



CREATORS

Third Issue - September 2023

NEWSLETTER

CREATORS: Creating Community Energy Systems

INSIDE

- Interview with Dominic Stephen - Bax&Company
- Interview with Blanca Barrios - R2M Solution
- Interview with Connor Enright - EP Group
- CREATORS Ces-as-a-Service
- Financing instruments for energy communities

Greetings from CREATORS!

It's been a thrilling three years since the inception of the CREATORS project. As we step into our fourth year, we are excited to share our progress in refining our market approach. Putting together our different tools and services we have created our CREATORS CES-as-a-Service, our value proposition for a service targeting energy community projects. We have been exploring the best ways to finance energy communities, gathering with investors and banks and obtaining key insights.

Great news! our project now extends until June 2024, reinforcing our mission to empower European Community Energy Systems.



Interview with Dominic Stephen - Bax & Company



Dominic joined Bax & Company's Barcelona office in September 2022 and has been working to catalyze community and local energy systems since 2018. He has a growing expertise in the innovative business models and financing instruments required to deliver the clean energy transition across Europe.

**BAX
& COMPANY**
VALUE FROM SCIENCE AND TECHNOLOGY

“

To improve access to clean energy, we need financial models that encourage adoption, lower technology investment risks, and make costs more affordable over time”

Brief description of Bax & Company

Bax & Company (“Bax”) is a progressive international consultancy with offices in Barcelona (ES), Utrecht (NL), and Cambridge (UK). Through collaboration with regional authorities, universities, business development organisations, finance institutions, and SMEs across Europe, Bax both develops and delivers projects addressing interlinked challenges of clean and local energy systems, the environmental, smart mobility, and business models for the public good.

What is Bax & Company's role in the project?

In the CREATORS project, Bax is dedicated to enhancing the preparedness of local energy systems for businesses. Our primary emphasis is on collaborating with investors and energy infrastructure planners while developing a resource to facilitate project connections with financial backing. Bax takes the lead in Work Package 4, with a specific focus on streamlining the integration of CREATORS' innovative service solutions into straightforward contractual and financing processes for both CES initiators and investors

How will Bax & Company promote and support the development of Energy Communities after the project?

With more than two decades of experience in the clean energy sector, we've observed that the energy transition faces growing constraints, not primarily due to technological advancements, but rather a commercial environment that remains immature, volatile, and insufficiently de-risked to attract the essential investments in advanced energy technologies. The crucial solution lies in developing business and financial models that incentivize the adoption of clean energy by households, businesses, and governments. These models should effectively mitigate investment risks associated with emerging technologies and enable the equitable distribution of high upfront costs through extended repayment plans, among other strategies. These measures are pivotal in breaking down barriers to widespread access to clean energy.

Interview with Blanca Barrios - R2M Solution



Blanca Barrios is an energy engineer and has a master's degree in Energy Efficiency and business development. At R2M, she is an Energy Services and Energy Communities Engineer, managing and developing projects in the energy sector both in Spain and Europe. Blanca is a specialist in consulting for photovoltaic self-consumption projects, energy communities and business development.



Defining meticulously crafted models that align with the needs of energy community projects and users is crucial for the successful implementation of energy communities in the market"

Brief description of R2M Solution

R2M is an integrated and multi-disciplinary entrepreneurial innovation company that targets filling the gap between research activities and market implementation across the fields of Innovation, Engineering, Energy Services & Sustainability, and ICT/Automation. R2M Solution was founded in 2012 in Italy and currently is present in 4 countries: Italy, Spain, France and the UK, being also an energy services company in Italy and Spain. R2M Solution Spain, the branch involved in CREATORS, is strongly focused on Innovation and EU projects, Energy Services and Energy communities development and research and development activities.

What is the role of R2M in CREATORS?

