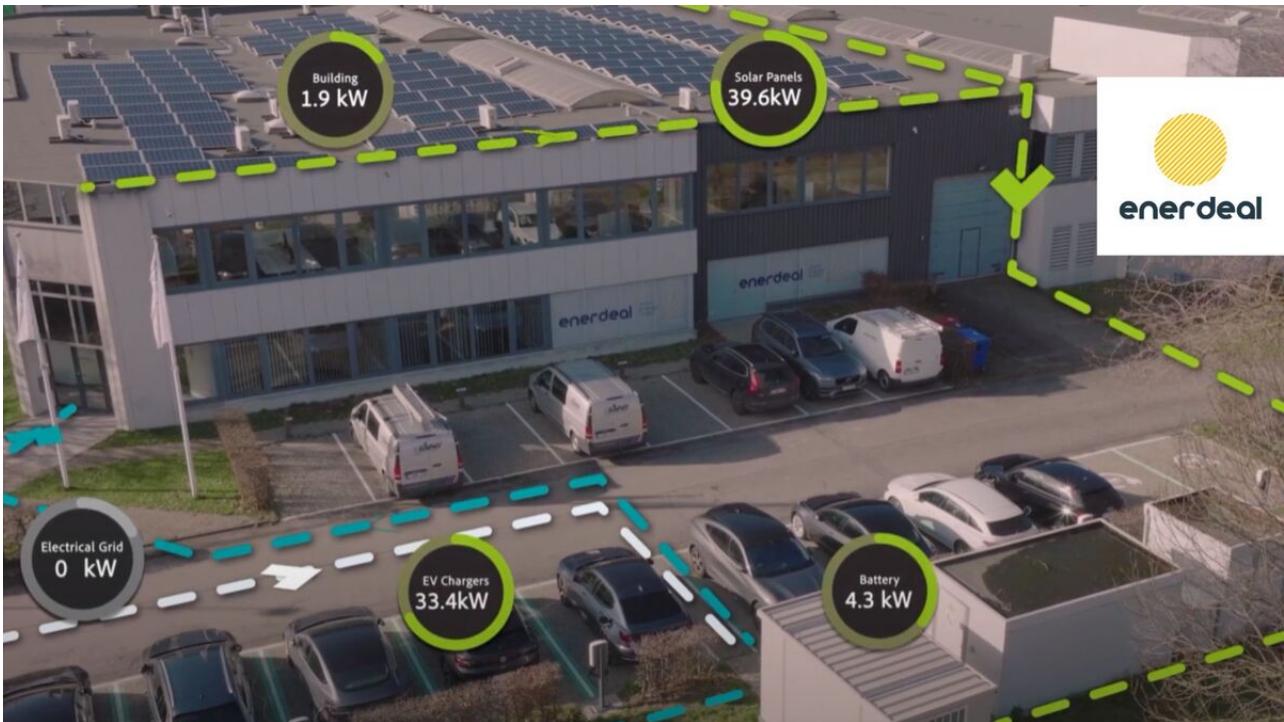


Enerdeal: A smart battery for optimized use of solar-powered charging stations

by Axelle Valembois / 2023-01-11 10:47:09 / Belgique / 579 / FR



Year of commitment : 2021

CO2 Impact : • 45 tonnes of CO2 saved per year

Green energies : Energy production, Energy storage, Photovoltaic solar, Energy Efficiency

Digital services : Urban data management, Applicative, Smart metering

Sustainable mobility : Inter-urban mobility, Parking, Charging station

Circular economy and waste management : Reuse



245 950 €

Builder

Enerdeal en partenariat avec Phoenix Contact

Manager / Dealer

Enerdeal

GENERAL INFORMATION

Enerdeal has decided to change its infrastructure to live its values of sustainability, inspire its customers and support a new innovative corporate car policy. The policy can be summed up as 100% electric, both for employees and for engines. The offices are equipped with solar panels and charging stations for electric vehicles, saving around 45 tons of CO2 per year. The infrastructure is also completed with a 130 kWh battery to store the energy produced and managed by artificial intelligence. Thanks to this infrastructure, Enerdeal is now at 100% net zero emissions, both for offices and for employee travel. The project is profitable, with a return on investment of 3.6 years and savings of 70000EUR annually. By participating in the Green Solutions Awards 2023, Enerdeal wishes to promote this type of infrastructure and demonstrate that it is sustainable, profitable and replicable.

Progress Status

Delivered

Data Reliability

Self-declared

Funding Type

Private

Website Enterprise / Infrastructure

<https://enerdeal.com/posts/enerdeal-launches-ai-enhanced-solar-energy-management>

Sustainable Development

Attractiveness :

From the point of view of our neighborhood, as well as that of employees and visitors, the benefit is obvious because the company offers them a more economical and more ecological charging solution compared to charging at home or on public infrastructures. , thus participating in an attractive employer brand and in the air of time, and supporting the adoption of a less polluting mobility system.

