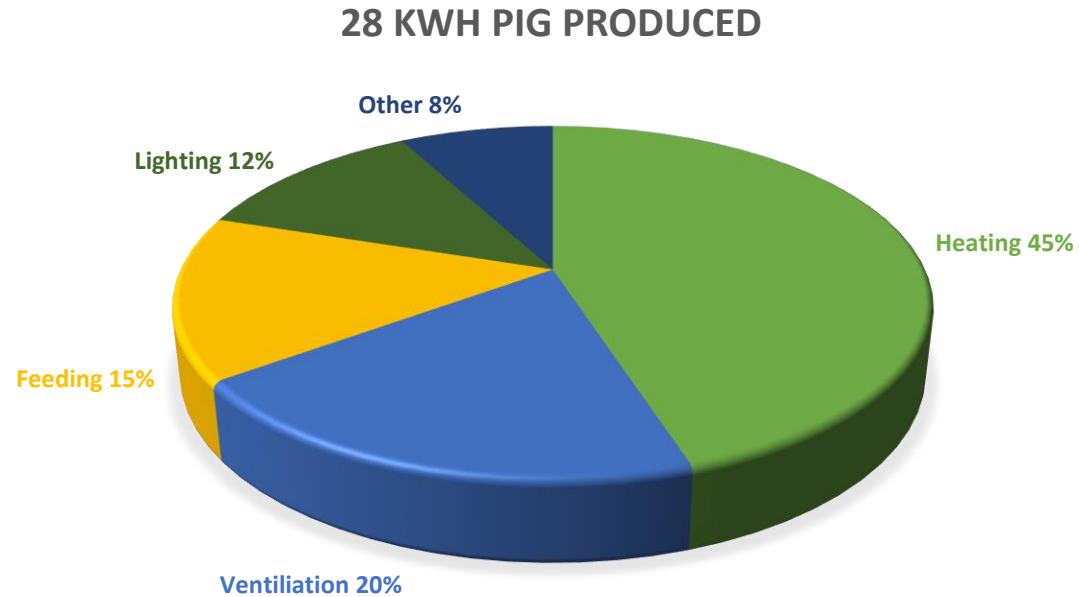
Energy Options: Short, Medium & Long Term



Louise Clarke

Energy cost of pig production

**Variation:
18 – 45
kWh / pig
produced**



**€6.43 per
pig
produced
(2021 ePM)**

2021: 25 cents per kWh
versus
2022 > of 40 cents per kWh

Energy Increase €€€

- Electricity increase for 600 sows unit – excludes higher changes in ‘standing charges’

- **Previous**

Day = 24,000 kWh * 15.8c = €3,792

Night = 12,250 kWh * 8.6c = €1,053

= €4,846 / mth * VAT 9% = Total €5,282

- **New Contract**

Day = 24,000 kWh * 44c = €10,560

Night = 12,250 kWh * 16.6c = €2,033

= €12,593 / mth * VAT 9% = Total €13,726

Average electricity bill has increased by €8,444 PER MONTH or **€101,328/yr** = + 6.9c/kg

Short term: Monitor

Monitor energy usage

- Organize your ESB bills at office level
- Systematically record the electrical meter on a weekly or monthly basis
- Carry out an energy audit on your farm

SSEA- offer financial support-voucher €2,000

Eligibility:

- non-obligated entities
- tax compliant
- registered in the Republic of Ireland
- spend at least €10,000 on energy per year at the site being audited

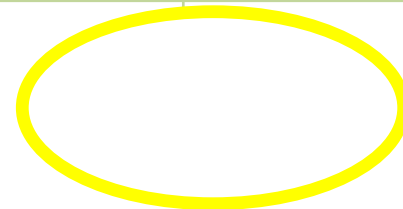
Short Term: Benchmark

Do you know how much energy it takes to produce a pig on your farm??



Short term: Benchmark

	18kWh/pig produced	45kWh/pig produced
Total kWh used/year	303,480	758,700
Daytime requirement (kWh)	202,320	505,800
Night-time requirement(kWh)	101,160	252,900
Daytime rate* 44c	97,033	242,582
Night-time rate* 16.6c	18,303	45,759
Total €	115,336	288,341



Short term: Understanding your ESB bill

- **Maximum Import Capacity (MIC)**
 - If the MIC is too high, you may be paying for more capacity than you actually require.
 - If the MIC is too low, you may incur an 'Excess Capacity' charge
- **Wattless Charges:**
 - Wattless energy is measured separately from your general units, and if you exceed a certain limit, during certain periods it may give rise to a separate charge.

