



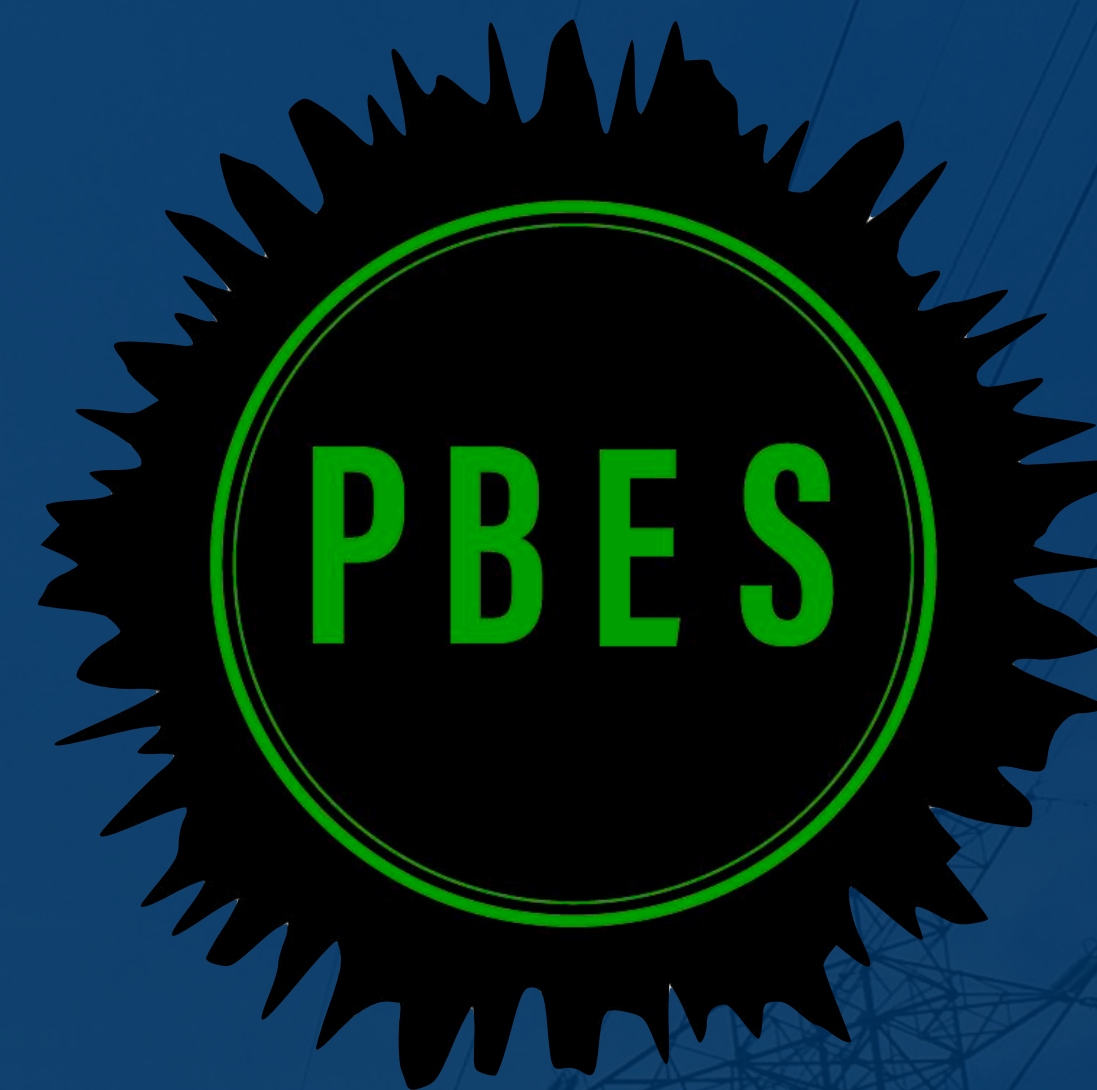
Empowering communities in sub-Saharan Africa

with eco-friendly energy solutions

INTRODUCTION

Pamodzi Bio Energy Solutions (PBES) is a start-up set up to contribute to the broader 2030 agenda for **sustainable development**.

