

# Busch Vacuum Solutions

UNIT Q2 M7 Business  
Park, Naas, Co Kildare

INTERNAL BRIEF · REF  
VHQ-WSNWDM · 8 MAY  
2026 · PREPARED BY  
VANTAGEHQ FOR  
SOLARSTREAM

SYSTEM SIZE

**118.4  
kW**

269 panels

YEAR-1 PPA

**€2,364**

zero upfront

TERM

**20 yrs**

Mixed  
orientation, 5°  
pitch

TOTAL SAVING

**€107,320**

contract term

## SECTION

### Executive Summary

01

SYSTEM SIZE

**118.4  
kW**

269 panels

YEAR-1 PPA  
SAVING

**€2,364**

zero upfront

CONTRACT TERM

**20 yrs**

24% IRR

TOTAL PPA SAVING

**€201,267**

contract term

CO<sub>2</sub> LIFETIME

**619.3t**

tonnes displaced

GRID  
CONNECTION

**NC8**

study required

*Indicative assessment — figures subject to site survey verification. Not a formal quotation or engineering specification.*

**Bottom Line** — Busch Vacuum Solutions qualifies for a **118.4 kW** rooftop PV system across **779 m<sup>2</sup>** of verified roof area. Under a 20-year PPA at €0.180/kWh, Year-1 net saving is **€2,364** with zero upfront capex. Total contract-term saving: **€107,320**. Lifetime CO<sub>2</sub> displacement **619.3t**.

**Grid connection:** NC8 — verify site MIC with ESB Networks before finalising system size.



### Sami Busch

Owner / co chief executive officer

✉ [sami.busch@buschvacuum.com](mailto:sami.busch@buschvacuum.com)

in LinkedIn

#### ROOFTOP ANALYSIS



🔍 Current — No Solar Installed



☀️ AI Visualisation — 241 Panels (south/east/west-facing)

Per-direction perimeter share from polygon geometry. North-facing segments are excluded from the usable-area figure used in system sizing.

DIRECTION	SHARE	AREA	YIELD	IN SIZING
🟢 South	29.8%	107 m <sup>2</sup>	100%	Included
🔴 North	29.8%	107 m <sup>2</sup>	60%	Excluded
🟡 East	20.2%	72 m <sup>2</sup>	85%	Included
🟡 West	20.2%	72 m <sup>2</sup>	85%	Included

#### RECOMMENDED PANEL AREA

252 m<sup>2</sup>

#### BLENDED YIELD FACTOR

91%

ROOF ZONE ASSESSMENT



ROOF AREA DEDUCTION CHAIN



<p><b>779 m<sup>2</sup></b></p> <p>Total Roof Area Estimated</p>	<p><b>506 m<sup>2</sup></b></p> <p>Usable Panel Area 65% of total roof</p>	<p><b>0%</b></p> <p>Obstruction Coverage HVAC, skylights, vents</p>	<p><b>1.2m</b></p> <p>Edge Setback All edges — Irish fire regs</p>
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✓ No obstructions detected — full usable area available

MONTHLY IMPACT

<p><b>CURRENT — BUYING FROM GRID</b></p> <p><b>€519/mo</b></p> <p>1,791 kWh/month at €0.29/kWh</p>	<p><b>AFTER SOLAR — YEAR 1 SAVING</b></p> <p><b>€197/mo</b></p> <p>14% of system cost recovered annually</p>
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📊 This system is estimated to generate **90,694 kWh/year** — more than this building's estimated annual consumption of **21,491 kWh**. An estimated **22%** of generation is self-consumed on-site; the remainder is exported to the grid at the Clean Export Guarantee rate.

## Financial Summary — PPA Model

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**€197/mo**

Monthly Saving (PPA vs Grid)

