

A Work Project, presented as part of the requirements for the Award of a Master's degree in Management, from the Nova School of Business and Economics.

**“HOW TO CREATE A BREAKTHROUGH IN CONSUMER-BASED
ENERGY COMMUNITIES IN PORTUGAL”**

PRICING STRATEGY AND PLACE

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Abstract

In Portugal, Energy Communities are becoming increasingly relevant. Greenvolt Comunidades is a new player in the energy market that focuses on energy management. This report presents a comprehensive marketing strategy for the new service proposed “Poupança Unida”. The report includes one additional sub-report that deeper explore the Pricing Strategy tied with the Distribution Channel choices. The objective of the report is to create a breakthrough in consumer-based Energy Communities for Greenvolt Comunidades in Portugal.

Keywords: Greenvolt; Greenvolt Comunidades; Energy Communities; renewables; sharing energy solutions; breakthrough; marketing plan; “Poupança Unida”; Value-Based Pricing Strategy; Distribution Channel; Channel Gaps; Neutral Pricing Strategy

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1. Situation Analysis – A Market Overview

1.1 Industry

Portugal's renewable energy mix consists of **wind, hydro, bioenergy, and solar power** (APREN 2022). **Solar** is expected to play a **leading role** in the Portuguese government's new energy plan, which includes providing 80% of the country's power demand from renewable energy sources by 2026 (Bose 2022) and 100% by 2050, while also electrifying 65% of the economy by 2050 (Bellini 2018). The main goals are achieving **savings in electricity costs**, finding **alternative sources of electricity**, and trying to have a **smaller impact on the planet** to mitigate the issues the world is facing. The **Portuguese weather** plays a significant role and even proves to be an asset. This allows the country to increasingly expand its reliance on solar energy (Energiser 2020). The Government, particularly the Minister of Environmental and Climate Action of Portugal, has already planned to give **supportive government policies** for residential solar photovoltaics (PV), feed-in tariffs (FIT) programs incentives (Clemence 2020). Additionally, the launch of an auction for 262 Medium Voltage (MV) floating solar photovoltaic capacity is to be installed at seven dams across the country (Torgal und Duarte 2021). Such factors may drive the demand for residential solar energy in Portugal once the project is fully operational in 2023. Greenvolt Comunidades' operates in the "**renewable energy semiconductor manufacturing¹**" sector. Greenvolt Comunidades' answers to today's **challenges** rely on **impacting the environment** as little as possible, making **cheaper energy** available, producing in a more **flexible** and **decentralized** way, and **sharing** the generated energy within the community itself.

¹ Semiconductor allows renewable energy to be harnessed, converted, transferred, and stored as electricity, moving it onto the electric grid with a minimal loss of power (Favino 2022).

1.1.1 Solar Energy Demand

In January 2022, 4.085 Gigawatts hours (GWh) of **electricity** was generated in mainland Portugal, and 63,64% of the entire electricity consisted of **renewable energy**. From those renewable energies, only 3,80% was generated by **solar energy**. Still, about a third of Portugal's remaining energy comes from **fossil fuels** such as natural gas, which accounted for nearly a third (31,27%) of all fossil fuels (López-Dóriga 2022). According to a survey conducted in 2022 by Marktest for APREN², the Portuguese population thinks that Portugal is doing little to reduce greenhouse gas emissions, and only **30%** believes that the country is mobilizing sufficient efforts towards decarbonization by 2050. Most of the Portuguese respondents (**91%**) also reveal that they consider their **energy bills expensive**. More than **80%** believe that the price of electricity in Portugal is higher than the European average. To combat this, **88%** believe that more investments in and dependence on renewable energy sources should be established. Regarding self-consumption, **87%** of all respondents do not have such an option. However, almost the entire population (**95%**) agrees, that there should be incentives and public support for the acquisition and installation of thermal and PV solar panels in Portuguese homes (APREN 2022). The Portuguese government has been strongly committed to **renewable energies**, and Portugal's Prime Minister, António Costa, also said that the country "must have the ability to diversify energy sources, [...] We cannot simply be dependent on Russia, [...]" (TPN/Lusa 2021). Furthermore, leaving a clear message that Portugal is turning towards renewable energies, they joined an anti-nuclear alliance at 2021 United Nations Climate Change Conference (COP26) with Austria, Luxembourg, Germany, and Denmark (Kurmayer 2021). The islands of Portugal, **Madeira**, and the **Azores**, set their own energy and climate policies and strategies. Their energy consumption still deeply **relies on fossil fuels**. However, since people are demanding more and more renewable energy, some islands are already

² APREN - The Portuguese Renewable Energy Association is a non-profit association with the mission of coordination, representation, and defense of the common interests of all its members (APREN 2022).

implementing **renewable energy practices** to decrease the demand for fossil fuels. They are increasing a wide range of technologies, such as geothermal, wind, hydro, and solar PV. Both islands are pushing for the usage of Electric Vehicles (EVs) and are improving the energy efficiency of residential and service sector buildings (IEA 2021).

1.1.2 Addressing the Energy Crisis in 2022

As explored above, energy prices have risen due to constraints brought by the **Covid-19 Pandemic**. However, another factor has recently intensified the energy crisis in Europe: the **Russian invasion of Ukraine** starting in February 2022 (John and Murphy 2022). Prices have risen to their **highest point** in over ten years and many countries needed to adapt to the scarce energy supplies which resulted in sanctions imposed by the European Union (Tollefson 2022). Before the sanctions were put in place, many countries have strongly relied on Russia's supply of **cheap natural gas**. This type of gas is particularly relevant as it is used to **generate electricity** and keep houses warm (McHugh 2022). While Portugal's energy import of gas is kept to a minimum of **5%**, and thus one of the **least dependent countries** on energy provided by Russia (The Portugal News 2022), it still has faced repercussions. For one, Portugal was reluctant to accept the proposal of the European Union member states to **restrict gas consumption** by **15%** until March. The restriction would not account for countries such as Portugal and Spain which hardly depend on Russian energy, but rather focus on energy generated by hydro plants. Thus, for Portugal, limiting gas consumption would mean decreasing the generation of electricity by gas-fired power plants (Euroactiv 2022). This became a more severe issue as the country faced a strong drought by August 2022, driving water prices higher (Goncalves 2022), pressuring Portuguese residents as well as municipalities further, and limiting hydro energy production.

1.2 Market Opportunities

As previously mentioned, Portugal's solar energy market is **moderately consolidated**. The key players in the market include EDP Solar, Voltalia SA, Iberdrola SA, SGS SA, Acciona SA, and

Gesto Energia SA (Mordor Intelligence 2022). In Europe, **37%** of households are expected to participate in Energy Communities by **2050**. In fact, one of the priorities is reinforcing the compulsory need of putting solar panels in rooftops (Granger 2021). Portugal's first **Energy Community** was registered in **August 2021** (Santos 2022). According to IEA report "Challenges and Opportunities Beyond 2021", wind and solar costs are continuing to go down (IEA 2022). The cost of electricity from onshore wind and solar PV is increasingly cheaper than from new and some existing fossil fuel plants. In most countries, renewables are the **cheapest** way of meeting growing demand (Masterson 2021).

1.3 Legislation of Renewable Energy in Portugal

1.3.1 Overview of the Renewables Sector

Primarily, the Portuguese Government is in charge over the implementation of **renewable energy policies**. The development of these policies, however, are ruled by the **Directorate-General for Energy and Geology (DGEG)** and the **Energy Services Regulatory Authority (ERSE)** (Pacheco and Ferreira 2020). The Decree-Laws for all renewable energy legislation are Decree-Law no. 29/2006, of 15 February, Decree-Law no. 172/2006, of 23 August, Decree-Law no. 162/2019, of 25 October and Decree-Law no. 15/2022, of 14 of January. They are explained in detail in Exhibit 1.

1.4 Future Trends for the Solar Energy Sector

With the rising importance of more sustainable practices concerning the energy sector, many **new trends in renewables** – solar panels, smart cities, solar shingles, liquid solar panels, solar-powered LEDs and floating photovoltaics - have been emerging. In the following, future trends for the solar energy sector will be explored in more detail in Exhibit 2.

2. Five Cs Analysis

2.1 Parent Company: Greenvolt Group

Greenvolt is a Portuguese company established in March 2021 under the leadership of João Manso Neto. The brand is increasingly recognized in the European market as a **major player** in the **promotion** and **development** of renewable energy projects. The company focuses on energy transition, circular economy, and renewable energy to deliver 100% green power through multiple technologies in different countries. The three sectors the company specializes in are **Biomass Energy**, **Wind & Solar** utility scale and **Distributed Generation** (Greenvolt 2022). **Greenvolt Group** also operates in other countries besides Portugal. Greenvolt's purpose is to create sustainable value from the sun, wind, and forests for the benefit of society, shareholders, and employees (Greenvolt 2022).

2.2 Company: Greenvolt Comunidades

Greenvolt Comunidades (GVC)³ is a **new** and **innovative** company founded in **2021**, powered by the parent brand Greenvolt. The sub-brand was created to cover the sector of **Distributed Generation** and operates in the industry of **Renewable Energy Semiconductor Manufacturing**. GVC mission is to **create** and **manage Energy Communities** around **Portugal**, promoting the sharing of energy produced by the Anchor Members of the community from photovoltaic panels. The energy that will be shared is **cleaner**, **cheaper**, and **accessible** to all the members. The company's **vision** claims that everyone can contribute to a more sustainable world in a cheaper way. The opportunity to develop Energy Communities was based on the European Directive that created a new business model called "**Collective self-consumption and Energy Communities**" (Greenvolt Comunidades 2022).

³ From this point on, Greenvolt Comunidades will be referred to as GVC.

2.2.1 Energy Communities⁴

Energy Communities (EC)⁵ are composed of citizens, public and private entities who are all brought together to produce, consume, and share 100% renewable local energy (European Commission 2020). In essence, it is a business model that allows the **sharing of energy** - similar to sharing economies - to make a more efficient use of assets. The community is based on an “Anchor Member”, companies that fulfil certain criteria, for example, they need to have the necessary space to install solar panels and produce energy for self-consumption. The extra amount of energy that is not used by the Anchor Member is then distributed to the Consumer Members of the community (Greenvolt Comunidades 2022). These Consumer Members are characterized as Households (B2C: Business-to-Consumer) or Small Businesses (B2B: Business-to-Business). There are **two different types of ECs** (Exhibit 4). GVC provides its community members with an app: a platform from which they can register, **manage** energy consumption and production, **communicate** with the other members, **monitor** the different stages of the community creation process, and **oversee** invoicing and financial flow control. There are two different **types of contracts** that GVC can celebrate with Anchors, depending on **who invests** in the solar panels. These differences will be further explained below. Inside the community, the sharing of energy will only start once the individuals are producing more than they consume. There will be periods of “low consumption” such as holidays, public holiday periods, economic cycles, and lockdowns.