Well Being :

A mobile application also allows users to choose on their phone whether they can afford to have their car charged in a completely green way by solar electricity only during the whole day or whether they need a profile. priority fast charging, backed up by network and stationary battery, because they need to leave the office early or travel a long distance.

Thus, the comfort of use is not forgotten, which further reinforces the adoption of the system.

Preservation / Environmental Improvement :

In the ISO14001 approach, the infrastructure of charging stations connected to a battery, all powered by solar energy, makes it easier to achieve the objectives that the company has set itself.

Resilience :

Once the investment has been made, the company no longer has to worry about the increase in the price of electricity or fuel. This makes it an infrastructure perfectly suited to any energy crisis, current or future.

Responsible use of resources :

All 300 panels installed on the roof are subject to recycling. Although less recent, they have been evaluated sufficiently efficient, when coupled with batteries, to meet above all the needs of our own electric fleet.

Testimony / Feedback

See video extract RTL info 17/03/2022

Governance

Enerdeal

Holder Type : Private Company

Enerdeal en partenariat avec Phoenix Contact

Builder Type : Other

Enerdeal

Manager / Dealer Type : Private

Au vu de l'urgence du changement climatique, les prix affolants de l'énergie, l'électromobilité en croissance, la responsabilité sociale des entreprises, ...Enerdeal suit une démarche engagée vers une plus grande durabilité. La société a obtenu la certification ISO 9001 et 14001 pour ses sites d'exploitation de la Belgique et du Luxembourg.

Ces sujets brûlants d'actualité ont amené Enerdeal en 2021 à repenser son infrastructure afin de vivre ses valeurs de durabilité, inspirer ses clients, mais aussi de soutenir une nouvelle politique de voiture d'entreprise innovante. La politique, depuis lors pleinement affirmée, se résume en quelques syllabes : 100% électrique. Tant pour 100% des collaborateurs que pour 100% des moteurs. Autrement dit, aucun véhicule thermique n'est présent dans la flotte, et pas de place pour les moteurs hybrides non plus. En plus d'une certification ISO 14001, ce changement significatif renforce définitivement leur credo : nous pouvons être durables, responsables tout en étant rentables. La société cherche en outre à démontrer que ceci est répliquable et accessible à tous.

Business Model :

Nous avons développé une infrastructure nous permettant d'atteindre 100% d'émissions nettes zéro, tant pour nos bureaux que pour nos déplacements.

Outre l'aspect innovant de politique RH, les aspects technologiques et environnementaux, l'aspect économique du projet est également à souligner. Par le biais de cette infrastructure, 40.000 litres d'essence sont économisés par an, remplacés par du « carburant » 100% vert et gratuit. Si l'on considère que la quasi-totalité de la production d'électricité est utilisée par la flotte de véhicules électriques, l'investissement — soit environ 250000 EUR — est rentabilisé en 3.6 ans. En effet,

78,8MWh sont produits et consommés annuellement. Le coût du MWh sur borne de recharge publique est de 850EUR/MWh. Près de 70000EUR sont donc ainsi économisés annuellement

Sustainable Solutions

A smart battery for optimized use of solar-powered charging stations

Description :

The offices located in Zaventem are equipped with solar panels and charging stations for electric vehicles. The 300 solar panels total around 110 kWp of solar capacity, equivalent to an annual production capacity of around 95 MWh of electricity. This saves approximately 45 tons of CO2 per year, which is equivalent to the annual consumption of 12 households or the energy needed to travel up to 450,000 km per year.

The infrastructure is also completed with a 130 kWh battery, allowing the energy produced to be stored during the weekend and when the company is not consuming. Thanks to this battery, Enerdeal has avoided the significant cost of reinforcing the connection to the network, making it possible to "pump on the network" the additional low-voltage electricity.

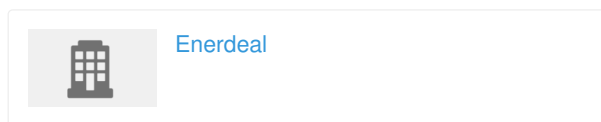
There are 12 electric vehicle charging points of 22kW each in the car park. In addition to the innovative aspect of HR policy, the technological and environmental aspects, the economic aspect of the project should also be underlined. Through this infrastructure, 40,000 liters of gasoline are saved per year, replaced by 100% green and free "fuel". If we consider that almost all of the electricity produced is used by the fleet of electric vehicles, the investment — around EUR 250,000 — pays for itself in 3.6 years. Indeed, 78.8MWh are produced and consumed annually. The cost per MWh at a public charging station is 850EUR/MWh. Nearly EUR 70,000 are thus saved annually.

