

ENFLATE PROJECT NEWSLETTER



GOALS & TARGETS

The ENFLATE project aims at the flexibilization of Energy markets from TSOs down to end-consumers, using new and smart technologies to provide clean and easy-to-use solutions for the decarbonisation of the electricity market. The goals are aligned with the European Commission's policy framework, seeking to decarbonise the energy system, encouraging the electrification of heat and transport, as well as the connection of more clean but intermittent generation.

DEMONSTRATOR IN LÁCHAR

Cuervas demonstration activities are centered in Láchar, Granada, a town emblematic of rural transformation. The site is a living laboratory where advanced tools and technologies are being tested, including:

- Flexibility Management Tool: Optimizing the grid to adapt to dynamic energy demands.
- Non-Technical Losses and Squatter Detection: Algorithms to identify and mitigate unauthorized energy consumption.
- Health Monitoring for the Elderly: Tools to assess patterns in electricity use, detecting emergencies early to enable preventive action.
- Sustainability and Quality of Life: Integrating energy services with mobility and health innovations for better community living.



The project video is available at https://www.youtube.com/watch?v=_dZdlBYB4Uo or by scanning the QR-Code

CASE STUDY: NUDGING IN KUNGSBACKA, SWEDEN

The main goal is to promote flexible electricity consumption by shifting usage from peak hours to off-peak times without reducing overall energy use. This aligns with the need for demand-side flexibility in renewable energy systems. It is achieved by sending text messages to the owners of 14 apartments suggesting the optimal hour to reduce electricity usage the next day, with reminders of the environmental benefits. A control group of 134

apartments received no such messages. As a result, a 14-15% reduction in electricity consumption during peak hours was observed in the treated group, verified using robust statistical

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PROJECT DETAILS

Timeframe: September 2022 - August 2026

Budget: €14,314,162.00

**HORIZON EUROPE—
Innovative Actions:**
€ 7,686,305.00



<https://www.linkedin.com/showcase/enflate/>



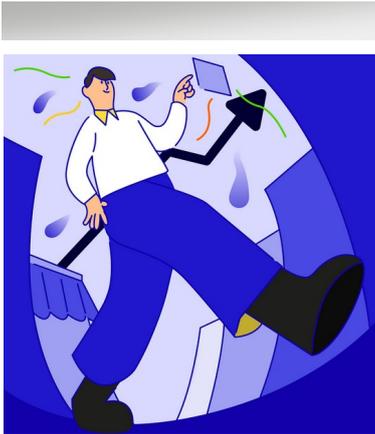
<https://twitter.com/enflateproject>



<https://www.youtube.com/@enflate5366>



Co-funded by
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What is nudging?

Nudging is a concept in behavioral economics that involves subtly guiding individuals towards better decisions without restricting their choices.

Popularized by Richard H. Thaler and Cass R. Sunstein in their 2008 book **Nudge: Improving Decisions About Health, Wealth, and Happiness**, the approach focuses on changing the presentation of choices to influence behavior positively.

As the authors state “A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not.” - from their book

Nudging is vastly used nowadays in online-marketing, social media, supermarkets and learning apps to name only a few.

methods and no significant changes were noted in overall daily or weekly consumption, confirming the shift was a strategic adjustment rather than an overall reduction

Key Insights:

1. **Flexibility over Reduction:** The nudge encouraged tenants to adjust when they used electricity rather than how much, supporting a responsive energy system.
2. **Relevance to Renewable Energy:** Flexible consumption reduces reliance on fossil fuels during peak demand, aligning with the intermittent nature of renewable sources like wind and solar.
3. **Effectiveness of Nudging:** Simple interventions, such as daily text messages, can influence environmentally conscious behaviors without imposing strict limitations.

Critics argue that nudging studies often face publication bias and may not be as impactful in practice as in controlled settings. However, the Kungsbacka study demonstrated robust and practical outcomes.

As a conclusion it can be said, that nudging presents a scalable and non-intrusive method for promoting demand-side flexibility in energy systems. As renewable energy reliance grows, such behavioural strategies could play a crucial role in balancing supply and demand while fostering sustainable practices.

UPCOMING WEBINAR

Skiathos island is in the northwest of the Aegean sea and belongs to the Northern Sporades Group. Currently, the island is interconnected with the mainland distribution network through four submarine 20kV cables. However, in 2022, the new 150kV interconnection of Skiathos with the transmission network will be commissioned, along with the 150/20kV substation on the island. This will allow the assets on the island to participate in the electricity markets established recently in Greece (balancing, intraday) or provide additional flexibility services to the DSO and TSO through respective business models. These services can also be related with the seasonal variability of energy demand, which during the summertime increases significantly. The decentralized marketplace, demonstrated in the demo site of Skiathos island in Greece, will both speed up the barriers elimination for assets registry and flexibility markets daily operation. This will lead to easier access of more and more flexibility providers regardless their point of connection to the grid and their geographical location, which will increase in return the markets' liquidity (both on local and wholesale level) and the level of market coupling in neighbouring European countries.

The area for the demonstration consists mainly of the municipality of Skiathos, the airport and the port. The municipality has a total area of approximately 50.000 km² where approximately 7000 residents are located. The population of the island increases significantly during the summertime and can reach up to 10 times more (~70.000).

The webinar will

- Give an overview of the Skiathos demo site
- Show how blockchain applications are implemented in the energy sector
- Present the DFLEX decentralised flexibility marketplace and
- Demonstrate how the FlexEdge device gateway works.

At the end of the webinar we will have a dedicated slot for participant's questions.



4th Plenary Meeting in Paris

On November 19 and 20 the Enflate Plenary took place in Paris. Participants of the partner organisations from nine countries within and outside the European Union gathered on the two days to discuss the progress within all the work packages, the challenges they are facing and how to overcome them. A workshop on customer engagement was also part of the on-site meeting.



ENFLATE @ ENLIT 2024 in Brussels

The ENFLATE project proudly participated in ENLIT 2024, addressing the evolving energy landscape and the urgent need to revamp flexibility markets. With European electricity consumption projected to rise by 60% by 2030 and renewable energy integration accelerating, modernizing grids for a decentralized, digitalized, and flexible system is vital. The EU Action Plan for Grids emphasizes smarter grids, better planning, and regulatory incentives as key enablers of this clean

energy transition. A highlight of the event was the Cluster Session on October 23, where leading industry voices from BeFlexible, ENFLATE, and STREAM collaborated to share their expertise.

Charles Esser, Secretary General of E.DSO, delivered a compelling keynote speech to kick off the panel discussion titled "Innovating for a Resilient and Flexible Energy Future: Challenges and Opportunities for Europe's Grids."

NOVA (Greece) - Coordinator

UBITECH ENERGY (Belgium)

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