They aim to provide **affordable and clean energy (SDG7)**, in the form of compressed biogas, using highly scalable biogas digesters for productive use primarily in the rural parts of **sub-Saharan Africa**.

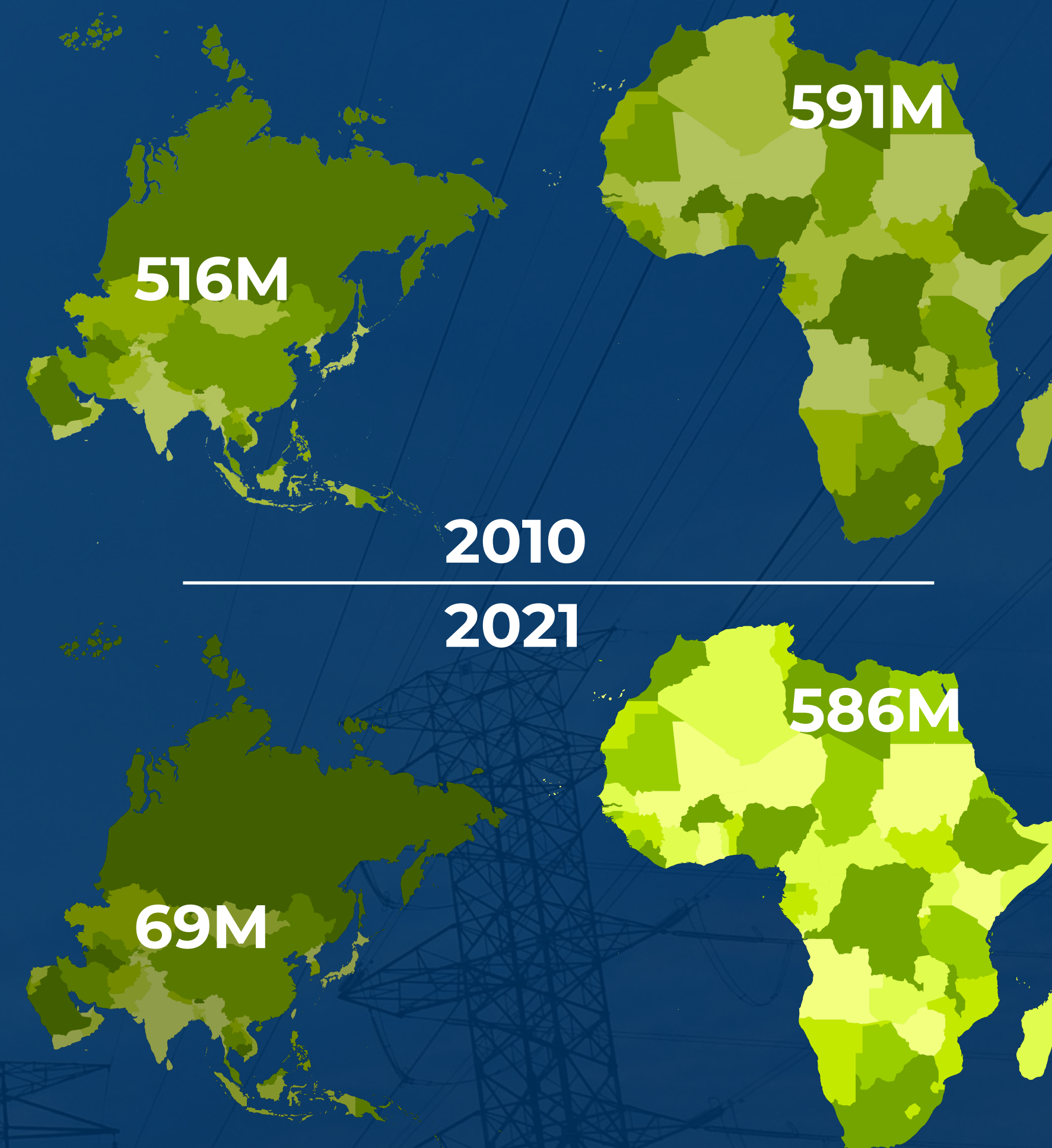


INTRODUCTION

According to SEforALL, **unelectrified people** in **2010** have been almost **equally distributed** between **Asia** (516 million) and **Africa** (591 million).

