From compliance essentials to new opportunities:

# The EU Data Act

Everything you need to know

SEP 12

# Executive Summary

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**On September 12**, **2025**, the EU Data Act became fully applicable across the EU. For the energy industry, this is more than another regulatory deadline. It is a structural shift in how data flows between devices, companies and users.

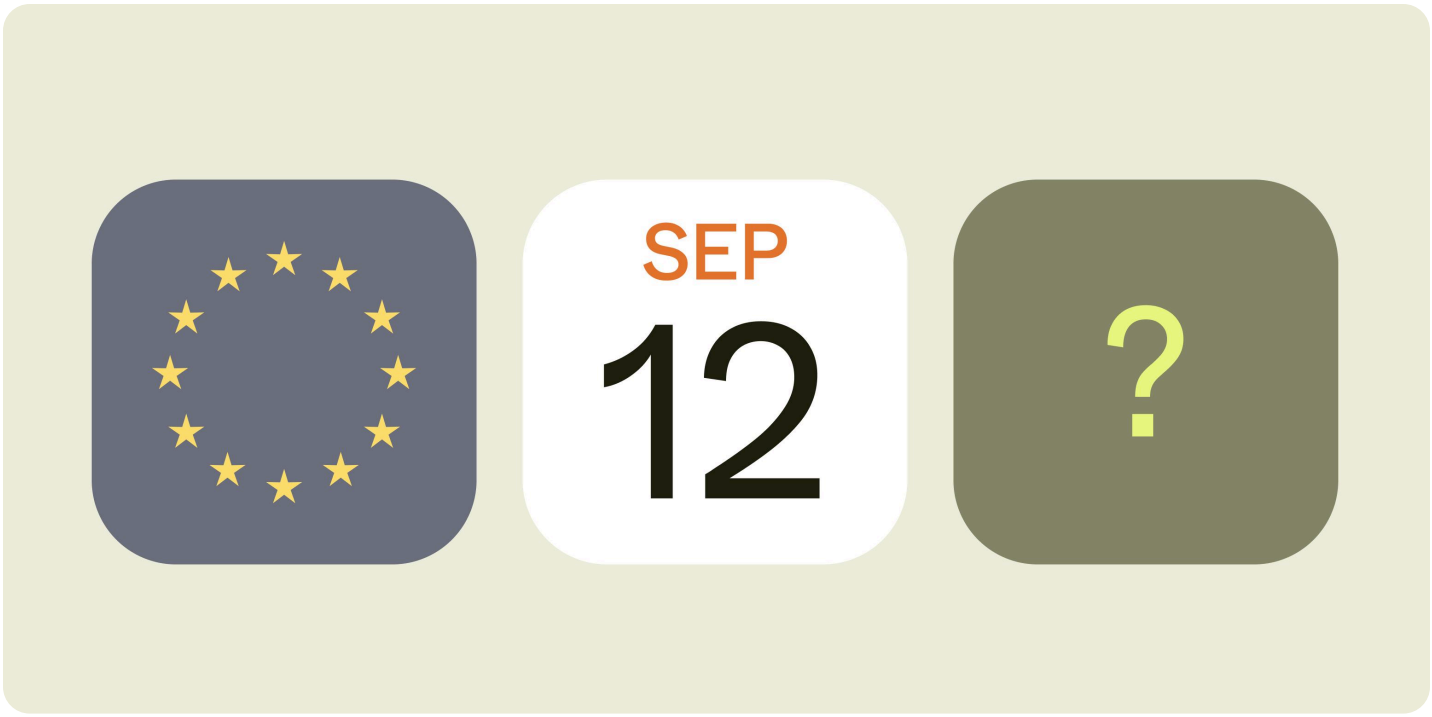
For the first time, users have a legal right to access and share the data generated by their devices: EVs, EV chargers, solar inverters, home batteries, HVACs and more. Manufacturers must make data available in machine-readable formats, implement user consent systems, and enable portability. Energy companies and digital players must quickly adapt to a world where interoperability is no longer optional.

This shift is already visible in the market. Users expect flexibility, transparency and choice. Companies that treat the regulation as an opportunity rather than a requirement will be the ones to build trust, win customers and unlock new business models. Those that delay risk being left behind in an ecosystem where openness becomes the default.

In this report, we explore:

- The key provisions of the EU Data Act and how enforcement works.
- What it means for manufacturers, energy apps, and end users.
- Why interoperability is the biggest challenge — and opportunity.
- A practical checklist for going beyond compliance.
- Lessons from Open Banking that show how regulation can unlock innovation.
- Our predictions for the first year of the Data Act.

The energy transition depends on unlocking data. With the Data Act now in force, the rules are set. What matters is how the industry responds.




# Introduction:
# A new era for energy data

**As of September 12, 2025, the EU Data Act is fully applicable across all EU countries. It is one of the most significant digital regulations to affect the private energy sector in decades.**

The Act establishes that users must have access to the data generated by their connected devices. Just as importantly, they should be able to share that data freely with the providers and apps of their choice.

