

CLIMATE ASSETS

PARTNERS SOUGHT
FOR CETPARTNERSHIP JOINT CALL 2026

Modular climate-energy infrastructure for Mediterranean coastal, hospitality and greenhouse demonstrations



A transnational R&D opportunity led by a Spanish SME — engineering, prototyping and instrumented validation of the Solar Patio and Solar Digital Skin.

CALL INTEREST	DURATION	TRL PATH	PARTNER SEARCH
CM2026-08 / CM2026-10	Indicative 30 months	3–4 → 6+	R&D, technology, demonstrators, validators
↔	OPPORTUNITY OBJECTIVE Build a compliant transnational consortium to develop and validate modular climate-energy nodes integrating renewable generation, storage, thermal-comfort services, electric-mobility support and digital energy orchestration.		

Carlos H Betancourth SLU — The Climate Assets Company | Barcelona, Spain
chbetanc@msn.com | +34 689 79 8412 | Utility Model Application P 202432166

chbetanc

1. PROJECT CONCEPT AND TECHNICAL NOVELTY

A modular system connecting climate adaptation, local energy and distributed flexibility

THE CHALLENGE

- Heat waves and thermal stress are reducing the habitability and operational continuity of urban, coastal, hospitality and food-production environments.
- Renewable generation, storage, mobility and climate adaptation are still frequently delivered as separate infrastructures.
- Dense and heritage-sensitive sites require lightweight, reversible and service-oriented solutions.

THE CLIMATE ASSETS RESPONSE

- Transform underused objects and spaces into modular climate-energy assets.
- Integrate photovoltaic surfaces, storage, EMS, sensors, lighting, water and thermal-comfort functions.
- Scale from a Solar Patio to Solar Gardens, Solar Forests and regional distributed-energy networks.

Two priority integrated-system prototypes



SOLAR PATIO

Compact, modular, lightweight and potentially deployable node integrating solar generation, storage, EMS, sensors, lighting and outdoor thermal-comfort services.



SOLAR DIGITAL SKIN

Lightweight, flexible or deployable photovoltaic surface for greenhouses, terraces, pergolas and lightweight roofs, combining energy generation with dynamic radiation and heat management.

Provisional TRL progression and research focus

Integrated development	Start TRL	Target TRL	Core R&D question
Solar Patio integrated system	3–4	6–7	How can a reversible node combine structure, PV, storage, controls and climate services safely in outdoor operation?
Solar Digital Skin integrated system	3	6	How can flexible solar surfaces provide controlled deployment, energy generation and crop/occupant protection?
EMS, storage and local orchestration	3–4	6	How can multiple service loads and distributed resources be coordinated, monitored and prepared for microgrid/VPP scale?



CALL-MODULE POSITIONING

Primary interest: CM2026-08 Integrated Regional Energy Systems. Complementary relevance: CM2026-10 Clean Energy Integration in the Built Environment. The final module will be selected with consortium partners and national funding organisations.

2. PROPOSED R&D AND DEMONSTRATION PATHWAY

Instrumented validation in Mediterranean operating environments

Indicative 30-month experimental-development pathway

1	Define use cases, baselines, KPIs, interfaces and demonstration protocols.
2	Complete structural, electrical, deployment and system-integration engineering.
3	Select and characterise rigid, semi-flexible and glass-free flexible photovoltaic surface families.
4	Integrate storage, power electronics, EMS, sensors, controls and data architecture.
5	Manufacture engineering prototypes and complete controlled pre-validation testing.
6	Install and commission instrumented demonstrators in Spain.
7	Monitor energy, thermal comfort, reliability, safety, greenhouse and user performance.
8	We are open to exploring a complementary coastal, urban, hospitality or agro-energy demonstrator elsewhere in the Mediterranean, in collaboration with potential local and regional partners.

Potential Spanish demonstration environments



Conceptual visualisation — subject to engineering, host agreement and validation.

Coastal hospitality Solar Patio

Sant Vicenç de Montalt and/or Vilassar de Mar

STATUS: Potential host sites under discussion

- Validate deployable structure, PV integration, storage, lighting, sensors and thermal-comfort services.
- Measure energy yield, environmental conditions, user comfort, reliability and operational usability.
- Explore connection to a wider municipal or local-energy use case.