2.2.2 Why Energy Communities

Individual self-consumption means **producing** and **consuming** one’s own energy. This is a clever solution for clients who only produce the necessary amount of energy they need and consume themselves. However, in some cases more energy is produced than necessary. This might be due to a larger surface area, and thus larger solar capacity. Alternatively, if a person

⁴ The reading of this section should be done together with the analysis of Exhibit 3.

⁵ From this point on, Energy Communities will be referred to as ECs, and Energy Community as EC.

owns a large rooftop but does not consume significantly, they will not invest in solar panels because the investment is not worth it. That is why **ECs** bring a solution to these situations: clients can **self-consume** their energy and then, if they do not consume all the energy produced, it can be **shared** around their installation. The EC can be created only if Anchors satisfy certain criteria: there must be sufficient energy to share, availability of space to install solar panels, a certain amount of energy consumed below what is produced, infrastructure with occasional peak energy consumptions, customer loyalty programs and social responsibility initiatives. GVC offers two ways to acquire solar panels, either through **acquisition** in the beginning which requires an initial investment from the Anchor Members; or through **leasing** contracts (solar energy as a service), when the company makes the investment for the client. Clients can **pay as they consume** and **save on their energy bill** and **reduce CO₂ emissions**. Anchors can also **monetize the energy** that is not consumed by them. GVC will also take care of all the **bureaucracy** and **management**, making the whole process smoother for all members.

2.3 SWOT/TOWS Analysis⁶

Table 1: SWOT/TOWS Analysis

Strenghts	Weaknesses	Opportunities	Threats
• Greenvolt: strong mother company standing behind Greenvolt Comunidades • Client Service: dedication towards customer base	• Lack of Awareness • Invoice System: not integrated in the national system and clients receive two invoices	• Environment: climate change encourages self-sustain practices • Governmental Support • Community Belonging: need of feeling part of a group that shares the same values	• Bureaucracy: long and complicated process to create an Energy Community • Lack of knowledge: low levels of knowledge around energy

2.4 Competitors

2.4.1 Market Players

The market to be analyzed is the one of **decentralized collective energy consumption** in Portugal. The main players identified in the market of energy communities are **Cleanwatts**,

⁶ A more detailed SWOT analysis can be found in Exhibit 5.

Capwatt, Simples Energia, EDP, and Coopérnico. Even though all of these offer a similar service to GVC', they are **not** its **direct competitors**. GVC only **manages energy**, whereas the other players also supply it. In general, and taking “one-stop shops” into consideration, **EDP**, which is based on a similar concept to *GVC*, has been identified as a **main competitor**. This brand is very well known across Portugal and promotes **strong initial investment opportunities**. It is even sometimes **still** considered a **monopoly** because of its extensive presence on the market (Rees 2018). The difference is that it does not only focus on **collective and decentralized energy solutions** but offers several other services.

2.4.2 Competitor Positioning

Most of the players in the **ECs' market** are positioned at a **low level of awareness**, except for EDP. This means the category of ECs is not yet established. Therefore, it is **difficult for all players to stand out**. *GVC* is now positioned higher than its competition in **cost reduction**. There is a high potential to move up in terms of **personalization**. The new brand should take this opportunity with the goal of becoming **market leader** in a **niche market** by offering **cost reduction** and **personalized service**, as there is no competition in this quadrant (Exhibit 6).

2.5 Context – PESTLE Environment of Portugal⁷

Table 2: PESTLE Environment of Portugal

Political	Economic	Social	Technological	Environmental	Legal
Semi-presidential republic, stable democracy Corruption seems to be one of the main concerns Member of the European Union since 1986 Adherence to Sustainable Development Goals (SDGs)	Biggest sectors: (64.89%) Services, (19.23%) Industry, (2.19%) Agriculture Est. GDP of \$260B in 2022 (+5.4%) Heavy reliance on foreign trade channel Inflation rate of 6.3%	Population: 10.3 M Declining growth rate: -0.07% Surface area: ≈ 92k square kilometers Lisbon population: 2.8 M Porto population: 2.2 M Age median: 44.6 yrs Sharing model becoming more relevant	Placed 19th in EU according to EU Digital Economy and Society Index 2020 Improvement in digital public services Lacking in usage of internet services "Indústria 4.0" Strong internet and mobile penetration	High air and water pollution European Commission is suing Portugal for high emissions (2021) Endangered species since 2001L 13 mammals 7 birds 186 plants 37 cubic kilometers of renewable water	Tariffs are regulated by the Entidade Reguladora Dos Serviços Energeticos (ERSE) National Plan for Energy and Climate 2021 - 2030 (PNEC 2030) sets national targets for renewable energy

⁷ * A more detailed PESTLE analysis can be found in Exhibit 7.

2.6 Collaborators

While looking at all parties that are both directly and indirectly connected with GVC, it is possible to conclude that the company has **reliable partners** on which they can count on. Firstly, GVC works with **Greenvolt Next**, its main supplier, who is responsible for **implementing** and **installing** all solar panels in Anchor Members' facilities. Both focus on the same market sector as they are both sub-brands of Greenvolt Group. Also because of that, an intergroup transaction law is applied, and some limits are placed. For example, if Greenvolt Next cannot deal with all the partner's brand projects, as partners they need to find an alternative together. After ECs are settled, **Anchor Members** also can start to be considered as collaborators, since they support GVC core business by **sharing their excess of energy** with the communities.

2.7 Customers

2.7.1 Customer Buying Behaviour in the Energy Communities Industry

Customer behaviour is constantly changing, and companies need to make sure that they follow all possible patterns to **deliver value** to them. Consumers present different ways of behaving, depending on the type of products they are consuming (Hayat 2018). In the case of the **renewable energy industry**, the decision of buying solar panels and/or to belong to an EC represents a **high-involvement purchase decision**. Clients interested in purchasing the service must be **properly retained** and **provided with accurate information and support**. To make the clients feel safer and reduce the perceived risk of such investment or decision to join the EC, GVC should promote the expertise of its employees to convey **trustworthiness**. In addition, some factors influencing B2B customers and B2C consumers' choice behaviour are identified and explained in Exhibit 8.

3. Primary Research

3.1 Qualitative Research: Consumers and Anchor Members

3.1.1 Marketing Problem

Assess the Anchor's and Consumer Members perceptions regarding sustainable behaviours, renewable energy sources, solar panels, their awareness, and position towards ECs.

3.1.2 Methodology and Interview Guides

To tackle the marketing problem, qualitative research was conducted addressing **five different targets**: current and potential Anchor Members, solar panel Household Users, non-solar panel Household Users and Small Businesses. Among the **Household Members**, both with and without solar panels, the objective was to first determine whether they are interested in joining an EC and second whether solar panel users consider their participation worth it since they already consume solar energy. The **Potential Anchor Members** were selected because they meet the company's requirements to become one. Personal contacts were drawn upon in most cases. After interviewing the first four groups, it was discovered that **Small Businesses**, belonging to the group of Consumer Members, were also interviewed. In total, the objective was to find out if ECs would be an attractive and valuable service for them.

For this study, 29 qualitative semi-structure interviews have been conducted via video call or personally during the period of 23/09/2022 to 03/11/2022. In preparation for all interviews, five distinct interview guides have been created for each target and can be found in Exhibits 9, 10, 11, 12 and 13. Even though there are five different interview guidelines, the general subjects have been kept the same. To answer the marketing problem, each interview guide begins by asking the interviewee about their behaviour and habits towards sustainability. Subtopics, such as the level of commitment, are also explored. The second part of the interview covers the topic of awareness towards ECs. The interviewees are asked whether they have already had experience with such communities and what benefits they see. The third part of the interview

focuses on general brand perception. Various Portuguese energy suppliers are introduced, whereupon the interviewees are asked whether they know them and what they think of the companies. Finally, the business model was presented followed by their opinion.

3.1.3 Sample

3.1.3.1 Anchor Members

Regarding Anchor Members, six interviews were held: one with a current Anchor Member, and five with potential Anchor Members. The former interviewee was a soccer club with about 50 employees. The latter ones were composed of one university, two companies, one private school and another soccer club. The annual income was distributed with less than 10 million (2/5) and over 10 million (2/5). One did not answer. All five potential Anchor Members were in residential, industrial, or commercial clusters and their energy expenditure started from 30.000 upwards in a year.

3.1.3.2 Households

Eight Household Members with solar panels were interviewed. The ages ranged from 26 to 55, 87,5% were male, 12,5% were female, and all were Portuguese. The average number of Household Members was four. The mode of income of all was >80.000€ per year. Also, for occupations, the most answered "Middle and Top Management. **Eleven non-solar panel Household users** were interviewed. The age group has a broad range where the youngest person was 25 years and the eldest 60 years old. In this case, there were more women (54,5%) than men (45,5%). In this sample, all but one Brazilian were Portuguese. Like the previous sample, the household average is two people per household. In terms of annual income, 20.000€ – 39.999€ was the most reported income per year. Finally, occupations frequently consisted of "Middle and Top Management", "Qualified / Skilled Workers" and "Specialized Technicians".

3.1.3.3 Small Businesses

In this sample there were **four** interviewees: a bakery, a laundry store, a gym, and a restaurant. All located in Carcavelos (Lisbon). The minimum number of employees was four and the maximum was fifteen. In terms of income, half were found to earn between 250.001 and 300.000€ per year. The other half was not willing to answer the question. The average monthly expenditure on energy was 1.500€. Of all respondents, half rent their building, while the other half own their building or space.

3.1.4 Main Findings

3.1.4.1 Findings: Current Anchor Members

The interviewed Anchor Member was looking for a solution to reduce the electricity bill and GVC was able to contact them via mail and inform them about a solution for their concern. The initial situation of the client was their dissatisfaction with their current energy consumption which consequently led to high monthly energy costs. The client was not aware of any other brands working with or as ECs. In terms of satisfaction with GVC' service, they are overall happy with it and praise the commercial and technical teams.