For energy, this means EVs, EV chargers, solar inverters, and home batteries can no longer remain part of closed systems. Manufacturers must provide user-consent systems, enable portability when switching services, and make data available in structured, machine-readable formats, so device owners can seamlessly access and share their data with the providers they choose.

The regulation carries weight. National authorities will be responsible for enforcement, and penalties are on par with GDPR: up to €20 million or 4% of global turnover. The consequences of non-compliance go far beyond reputational damage.

At the same time, the Data Act reflects what users already expect. Consumers increasingly demand flexibility, openness, and digital experiences that make their lives easier. The Act does not create this trend but gives it legal force and urgency.

The precedent from finance shows what is possible. PSD2 initially looked like a compliance exercise for banks, but it unlocked the movement called Open Banking, which led to a wave of new services built on shared data. The same dynamic is now within reach for energy.

The industry stands at a crossroads. Companies can do the minimum to comply, or they can use openness as a foundation for consumer trust, industry collaboration, and innovation. Those who choose the latter will not only meet the regulation but also help accelerate the transition to a smarter, cleaner energy system.

# The core of the EU Data Act

The Data Act applies to all connected devices that generate data, but its relevance for energy devices is particularly strong.

## User rights

- Users must have access to the data their devices generate
- Users can share this data with third-party providers of their choice

## Manufacturer obligations

- Device data must be made available in machine-readable formats
- Systems for user consent and access must be established
- Data must be portable to enable switching between providers

## Enforcement

- Compliance will be monitored and enforced at the national level
- Violations involving personal data fall under GDPR-level penalties
- Each EU country is responsible for setting its enforcement framework, but penalties will align with the EU standard

## Why it matters for energy:

Device-level data is no longer proprietary. An EV owner can share their vehicle data with the retailer offering the best tariff. A household with solar and storage can give their installer access to usage data to optimize performance. The control shifts to the user, and that creates both disruption and opportunity.

# Implications for the energy industry

## For consumers

For the first time, EV drivers, homeowners, and businesses will be able to choose services without being tied to hardware. A driver can connect their EV or charger to an energy app that offers smarter charging. A solar inverter owner can share their data with multiple services, from installers to energy communities.

The user experience becomes the true battleground. Companies that make access, consent, and sharing seamless will win loyalty.

## For manufacturers

Compliance is the immediate challenge. EVs, EV chargers, batteries, and solar inverters must provide data access and user consent systems. But looking beyond compliance, the shift will redefine competition. Hardware features remain important, but connectivity and openness are fast becoming decisive factors in user choice.

Those who move quickly will secure partnerships with energy retailers and apps earlier. Those who delay risk being deprioritized in integrations: and in a world of open interfaces, being integrated first matters.

## For energy apps and aggregators

Energy apps and aggregators that connect devices and services will also feel the shift. As device data becomes more accessible, they can expand coverage and deliver more value to users.

Ecosystems will grow stronger: services that connect the widest range of devices will be most attractive, provided they combine breadth with quality. Trust and transparency will matter most, as apps that handle consent and data flows clearly will win loyalty. And innovation will follow — from smarter charging to seamless switching and new optimization services.

# The interoperability challenge

Mandated openness is not the same as interoperability. The Data Act requires data access, but it does not dictate standards. Every device may technically comply, but if the interfaces are inconsistent or poorly documented, integration remains painful.

We already see this challenge across the industry. One EV charger may provide clear, well-documented APIs, while another requires months of engineering work to achieve the same result. Firmware updates can break integrations without warning. For companies working at scale, this creates significant cost and delays.

The risk is a patchwork of interfaces that meet the letter of the law but fail to deliver its spirit.

True interoperability requires more than legal compliance. It requires common standards, robust developer experiences, and a willingness from manufacturers to invest in openness.

# Beyond compliance: How to compete and win

Compliance is the floor, not the ceiling. The winners will be those who treat the Data Act as a springboard for better user experience and stronger market positions.

## Checklist for readiness

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| ☐ | 1. API quality | Build robust, secure, and well-documented ways to share device data. We recommend through APIs. |
| ☐ | 2. Integration support | Provide clear documentation and developer resources to reduce time-to-integration. |
| ☐ | 3. User authentication | Use standard approaches like OAuth to give users control over who accesses their data, and confidence that the process is safe. |
| ☐ | 4. User-centric design | Keep consent and portability flows transparent and intuitive. End users should know where their data is going, and have simple ways to manage or revoke access. |
| ☐ | 5. Partnership mindset | Think beyond one-off integrations. Building scalable platform partnerships expands app coverage, speeds launches, and keeps you relevant as new apps emerge. |
| ☐ | 6. Customer transparency | Let your customers know how and where they can access their data, and highlight the use cases it can enable. |

Example in practice: Imagine two EV charger manufacturers. Both comply with the Data Act, but only one offers a developer portal, test environment, and clear documentation. Guess which charger gets integrated by energy retailers first, and promoted to customers? Compliance ensures survival, but user experience drives growth.

