Disclaimer: The program Venture Client GEB will be developed entirely in the Spanish language, it is requiered that at least one person from the entrepreneurial team must be completely fluent in Spanish and be available to participate in all program activities.













# Venture Client GEB CORPORATE VENTURING PROGRAM

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### WE SEEK SOLUTIONS ALIGNED TO OUR INNOVATION FOCUSES

### **Industries 4.0**



The technologies of the fourth industrial revolution or Industry 4.0, including particularly the Internet of Things (IoT), immersive technologies (virtual, augmented, and mixed reality), data science (machine learning, artificial intelligence, and big data), wearable technology, robotics and drones, robotic process automation (RPAs), digital twins, and even satellite and LIDAR imagery, are fundamentally transforming the industry by enabling unprecedented levels of automation.

In the electric and natural gas infrastructure industry, these technologies enable the digitization and optimization of everyday processes and activities, particularly in the operation and maintenance of existing assets and in the investment in new ones, generating opportunities for exponential efficiency gains.

That is why we seek solutions that enable our power and gas transmission and distribution networks and systems to be exponentially more autonomous and efficient. Likewise, we seek that the operation, maintenance, and planning activities of these systems are carried out in an automated, data-driven, and optimized way, to achieve more efficient, reliable, and resilient systems.

### CHALLENGE

Test and adopt Industry 4.0 technologies to optimize the planning, operation and maintenance of power and gas transmission and distribution assets in GEB's subsidiaries in a way that allows them to be more efficient in making and executing decisions.



In the power sector, without precluding its application to the natural gas sector, a "smart grid" is characterized by the use of software and hardware technologies enabled by bidirectional communications technologies, control systems, and computational processing.

These technologies include, for example, sensors, meters, and actuators located in the transmission and distribution infrastructure which are remotely and automatically controllable.

The capabilities enabled by these digital and interconnected technologies allow greater visibility of asset health and status and system operation, and also enable more cost-efficient, reliable, and resilient operation through new and enhanced functionalities deployable in the stations, substations, and control centers of power and natural gas transmission and distribution systems.

### **CHALLENGE**

Identify new "smart grid" technologies with potential generate efficiencies, optimizations and new business opportunities for the subsidiaries from its power and natural gas transmision and distribution networks.

# Venture **Client** GEB

Grupo Energía Bogotá (GEB) is a multi-Latin company with operations throughout the entire energy chain in Latin America in generation, transmission, distribution, and retail sales of electric power and transmission, distribution, and retail sales of natural gas distribution in Colombia, Peru, Brazil, and Guatemala.

As part of the company's open innovation strategy, the GEB Venture Client program was created to allow GEB and its subsidiaries to carry out rapid experimentation processes with startups and scaleups to explore innovative solutions for current and future challenges of the industry.

Through this program, we want to become the early adopters of the best startups in the world and meet those creative and brave entrepreneurs who are transforming the energy sector with solutions aligned with our innovation focuses.













### Reduction of GHG emissions



The world is on the path to decarbonization and the energy industry is leading a profound transition. This transition is crucial for the sustainability of GEB and its subsidiaries, and we are therefore seeking solutions that will allow us to more accurately measure and efficiently reduce direct and indirect greenhouse gas (GHG) emissions from our operations. The sources of these emissions include, for example, in the gas transmission and distribution infrastructure, natural gas combustion in compressor stations and methane leaks, and in the power transmission and distribution infrastructure, SF6 gas leaks and power losses that generate indirect emissions. Likewise, the circularity and sustainability of our operations and materials is also of interest to all GEB subsidiaries.

### **CHALLENGE**

Encourage, develop and increase interaction between GEB subsidiaries and their stakeholders to generate synergies in the material reduction of their direct and indirect GHG emissions.

### SocialTech



Communities play a fundamental role in the planning, construction, operation and maintenance of energy infrastructure, such as power transmission lines and gas pipelines. In particular, the relationship such local communities is key in the infrastructure approval processes, as well as in the infrastructure operation and maintenance activities. Given this importance, there is a need to seek solutions that allow the establishment of communication and interaction mechanisms to strengthen the relationship with the communities and that allow shared and sustainable value generation, both in the construction phases and in the subsequent operation of the infrastructure. Leveraging on existing capabilities of GEB and its subsidiaries would be ideal.