3.1.4.2 Findings: Potential Anchor Members

For possible Anchor Members and their behaviour or attitude towards sustainability, it is to be noted that all have started becoming more sustainable over the years, mainly through the usage of solar panels (3/5) and are motivated to continue the process. Here too, saving costs is the main motivator. However, there is generally a lack of awareness towards ECs. When asked to imagine the **main benefits** of an EC, contribution to carbon neutrality, lower energy prices and cleaner energy were seen as the most prominent ones (Exhibit 14). Most **challenges** seen were associated with bureaucracy and simply convincing consumers to be part of a community and understanding what an EC is in the first place. Many potential Anchor Members also saw the large initial investment a company would need to make as a challenge to enter such a market.

Greenvolt (the parent company) and the formerly named “Energia Unida”⁸ were brands the interviewees did not recognize. Instead EDP, Endesa, Iberdrola and Galp were common names.

3.1.4.3 Findings: Solar Panel Users (Household Members)

Solar panel users were asked to state their main **motivation** for being more sustainable. The most common answers were the reduction of costs, protecting future generations, reducing one’s ecological footprint and awareness of the scarcity of resources. They act sustainably by firstly having solar panels installed, by recycling, driving hybrid vehicles, using less water than necessary, and buying more durable clothes. However, some are frustrated with brands that claim to be more sustainable only to be high priced. In terms of **energy consumption**, they are concerned with the type of energy they consume and its increasing costs. When asked about the **reason for the purchase of solar panels**, the main influencing factors are the family and the media. The average usage of solar panels amounts to 12 years, with 4 years being the lowest and 19 the highest. Overall, the interviewees are satisfied with their **experience** concerning solar panels with only one interviewee claiming to see no significant difference. Most of the sample have already heard about ECs and are also somewhat **aware of the benefits**. The main benefit relates to not wasting energy. The **main challenges** of ECs according to the sample are the initial investments, costs of having a company involved in the process, people’s mentality towards them and fully understanding their concept (Exhibit 15). Of all interviewees, only one person wouldn’t be interested in joining an EC. The **brands that come to mind** when talking about energy are Goldenergy due to better prices, EDP and Galp which are known for their marathons, and are also considered a monopoly, Endesa, Iberdrola, and Luzboa. Greenvolt has only been mentioned by two interviewees. Most of the sample were unaware about the Renewable ECs Market and weren’t able to associate any brand to ECs either. However, when

⁸ At the time the interviews were being conducted, Greenvolt Comunidades was named “Energia Unida”.

asked about which of the previously named brands they think would provide such a solution, the most mentioned brands were Galp, EDP and Goldenenergy.

3.1.4.4 Findings: Non-Solar Panel Users (Household Members)

Non-solar panel users' main **motivations** to be more sustainable are also the reduction of costs, the protection of future generations, the reduction of one's ecological footprint and the awareness of the scarcity of resources. In general, the sample considers themselves to be sustainable, but not at all times, with three confessing to not seeing themselves as sustainable. Most claim to recycle whenever they can, but the main actions are seen in cutting water and energy costs (consumption). People do care whether a brand is sustainable, however, they do not take that factor into consideration during the decision-making process of purchasing items. In terms of **energy consumption**, the sample's main concern is the costs, as they are currently not satisfied with the high energy bills. They all are currently looking for ways to reduce their energy costs. While there are alternatives to the usual energy consumption, many believe that since they live in an apartment, they cannot consume solar energy due to the lack of space to install solar panels. This indicates they are not aware of ECs as a potential solution. Another reason for not investing in solar panels is the initial investment one must make to enter this market. An example of a quote from an interviewee can be found in Exhibit 16. Unlike the previous sample, most of the non-solar panel users are **not aware of ECs**. When the definition of ECs was read, the sample saw the following **benefits**: the solution is environmentally and economically friendlier and energy is not wasted. The **challenges** identified by the sample were the fact that consumers will never know the amount of solar energy that they will have each day and the technical and bureaucratic aspects. The most recalled brands were EDP, Galp and Endesa. Greenvolt Group was never mentioned. It is implied that people want what is easier, well known in the market and at the same time do not want to waste too much time searching for other energy solutions.

3.1.4.5 Findings: Small Businesses

Concerning the Small Businesses, four main topics have been asked, namely that of **behaviour** and **attitude** towards **greener and more sustainable habits**, **brand perception**, **awareness of ECs**, and **proof of concept**. For **sustainable behaviour** most answered that they are not doing much recycling, are however trying to adopt minor changes, such as switching to LEDs. They are also trying to reduce their energy costs as they have high expenditures daily. With the rising of prices, most Small Business Owners are fearful of the future concerning their energy bills and becoming more price sensitive towards changes (Exhibit 17). Also in this sample, Galp, EDP and Endesa are the main brands coming to mind when associated with energy. Some of the samples are **aware of ECs**, even naming EDP Renováveis or Bairro Solar EDP. While none have joined an EC, many see **benefits** in doing so. When presented with the new solution service of this solution⁹, the consensus of sharing monthly invoices to reduce costs long-term was positive.

One last finding that is common for all targets is the concern about the **complexity of the concept of ECs**. When the topic was presented and the definition explained, most interviewees (except for current Anchor Members) demanded an easier and clearer explanation of what an EC is. Therefore, GVC should keep in mind the importance of finding ways to communicate and promote its service in the smoothest and clearest way possible.

3.1.5 Limitations

The main qualitative research limitations were caused by the fact that it was not possible to interview the desired number of current Anchor Members; additionally, an external interviewer (a GVC employee) had to conduct the interviews, which could have biased the results. Some of the Small Businesses interviewees were not willing to be interviewed; moreover, within this

⁹ The solution “Poupança Unida” will be explained in the following chapters.

sample, there were problems with the places where the interviews were conducted: they were often crowded, and external people interfered with the interview.

3.2 Quantitative Research: Consumers

3.2.1 Marketing Problem

To confirm consumer members' main motivations to belong to an Energy Community and their real awareness of it. Moreover, validate the main reasons to change energy suppliers and the target's overall satisfaction regarding it. In addition, assess if the service of "Poupança Unida" would be attractive for the sample and address price sensitivity towards it.

3.2.2 Methodology and Questionnaire

Quantitative research was conducted to collect information in a standardized procedure, in the form of a survey (Exhibit 18). The survey was published on the platform *Qualtrics* on 24/10/2022 and closed on 6/11/2022. To obtain a representative result, all members of a community would need to be surveyed. However, this is not possible. Therefore, a representative sample of the population was taken. As the usage of the proposed service would only become interesting for people living in Portugal and being responsible for paying energy bills, filter questions were used. One of them being a minimum age of 25 years as well as the requirement to have lived in the country in the last three years. To confirm participants' behaviour towards sustainability a Likert Scale with various assumptions was included. Additionally, after introducing the idea of "Poupança Unida", multiple questions regarding their interest in the service and their willingness to pay for such a service were asked.

3.2.3 Sample

The sample of the quantitative survey consisted of 340 responses in total, of which only 114 were valid. The term "valid" is used to describe the number of responses that passed both filter questions. The gender distribution within the sample is divided into 67 (59%) women and 46 (40%) men, with one indication as "Other" (Exhibit 19). In total there are eight nationalities

represented, whereby Portuguese accounting for 86% (Exhibit 20). Most of the sample lives in urban areas (49%), followed by inhabitants of the city center (25%), suburbs (19%), and rural areas (6%) (Exhibit 21). The average household size is two people. Though most households of the sample consist of one person (34%), followed by two and three members (both 24%) (Exhibit 22). In terms of age, 46% of the sample was between the ages of 25 to 34, 11% was between the ages of 35 and 44. 20% accounted for people aged between 45 and 54, 18% were aged between 55 and 64, and finally, 5% of the sample was older than 65 years (Exhibit 23). The highest level of education most of the sample has completed is of a bachelor's degree (39%) (Exhibit 24). The employment status most frequently indicated, was that of employment by others (58%) followed by self-employment (29%) (Exhibit 25). When asked to describe one's current occupation, 25% belonged to middle and top management, while 32% belonged to qualified / skilled workers (Exhibit 26). Lastly, 30% of the sample has a monthly income of between 750€ and 1.666€, 32% of 1.666€ and 3.333€ (Exhibit 27).

3.2.4 Main Findings

Starting with the **behaviour towards sustainability**, it is clear sustainability plays a significant role in the sample. When asked to indicate how much they agree or disagree with a statement, participants increasingly selected "Somewhat agree" (Exhibit 28). Especially for the statement "I care about sustainability" the answer "Strongly Agree" came out quite often. There were, however, individual statements where a strong negative response was seen, such as the question of whether the participant owned an electric vehicle. In addition, two other statements with different answers stand out: "I try to avoid travelling by car or plane to minimize my ecological footprint" and "I often participate in public activities promoting sustainable consumption". Both statements were slightly negated with "Somewhat disagree". Using these statements, one could further hypothesize that the motivation to do more sustainable acts only goes as far as limiting individual freedom, especially in relation to everyday "luxury activities" such as travelling. Another hypothesis could be put forward with the issue of individual versus group activities:

sustainable behaviours and habits do not come from group activities but must be brought about by the individual himself. In addition, a detailed explanation of possible correlations between age and sustainable behaviours can be found in Exhibit 29. Afterwards, the topic of **energy consumption** and **motivations to use renewable energies** are assessed. Most participants were aware of the household's current energy costs. This can be attributed to the average size of the household, which mostly consisted of one person. Then the survey asked about the **usage of renewable energy**. It was concluded that most of the sample did not use renewable energy. However, they were also asked about possible **motivations** for using renewable energy. Like the Qualitative Research, motivations concern cost savings and the reduction of CO2 emissions. Next is, the realization that renewable energies, unlike conventional energies, are not finite. Several participants see this as a major reason for using renewable energy. Interestingly, the next most important factor is the **diversification of energy sources** and the associated **reduction of dependence on imported fuels**. As already described in the trends, more and more people want to become self-sufficient or independent, and through this research, the statement could be corroborated. **Personal interest in renewable energy** comes last, after the generation of economic development and jobs in the renewable energy sector (Exhibit 30). The participants were then asked about their **level of satisfaction with their current energy supplier**. On a scale of one to ten, participants could rate their supplier, with most selecting a neutral five. However, the average was slightly higher at 7.43 (Exhibit 31), indicating an overall **level of satisfaction**. Only six people gave a rating below five, citing the cost of the provider as the main reason for their decision. Finally, participants were asked whether they had previously **switched their suppliers**. Here, the majority responded with no. Those who said yes answered that the supplier they had switched to offered either better bundles or prices. The next question set was specifically about the **new service** and began by asking how likely the participants would be interested in the service that had previously been described. Here, most answered that they would be "likely" to use the service. As with the Small Businesses in the

interview, participants were then asked if they would be willing to share their monthly invoices if it meant they would save money in the long run. Here too, the majority answered yes. This reinforces the statement that participants are mainly driven by cost reduction. Different payment packages were then proposed. The participants were asked to decide on what time interval the bills should be paid. Most agreed upon the monthly billing option. When asked what **price** they would consider fair for the service, the lowest option was chosen. This suggests that the participants are price sensitive. However, this was only the case for monthly payments. The longer the bills were apart, the more willing the subscribers were to pay more (Exhibit 32).