# Lessons from Open Banking

The most relevant precedent for the Data Act is PSD2 in the banking sector. For customers, it unlocked what became known as Open Banking: the ability to share account data across apps and providers. This shift gave rise to services like account aggregation, instant payments, and personal finance tools — making banking more transparent, flexible, and user-friendly.

The parallels are clear:

### Banking

Users gained the right to share their account data with third parties

### Energy

Users now gain the right to share their device data with third parties

What followed in finance was not instant. At first, many banks released patchy APIs that technically complied but were difficult to use. Others saw the potential early, investing in developer experience and transparent processes. The difference became clear within a few years:

Laggards met the letter of the law but held on to closed mindsets. Their APIs were hard to work with, fintech adoption was slow, and they lost relevance as customers flocked to services offering better experiences.

Leaders leaned in. They built high-quality APIs, embraced partnerships with fintechs, and positioned themselves as innovation platforms. These banks became default partners for account aggregation, instant payments, embedded finance, and personal budgeting apps.

The lesson is that regulation was only the spark. Openness and execution determined the winners.

The same dynamic is now unfolding in energy. The Data Act lays the groundwork for:

- Super-apps that combine EV charging, solar and storage optimization, and dynamic tariffs.
- Energy-as-a-service models where users buy outcomes (cheaper charging, lower emissions) rather than raw kWh.
- Customer experiences that make flexibility and choice tangible, just as digital wallets and investment apps reshaped consumer finance.

Seen this way, the Data Act is not just about compliance. It's the start of an ecosystem shift. Energy companies that treat APIs and interoperability as product features — not just regulatory obligations — will set the benchmarks. Just as in banking, those who move first will shape the market.

# The bigger picture: RED III complements the Data Act

The Data Act does not stand alone. It is part of a broader policy shift in Europe, driven by the Fit for 55 package and the EU's climate goals. Alongside it, the Renewable Energy Directive (RED III) establishes obligations for transparency and access at the system level. For example, Article 20a introduces requirements for smart and bidirectional charging points, battery data access, and interoperability between charging infrastructure and the grid.

Together, RED III and the Data Act create a bridge:

**RED III:**

Ensures system-level transparency for grid operators and national platforms

**Data Act:**

Ensures end users have the right to access and share their device data

This alignment matters because the energy system has long been fragmented. Grid operators lacked visibility into distributed resources, while consumers often felt locked into closed devices and apps. With these two regulations working in tandem:

- Grid operators can integrate distributed flexibility — EVs, home batteries, heat pumps — with greater confidence, relying on standardized system-level data.
- End users gain freedom to connect their devices to multiple services, from retailers to energy communities, without lock-in.
- Energy companies can create products that operate at the intersection, delivering user value while responding to system needs — from smart charging to demand response.

At Enode, we see this dual regulation as more than compliance. It is the blueprint for a connected energy ecosystem where grid operators, manufacturers, and consumers all play their part. RED III ensures the grid has visibility. The Data Act ensures the user has control. Together, they create the conditions for a smarter, more flexible energy system: one that can scale renewables, unlock flexibility, and accelerate the transition.

# Predictions:
# The first year of the Data Act

Now that the Act is in force, what happens next? Based on our work with manufacturers, energy retailers, and apps across Europe, we expect several trends to emerge in the first year of enforcement:

## 1

### Patchy compliance at first

Some manufacturers will release APIs that technically comply but are limited in scope or poorly documented. Early adopters may stumble, but they will also learn fastest.

## 2

### User confusion

Consumers will begin hearing about their “data rights” but will not always find clear tools to exercise them. Companies that make user consent and access simple will stand out.

## 3

### Acceleration of partnerships

Apps and utilities will prioritize integrating the devices that are easiest to work with. Early integrators will secure visibility and distribution advantages.

## 4

### Innovation at scale

Expect to see apps and other end user services with a broad range of offerings, with vehicle-to-grid and energy self-sufficiency on the horizon.

## 5

### Rising expectations

Within 12–18 months, users will expect interoperability by default. Closed ecosystems will no longer feel acceptable.

Compliance will create noise, but the real story will be innovation. Just as fintech moved from regulation to revolution, energy will follow.

# Conclusion:
# The opportunity ahead

The EU Data Act is now live. By putting data in the hands of users, it reshapes how the energy industry creates value.

For manufacturers, the question is whether to treat compliance as a minimum requirement or as the foundation for openness and growth. For energy companies and apps, the opportunity lies in accelerating integrations and building ecosystems that scale. For users, it means more choice, flexibility, and control over how they use their energy data.

The companies that move beyond compliance and embrace interoperability will set the standard for the future of energy.

## Call to action

At Enode, we are working with leading manufacturers, retailers, and platforms to make this future real. If you want to explore how your company can move beyond compliance and lead in an open energy ecosystem, get in touch.

Sources


- European Commission: The Data Act
- Skadden: EU Data Act – The Clock is Ticking
- WilmerHale: Enforcing the EU Data Act
- European Commission: Renewable Energy Directive (RED III)