Of particular interest are communities adjacent to the rights-of-way of power transmission lines located in zones without interconnection to the national power system.

#### CHALLENGE

Establish solutions to generate effective communication channels and tangible benefits to the communities in the areas of influence of transmission infrastructure to strengthen the trust and commitment of such communities.

### sustainable mobility One of the sectors most impacted

Solutions for



One of the sectors most impacted by the energy transition is mobility, in part because is affected directly by the drivers of decarbonization, decentralization and electrification. Due to the importance of this sector as a major energy consumer, and its vast impact on the environment and public health of urban dwellers, GEB and its subsidiaries seek to identify solutions that facilitate the adoption of sustainable mobility alternatives.

The most relevant solutions are those that, through new business models, access to financing, digital solutions, and even hardware, facilitate the niche or mass transition to the use of electric and natural gas (compressed and liquefied) vehicles as an alternative to incumbent liquid fuels. Of particular interest are solutions that can facilitate the adoption of liquefied natural gas (LNG) vehicles in the long-distance transportation segment in Colombia and Peru.

# New services using the current infrastructure



Power transmission lines and natural gas pipelines are linear infrastructure that cover hundreds or even thousands of kilometers from large consumption centers to very remote areas. As such, this infrastructure offers proximity to a considerable number of communities in the GEB's areas of influence, thus representing an opportunity for the sustainable development of new services and business models that generate shared value for the GEB and for these communities by leveraging the existing infrastructure.

Some of the fields of action contemplated in this challenge are:

- Telecommunications and internet technologies
- Electrification of non-interconnected areas
- Energy storage
- Alternative mechanisms for energy transmission.

#### CHALLENGE

Promote the transition towards a more sustainable mobility that contributes to decarbonization and the improvement of air quality and life in Colombia and Peru, by facilitating the massive adoption of electric and natural gas vehicles.

### CHALLENGE

Develop new services and/or business models that leverage GEB's current infrastructure and generate shared value for its stakeholders, or even for new industries.

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### Hydrogen, low carbon gases, and CCUS



A pressing goal that many countries have set themselves for 2050 is the partial or total decarbonization of their economies, and Latin America is no exception. Colombia, for example, with its commitment to reduce 51% of its greenhouse gas (GHG) emissions by 2030 and to achieve carbon neutrality by 2050, has set itself an enormous challenge. As part of this goal, lowcarbon hydrogen promises to play a key role in the transition to a decarbonized economy due to its abundant availability in the environment, the low environmental impact potential of its uses and production, and its great versatility as an energy carrier, allowing it to be used in a wide range of applications, as a feedstock, fuel or even as a means for energy storage.

For GEB, the production, storage, transportation, and use of low-carbon hydrogen is a strategic priority with which it seeks to lead the decarbonization of sectors that are difficult to abate and thus contribute to the medium and long-term objectives of decarbonization and improvement of air quality in the countries and cities where it operates. To advance in this priority, GEB and its subsidiaries see as a necessity the constant search for innovative businesses, technologies and hydrogen consumption proposals that can accelerate the development of local low-carbon hydrogen supply chains.

Among the possible proposals expected to be obtained are:

- Solutions for efficient hydrogen production, compression, storage and transportation.
- New markets with small-scale demand for hydrogen.

- Niche markets with opportunities for hydrogen production or consumption.
- New markets with smaller-scale hydrogen demand.

#### CHALLENGE

Develop a complete low-carbon hydrogen value chain on a commercial scale that enables value generation during the energy transition from the intensive use of fossil fuels to the massive and sustainable use of energies with low environmental impact.

### **Distributed Energy Resources (DER)**



Historically, the electricity sector has been characterized by taking advantage of economies of scale that have favored the deployment of large-scale power infrastructure, transporting energy over long distances from large generation plants to large consumption centers. However, technological advances have enabled the massification of small-scale distributed generation, storage, and demandside management technologies (including energy efficiency, demand response, and electric vehicles). These technologies, called Distributed Energy Resources (DERs), can be managed automatically or manually, installed near consumption centers in distribution grids or on the premises of electricity consumers, and enable prosumers to supply and consume energy and services to and from the grid, respectively.