3.3 Qualitative Research: Industry Experts

3.3.1 Main Findings

One of the most important takeaways of the meetings was the clear explanation of how the **business model** of the company for ECs works. It is important to be aware of how the current service that the company is offering functions, in order to select a relevant sample. Secondly, GVC employees have shared some information regarding some of the **bureaucratic issues** and **complications** that they might encounter while providing the service. This information was particularly taken into consideration while building the right questions to investigate whether the sample would consider these problems relevant or not. Finally, as the company is new, it was important to assess which **characteristics of the potential targets** could have been interesting for them to further investigate. In conclusion, GVC meetings have enriched the research by clarify the business structure and by pointing out what knowledge they are still missing around customers and consumers opinions and preferences around the topics of cost savings, sustainability, information access and ease of processes.

4. Marketing Strategy

4.1 Segmentation

Segmenting needs to meet specific criteria to be relevant: segments must be identified through clear metrics for B2C (geographic, demographic, psychographic, behavioural or benefit sought) and B2B (geographics, firmographics, buying approach, behavioural or benefit sought) markets (Gupta 2019). After conducting primary research, looking at the three identified group members - Consumer Members (B2C), Small Business Owners (B2B), and Anchor Members (B2B) - it is possible to segment each one of these groups according to different segmentation criteria. Considering **Household Members**, two segmentation criteria were identified: **Income**, which influences the consumer's willingness to pay, and **Location** which restricts the possibility to be part of the community. Therefore, six different segments were recognized. However, for the matter of describing the identified belonging to an EC, location is a key factor, the three segments that are far away from the Anchor Member will be discarded. Additionally, **Level of Education** - which influences the consumer's access to sources of information around cost savings, sustainability, and involvement around environmental issues - was considered as a characterization criterion since it was found that level of income is somehow correlated with level of education (Wolla and Sullivan 2017). Regarding **Small Business Members**, the segmentation criteria identified were: **Energy Consumption**, which affects their willingness to find a solution to reduce energy costs, therefore, the higher it is, the higher the interest in this service, and **Location** which affects the possibility to be part of the community. In this case, the same situation applies, Small Businesses located far from the Anchor Members will not be considered, resulting in only two segments. Lastly, inside **Anchor Members** the segmentation criteria identified were: **Infrastructure Size** which is mandatory for solar panels installation and community creation; **Location** which affects the possibility of creating a community, and **Energy Consumption**, that affects their willingness to find a solution to reduce energy costs. The same rationale for the "Location" segmentation criteria of the other targets also applies for

Anchor Members, but in this case regarding Location and Energy Consumption¹⁰. It is important to clarify that there are two things that all the identified segments have in common: **1.** lack of awareness and knowledge about the ECs' concept, the way it works, and the benefits it can bring to them; **2.** big need to reduce energy bills, mainly due to the energy crisis effect. In addition, according to those criteria different segments were developed for each one of the groups that are further detailed in the following sub-chapters and the respective **personas** can be found in Exhibit 33.

4.1.1 Households Consumer Members (B2C)

For a better understanding of the Households' market segmentation, the following table was created. This analysis should be done together with the reading of Exhibit 34.

Table 3: Households Consumer Members (B2C) segmentation analysis

Households			
	Demographic : Income	Demographic: Level of Education	Geographic: Location
Underprivileged	Low income : < 10.732 € per year	Completed compulsory education (12th grade) → Limited access to information Not interested in energy alternatives	Close proximity to Anchor Member
Privileged	Higher income : 10.732 € - 80.882€ per year	Bachelors. Masters degrees, PhDs, MBAs → Knowledge and interest about energy alternatives is given Want to improve current energy expenditure/ costs	Close proximity to Anchor Member
Elites	High income : > 80.882 € per year	Bachelors. Masters degrees, PhDs, MBAs → Knowledge and interest about energy alternatives is given, however not main motivation	Close proximity to Anchor Member

4.1.2 Small Businesses Consumer Members (B2B)

Once again, with the goal of understanding the Small Businesses' market segmentation, a table was created, which analysis should be done along with Exhibit 35.

¹⁰ The decision of only considering infrastructure size rather than other mandatory variables was based on the findings of the primary research, since this was the only criteria the sample did not comply with.

Table 4: 2 Small Businesses Consumer Members (B2B) segmentation analysis

Small Businesses		
High Energy Consumer	Demographic : Consumption	Geographic: Location
	Have high energy expenditure due to nature of business Are searching for a way to reduce costs	Close proximity to Anchor Member
Low Energy Consumers	Demographic : Consumption	Geographic: Location
	Have low energy expenditure Are not necessarily searching for a way to reduce costs	Close proximity to Anchor Member

4.1.3 Anchor Members (B2B)

The same applies to this sub-topic, a table for the Anchor Members' market segmentation was created. The respective analysis should be done together with the analysis of Exhibit 36.

Table 5: Anchor Members segmentation analysis

Anchor Members			
Compilers	Demographic : Consumption	Firmographic: Infrastructure	Geographic: Location
	Expenditure cost: >20.000€ per year	Area of > 500m2	Must be located in residential, industrial or commercial cluster with multiple installations (~4km)
Non-Compilers	Demographic : Consumption	Firmographic: Infrastructure	Geographic: Location
	Expenditure cost: <20.000€ per year	Area < 500m2	Not located in residential, industrial or commercial cluster with multiple installations (~4km)

4.2 Targeting

The segments to be chosen should improve the organization's chances to maximize its long-term profitability; size and growth were also taken into consideration, as well as the firm's capability to serve consumers in each segment (competencies, resources, and objectives) and the intensity of competition. The selected targets are the following:

Households Consumer Members – Privileged segment: they have the financial possibility to pay for a service which will benefit them by helping them save on their energy costs. They are educated enough to understand how the process works, the positive environmental impact of this solution and the convenience of the service. This segment is the most profitable for GVC due to its size (Pinto 2019), there is a growing interest in smart energy solutions since prices are increasing and, therefore, interest and willingness to pay for greener solutions are higher.

Small Businesses Consumer Members - High Energy Consumption segment: they have high fixed energy costs due to the nature of their business. With the raise of energy prices,

having a long-term cost reduction could significantly improve the financial situation of the Small Business Owners. This segment is the most profitable for GVC due to the nature of its size and growth: “SMEs account for 68.3% of value added and for more than three quarters – 77.4% – of employment in Portugal” (European Commission 2019). Plus, there is a growing interest in smart energy solutions since prices are increasing which results in higher interest and willingness to pay for greener solutions.

Anchor Members - Compliers segment: these medium to large-size companies meet all the requirements to establish an EC. As previously stated for other segments, energy prices are increasing, therefore companies have become interested in saving and sharing their extra energy consumption. Plus, consumers demand companies to take sustainable actions; the creation of an EC would make the firm more attractive also on the ethical side, which means more profit.

4.3 Positioning

Positioning refers to the identification and definition of the market a company competes in and seeks a differential advantage. Three different positioning statements were identified since each target market presents different needs and analyses to solve each respective problem. The positioning statements can be found in Exhibits 37, 38, 39.

5. Branding

In the specific case of GVC branding is referred to a **service**. The purpose of this next section is to analyse the assets of the brand “GVC” which create **identification**, promote **differentiation**, add **value**, and help consumers and shareholders to **establish a mental picture** of the intangible service.

5.1 Brand Identity

GVC is a brand powered by the mother company Greenvolt which promotes the sharing of energy produced from photovoltaic panels and the service management of it. The use of the **parent company name** in this new service will help GVC create **positive synergies** and take

advantage of the reputation and positive associations that consumers might have towards Greenvolt. “Comunidades” is a Portuguese word which means “communities” and conveys the main concept behind the brand, **sharing energy**. The service that the new sub-brand provides is an extension of the main services provided by the parent brand to enhance the company, therefore there was no compelling reason to use a different naming strategy. Additionally, GVC is keeping aspects of the mother company by using the same **design** and **visual elements** (for example in the logo and on their website). To deeper explore GVC’ Brand Essence, the sub-sections of the **Kapferer Brand Identity Prism** were analysed and are further explained in Exhibits 40 and 41. After checking Greenvolt’s Brand Identity and comparing it to GVC’ it can be concluded that there is **brand coherence** between the parent brand and the sub-brand, with some minor distinctions that are necessary to differentiate and create new brands. This is possible due to the nature of Greenvolt being a big company and offering many different possibilities, which cannot present radical differences. It allows the mother company to fulfil different market needs and still maintain the same strong identity and culture.

5.2 Brand Architecture

Greenvolt’s portfolio is composed of different companies distributed between three main segments: **BioMass**, **Wind&Solar** and **Distributed Energy**. This last segment includes the activities of production, self-consumption & ECs. Inside the Distributed Energy sector, it is possible to find the two sub-brands **GVC** and **Greenvolt Next** operating in the sector of Renewable Energy Semiconductor Manufacturing. The former focuses on the Portuguese market, while the latter focuses on the markets of Portugal, Spain and Greece. GVC claim is to **manage energy through ECs** to allow companies and families to benefit from clean and cheaper energy. Greenvolt Next specializes in the areas of **energy production through photovoltaic solar systems** (Unidade de Produção para Autoconsumo (UPACs) and Unidades de Pequena Produção (UPPs)) and **LED lighting**. It focuses on carrying out turnkey projects and presenting various business models to the clients, with different investment options, and

ending with 100% project financing models. This type of brand portfolio can be defined as “**Branded House**”, a brand architecture strategy where the parent company uses different sub-brands to cover all its services. Since both sub-brands are new to the market, it is convenient for the mother company to save on **marketing** and **communications** costs, while still having a powerful presence. The choice of creating these sub-brands is a **line extension in breadth** which can leverage the parent brand expertise and sell companion products. In fact, the two services offered by GVC and Greenvolt Next complement each other without risk of **cannibalization**. There is coherence in the graphic charter of all the brands (colours, logo, design Exhibit 42) which convey a clear image of Greenvolt. In conclusion, the branding strategy choice adds value to the mother company as the resources are used and allocated efficiently.

