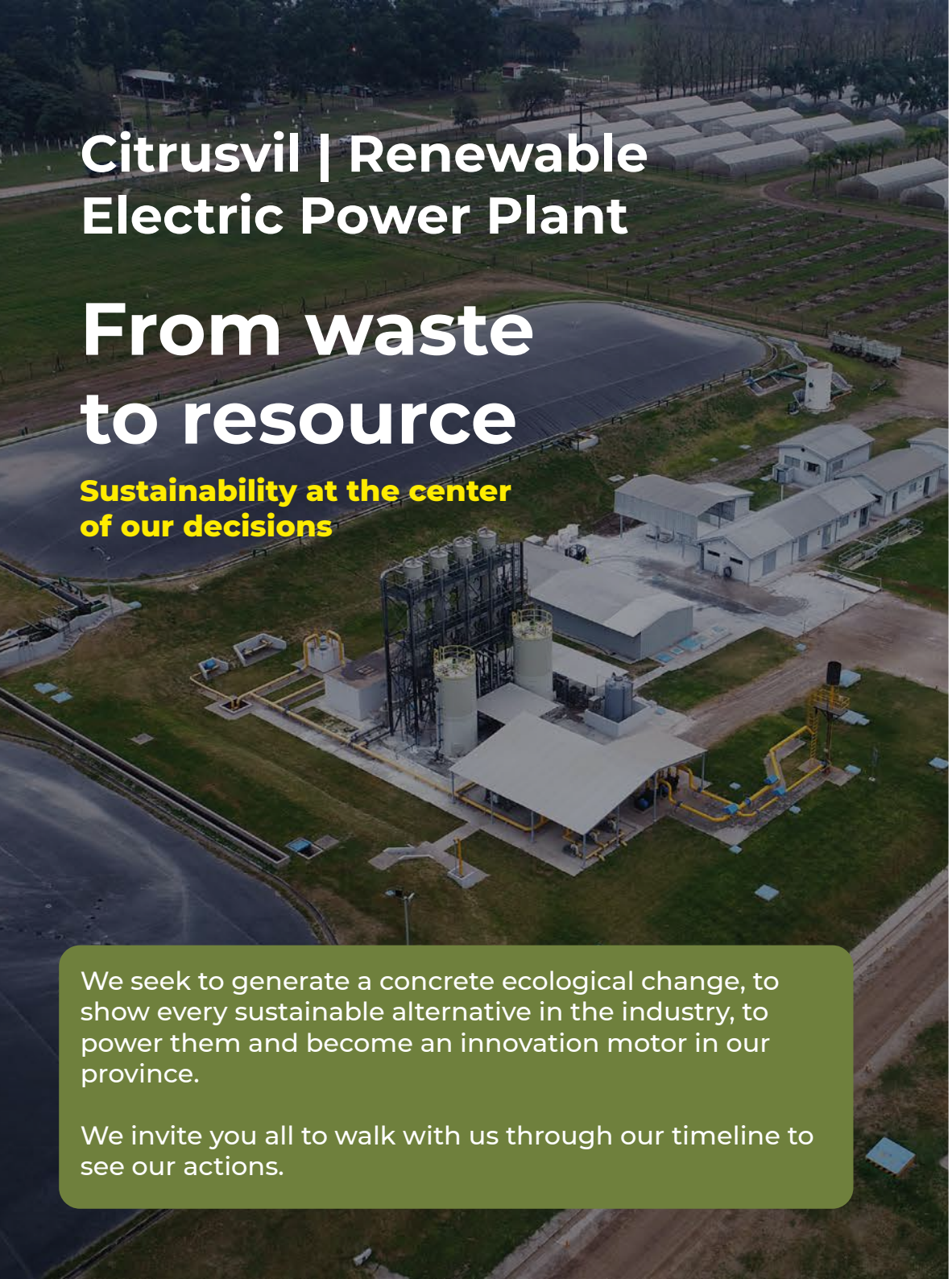

Citrusvil | Renewable Electric Power Plant

From waste to resource

Sustainability at the center of our decisions

We seek to generate a concrete ecological change, to show every sustainable alternative in the industry, to power them and become an innovation motor in our province.