The terminals are accessible to employees but also to outsiders. The growing interest in terminals is such that today, an increase in the price per use has been decided in order to limit the occupancy rate of parking spaces during office hours, giving priority to employees.

CO2 Impact : 45 000,00

- Proximity services
- Air quality
- Electric vehicles
- Low-carbon materials/ infrastructure

Company (es) Website :



Company (es) Website :

Company (es) Website :

Photo credit

Energy deal

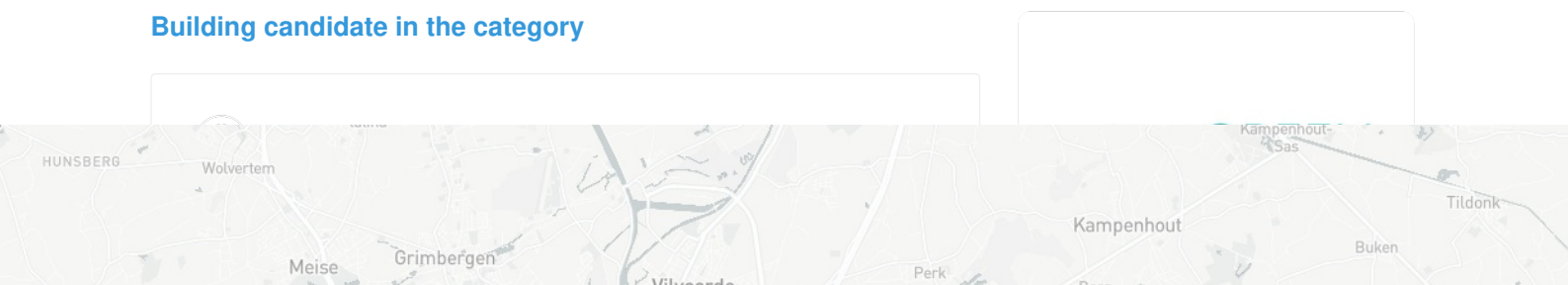
Contest

Reasons for participating in the competition(s)

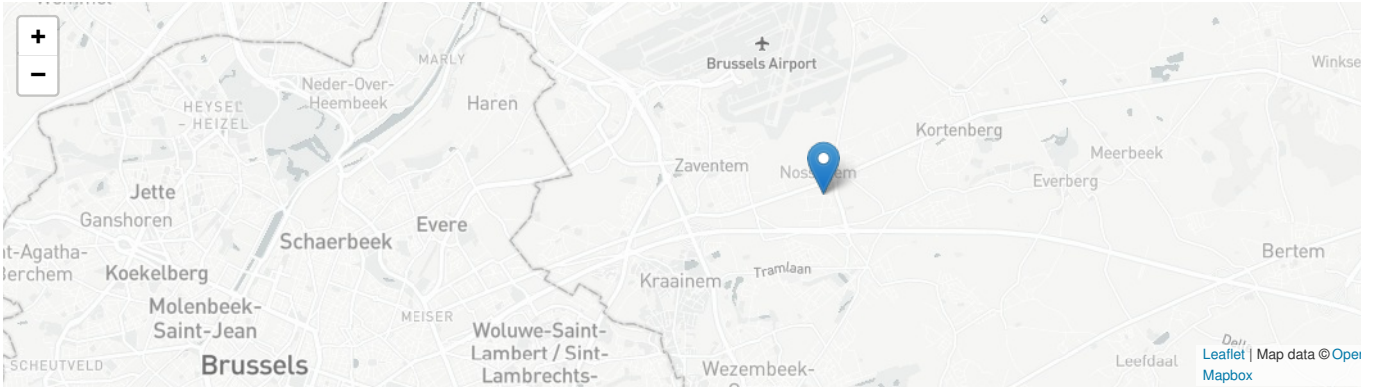
We submit this application first and foremost to set an example. Our approach is fully replicable and affordable. Its ecological and economic impact is unequivocal.

- 300 photovoltaic panels on the roof
- Excess production stored in batteries that power the fleet of electric vehicles.
- 136 kWh battery storage
- 12 charging stations, saving the equivalent of 40,000 liters of fuel per year.
- Innovation: Intelligent energy management system – accessible via mobile application, allowing adaptation to different use cases.
- Innovation: 100% electric corporate car policy (100% of staff, no thermal or hybrid cars)
- 45 tons of CO2 saved per year, which is equivalent to the annual consumption of 12 households or the energy needed to travel up to 450,000 km per year
- total carbon neutrality
- 100% green driving
- 90% self-sufficiency

Building candidate in the category



Prix du public



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