5.3 Brand Elements

Overall, the Brand Elements of the mother company Greenvolt are **coherent** and **well transferred** to the sub-brand GVC. The two Brand Elements which should be further developed by GVC are the **Characters** and the **Jingles**, which are currently not present as this is a new company. If taking into consideration the six criteria that are particularly important for brand elements, GVC has a solid base on its **protectability**, **adaptability**, **transferability**, and **meaningfulness**. It should work more on **memorability** to increase brand awareness and recall; it should also focus on its **likeability** by adding richer visuals and verbal imagery to become more appealing to the consumers.

In conclusion, the creation of the sub-brand enhanced the value of the parent brand allowing it to serve a **niche market** and focusing on the offer of **tailored services** for its clients through the creation of ECs. There is room for improvement, but it can be stated that GVC is ready to enter the market with a **solid** branding strategy.

6. Service Mix: 7 Ps

6.1 Service

After conducting deeper research in the Portuguese market, the most relevant need highlighted for the target segments is represented by **cost reductions** in the **energy bill**, followed by the will of being **more sustainable**. Therefore, GVC should take the opportunity and implement its strategy to gain market share with its personalized, sustainable service solution.

6.1.1 The Solution

Given all these considerations, “**Poupança Unida**” is the new feature of the existing service solution of ECs created by GVC. The **core service** (Exhibit 43) of this solution is managing energy to help consumers reduce their energy costs through the creation of ECs. The **supplementary service** (Exhibit 44) the company is implementing to facilitate and enhance the core service is analysing clients’ consumption habits and suggesting the cheapest energy supplier available in the market. As previously mentioned, the main benefit provided is energy bill reduction. In 2022 the price of electricity in Portugal increased by 49.25% (Country Economy 2022), which caused general dissatisfaction among the population. The three main targets that the solution aims to reach are **Anchor Members** (B2B) with the role of sharing their extra amount of energy produced, **Small Businesses** (B2B) and **Households** (B2C). Most of them are unsatisfied with their energy bills, so the purpose of “Poupança Unida” is to help them reduce it. Anchor Members have a significant amount of energy consumption, and their buildings have space for solar panel installations. They would be able to share that extra amount with the community composed of the other two segments, which will allow the Anchor Members to gain money out of the solution. Small Businesses and Households Members can join the EC and save costs. Additionally, the solution provided will give all the clients a detailed analysis of their energy consumption behavior and habits to educate them and make them more sustainable. Examples of behaviors that can be changed are unplugging the electronic devices

that are not being used; changing regular lamps with LED lamps; turning off the light when it is not needed, using the natural light as much as possible; making a more efficient use of the electronic devices and industrial machines. The whole service will be **tailored** to each client's specific **needs**. Moreover, "Poupança Unida" will guide its clients to make the most **convenient choice of energy supplier** available in the market, supporting them during the whole process and in all bureaucratic aspects. The cost that can be negotiated within their current or future energy supplier to improve their deal is the **energy price** per kilowatt (kW). Nowadays, consumers feel overwhelmed with the number of choices that are available on the market. They end up not making the best decisions for their specific needs, which leads to **higher energy bills** and in most cases **less sustainability**. Therefore, "Poupança Unida" is represented by an **expert team** that will always be available for its clients via their user-friendly website and mobile-app. The company will also take care of the whole EC management and clients will have access to their personalized energy consumption section on the mobile-app. The app will have a **new feature** which will send daily notifications (that can be turned off, if wanted) as little reminders that interact with the clients based on their habits "don't forget to turn the lights off"; "it is the most convenient time to do your laundry". This new feature will help increase the **engagement** with the brand and all the three targets inside the community will feel a sense of **belonging** to a group that shares the same values and contributes to having a positive impact on the Planet. A detailed explanation of how the service works can be found in Exhibit 45.

6.2 Process

Process needs to be implemented in a clear way to provide a high-quality delivery of the services and achieve high levels of consumer satisfaction (Anigbogu 2016; Dias 2022). The **Flowchart** (Exhibit 46) for the delivery process of GVC' core and supplementary services is slightly different for each target.

6.2.1 Step by step process explanation of “Poupança Unida”

A **Service Blueprint** (Exhibits 47 and 48) is a more defined flow chart. It describes the service in each step, providing the reader with possible fail points (steps in the process that have the potential to fail, leading to bad experiences for customers) and excessive waiting times. In the case of “Poupança Unida” one contact point between the customer and company is during the **personal selling** when a salesperson goes door-to-door to contact potential leads, or when the potential customer has already heard about the company and wishes to gain more information. During this step, there can be excessive **waiting times** when the potential customer is calling the company. **Fail points** are possible, especially during personal selling occasions as the salesperson can create a bad image when executing the sales process poorly. Another step is where the potential customers are searching for more information on the service. Here the correct department needs to be connected to the customer to answer all necessary questions competently. Again, excessive **waiting times** can occur due to long waiting times during the call. Once the first introductory phases have passed, then the next step is that of the first meeting where the company explains and assesses the potential customers situation, followed by the contract signing if the potential customer is convinced of the proposed service and sees value. Waiting times and fail points can occur during the meeting step as this is where the company needs to convince the person looking for their service to contract it. Once the contract has been signed by both parties, the service period begins. For **Anchor Members** this means that solar panels need to be installed. Their service offer also includes meetings and assessments by energy consultants of the company who will try to optimize the current energy expenditure. To ensure the longevity of the solar panels, frequent maintenance checks will be performed. Fail points here are especially to be avoided as the investing in panels is capital intensive. Therefore, the checkups and maintenance visits need to be documented and performed correctly. In the case of the **Consumer Members**, they can arrange meetings with energy consultants to have their living situation assessed as well. They will also receive a monthly billing which they can

either receive conventionally or through their app. The final step in the process belongs to the termination of the contract.

6.3 Pricing Approach

After understanding the added value that “Poupança Unida” can bring to the current service of ECs, with the ultimate intention of increasing the value proposition to clients; it is now time to define how to capture it through a feasible pricing strategy. With “Poupança Unida” being a new complementary service whose aim is to guide people on reducing electricity costs, a **value-based pricing approach**, where prices are set based on an estimate of the benefits the service will be able to provide, that is, the amount of savings that customers will be able to have, would be preferred over a cost-based pricing approach (Nagle and Müller 2018). Some steps need to be followed to develop a correct price-setting process based on a constant value creation to consumers. One of them is to connect the pricing objectives that will be implemented with the overall business strategy of “Poupança Unida”. Also important, is to create a pricing window for each of the three segments served, by analyzing the cost of service sold and the value of the offering for each one of them. Those price windows will be reached through various schematics of the value-pricing thermometer, where **service costs**, **perceived value** and **true economic value** will be calculated to each one of targets (Dolan and Gourville 2014).

6.3.1. Pricing Objectives

The overall business strategy of “Poupança Unida” is to achieve a **3%** penetration rate in each target in the first year of the service implementation. This will happen inside the niche market of ECs for Households, Small Businesses, and Anchor Members in Portugal. Hence, a **neutral pricing strategy** should be pursued, since a penetration pricing strategy might not be the best for a newcomer to the market like GVC who is trying to attract niche rather than mass market. In addition, “neutral pricing is especially common in markets where consumers are quite price sensitive” (Nagle and Müller 2018, 142), and in primary research it was possible to characterize the market as “price sensitive” regarding the energy topic, since economic return is pointed out

as the most important factor to belong to an EC. Therefore, it is crucial that future customers fully understand the monthly savings they will be able to have by joining an ECs with the extra service of “Poupança Unida”. Pricing windows for each one of the three targets are going to be explored in the following sections.

6.3.2. Pricing Windows

The price of the service “Poupança Unida” should be a **monthly fixed payment** which value will vary depending on the target. Households pay **7,5€**; Small Businesses pay **22,5€** and Anchor Members pay **49€**. However, to stipulate the pricing windows for each one of the targets, the amount of savings for each had to be calculated. The ultimate concern of prices’ definition was that they could not exceed the value of savings that the service provides. To better understand the following sections, 3 scenarios were analysed for each target: **scenario 1** is the current situation of the target without any GVC’ service; **scenario 2** is the target’s current situation with the addition of ECs; **scenario 3** is the target’s current situation with ECs plus “Poupança Unida”.

6.3.2.1 Pricing Window for Households Consumer Members

For the computation of Households’ savings, a real electricity invoice (from a household that belongs to the target) was used as an example. Its consumption is 1000kw/h with an energy price of 0,1665€ per kw/h. As so, in **scenario 1** this household pays **250€** per month (Exhibit 49). In **scenario 2**, two assumptions were considered. The first one is that the energy price of the energy consumed from the EC is 20% lower than the energy price of the current energy supplier. And the second one is that the Household can use 40% of its energy consumption from the community. This being true, this family can save around **16€** per month only by entering an EC (Exhibit 50). Finally in **scenario 3**, it is assumed that the Household will reduce its energy consumption from 1000kw/h to 850kw/h due to more sustainable habits. In addition, an exchange in the energy supplier was considered which translates into a decrease of the energy

price per kw/h (0,1561 instead of 0,1665). As a result, on this third scenario in addition to the savings already mentioned on scenario 2, an additional **38,17€** will be saved thanks to “Poupança Unida” (Exhibit 51). With the goal of understanding the pricing window for this target, a Value-Pricing Thermometer was created (Exhibit 52). Which means that Cost of Goods Sold (COGS), True Economic Value (TEV) and Perceived Value (PV) must be established. Being “Poupança Unida” a service, Cost of Services will be considered instead of COGS. For one Household, the cost of services is 5€, which is only related to the cost of the outsourcing team that will analyse the market looking for a cheaper energy supplier and the consumer’s habits for a more sustainable use of energy. The TEV is 50% of the additional savings that “Poupança Unida” can provide to customers (15,55€), and the PV is assumed to be 30% of the same savings (9,33€). Finally, a service price had to be defined between the values of cost of services and PV. By having in mind, the price sensitivity of the target, and the analysis of the Quantitative Research, **7,50€** is a fair monthly fee that Households would feel comfortable paying in exchange for a monthly saving of almost 40€.