**€107,320**

20-Year Total Saving

**38%**

Day-1 Saving vs Grid

**€0.18/kWh**

PPA Rate

**€0.29/kWh**

Current Grid Rate

**20 yrs**

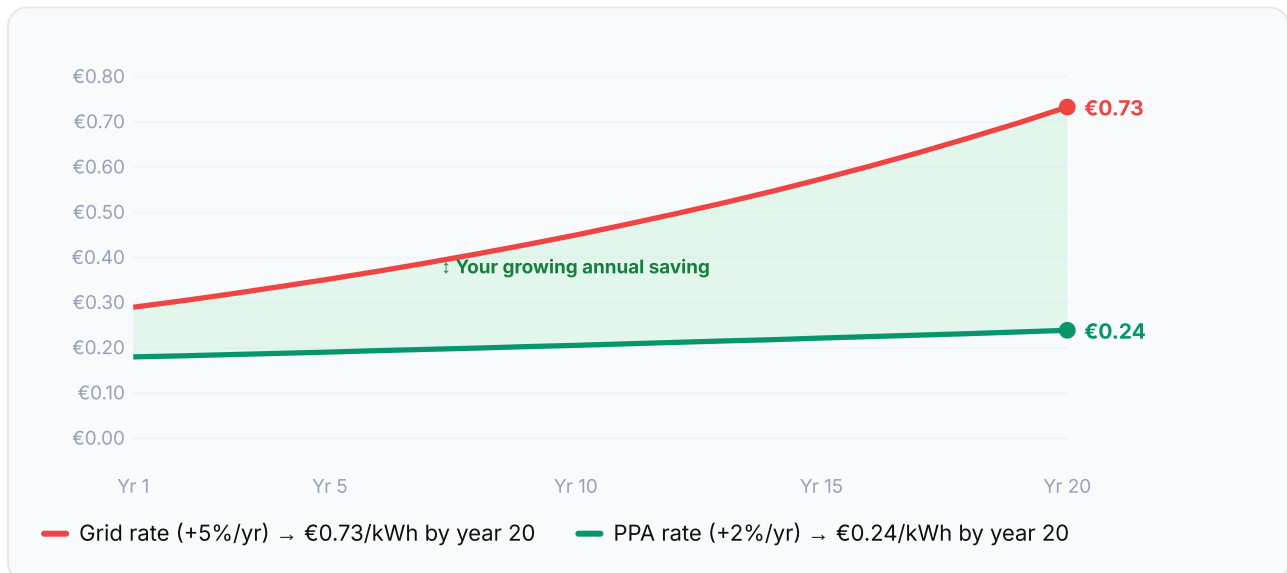
Contract Term

## Irish Government Incentives

05

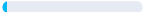
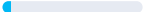
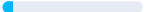
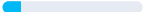
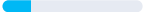
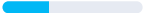

**IRISH GOVERNMENT INCENTIVES***SEAI Grant: Not applicable in PPA model — grant retained by installer***PPA Model:** The SEAI non-domestic grant (up to €36,120) is claimed by the PPA provider, reducing their capital cost and enabling your lower PPA rate of €0.18/kWh. **No grant application is required on your part.**

## RATE ESCALATION — GRID VS PPA OVER 20-YEAR CONTRACT TERM



## 20-Year PPA Savings Projection

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YEAR	ANNUAL SAVING VS GRID	CUMULATIVE TOTAL	PROGRESS	PPA RATE
1	€2,364	€2,364	 2%	€0.18/kWh locked
2	€2,599	€4,963	 5%	€0.18/kWh locked
3	€2,846	€7,809	 7%	€0.18/kWh locked
5	€3,374	€14,287	 13%	€0.18/kWh locked
7	€3,952	€21,895	 20%	€0.18/kWh locked
10	€4,924	€35,666	 33%	€0.18/kWh locked
15	€6,865	€65,936	 61%	€0.18/kWh locked
20	€9,289	€107,320	 100%	€0.18/kWh locked

## Sensitivity Analysis — Year-1 Saving

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Year-1 net saving under  $\pm 10\%$  variation in three key inputs. Base case highlighted in cyan; downside in red, upside in green.

DRIVER	-10%	BASE	+10%
<b>Grid electricity rate</b> Base €0.29 / kWh	€2,128	€2,364	€2,600
<b>Self-consumption ratio</b> Base 22%	€2,175	€2,364	€2,553
<b>PV yield (irradiance)</b> PVGIS v5.3 base	€2,128	€2,364	€2,600

Downside (all three at -10% simultaneously): €1,773/yr. Upside: €3,073/yr. Base case remains cashflow-positive in all modelled scenarios.

## SYSTEM SPECIFICATIONS

**269 × 440W**

Solar Panels

**118.4 kW**

System Capacity

**90,694 kWh**

Est. Annual Generation

**506 m<sup>2</sup>**

Usable Roof Area

**927**

Sunshine Hours/Year

**5°**

Roof Pitch

**22%**

Self-Consumption Rate

**100%+**

Est. Bill Coverage (oversized)



### Offsetting 24.8 tonnes of CO<sub>2</sub> per year

Equivalent to planting 1,180 trees or removing 12 cars from Irish roads annually · Irish grid emission factor: 256g CO<sub>2</sub>/kWh (EirGrid 2024 annual avg)

#### ⚠ OVERSIZING NOTICE

System generation (**90,694 kWh/yr**) is estimated at **422%** of this building's likely annual consumption (**21,491 kWh/yr** — SEAI warehouse benchmark). Verify actual electricity usage with the client before quoting. A significantly oversized system increases export dependency and may indicate the floor area used for consumption estimation exceeds the building's actual occupied space.