We invite you all to walk with us through our timeline to see our actions.

2006

We started the Effluent Zero Program with the object of minimizing environmental impact and preventing liquid effluents generated by our own industrial plants from pouring into natural water sources.

After specific studies we decided to build our own Effluent Treatment Plant.

2007

We joined the PRI Programa de Reconversión Industrial (Reconversion Industrial Program) which is an agreement between the National Governement and the industry which foments environmental adaptations in order to reduce environmental impact.

Together with recognized specialists, we undertook the challenge to treat our own effluents by means of an anaerobic process with biogas production becoming pioneers of this model in the global industry.

2008 & 2009

We built and started up our two anaerobic bio-digestors.

Inside these bio-digestors, bacteria digest the organic matter and generate biogas.

Lined up with our sustainability strategy and under the circular economy concept, the boiler is adapted at the Industrial Plant B for the **utilization of this bio-fuel.**

2013

We reached **operational stability,** exceeding biogas demand at Industrial Plant B and we adapted the boiler of Industrial Plant A in order to take advantage of renewable energy produced and **reduce fossil fuel consumption.**

2015

We started to operate a third bio-digestor with the object of improving the efficiency of the system and to capture the growing demand of our Plants and Factories.

2017

We took part in Round 2.0 of **RenovAr,** a special program that promotes power generation from renewable energy. This participation lines up with our spirit to continue adding value to our actions and to consolidate matters of sustainability.

We were awarded the Project to produce 3MW of renewable electricity from our effluents. We inject this electricity into the SADI, National Interconnected System, **equivalent to an average consumption of 3.000 Argentine homes.**

2018

2018: We started negotiations to buy the plant of renewable energy and we signed a contract to sell energy to **CAMMESA.**

We replaced **20% of natural gas** required by industrial plants, for biogas by operating with biological maturity of the system and three bio-digestors. This is how we managed to use **100% of biogas** produced in our industrial installments turning the plant to be **self-sustainable from an economic point of view.**

2019

Our work and set up continued during this year. The Plant started to inject electric power into the electric network on September 6th.

2020

During this year, we set up our management in its operational and administrative aspects.

We were faced with the challenge to generate renewable energy between harvests in order to continue our Plant operations. We analyzed available local substrates to be treated. **This consolidated our action related to the circular economy in favor of our region.**

2021

We continued to strengthen our teamwork and processes in this new business unit.

Impact

The plant is now of Renewable Energy and is transversal the industrial installments of Citrusvil placed in Cevil Pozo, Tucumán. It treats liquid and organic solid effluents generated by the packing and its two industries.

We inject 3MW of electric power at a high consumption point, making the transport system lighter.

Biogas

It is obtained from the treatment of industrial effluents. The bacteria that are inside the bio-digestors degrade the organic matter of the effluent and therefore generate biogas.

Biogas is captured for two reasons:

Enviromental: it contains methanol gas, which is the greenhouse effect gas, which allows us to reduce its impact in the environment.

Economic: it can be used as fuel, replacing gas from fossil origin, which allowed Citrusvil to reduce 20% of gas consumption during over 10 years.

What is the difference between biogas and gas from fossil origin?

Biogas is a mixture of gases with methanol as its main component, while gas from fossil origin is more concentrated in methanol and therefore is a fuel with greater heating power.

Gas from fossil origin is a finite non-renewable resource which needs to be transported from long distances, from the point of extraction to consumption points, while biogas can be produced in a short time and can be generated in the same place of consumption.

Challenges for 2022

Our commitment goes beyond our own activity, we intend to produce renewable energy by taking advantage of the available substrates or effluents in the region and in this way, we keep contributing to sustainability in our Province.

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