6.3.2.2 Pricing Window for Small Businesses Consumer Members

Equally to what was described in the previous section, a real electricity invoice from a small restaurant was used as an example for the savings calculations of Small Businesses. The restaurant’s consumption is 3216kw/h with an energy price of 0,1508€ per kw/h. As so, in **scenario 1** this restaurant pays **647€** per month (Exhibit 53). In **scenario 2**, as in the previous target, the same two assumptions were considered. Which means that this restaurant can save around **48€** per month only by entering an EC (Exhibit 54). Finally, as in the previous target, in **scenario 3** it is assumed that the restaurant reduces its energy consumption from 3216kw/h to 2734kw/h due to more sustainable habits, and that it exchanges its energy supplier reducing the energy price from 0,1508€ per kw/h to 0,1414€. As a result, on scenario 3 in addition to the savings already mentioned on scenario 2, an additional **159€** will be saved thanks to “Poupança Unida” (Exhibit 55). Once again, with the purpose of understanding the pricing window for this

target, a Value-Pricing Thermometer was created (Exhibit 56). By applying the exact same rationale as before, Cost of Services, TEV and PV were computed, achieving the following results, 7€; 55,67€ and 33,40€ respectively. After understanding that the price window goes from 7€ to 33,40€, and taking into consideration the amount of savings that “Poupança Unida” alone can provide to a Small Business, the service monthly fee was defined as **22,5€**.

6.3.2.3 Pricing Window for Anchor Members

Once more, the same rationale from the previous targets will be applied in this one as well. Equally to the previous sections, a real electricity invoice from a company was used as an example for the savings’ calculations. The only difference is that this target can be split into two different perspectives. **The first one** is when the **anchors invest themselves** in the solar panels, and the second is when they have **GVC investing for them**. In both perspectives the first scenario is the same, meaning that the company has the same consumption of 6884kw/h with the same energy price of 0,3196€ per kw/h, which gives a total of **3029€** per month (Exhibit 57). In **scenario 2**, the differences between the two perspectives start to show. In the perspective where the Anchor Member invests, a monthly fee of 35€ to manage the community will be charged (Exhibit 58). While on the other perspective where the anchor does not invest, an energy price of 0,1186€ per kw/h will be charged instead (Exhibit 59). However, there is one common assumption in this scenario for both perspectives, which is that 80% of the energy consumed from the anchor comes from the community. Still in this scenario, in the first perspective the anchor saves **2130€**, and in the second one it saves **1362€** on a monthly basis, only by entering an EC. Regarding **scenario 3**, the assumptions taken into consideration are the same for both perspectives, nonetheless, they are still affected by the differences explained in scenario 2. The first assumption is that the anchor’s consumption will change from 6884kw/h to 6196kw/h due to some sustainable efforts and because of that, instead of using 80% of energy from the community it will be able to take advantage of 85% of the energy it produces. Furthermore, the anchor will choose a cheaper energy supplier and pay 0,294 instead of 0,3196

of energy. These changes will make the anchor save an additional **205€** in the first perspective and **240€** in the second (Exhibits 60 and 61). Just like in the other targets, two Value-Pricing Thermometer were created (Exhibits 62 and 63) with the purpose of understanding the pricing window for each perspective of this target. By applying the exact same rational as before, Cost of Services, TEV and PV were computed, achieving the following results, 15,20€; 102,57€ and 61,54€ respectively for the first perspective and 15,20€; 120,11€; 72€ for the second one. Even though the pricing windows are different in each perspective, the price for this service is the same for both (**49€**) since costs are the same and the variation in PV is not considered brutal.

6.4 Promotion/Communication Plan

In the current project, three different campaigns were designed since three different targets were identified.

6.4.1 Marketing Objectives

The strategic goal for the three campaigns is to penetrate the market of ECs for Households, Small Businesses, and Anchor Members. Consequently, the marketing objective is to reach a market penetration of 3% for each target in the first year. The assumptions and the rationale behind this percentage can be seen in Exhibits 64, 65 and 66. A 3% market penetration in each market will result in an increment of Households by 1027, Small Businesses by 1205 and Anchor Members by 99.

6.4.2 Target Audience Selection

6.4.2.1 Households Consumer Members (B2C), Small Businesses Customers Members (B2B) and Anchor Members (B2B)

The primary target for the three campaigns is **New Category Users** (NCUs) since it is essential to bring new people to this new category, which is still not very well known. In addition, the secondary target for all campaigns is **Favourable Brand Switchers**. A deeper explanation of the target audience selection for each campaign can be found in Exhibit 67.

6.4.3 Target Audience Action Objectives and Behaviour

6.4.3.1 Households Consumer Members (B2C), Small Businesses Customer Members (B2B) and Anchor Members (B2B)

Since the targets audiences for the three campaigns are NCUs, the **target audience action objective** for the campaigns will be “**purchase**”. The “first purchase” will be considered the “final purchase” because it is a **high-involvement decision** for a durable service with a long purchase cycle. It also requires some **pre-purchase actions** for Consumers and Anchor Members, for example inquiring about the company by phone or website about the service. Considering the goal of achieving **3% of market penetration**, this will be translated into 1027 new Households’ Consumer Members, 1205 new Small Businesses’ Costumer Members, and 99 new Anchor Members. For a deeper understanding of who is making the decision and what prospects’ touchpoints should be improved, a Behavioural Sequence Model (BSM), for each target’s campaign, was developed (Exhibits 68, 69 and 70).

6.4.4 Communication Objectives

6.4.4.1 Households Consumer Members (B2C), Small Businesses Customers Members (B2B) and Anchor Members (B2B)

The communication objectives for the **Households’ campaign** are to sell category need, create brand recall, create a positive attitude towards the brand, generate brand purchase intention and incorporate purchase facilitation in the brand’s Marcoms. The same applies to the **Small Businesses’ campaign** and **Anchor Members’ campaign**, however, in both cases instead of brand recall, GVC wants to create brand recognition. A further detailed explanation of the choice of these communication objectives can be found in Exhibit 71. In addition, **positioning statements** for all communication plans were developed (Exhibits 72, 73 and 74).

6.4.5 Creative Strategy

6.4.5.1 Households Consumer Members (B2C)

GVC offers a service that helps consumers to reduce energy costs with the usage of solar energy provided by Anchor Members inside an EC and with the new supplementary service “Poupança Unida”. With that being said, the **Key Benefit Claim** for this campaign is “*Unidos pela Poupança Energética*” which mentions the key benefit of the service - reducing energy costs - (“pela Poupança Energética”). At the same time, it transmits to the consumers how GVC do it - together in an EC along with the help of the new supplementary service (“Unidos”). To catalyze the consumer’s attention, a **Creative Idea** was developed based on the creation of two main characters (Exhibit 75) that will be present in every campaign’s marcoms (Exhibit 76). These characters represent the way GVC can help their clients solve their problems - energy costs. They can be seen as “small workers” that assist GVC to take the energy from the sun and deliver it to the solar panels which go into the community. This idea is represented in a storyboard explanation (Exhibit 77) which will be used in promotional videos. By doing this, it is easier to explain the concept behind ECs and it is also “attention-getting”. In addition, recalling these characters and associating them with the brand is undemanding for consumers, which will help accomplish the brand awareness’ communication objective previously mentioned. This campaign aims to create brand awareness and brand attitude. To achieve it there some **Brand Awareness and Brand Attitude Tactics** must be applied: the promotional videos should be focused on selling the category; the category need must be associated with the brand’s name, so a clear explanation of the service’ benefit claims is required on the brand’s marcoms; this association has to be repeated several times (Rossiter, Percy and Bergkvist 2018); the usage of characters will help consumers recall the brand; and finally, Cláudia Vieira will be used as the image behind all brand’s marcoms, and her voice will be used in the promotional

videos to describe the idea.¹¹. To attain the **attention** of consumers, there are some tactics that will be taken into consideration. For example, video content should consider its length and make sure that the brand's name is shown at the beginning (Rossiter, Percy and Bergkvist 2018). To better understand this strategy, a Creative Brief was developed (Exhibit 79).

6.4.5.2 Small Businesses Customer Members (B2B)

GVC offers an opportunity for Small Businesses to save on their extensive energy bills due to the nature of their business. More than ever, this target is looking for solutions that helps them. Thus, the **Key Benefit Claim** is *“Poupe no seu negócio sem ter de se preocupar com nada”*, which states the main key benefit of this service - helping Small Businesses to save on their energy costs with EC and with the new supplementary service (*“Poupe no seu negócio”*) without changing anything that would damage the nature of their small company and with zero efforts since GVC will do everything for the client (*“sem ter de se preocupar com nada”*). The key benefit claim will be working as the **Creative Idea** that will be used in small promotional videos shared on social media and in sales presentations delivered after the personal selling strategy. The idea is that these short videos are built based on the service and its benefits. During the personal selling strategy, there is little time for people to assess the key benefit. Thus, the idea of using the key benefit claim as the creative idea of the campaign will help the target understand the service faster. To accomplish the campaign communication objectives, some **Brand Awareness and Brand Attitude Tactics** must be incorporated. Consequently, the promotional videos will be focused on attaining the category need of the brand while creating brand recognition; and since it is a High Involvement/Informational brand, they do not need to please the clients, otherwise they must be focused on selling the category by guaranteeing that the benefit claim is received by them (Rossiter, Percy and Bergkvist 2018); additionally, it is also very important to make sure that the brand name and logo are visible to the clients during

¹¹ Claudia Vieira participation is accounted for in the VisCAP Model which is explained in Exhibit 78.

the personal selling strategy. As mentioned before, **Attention Tactics** should be implemented during the personal selling strategy. A Creative Brief was created to support this strategy (Exhibit 80).

6.4.5.3 Anchor Members (B2B)

GVC allows big-sized companies to reduce their energy costs by: investing (or not) in solar panels to start an EC, where they will be able to share the remaining energy and get paid for it; along with the help of the new supplementary service “Poupança Unida”. Therefore, the **Key Benefit Claim** can be “*Juntos a poupança é maior*” which translates the key benefit for Anchor Members - by sharing their energy in an EC they can have an additional source of revenue. Plus, with the help of the new supplementary service they can save even more (“a poupança é maior”) and without Consumers Members there is no EC and vice-versa (“Juntos”). Small promotional videos, which will be shared on social media and in sales presentations (delivered after the personal selling strategy), will be produced to create brand awareness and brand attitude. They need to be objective and focused on the key benefits of the service for Anchor Members. The **Creative Idea** behind this campaign will be the key benefit claim. Some **Brand Awareness and Brand Attitude Tactics** should be included in the creative strategy. As mentioned before, the category need must be shown during the small promotional videos and brand identifiers must be visible and repeated frequently. **Attention Tactics** will also be implemented. To help acknowledge this strategy, a Creative Brief was established (Exhibit 81).