DERs are relevant for the energy transition, as they enable greater participation of end users within the electricity value chain. DERs enable end users to make dynamic and informed decisions about their consumption, while offering services to the grid such as voltage regulation, load curve flattening, and avoiding or delaying investments needed upgrade power networks. Its most outstanding benefits are:

- Increase in the use of renewable energy.
- Reduce GHG emissions, contributing to decarbonization.
- Improve system reliability and resilience.
- Reduced transmission and distribution losses .
- Lower cost of electricity.

Therefore, GEB and its subsidiaries seek to generate or explore new business models focused on customers and their ability to control their energy consumption.

### **CHALLENGE**

Design and offer solutions (products and services) that empower our power and gas clients to better manage their energy consumption and implement new mechanisms and business models that facilitate cost optimization in the provision of the service.

# REQUIREMENTS FOR THE STARTUP AND TEAM

### **Customer and community engagement**



In power and gas retail sales, customer experience and satisfaction are at the core of the business. GEB and its power and natural gas distribution and retail subsidiaries seek to identify solutions that allow them to meet the energy needs of their customers in a proactive, personalized and more holistic manner, for example, by providing more personalized information and offering services and solutions tailored to their individual short and long-term energy needs.

A key objective is to empower energy end-users with technology-based options and tools. This will enable them to efficiently manage their energy consumption in an informed manner.

For example, we seek to identify solutions that help create smart communities that are interactive with the grid, solutions that help customers become active and informed prosumers in an increasingly complex market. In addition, solutions are sought to develop new business lines for our distribution and retail subsidiaries.

### **CHALLENGE**

Implement technological solutions that allow us to know better our commercial and residential customers, so that we can present them with personalized offers of products, services or relationship mechanisms to increase their level of interaction, satisfaction and loyalty with the company.

- The venture must demonstrate a minimum of one (1) year of experience working in the sector where its solutions, services and/or products are applied.
- Revenues out of products and services over USD50.000 and positive cashflow for running the startup.
- Present an innovative solution (product and/or service) aligned with in one of the GEB's innovation interests. The maturity level of the technology must be in TRL, 7 and above.
- The startup must have a minimum team of five (5) people and It must be guaranteed that at least two (2) them must have full-time dedication to the Program (i.e., 8 hours per day, during the 3 months experimentation and mentroring phase), one (1) be completely fluent in Spanish.

# BENEFITS FOR SELECTED STARTUPS

- Become an ally in innovation to one of the most important multi-Latin company with operations throughout the entire energy chain.
- Expand your relational capital and network through GEB, its subsidiaries, Estratek and Endeavor.
- Conect with top utility business leaders, senior mentors, and subject matter experts.
- Participate in the transformation of the energy sector.
- Test relevant solution for GEB and its subsidiaries and them into your early adopter.

# TIMELINE OF THE CALL AND STARTUP SELECTION PHASE

FREQUENTLY ASKED
QUESTIONS

The call will be open for a period of one month; once closed, the program will last 4 months and will be divided into two phases: the first phase consists of the selection of the startups and lasts one month. During this phase they will go through several filters that include interviews, training and finally a bootcamp from which the up to 4 startups will be selected to work with in the second phase of experimentation and mentoring, which will last 3 months.

The following table describes the times corresponding to the call and the stages of the selection phase:

#### SCHEDULE OF THE CALL FOR PROPOSALS

	STAGE	DURATION
1	Open call for startups and registration	4 weeks
SELECTION PHASE		
1	First filter evaluation salection of up to 30 startups	3 weeks
2	Startup training - selection of 12 startups.	2 weeks
3	Bootcamp - selection of 4 startups.	1 week
EXPERIMENTATION AND MENTORING PHASE		
1	Signing of Participation Agreements.	1week
2	Implementation of first version of MVP.	3 months

### Which entities participate in the program?

The organizing entities are Grupo Energía Bogotá (GEB) and its subsidiaries Cálidda, ElectroDunas, Transmisión, TGI and Trecsa. Additionally, the operating entities are Estratek and Endeavor.

When and where to apply for my startup?

The call will be open until July 31, 2022, startups and scaleups can apply by filling out the form by clicking here.

### What language will the program be conducted in?

The program will be conducted in Spanish; it is required that at least one person from the team participating in the program must be able to communicate fluently in Spanish.

### Does my startup have to operate in one of the four GEB countries?

No. The call is open globally as long as the startups meet the requirements established in the terms of the call.

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**TERMS CONDITIONS APPLY** 

**SIGN UP** 













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