In **2021**, only 69 million of people remained unelectrified in Asia, while 586 million of people remain unelectrified in Africa. Thus, focusing on electrifying sub-Saharan Africa is a key to get SDG7 back on track before 2030.

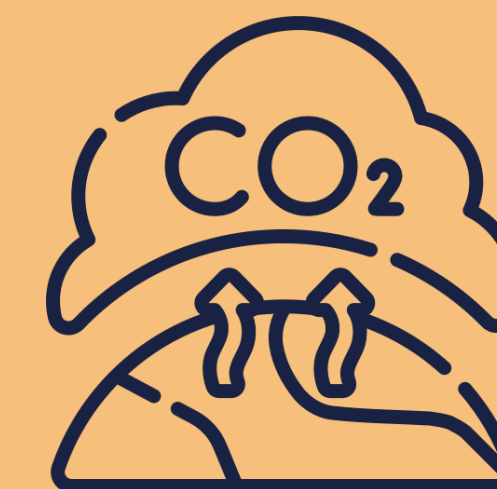
Unelectrified people



INTRODUCTION

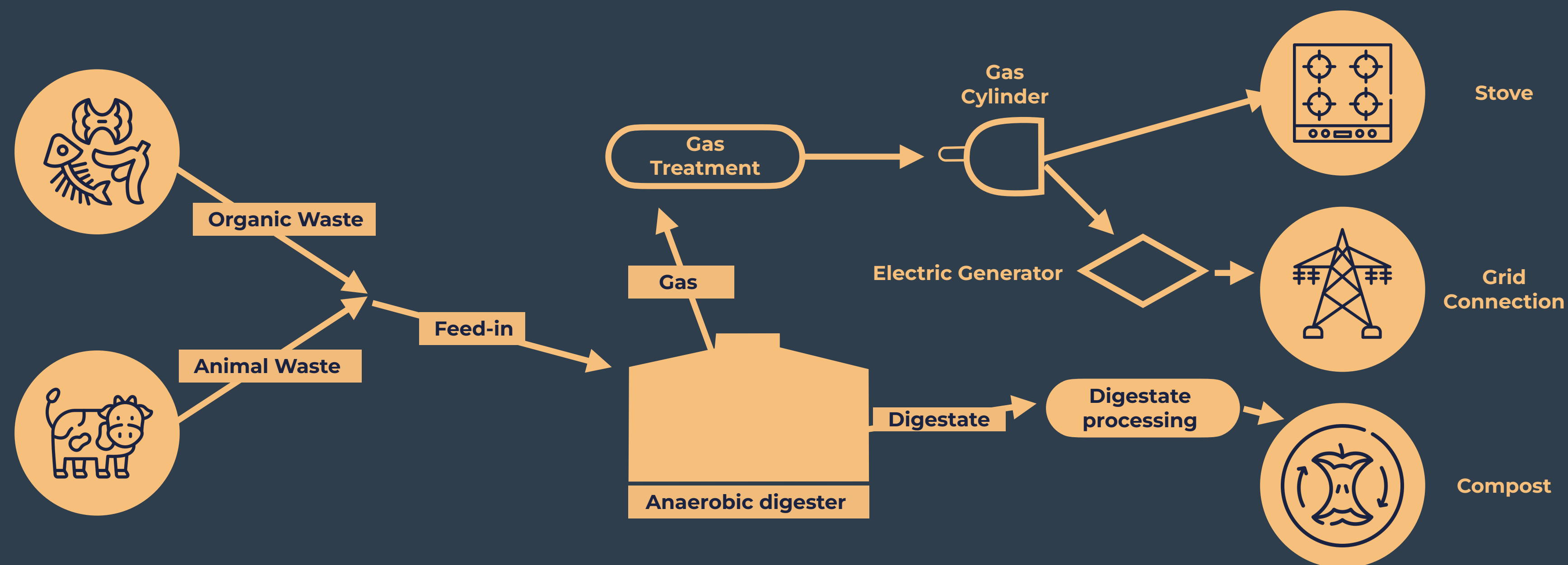
The company's solution entails the **productive use of feedstock** that is otherwise burnt, thereby contributing to the **reduction of Greenhouse Gases (GHG)** emissions in the environment.