Within CREATORS R2M Solution is the partner leading communication and exploitation activities. As part of communication, R2M is managing the visual identity of CREATORS and is responsible of the website and all the communication channels, presenting CREATORS at different events. On the exploitation side, R2M is the partner responsible for conceptualising the CES-as-a-Service solution, that will be presented later, integrating and combining all the different tools and services developed within CREATORS to make sure that the consortium can offer an interesting and revolutionary solution to support initiators in their energy community projects. Moreover R2M is responsible of other activities such as the study of the regulatory frameworks of CREATORS countries and the development of the CES online assessment tool, a quick online tool to understand the potential of an energy community project. Check it out on our website!

How will R2M promote/support the development of Energy Communities after the project?

R2M is an ESCO (Energy Services Company) both in Spain and Italy, and is currently involved in the development of several energy communities, especially in Spain, and supporting more than 20 municipalities with their energy community projects.

The main contribution of R2M to energy communities is the CES-as-a-Service approach, to make sure CREATORS develops a well designed service to address the necessities of energy community projects and can successfully reach the market.

Interview with Connor Enright - EP Group



Connor provides interdisciplinary backgrounds ranging from data structures to environmental economics and sociotechnical change. Connor is an EVO-certified Performance Measurement and Verification Analyst specialising in de-risked delivery models & large-scale risk management, supporting local authorities and businesses from individual sites through to multi-billion-pound delivery vehicles across the net zero taxonomy.



“

Make it easier for pilot projects and community energy groups to access affordable financing by simplifying and reducing the risks in developing and evaluating Community Energy Systems”

Brief description of EP Group

EP Consultancy fosters equitable impact in the shift to a regenerative economy, merging progressive corporate ownership and catalytic funding for a net-zero future. We offer comprehensive services, from sustainable finance advising to energy services ventures, facilitating the transition to a low-carbon future for organizations and communities. Our expertise spans across government partnerships, private sector guidance, and well-being-driven outcomes, solidifying our commitment to tangible impact.

What is EP Group's role in the project?

Ep's main role is to connect pilots and community energy groups to high-quality, low-transaction cost finance by de-risking and standardising the development and assessment of Community Energy Systems. This work is done through the production of a Standardised Assessment Protocol, where standardised project development and assessment specifications centre the needs of financiers to be integrated into community energy projects. This requires detailed consideration of legal forms, governance structures and contracting as well as technoeconomic assessments of the proposed interventions. As such ep's work sits at the centre of the community energy ecosystem, bridging the gaps between communities, local institutions and large-scale finance.

How will EP promote and support the development of Energy Communities after the project?

EP Consultancy leverages its extensive experience in developing ICP Europe Protocols, a recognized quality mark for investors. In collaboration with WP4 ePRO, they are constructing advanced CES financing models and financier evaluations using their Standard Assessment Protocol. Acting as the link to ICP Europe's community, EP Consultancy ensures alignment with stakeholder engagement and protocol authoring procedures from previous H2020 projects. Additionally, in partnership with Bax and ePro, they have created decision models and template contracts for cost-effective governance in community energy systems. EP Consultancy further supports the tier-3 pilot at Johnstons Logistics Park in the UK for decarbonizing transport and logistics, with plans to commercialize insights for broader European applications in business parks and local communities.

CREATORS CES-as-a-Service

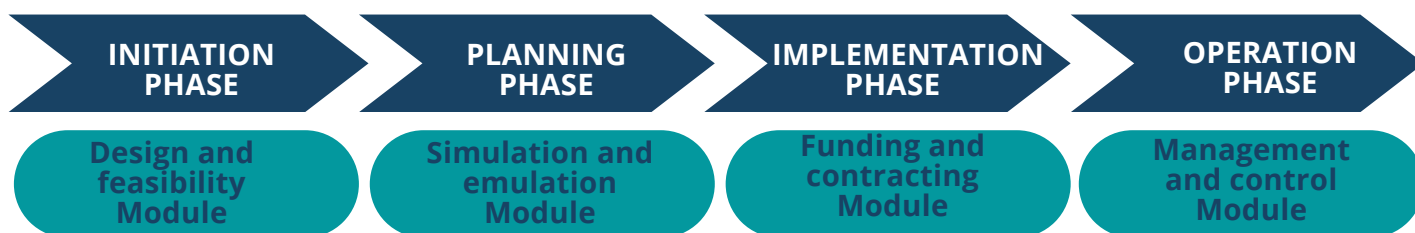
Introducing CREATORS CES-as-a-Service: Empowering Energy Communities