6.4.6 Integrated Communication Strategy

6.4.6.1 Households Consumer Members (B2C)

An integrated marketing plan is composed of advertising and promotional techniques. For the Households’ campaign, an intensive strategy of **Advertising** will be working through the usage of social media, especially on Instagram and Facebook. In addition, this campaign will follow a celebrity endorsement strategy with Cláudia Viera (@claudiavieiraoficial) as the brand’s

image in all marcoms. For the **Public Relations (PR)** strategy, two influencers will be employed to increase category need by sharing informative stories on Instagram. Lastly, a **Price-off Promotion** will be offered to Households (*“Ganhe 5 euros para descontar na sua fatura de energia, por cada “amigo vizinho” que traga para a sua comunidade.”*). This will help reduce marketing efforts and, at the same time, **Word-of-Mouth** about ECs will be generated.

6.4.6.2 Small Businesses Customer Members (B2B)

For the Small Businesses’ campaign, the usage of a **Personal Selling** and **Telemarketing** promotion strategy will be the main pillars to attract and retain new members, since a B2B market has different needs and distinctive ways to communicate with them. Additional strategies will be developed, for example, an **Advertising** strategy aiming at the sharing of informative and interactive content on LinkedIn. Another support action of this campaign will be a **Public Relations (PR)** strategy, where the brand will participate in events related to Small Businesses’ industries. In this campaign, the same **Price-off Promotion** mentioned above will be applied because the goal is to incentive people to spread awareness about the category (**Word-of-Mouth**). This promotion will be communicated during the Personal Selling strategy.

6.4.6.3 Anchor Members (B2B)

Regarding the Anchor Members’ campaign, it is important to take into consideration that, even though they are a B2B market, they have a different role inside an EC. Anchor Members present the same problem as the Consumers Members; they want to reduce energy costs. However, since an initial investment is required, they are also looking to benefit from an extra source of revenue. In conclusion, they have other benefit claims that need to be communicated during this plan. In the first approach, the usage of a **Personal Selling** and **Telemarketing** promotion strategy will be very important since it helps to ensure that the target sees the service’s offering and attains it to the category. In addition, an **Advertising** strategy will be implemented with the

goal of creating new and interactive content on LinkedIn' and nourishing B2B relations. At last, a **Public Relation (PR)** strategy will have the aim of managing the brand's events, articles published in magazines and interviews made to GVC' collaborators.

6.4.7 Media Strategy

6.4.7.1 Households Consumer Members (B2C)

In a media strategy, the different types of media can be grouped into two different sets: primary media and secondary media. While defining the main media for a campaign, it is important to take into consideration the communication objectives for it. As mentioned before, some Brand Awareness, Brand Attitude and Attention Tactics will be employed in this campaign according to the campaign's goals, thus the choice for primary media was the **Internet**. Since ECs must be located around Anchor Members, this campaign only covers a niche market. For that reason, the usage of mass media, such as Television, Radio, and Out-of-Home Media, was considered to be a waste and discarded from this strategy. The current campaign will focus on the promotion of this brand through online channels such as Social Media Marketing, Content Marketing, Video Marketing, Google Ads Campaign, Search Engine Optimization (SEO) and Email Marketing. As mentioned before, a **Celebrity Endorsement** strategy will be followed, where Cláudia Vieira will be the brand's image all over the brand's marcoms. The presenter will be also announcing that she is now the ambassador of GVC on her Instagram page where she has over 1 million followers (Instagram 2022). This celebrity endorsement will guarantee that brand awareness and brand attitude objectives are accomplished since it will increase target audience's credibility and trust in the brand. A **Social Media strategy**, focused on Instagram and Facebook, will be very important to nourish the relationship with this target. Therefore, creating interactive and informative content for social media will play an important role in creating category need and brand attitude. In addition, promotional videos and other types of content will be developed with the usage of the new characters and the presenter. These videos will be mainly informational so that the category need is sold to the target audience. **Instagram**

Ad Campaigns, with geolocation and target selection, will be developed for each Anchor Member's location to target Households around it. Thus, it will increase the number of visits to the website and consequently integrate the purchase facilitation' objective. To improve the **Search Engine Optimization (SEO)** strategy, an investment in the website's blog is essential. For example, if consumers are searching on the internet for ways to save energy, they will probably search for: "*Como poupar mais em energia*" or "*Empresas mais baratas no setor energético*". Creating blog articles that approach these topics and have those keywords, will increase the probability of GVC' website appearing on the Google' first page. Consequently, it will increase brand awareness. In addition, a special focus on the inclusion of more **testimonials** on the brand's website will accelerate the phase of consideration by creating more brand trust in consumers. An **Email Marketing** strategy, with a target location around Anchor Members, will also be developed. The goal is to target people around the Anchor Members by informing them about the category and leading them to the website. A **Google Ads Campaign** will be launched. For that, it will be necessary to do a previous keyword' study to understand which keywords are commonly used by this target. As referred before, one of the communication objectives of this campaign will be making consumers recall the brand before the sales point. Since it requires a lot of frequency, the employment of two **influencers** will have that goal, by sharing monthly stories on their social media talking about ECs. The influencers that will be playing this role will be Inês Patrocinio (@inespatrocinio) and Ricardo Martins Pereira (@oarrumadinho). For this campaign, only primary media will be used since the usage of secondary media is only required when the primary media is not capable of delivering all the communication objectives defined above (Rossiter, Percy and Bergkvist 2018).

6.4.7.2 Small Businesses Customer Members (B2B)

In this campaign, the focus will be on the B2B market. This means that different ways to approach prospects are required and consequently different types of media. Taking into consideration the target audience and the communication objectives of this campaign, the

primary medium will be **Personal Selling** and **Telemarketing**. For the **Personal Selling** promotion strategy, a sales force team will go directly to the Small Businesses' installations, which are positioned around Anchor Members, and present themselves the service's benefits. During this process, a brochure will be delivered with detailed information. Later, a sales presentation will be shared with the prospect where they can find promotional videos to help ensure that brand awareness and brand attitude are created. The process might look like other regular marcoms, however in this case it is a two-way communication between salesperson and customer, where communication objectives need to be achieved in a faster way (Rossiter, Percy and Bergkvist 2018). There are important tactics for each stage that the salesperson should be aware of. Consequently, the choice of the sales team is very important and should be followed by special training to be a successful campaign. By putting this strategy to work, the brand will be able to build relationships based on trust and credibility while reaching more people in less time (Indeed Editorial Team 2021). Along with this, a **Telemarketing** promotion strategy will be developed because it helps the brand to interact directly with consumers and clarify them (Nibusinessinfo 2022). Regarding the secondary media of this campaign, the brand will be using the **Internet**: the brand initiatives will be a **Social Media** strategy entirely focused on LinkedIn where promotional videos will be shared with different informative topics related to the service' benefits for Small Businesses. In addition, **LinkedIn Ads Campaigns** will be used to target the audience based on demographics and role in the company. Furthermore, an **Email Marketing** strategy will be very important to implement since it allows the brand to spread category awareness and forward consumers to the website.

6.4.7.3 Anchor Members (B2B)

For the Anchor Members' campaign, two media groups will be used. The primary media will be composed of **Personal Selling** and **Telemarketing**. On the **Personal Selling** promotion strategy, a sales force team will go directly to Anchor Member's offices and present the service. Later, the sales team will share with the company a sales presentation that includes promotional

videos that briefly summarize the key benefits of the service. A **Telemarketing** strategy will be developed to accelerate increasing sales. While the secondary media will include only the **Internet**. Social media, more precisely LinkedIn, will be the principal online channel for this target, where a **LinkedIn's Newsletter strategy** will be put in place. A LinkedIn Newsletter allows the brand to increase its audience, create engagement and boost brand awareness (Williams 2021). Promotional videos will be shared on LinkedIn with the goal of showing how the ECs for Anchor Members work. It is very important that the marketing agency can clearly separate the contents from Anchor Members and Small Businesses members since the benefits are different. **LinkedIn Ads Campaign** will have the same goal as mentioned above. An **Email Marketing** strategy will be very important to create brand intention and brand facilitation.

6.4.8 Budget Breakdown and Campaign Schedule

The campaigns' budgets for a one-year duration were based on assumptions and on the current goals of each campaign. On a total basis, the three one-year campaigns will cost GVC around 452.000 euros. The **Households' campaign** represents 42,5% of the total amount spent, **Small Businesses' campaign** constitutes 33,5% of the final budget and the **Anchor Members' campaign** displays 24% of it (Exhibit 82).

6.4.8.1 Households Consumer Members (B2C)

Since the category has a strong lack of awareness, investment in communication is a major factor. In total this campaign will cost GVC around 192.000 euros (Exhibit 82). The main investment will be **Celebrity Endorsement** representing 54,7% of the total budget while the remaining will be spread over the others marketing communications. Regarding the **schedule** of the campaign (Exhibit 83), it will start in January. Normally, energy bills are much higher during the first months of the year (conclusion withdraw from Primary Research) which makes consumers much more watchful for these types of problems. Consequently, the advertising weight will be higher in this period. On the contrary, some initiatives will stop during summer

break because energy prices are low, and people are not worried about this type of problem since it is the time for people to rest and forget about the problems. Regarding Instagram Ad Campaigns, they will begin as soon as any Anchor Members enter the company grid.

6.4.8.2 Small Businesses Customer Members (B2B)

The same applies to this campaign, there is a strong lack of awareness about the category which justifies the money that will be spent on this campaign. In total this one-year campaign will cost around 152.000 euros (Exhibit 82), of which 34.6% is presented by **Telemarketing** and 31,8% by **Personal Selling** strategy. About the **schedule**, the campaign will start in January when energy bills are higher and will depend on the businesses' seasonality justifying the only 9 months of operation for LinkedIn Ads Campaign and Email Marketing (Exhibit 84).

6.4.8.3 Anchor Members (B2B)

For the Anchor Members' campaign, the main goal is to increase sales, which requires a heavy advertising investment. This campaign will cost GVC an average amount of 110.000 euros per year (Exhibit 82). The main investment in this campaign will be in **Telemarketing**, which represents 36.7% of the total budget. Regarding the **schedule** of the Anchor Members campaign, it will be influenced by the seasonality since during summer some marketing efforts will be stopped to avoid unnecessary costs (Exhibit 85).

6.4.9 Campaign Tracking

6.4.9.1 Households Consumer Members (B2C), Small Businesses Customer Members (B2B) and Anchor Members (B2B)

It is crucial that some **Key Performance Indicators** (KPI) are defined previously so that if something is not working it is easier to find the problem and then take some corrective actions. However, before starting the campaign all the KPIs until there should be accurate to be possible to compare them and draw conclusions from them. For the **Households Consumer Members' campaign**, some KPIs were defined (Exhibit 86). In addition, in the **Small Businesses**

Customer Members’ campaign and **Anchor Members’ campaign**, different KPIs will be followed since distinctive strategies are being pursued (Exhibit 87).