In addition to this, they claim to be providing service in the form of generating set conversion from fossil-fuel-powered to biogas-powered will help to further reduce GHG emissions from millions of generating sets used in our target market.



INTRODUCTION

To electrify the populations in need, an **electric generator** and **grid connection** are needed. They aim to planting **anaerobic digesters** and store the treated gas in **gas cylinders**. Those cylinders could be sold to households and provide them with the energy they need for their stoves (without electrifying those households, though) or used to empower an electric generator to create electricity, connect it to the grid and electrify the communities.



INTRODUCTION

Pamodzi's **primary target** market is **Nigeria** - a country with a population of 220 million people (of which 40% are reported to live without electricity).

Additionally, more than 180 million people still rely on firewoods, charcoal and kerosene to meet their daily cooking needs in Nigeria. Nigerians spend more than \$12 billion each year on off-grid electricity generation using fossil fuels.



220M

without



80M

TASK

You are consulting the company that must decide on the pathway they need to follow until 2030, to deal with the issue and electrify as many people as possible, considering the restrictions mentioned above. Your client needs to decide on:

- | | | | | | |
|----------|----------------|----------|---------------------------|----------|---|
| 1 | Funding scheme | 2 | Target audience profiling | 3 | Entry to market strategy and growth procedure |
|----------|----------------|----------|---------------------------|----------|---|

Your tasks are to:

- 1** Analyze the **environment** of this project and point out probable opportunities and risks.
- 2** Account for main expected **costs** (design and construction costs, operating costs, logistics, security measures, interest).
- 3** If you **choose to fund the project**, explain the composition of the capital used, based on its cost. If you **choose to withdraw**, explain why.
- 4** Define the **break-even point** of this project (if any).
- 5** Recent research emphasizes on the potential benefits of **compressed biogas** for both the society and the environment. In this case, what **benefits** could your client expect.

GRADING PARAMETERS

Those are the grading parameters that everyone will use to peer-grade the solutions:

- 1** Has the team identified the problems/causes and goals/issues of their assignment?
- 2** Has the team demonstrated the ability to effectively synthesize the information?
- 3** Do you recognize a broad perspective, deep analysis and inclusion of different stakeholders' interests?
- 4** Is the model of analysis complex and adequate? Has the team presented a clear structure of thoughts and arguments?
- 5** Are the underlying assumptions reasonable and realistically backed by the evidence? Do you recognize a high level of business sense and the ability to apply economic concepts?
- 6** Has the team presented a well-developed strategy and made realistic recommendations? Do you recognize complete coverage of key issues?
- 7** How precise were the calculations and projections? Are they convincing?
- 8** Has the team demonstrated the ability to think outside of the box? Do you recognize imagination and creativity?
- 9** Is the presentation simple to follow? Was communication professional and proper, supporting their recommendations?
- 10** Did the team follow the instructions for the presentations, especially time limits? Is the contribution of every team member visible?