In the dynamic world of energy community projects, we proudly present CES-as-a-Service (CESaaS), a revolutionary software-based model designed exclusively for energy community initiatives. CESaaS is your partner throughout the entire lifecycle of your energy community project, offering comprehensive support and guidance.

Imagine CESaaS as an integrated platform, a toolbox of software tools and cutting-edge technologies meticulously curated to streamline and optimize your energy system. The intricate nature of energy community projects and the lack of standardized processes necessitate a holistic solution. CESaaS rises to this challenge, providing modular services tailored to every developmental stage, entirely adaptable to your project's unique requirements.

Energy communities represent a burgeoning concept in an evolving regulatory landscape. Assembling an energy community entails navigating a complex journey often involving multiple stakeholders and processes. CREATORS recognized this challenge and conceived CESaaS, an all-encompassing service that champions energy community projects from inception to operation.

CESaaS Unveiled: Your Path to Success



Design and Feasibility Module - Our first module delivers a comprehensive feasibility study, meticulously designed to chart your energy community's technical, financial, and governance landscape. The outcome? A blueprint outlining the optimal techno-economic solution and governance recommendations, tailored to your project's vision.

Simulation and Emulation Module - In the second module, we present a digital twin of your energy community—an interactive simulation that lets you explore diverse scenarios and gain insight into potential outcomes. Your personalized dashboard empowers you to visualize, strategize, and make informed decisions, steering you confidently toward successful implementation.

Funding and Contracting Module - Module three offers strategic support for securing funding opportunities and navigating intricate legal requirements. The culmination? A comprehensive report presenting proposals for financiers, financial structures, and contractual pathways.

Management and Control Module - In the final module, CESaaS offers a state-of-the-art management platform, a control center enabling real-time monitoring and optimization of your energy community. Accessible at your fingertips, this platform empowers you to oversee energy flows and assets, while validated hardware solutions ensure precise control.

A Vision in Progress: What Lies Ahead

Our CESaaS is currently under development and undergoing rigorous commercial readiness evaluations to ensure it aligns seamlessly with market needs. To stay updated on this revolutionary service and witness its transformation, keep an eye on our website and vibrant social media channels. Empower your energy community journey with CESaaS, where innovation meets sustainability, and ambition becomes reality.

Supporting energy communities with financing instruments

CREATORS aims to simplify financing and contracts for community energy projects, benefiting both initiators and investors

Energy Communities are a vibrant blend of local residents, businesses, government bodies, and industries, coming together in various combinations. These communities play a dynamic role in reshaping our sociotechnical systems, transforming the relationships among residents, businesses, and the structures that envelop them.

A goal of CREATORS is to find the most appropriate and at the same time simplified contractual and financing processes for community energy systems projects and help to reduce the burden in initiators and investors. Aligning project documents among all stakeholders reduces financing costs, potentially making projects less risky and boosting capital access. To achieve this, CREATORS has embraced the 'Investor Confidence Project' (ICP Europe) framework, known for standardized project development and impartial evaluations in energy efficiency.

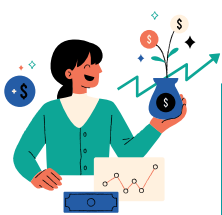
To understand the investors requirements and potentiality of investing in energy community project, our partner Bax conducted almost 30 in-depth interviews with investors, banks, crowdfunders, venture capital firms, and financial institutions, to understand the key barriers and opportunities for catalysing further investment into community energy systems. Through these interactions, we've unearthed key barriers and promising opportunities that can drive greater investment into community energy systems.