## SECTION

### Company Profile

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COMPANY NAME

Busch Vacuum Solutions

INDUSTRY

machinery

EMPLOYEES

2,300

## SECTION

### Qualification & Intent

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OWNERSHIP STATUS

✓ Likely owner-occupier

Company registered 46 years

## Company &amp; Decision Maker

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## Company Registration

TRADING

CRO NUMBER	70107
INDUSTRY	machinery
TYPE	LTD - Private Company Limited by Shares
INCORPORATED	1979-07-18 (46 yrs)
LAST ANNUAL RETURN	2025-09-15
LAST ACCOUNTS FILED	2024-12-31
REGISTERED ADDRESS	Unit Q, M7 Business Park, Newhall, Naas, KILDARE, W91 CD50, Ireland
EIRCODE	W91 CD50

## Decision Maker

VERIFIED

NAME	<b>Sami Busch</b>
TITLE	Owner / co chief executive officer
EMAIL	<a href="mailto:sami.busch@buschvacuum.com">sami.busch@buschvacuum.com</a>
LINKEDIN	<a href="#">Profile</a>

## Risk Register

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RISK	LIKELIHOOD	IMPACT	MITIGATION
<b>Grid connection approval (NC8)</b>	Medium	Medium	System must not exceed site Maximum Import Capacity (MIC). Confirm available export capacity with ESB Networks before installation.
<b>Grid export policy change (CEG)</b>	Low	Medium	Hedged by self-consumption ratio — most revenue is bill-displacement, not export.
<b>Panel degradation over 25 years</b>	Medium	Low	Manufacturer performance warranty ( $\geq 80\%$ output at year 25). Modelled at 0.7% / year.
<b>Building occupancy change</b>	Low	Medium	PPA transfers to new occupier automatically under standard contract.

## HOOK

**Warehouse roof — largest untapped solar potential per building in Ireland**

*"Hi Sami, calling about a commercial solar opportunity specifically for Busch Vacuum Solutions. We've analysed your roof and the numbers work well for warehouses and logistics operations. Payback in 5-7 years with ACA tax relief and SEAI grant — tax-efficient from day one. Have you looked at solar before?"*

## LIKELY OBJECTIONS &amp; RESPONSES

OBJECTION	RESPONSE
<b>Concerned about roof structural integrity</b>	We carry out a full load assessment before any proposal — no cost to you, and most modern warehouse structures are well within spec
<b>We lease the building, not own it</b>	We've closed installs under lease. A 10-year+ lease with landlord consent is usually enough — we can draft the licence letter if needed
<b>How do we finance this without touching cashflow?</b>	PPA or lease-to-own both available. With PPA you pay per kWh generated — typically 20-30% below grid rate, no capital outlay

## URGENCY SIGNALS


Long-established business (46 years) — stability signal for 25-year PPA conversation

CONFIDENCE ●●●● 100%

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Phone	(01) 832 1330
Website	<a href="https://www.buschvacuum.com/?utm_source=GB&amp;utm_medium=organic&amp;utm_campaign=google">https://www.buschvacuum.com/?utm_source=GB&amp;utm_medium=organic&amp;utm_campaign=google</a>
Decision Maker	Sami Busch · Owner / co chief executive officer · <a href="mailto:sami.busch@buschvacuum.com">sami.busch@buschvacuum.com</a> · <a href="#">LinkedIn</a>

- 1 Schedule a free site survey to confirm roof suitability**  
15 minutes on-site — we verify measurements and confirm panel placement. No obligation.
- 2 Receive formal PPA proposal with confirmed rate**  
Proposal issued within 48 hours of site survey. Rate confirmed for contract term.
- 3 Agreement signed — zero upfront payment required**  
PPA agreement executed. No capital expenditure required on your part.
- 4 Installation managed entirely by Solarstream within 8–12 weeks**  
System installed, commissioned, and handed over. Savings begin from first day of generation.

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 Pre-1990 buildings may require a structural survey before installation. Confirm building age before committing to installation.