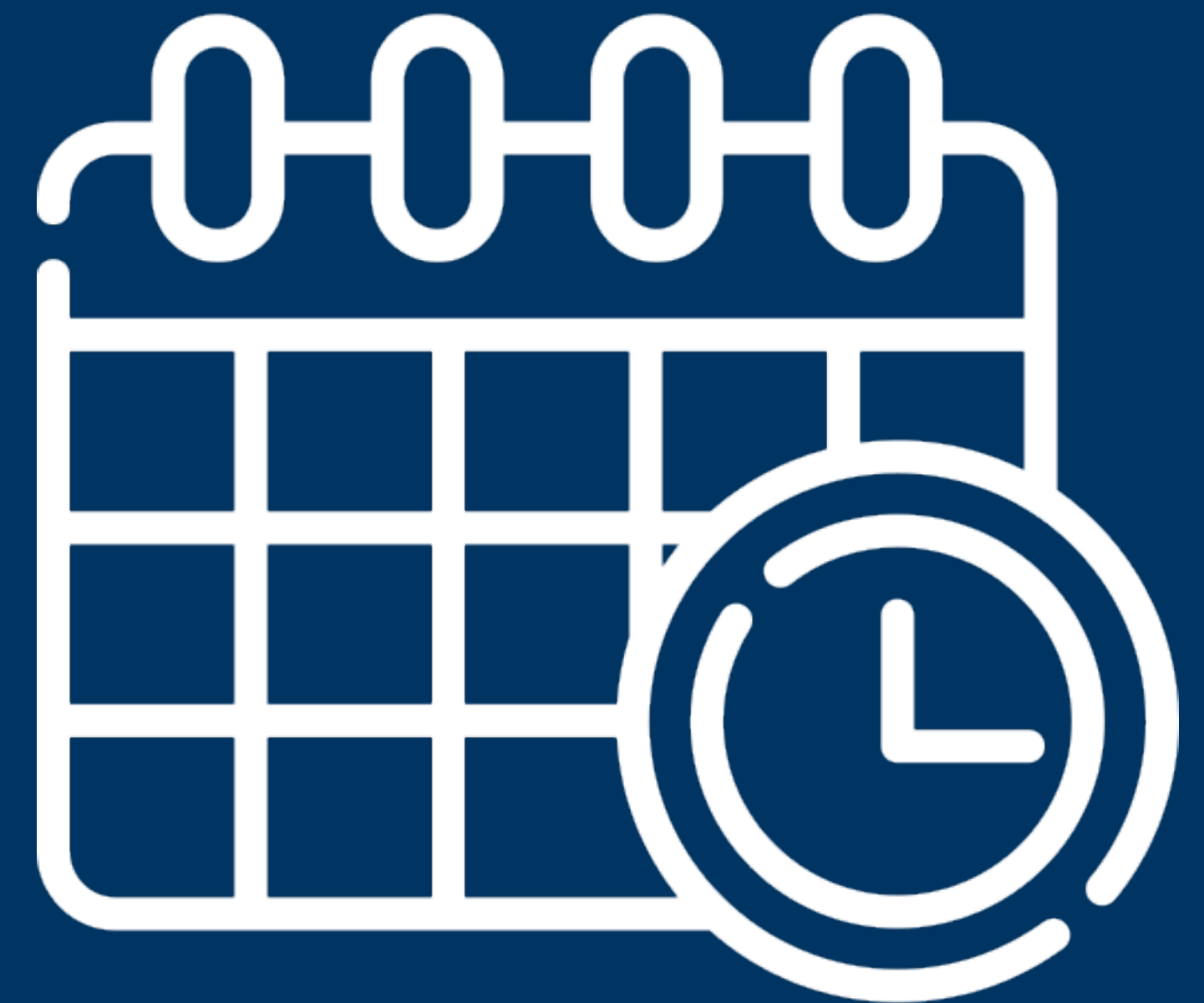
SCHEDULE & INSTRUCTIONS

Business Case video and presentation files upload **deadline: 18th of February 2024, 23:59 UTC**

Upload [HERE](#)

Restrictions

- 1** The presentation video length limit is 10 minutes.
- 2** The video should be submitted in a commonly accessible format (*.mp4, *.avi or *.mkv), its size should be under 1 GB.
- 3** There are no restrictions on editing the video and on the number of slides of your presentation
- 4** Presentation slides are to be submitted in .pdf format.
- 5** Names of all the files should be the same as the code of your team. (e.g.: "1234.pdf", "1234.mp4").
- 6** Keep in mind that it will take time to upload the video, so do have it ready in advance.
- 7** The video can be captured by any available means. For example, you can use the recording option in Zoom.



PEER GRADING

Deadline for peer grading: **23rd of February 2024, 23:59 UTC**

Submit [HERE](#)

Penalty for late replies

25	if peer-grading submitted 0-2 hours late	%
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50	if peer-grading submitted 2-4 hours late	%
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75	if peer-grading submitted 4-6 hours late	%
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EXCLUSION

if peer-grading isn't submitted 6 hours after deadline

Ask **questions**: https://t.me/Eleni_Kisiri or <https://t.me/+SF2tu1pH7Dc1YTc0>