Key barriers to investment

1. Poor or changing definitions of community energy systems limits investor confidence.
2. A lack of internal business and legal expertise can discourage potential investors.
3. Securing the "Golden rule" of 30% initial equity before debt finance is challenging.
4. Traditional investments often require paybacks in under 15 years.
5. Due diligence costs can make projects with budgets below €2 million unprofitable.
6. Investors seek significant on-balance sheet assets as protection against loan default.
7. Regulatory limitations can restrict the establishment of a strong technical, financial, and legal foundation.

Key opportunities to investment

1. Public guarantees or private insurance can effectively reduce the risk associated with poor technical performance.
2. Crowdfunding can help to fill the initial gap in project equity before debt financing.
3. Both crowdfunding and efficiency mortgages offer incentives by providing favorable finance terms for ESG (Environmental, Social, and Governance) benefits.
4. On-tax financing mechanisms ensure long-term investment security by linking loans to property taxes.
5. Cooperative banks utilize their trusted local networks to finance smaller-scale projects.
6. External legal support enhances the investability of communities and projects.
7. Servitisation builds investor trust in project performance and eliminates debt from the balance sheet.



**From
investors'
point of
view**

Drawing insights from investor interviews, Bax developed a "Finance Scanning Tool." This tool enhances finance transparency and connects diverse community energy projects with suitable funding sources. User-friendly for both project initiators and investors, it simplifies the process. Users outline project details across 11 key metrics, from costs to returns and risks. The tool then assesses finance compatibility using a colour coding for a more user-friendly approach.

This tool offers concise explanations backed by interview data, plus a catalog of over 30 financial instruments spanning debt, equity, grants, and crowdfunding.

Investors can tailor the tool to reflect their preferences, influencing the analysis. In essence, it bridges investment-seeking projects and investors, aligning opportunities with their criteria.

The tool will be shortly available at the CREATORS' website.

Financing procedures and protocols for energy communities

EP and Bax have created new procedures to help assess projects, reduce risks, and connect them with the right financing and contracts. For early-stage projects, we offer different system models to build relationships and collaborative ideas. We also assess project feasibility, review technical aspects, and provide advice on funding, governance, and contracts.

We give CES projects templates and resources to comprehensively assess and mitigate risks throughout their development journey. This approach not only generates fresh insights but also facilitates the transparent communication of financial information with potential investors.

EP has transformed these procedures into a "Standard Assessment Protocol." Soon, we'll digitize it, making it accessible to clients across the UK and EU, connecting with the expertise in the CREATORS consortium.

In our approach, we facilitate the development of essential resources for financing Energy Community projects, which encompass:

- **Effective Organizational Framework:** Establishing an appropriate organizational structure and legal foundation.
- **Clear KPIs and Objectives:** Formulating measurable and verifiable Key Performance Indicators (KPIs) and objectives, spanning social, environmental, and financial aspects.
- **Technical Precision:** Ensuring a well-defined technical structure and optimizing energy flows.
- **Risk Mitigation:** Securing the necessary insurances, certificates, and warranties.
- **Robust Business Case:** Crafting a compelling project business case.
- **Site Evaluation and Impact Audits:** Conducting investment-grade site assessments and impact audits.
- **Financial Flexibility:** Exploring blended financial models to ensure financial flexibility.
- **Contractual Clarity:** Establishing Key Implementation Contracts, including Works contracts and energy services agreements.
- **Regulatory Compliance:** Navigating the landscape of licenses, permits, and regulated reporting to meet compliance requirements.

"Our innovative service model CES-as-a-Service together with our financing procedures and protocols empowers Energy Community projects by providing essential resources, ensuring clarity and fostering compliance, all contributing to a greener and more prosperous future with community energy."

Consortium Partners



Project Facts

Title

Creating Community Energy Systems

Duration

From September 2020 to October 2023

H2020 Call

H2020-LC-SC3-2020-EC-ES-SCC

Budget

€ 7.247.500

Funding Scheme

Innovation Action



This project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement n° 957815