## 1. Data Sources Used in This Assessment

IE GOVT	<b>OpenStreetMap + OSI Orthophoto</b> Building polygon, roof area measurement	2024
COMMERCIAL	<b>Google Maps Solar API / Satellite</b> Roof imagery, orientation, shade analysis	2025
AI MODEL	<b>Gemini 2.5 (3-pass classification)</b> Roof material, obstructions, usable area	v2.5-pro
EU GOVT	<b>PVGIS (EU Joint Research Centre)</b> Solar irradiance — SARA3, building-mounted	v5.3
IE GOVT	<b>SEAI NDMG Grant Rates</b> Non-Domestic Microgen tiered (0–1,000 kWp)	2025
IE GOVT	<b>SEAI Sector Benchmarks</b> Self-consumption ratio by building type	2024
IE GOVT	<b>EirGrid Grid Carbon Factor</b> 256g CO <sub>2</sub> /kWh — displacement calculation	2024
IE GOVT	<b>CRU Clean Export Guarantee</b> Export tariff €0.185/kWh determination	2024
IE GOVT	<b>Revenue.ie ACA Scheme</b> Accelerated Capital Allowance 100% Year 1	2024
IE GOVT	<b>CRO (services.cro.ie)</b> Company registration, directors, age, status	Live API
COMMERCIAL	<b>B2B contact enrichment</b> Decision-maker name, title, email (pack mode)	2025

## 2. Modelling Assumptions

System losses	<b>14%</b>	PVGIS default (DC/AC, cabling, soiling)
Panel spec	<b>440Wp monocrystalline</b>	Industry standard 2024–25
Panel degradation	<b>0.7% / year</b>	Manufacturer warranty standard
Self-consumption rate	<b>22%</b>	Capped — generation exceeds consumption
Export rate	<b>€0.185/kWh</b>	CRU CEG determination, 2024
Grid price growth	<b>5% / year</b>	SEM-O 10-year rolling average
PPA escalator	<b>1.5% / year</b>	VantageHQ contract term
System lifetime	<b>25 years</b>	Manufacturer performance warranty
CO <sub>2</sub> grid factor	<b>256g / kWh</b>	EirGrid, 2024

### 3. Quality & Limitations

- Roof polygons derived from satellite imagery — a professional site survey confirms usable area within ±5%.
- Self-consumption modelled against sector benchmarks; half-hourly meter data improves accuracy.
- Financial projections assume stable regulatory environment; CEG/ACA policy changes may affect returns.
- Pre-1990 buildings require structural-engineer sign-off before installation.
- B2B contact data is enriched from public and commercial registries — always verify before outreach.

### 4. Glossary

**kWp** — kilowatt-peak, the rated DC output of the PV array under standard test conditions.

**kWh** — kilowatt-hour, the unit of energy generated or consumed over time.

**PPA** — Power Purchase Agreement. Third-party owns the system; client pays per kWh generated.

**CEG** — Clean Export Guarantee. CRU-mandated tariff paid to exporters of surplus PV generation.

**ACA** — Accelerated Capital Allowance. Revenue scheme: 100% Year-1 tax write-off on qualifying solar equipment.

**SEAI** — Sustainable Energy Authority of Ireland. Administers Non-Domestic Microgen grant.

**PVGIS** — EU Joint Research Centre solar irradiance model. Site-specific yield projections.

**Self-consumption** — % of generated kWh used on-site (vs exported). Higher ratio improves payback.

**NPV** — Net Present Value. Total 25-yr cashflow discounted to today's euro.

**IRR** — Internal Rate of Return. Annualised yield of the investment over its lifetime.

**Payback** — years until cumulative savings equal the net installation cost.

**Degradation** — annual output decline of PV panels (~0.7%/yr, warranted).

### 5. Statement of Responsibility

**VantageHQ** is responsible for: sourcing and citing the data used in this assessment; applying the modelling assumptions listed above; flagging structural, tenancy, and regulatory risks identified from public data.

**Solarstream** is responsible for: conducting the professional site survey; verifying roof structural capacity; confirming final system specification; issuing a formal quotation; managing installation and commissioning.

**The client** is responsible for: providing accurate occupancy and consumption data (half-hourly meter readings where available); confirming ownership or obtaining landlord consent; reviewing and accepting the formal quotation before works commence.

**Disclaimer**

This assessment is **indicative only** and is based on publicly available data and satellite imagery. A professional site survey is required before installation. All financial projections are estimates; actual results will vary with occupancy patterns, grid tariffs, and system performance. Roof structural integrity must be confirmed by a qualified engineer. This report does not constitute a formal quotation or engineering specification.

VantageHQ methodology v2 · 8 May 2026

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**Prepared by VantageHQ**