NEXT TECHNICAL MILESTONE

Host survey, requirements specification and non-binding host letter.



Conceptual visualisation — subject to engineering, host agreement and validation.

Greenhouse Solar Digital Skin

Premià de Mar

STATUS: Integrated concept discussed with the site owners

- Validate material family, bending/deployment mechanism and interaction with the transparent greenhouse envelope.
- Measure solar radiation, temperature, humidity, energy generation, irrigation/climate loads and crop-relevant conditions.
- Assess transferability to hospitality, pergola and lightweight-roof applications.

NEXT TECHNICAL MILESTONE

Greenhouse baseline, technical specification and prototype bay definition.

3. DEMONSTRATION NETWORK AND TRANSNATIONAL REPLICATION

From primary prototypes to regional integration and replication

Possible complementary regional demonstrations

	
Vilassar de Mar / Badalona Optional public or regional validation of climate-energy networks, subject to municipal confirmation and call-module requirements.	Integrated rural / heritage environment Optional validation of a measurable subsystem combining reversible solar structures, energy, water and outdoor comfort.
	
REPLICATION PATHWAY A complementary coastal, urban, hospitality or agro-energy demonstrator could be developed with partners and local stakeholders in another eligible region. Potential replication partners may support site identification, municipal and regional engagement, Living Lab design, stakeholder participation, dissemination and transfer to additional territories.	

Core validation dimensions

ENERGY PV yield, storage, self-consumption and flexibility	CLIMATE Thermal comfort, shade and heat-stress reduction	RELIABILITY Wind, weather, deployment cycles, electrical and user safety	DIGITAL Sensors, controls, EMS, data quality and orchestration
GREENHOUSE Radiation, temperature, humidity, irrigation and crop-relevant conditions	USABILITY Installation, operations, maintenance and stakeholder acceptance	INTEGRATION Mobility, water, lighting and multi-service loads	REPLICATION Specifications, LCA/TEA and transfer to new regions

Provisional project configuration

DURATION	COUNTRIES	PRIMARY OUTPUT	END USERS
30 months	Spain + additional eligible participating countries	TRL 6+ integrated prototypes	Hospitality, greenhouse, municipal and regional need owners
		DEMONSTRATION PRINCIPLE All sites are potential R&D environments. Participation, scope, technical specifications and funding remain subject to host agreement, consortium design, engineering, national eligibility and final Call Module selection.	

4. CONSORTIUM PARTNERS SOUGHT

Capabilities required to complete a competitive transnational R&D consortium

R&D / VALIDATION PARTNER Structural, electrical, safety, thermal-comfort, monitoring and independent validation; test protocols and TRL evidence.	FLEXIBLE-PV TECHNOLOGY PARTNER Glass-free flexible or semi-flexible photovoltaic materials; characterisation, electrical integration and durability.
DEPLOYABLE-STRUCTURE ENGINEERING PARTNER Lightweight, reversible, foldable or retractable mechanisms; wind, weather and fatigue engineering.	ENERGY-SYSTEM TECHNOLOGY PARTNER Storage, power electronics, EMS, local energy orchestration, microgrid and VPP integration.
GREENHOUSE / AGRONOMY PARTNER Greenhouse climate, crop-light interaction, irrigation and productive-performance monitoring.	DEMONSTRATOR / LIVING LAB Municipalities, coastal operators, hospitality sites, greenhouse operators or regional energy communities.
IMPACT AND REPLICATION PARTNER LCA, techno-economic assessment, regulation, social impact, stakeholder engagement and replication methodology.	EXPERIENCED PROJECT COORDINATOR CETPartnership proposal coordination, work-package integration, financial management and Knowledge Community activities.