Short term: Understanding your ESB bill

Your electricity bill in more detail

Abbreviations a: actual reading e: estimated reading c: customer reading p: price change cr: credit

Your electricity usage Tariff SME Fixed Energy April 21 2 Year Nightsaver

meter number	unit usage	unit price €	unit type	Amount
	32904	0.1561	Day	5136.31
	15612	0.0864	Night	1348.88
	16172	0.00000	Wattless	0.00
Total electricity charges				6485.19
Discount(Special Discount 8%)				518.82 cr
Standard charges and other items				
Max. Import capacity charge:				
	Allowance	100 kVA		
	Recorded use	100 kVA : 31 days @ 0.0944 kVA / day		292.64
	Excess Capacity	126 kVA - Max kVA Recorded This Period		
		26 kVA @ €14.3542		373.21
Demand Charge:				
	Excess Wattless	112 kW for 31 days @ 0.0000 / kW / day		0.00
	Standing Charge	6156 X €0.00968		59.59
	PSO Levy May:	31 days @ €6.5245 / day		202.26
	VAT	100 kVA - 1 Month @ €1.6300/kVA/M		163.00
		9% on €7057.07		635.14
Payments/Other Transactions				
Payment received thank you				7411.78 cr
Energy consumption on this bill amounts to approx. 8684 kg of carbon emissions.				
Your consumption is 48516 kWh for this period compared to 54957 kWh for the same period last year				

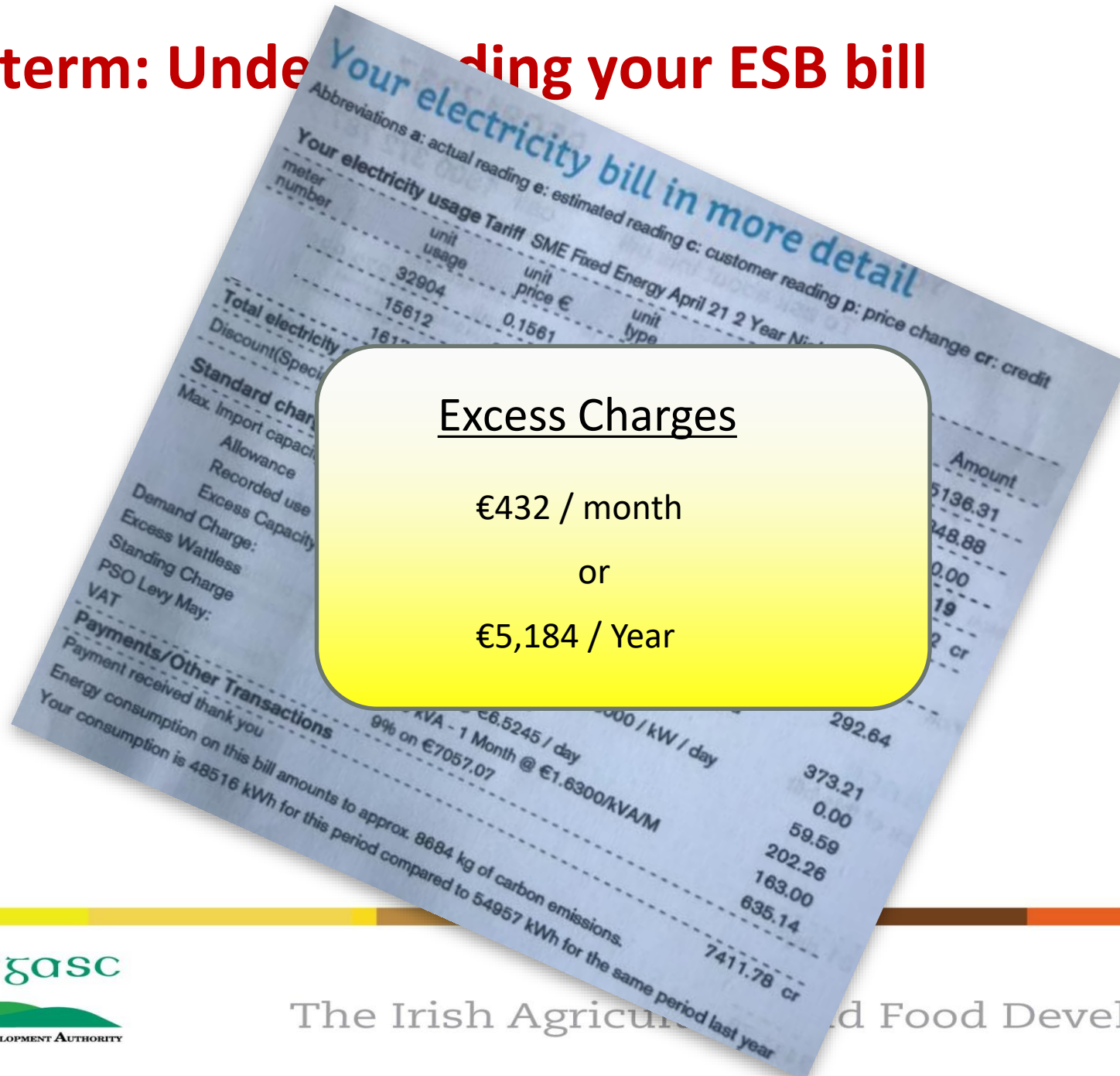
Short term: Understanding your MIC charge:

Standard charges and other items		
Max. Import capacity charge:	100 kVA	
Allowance	100 kVA : 31 days @ 0.0944 kVA / day	292.64
Recorded use	126 kVA - Max kVA Recorded This Period	
Excess Capacity	26 kVA @ €14.3542	373.21

Short term: Understanding your Wattless Charge:

Standard charges and other items		
Max. Import capacity charge:	100 kVA	
Allowance	100 kVA : 31 days @ 0.0944 kVA / day	292.64
Recorded use	126 kVA - Max kVA Recorded This Period	
Excess Capacity	26 kVA @ €14.3542	373.21
Demand Charge:	112 kW for 31 days @ 0.0000 / kW / day	0.00
Excess Wattless	6156 X €0.00968	59.59
Standing Charge	31 days @ €6.5245 / day	202.26
PSO Levy May:	100 kVA - 1 Month @ €1.6300/kVA/M	163.00
VAT	9% on €7057.07	

Short term: Understanding your ESB bill



Medium term:

- Maintenance, repairs and cleaning
- Insulation of pig buildings
- Lighting



Medium term: Temporary Business Energy Support Scheme (TBESS)

- Waiting EU State Aid Approval;
- Operate on a self-assessment basis
- Operate by comparing the average unit price for the relevant bill period in 2022 with the average unit price in the corresponding reference period in 2021
- The average unit price must have increased by more than 50%
- Claims for up to 40 percent of the amount of the increase in the bill, capped at €10,000 per month per trade

Medium: Temporary Business Energy Support Scheme (TBESS)

- Backdated to September 2022 and will run until at least February 2023;
- Businesses will be required to register for the scheme and to make claims within the required time limits.

Ensure you have the following documents ready to make your application:

- Tax Clearance Certificate
- Copies of energy bills for 2021 and 2022

Medium: On Farm Generators

- A generator is a practical investment for all farmers
- Make sure your generator is the correct size for your current and future needs
- Have a licensed electrician determine your power needs and match those with the power output of the generator you select
- Make sure you get a licenced electrician to wire up the generator
- Must inform the ESB to ensure the safety of the ESB network
- Make sure to keep the generator well maintained at all times



Long term: Solar PV

Planning permission:

- 12sqm and 50sqm rooftop limit has been removed for solar developments outside the SSZ
- 43 SSZ in total throughout the country (max of 300sqm)
- **TAMS**
 - Grant aided at a rate of 60% for all eligible farmers
 - Standalone investment ceiling of €90,000

Long term: Solar PV

- **Predictable in terms of the output per kWh**
 - **Pig Farm: a 100 kilowatt PV array**
 - **Produce approx 93,000 kWh of daytime electricity per year**
 - **Might generate 20% of the farms annual requirement**
- **Very difficult to put in a system on pig farms that would generate 100% of the farms requirements**

Costs, Funding, Payback

- **100 kilowatt system: c. €90,000-100,000**
- **Payback: 4 – 7 years**
- **Other advantages:**
 - **VAT can be claimed back in year one**
 - **Accelerated capital allowances; can write off the whole cost in one year (normally capital allowances are spread over maybe 8 years)**

Thank you for your attention!

