

## Mobile Solar ROI in Ireland

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### Ireland's Renewable Energy Crossroads

a typical Irish farm spending EUR6,000 annually on diesel generators while Atlantic winds batter their outdated energy infrastructure. Sound familiar? You know, Ireland's imported 63% of its energy in 2023 according to SEAI data. With electricity prices jumping 40% since 2021, businesses are desperately seeking alternatives. But here's the rub - traditional solar installations require upfront investments averaging EUR17,000 for small enterprises. What if there's a mobile solar unit solution that cuts both costs and carbon?

### Weathering the Storm

We've all heard the complaints: "But the sun never shines here!" Actually, that's sort of a myth. Dublin receives comparable solar irradiation to Munich - about 900 kWh/m<sup>2</sup> annually. The real challenge? Ireland's planning permissions for permanent installations average 11 months approval time. Mobile PV systems sidestep this bureaucratic nightmare through their temporary classification.

### The Mobile Solar Revolution

Let's say you operate a construction site in Cork needing temporary power. Traditional options? Diesel gensets at EUR0.38/kWh versus mobile solar units producing at EUR0.11/kWh. The math isn't subtle. These trailer-mounted systems typically feature:

- 15-30kW modular panels
- 50kWh lithium battery storage
- Integrated weatherproof housing

### Cost Breakdown: 2024 Figures

Component	Cost	Lifespan
Solar Trailer	EUR24,000	15 years

Installation EUR1,200N/A

Maintenance EUR300/yr Annual

Wait, no - correction. Recent supply chain improvements have actually dropped panel costs 17% since Q1 2024. The new entry price point? Roughly EUR21,500 for a 20kW system. When you factor in Ireland's accelerated capital allowances offering 50% first-year writeoffs, the ROI calculation becomes irresistibly compelling.

## ROI Drivers You Can't Ignore

Consider a mobile unit powering a Dublin pop-up retail park. Their monthly diesel bill? EUR2,800. Switching to solar:

EUR800/month energy savings

EUR200/month carbon credit income

EUR1,100/month operational continuity (no refueling downtime)

## The Flexibility Factor

Here's where it gets interesting. Unlike fixed panels, these systems can be relocated between sites. A Galway aquaculture firm we advised uses three units rotating between hatchery locations. Their payback period? Just under 4 years - 23% faster than permanent installations.

## Case Study: Kerry Dairy Farm

Meet Pdraig's 120-cow operation - the perfect ROI example. Their energy challenges:

EUR18,000 annual electricity costs

Frequent power outages

CSRD compliance pressures

After deploying two mobile units with 40kW combined capacity:

Metric Before After

Energy Costs EUR1,500/mo EUR380/mo

Outages 18 hrs/mo 0 hrs

Carbon Footprint 32 tCO<sub>2</sub>e 4 tCO<sub>2</sub>e

## Future Landscape

As we approach the 2030 emissions targets, mobile solar's role expands beyond off-grid applications. Recent

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pilot projects in Dublin Port demonstrate marine-grade units powering cranes. With Ireland's grid connection waitlist currently at 14 months for commercial users, these mobile solutions aren't just alternative - they're becoming mainstream.

### Policy Winds Changing

The new Microgeneration Support Scheme effective June 2024 introduces export tariffs for mobile systems. Coupled with SEAI's EUR2.4 billion renewables budget, we're witnessing a fundamental power shift - quite literally.

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