Contribution offered by Carlos H Betancourth SLU

- Climate Assets system concept, modular architecture and background IP framework. - Solar Patio and Solar Digital Skin product briefs and design logic. - Spanish pilot opportunities, stakeholder contacts and host engagement. - Spatial integration, service architecture and scale-up logic: Patio → Garden → Forest → Landscape.	- Proposed role as Spanish technology developer and physical-system integrator. - Coordination of prototype engineering, Spanish demonstrations and cross-system requirements. - Contribution to use cases, KPIs, monitoring requirements and replication framework. - Active participation in concept-note and proposal development.
---	--

Preferred collaboration profile

- Partners eligible for national or regional funding under the selected Call Module.
- Clear technical responsibility and measurable contribution to integration or validation.
- Access to relevant facilities, technologies, data, demonstrators or need owners.
- Commitment to co-develop the concept, work packages, budget and pre-proposal on the Joint Call 2026 timetable.

	CONSORTIUM FORMATION OBJECTIVE Form a transnational consortium that meets the Joint Call requirements and combines a Spanish SME technology lead with research, technology, validation and demonstrator partners from eligible participating countries.
---	---

Suggested B2Match opportunity classifications

R&D Partner	Technology Partner	Demonstrator	Validator / Living Lab	Other / Coordinator
CM2026-08	CM2026-10	Distributed energy	Flexible PV	Climate resilience



5. B2MATCH MARKETPLACE TEXT — READY TO COPY

Category: Project cooperation

Opportunity title

Climate Assets — partners sought for modular climate-energy demonstrations in the CETPartnership Joint Call 2026

About

Carlos H Betancourth SLU — The Climate Assets Company, a Spanish SME based in Barcelona, is forming a transnational R&D consortium for the CETPartnership Joint Call 2026. Climate Assets transforms underused urban and rural structures and spaces into modular climate-energy assets combining heat adaptation, renewable generation, local storage, digital energy management, electric-mobility support and environmental monitoring.

Two systems are proposed. The Solar Patio is a lightweight and potentially deployable node for public spaces, hospitality terraces and coastal environments, integrating PV, storage, EMS, sensors, lighting and thermal-comfort services. The Solar Digital Skin is a flexible or deployable photovoltaic surface for greenhouses, pergolas, terraces and lightweight roofs, combining energy generation with solar-radiation and thermal-stress management.

The provisional pathway is Solar Patio TRL 3–4 to 6–7, Solar Digital Skin TRL 3 to 6, and EMS/storage orchestration TRL 3–4 to 6. R&D would cover requirements, structural and deployment engineering, comparison of solar-surface families, storage and controls, prototype manufacture, installation and instrumented validation.

Potential Spanish demonstration environments include coastal hospitality and greenhouse sites in Catalonia, subject to host agreement. We are open to exploring a complementary coastal, urban, hospitality or agro-energy demonstrator in the Mediterranean and elsewhere, in collaboration with potential local and regional partners. Primary call interest is CM2026-08 Integrated Regional Energy Systems, with complementary relevance to CM2026-10 Clean Energy Integration in the Built Environment.

We are particularly interested in cooperation with

- Research and validation organisations for structural, electrical, thermal-comfort, greenhouse and monitoring work.
- Flexible-PV and integrated-PV manufacturers plus lightweight deployable-structure engineers.
- Storage, power electronics, EMS, microgrid and VPP technology partners.
- Greenhouse, agronomy and crop-light-management researchers.
- Municipalities, coastal operators, hospitality or greenhouse demonstrators and Living Labs.
- Impact, replication and experienced CETPartnership coordination partners.

Contribution offered

- Climate Assets concept, system architecture and background IP framework.
- Solar Patio and Solar Digital Skin prototype briefs and Spanish pilot opportunities.
- Physical-system integration, use cases, service architecture, KPIs and replication logic.
- Proposed role as Spanish SME technology developer and system integrator.

Topics and partner types

Topics: Call Module 2026-08 Integrated Regional Energy Systems; Call Module 2026-10 Clean Energy Integration in the Built Environment.

Types: R&D Partner; Technology Partner; Demonstrator; Validator/Living Lab; Other / Coordinator.

Contact

Carlos H Betancourth

Carlos H Betancourth SLU — The Climate Assets Company | Barcelona, Spain
 chbetanc@msn.com | +34 689 79 8412 | Utility Model Application P 202432166



PUBLICATION NOTE

Open for co-development. Pilot sites and technical parameters are provisional and subject to host confirmation, consortium agreement, engineering, national eligibility and funding.

[CETPartnership Joint Call 2026](#) | [CETPartnership B2Match platform](#)