6.5 Place

6.5.1 Greenvolt Comunidades Distribution Channels

An analysis of GVC current route to market is important to assess if an adaptation is needed in order to suit “Poupança Unida’s” strategy and objectives. The company reaches its end-users through the **company’s website**; **call-centre**; and **direct sales** (personal selling). A detailed scheme of GVC’ current routes to market and process explanation can be found in Exhibit 88.

6.5.2 “Poupança Unida” Distribution Channel Strategy

6.5.2.1 End-User Analysis: Segmentation and Targeting

The segmentation analysis was conducted based on **service outputs** demanded by end-users. Before defining the segments, the existent service outputs, whose detailed theoretical definition can be found in Exhibit 89 and their specificities should be analysed concerning “Poupança Unida”. This analysis can be seen in Exhibit 90. After conducting this analysis of the **service outputs**, it was possible to detect differences concerning preferences on **spatial convenience** (as some customers prefer a direct contact process and others prefer indirect contact) and on **customer service**. Direct contact opposed by indirect contact refers to the preference of buying the service with the direct help of a selling assistant. As for customer service, it is high or low, depending on the aspects of easing the shopping and purchase of the service. Considering these two factors, 4 different segments can be defined: **Segment A** – Direct Contact, High Customer Service; **Segment B** – Indirect Contact, High Customer Service; **Segment C** – Direct Contact, Low Customer Service; and **Segment D** – Indirect Contact, Low Customer Service. It is possible to say that all segments are attractive and will be reached through a customized channel strategy. Based on the positioning map of Exhibit 91, the most suitable channels for each segment were assessed and can be identified in Exhibit 92.

6.5.2.2 Channel Structure

To better understand the channel structure of GVC with the new service “Poupança Unida”, this section should be read together with the analysis of Exhibit 93. Being “Poupança Unida” a supplementary service, there will not be any change on GVC’ current distribution channel. Instead, two steps will be added to the channel structure. Despite being GVC the one providing and managing the new supplementary service, an outsourced team with specialized know-how and the right software’s needed, was hired. This way GVC can save on fixed costs and guarantee service quality due to the outsourcing company’s prestige and reputation. However, communication is a must between GVC and the outsourced consultancy team (4) for the core and supplementary service to run smoothly. Both services happen at the same time, meaning that coordination and coherence are strictly necessary between the teams. As previously mentioned, the entire “Poupança Unida” service is planned and supervised by GVC, however, the consultancy team has direct contact with the end user (5) since they are the ones that perform all the research to find the cheapest energy supplier in the market, and that analyse the consumption habits of the end user with the aim of optimizing them. The contact between the channels (online (GVC Website), call-center and personal selling) and end-users happens during the entire process.

6.5.2.3 Channel Gaps Analysis

An initial analysis of internal **managerial bounds** and external **environmental bounds** that might create limitations or bounds to the channel implementation was conducted and can be analysed in detail in Exhibit 94. It is crucial to analyse the potential **demand gaps** and the potential **supply gaps** as well as establishing how to **close those gaps**. Regarding **Potential Supply Gaps**, when analysing “Poupança Unida” channel flows, no supply side gaps were identified, meaning that there is no flow in the distribution channel being too expensive. And this is true due to the decision to use an outsourced consultancy company, meaning that there are no fixed costs incurred in this service. However, some **Potential Demand Gaps** were

identified in relation to **customer service, information sharing, spatial convenience** and **waiting time**. They are explained in detail in Exhibit 95 as well as the measures that should be taken to close those gaps.

6.6 People

The service can start either by initial contact by the client (request for information) or salesperson (personal selling/ telemarketing), meaning there is no strong reliance on the client to begin the service process. Clients do however play an important role in the designing of their personal “Poupança Unida” package, as it is specifically built according to their needs. Therefore, the clients need to be first educated about the concept to grasp the services’ benefits and leverage on the full potential of it. The client has the option to send in previous and current invoices of their energy supplier to help enrich the database of GVC, thus improving the cost prediction/ best service provider on the market feature. Finally, the client is the main player in terminating the contract with GVC. On the employees’ side, two sides are to be examined, employees during the service, and service excellency. This relationship will be established by communicating openly and in confidence with the clients. All the information and data given to the employee by the client will be kept strictly confidential. By asking for feedback each service year, the client will also understand the company values their opinion and their participation in the service (Kappel 2017). Equally, the employee needs to express their appreciation for their client and their choice to contract with GVC by inviting them to seminars or conferences concerning the energy community. For the beginning of “Poupança Unida” operations, the service will be supported by an outsourced consultancy team. However, in the future, the company might internalize the consultancy employees. For that purpose, a hiring and training process, plus an incentive system’s recommendations were developed and can be found in Exhibit 96.

6.7 Physical Evidence

6.7.1 Tangible Elements

GVC' main tangible part of the service includes the **solar panels**. Even though intangible elements dominate in the value creation for this solution, there are some more elements that could be touched or experienced by other senses and represent additional touchpoint with the consumers: business cards, billing statements, reports, brochures, mobile app, employee performance and appearance. All these tangible elements should represent the brand at their best, convey trustworthiness and unity. As the service might be difficult to visualize and understand for consumers, GVC should highlight the **firm's reputation** and **employee expertise** since one of the brand's elements of credibility is providing the most qualified team of experts to deal with consumers. It can be done by documenting their performance, explaining the processes in a clear way to reduce the stress of service purchase, and by offering guarantees. The interactions between the employees and the consumers will also affect the whole service experience, so it is fundamental that the team is well prepared and trained to enhance this touchpoint.

6.7.2 Environment Components

When it comes to analyzing the physical environment of GVC, it can be concluded that the main components are the **website**, the **mobile app** and the **interaction with employees**. The solution is produced and delivered via a website, which needs to be user-friendly with an interface structured to stimulate call to action (UX Design). This element should also convey expectations and influence perceptions, GVC is currently meeting all these characteristics with its website and mobile app. The use of cool colors such as blue, violet, and green brings a sense of coolness, fidelity, calmness, assurance, peace, freshness, growth, softness, and professionalism. The services cape serves also as a **socializer** and **interaction facilitator**, this is particularly relevant for GVC' door-to-door approach, consulting service on energy

consumption behaviors and for the onsite visits to the buildings to check solar panel installation requirements. For the servicescape strategy to be even more effective, GVC should assess and identify more physical evidence opportunities to stick in the consumers' minds. This can be done by maintaining the physical elements appealing to all five senses and be updated and prepared to modernize the evidence.

6.7.3 Physical Evidence Opportunities

One Physical Evidence opportunity for GVC is represented by the introduction of the **new characters** (Exhibit 75) through the launch of the solution “Poupança Unida”. Another opportunity for the future is establishing a **physical location**, such as a small office, where clients who prefer to have in-person meetings could be received. The place should be appealing in sight, sounds, scent, touch and taste to have a more pleasant service experience and therefore higher customer satisfaction. Additionally, for B2B segments (Anchor Members included), a **digital stamp** that identifies they belong to a community might be something valued.

7. Key Success Factors

The main KSFs for the solution “Poupança Unida” are **Category Knowledge**, **Brand Success**, and **Service Experience** which will be further explained in Exhibit 97.

8. Profit and Loss

To see the impact of the new service “Poupança Unida” on the current core business of GVC, a Profit and Loss statement was developed. This analysis was based on a three-year plan, starting as soon as the service is ready to start its operations. To achieve a **Final P&L** (Exhibit 103) some other P&Ls had to be considered, mainly the **Company's Current P&L** (Exhibit 101), and the **P&L for the new service “Poupança Unida”** (Exhibit 102). There were some limitations caused by the generally **limited information** available since GVC is a new startup company. There were uncertainties regarding the way the company operates and implements

its services. Therefore, a lot of assumptions had to be made as it will be explained in the next section.

8.1 Main Assumptions

Due to the complexity of GVC' current business structure, a high number of assumptions had to be taken into consideration. It is possible to identify two different scenarios for the **Company's Current P&L** (Exhibit 101). The first is related to the situation where **Anchor Members invest** in their own solar panels (Exhibit 99). Whilst, on the second scenario, **GVC invest** for them (Exhibit 100). Both scenarios are based on a project of 44KWp and to create them some assumptions were used (Exhibit 98). In the **Company's Current P&L** (Exhibit 101) a combination of these two scenarios was made, which assumes that 50% of the projects are from scenario one (Anchor Members invest) and the other 50% are from scenario two (GVC invests). For simplicity purposes, only **Final P&L** (Exhibit 103) will be considered in the following sections.

8.2 Revenues

On the **Final P&L** (Exhibit 103) the Revenues are a combination of the earnings coming from the **new supplementary service "Poupança Unida"** plus the earnings of the **company's core business**. In year 1, the Revenues will be **874k€**, while in year 2 it will be **2M€** and in year 3 it will be **3M€**. Regarding the Revenues from the **new supplementary service** (Exhibit 102), as the customer base increases on a monthly basis in each of the three segments, the Revenues also increase, they are **275k€** in year 1, **560k€** in year 2 and **830k€** in year 3. This represents a compound growth of 74% year on year. The earnings coming from the **company's core business** (Exhibit 101) will be influenced by the results coming from the two different scenarios explained in Exhibits 99 and 100. Thus, the **company's core business** earnings will result in a combination of 50% of the Revenues from each scenario: in year 1 the revenues will be **600k€**, in year 2 they will be **1.4M€** and in year 3 it is **2.1M€**.

8.3 COGS

Regarding the **Final P&L** (Exhibit 103), the Cost of Goods Sold (COGS) will not be considered since there are no COGS associated with the **new supplementary service** (Exhibit 102) nor with the **company's core business** (Exhibit 101). In relation to "Poupança Unida", COGS do not exist since the only cost considered is related to outsourcing services. While regarding the company's core business, in the scenario in which Anchor Members invest, all the costs associated with the project were considered in Operating Expenses. Whilst, in the other scenario, the equipment is capitalized on fixed assets in the Balance Sheet, which will then be depreciated over 15 years.

8.4 Operating Expenses

As mentioned in the other sections, the Operating Expenses of the **Final P&L** (Exhibit 103) will be the association of the **new supplementary service** (Exhibit 102) with the **company's current core business** (Exhibit 101). Overall, they are constituted by **General Operating Expenses, Outsourcing Costs and Marketing Costs**. Therefore, the **Outsourcing Costs** are only related to the **new service**, since GVC will pay a third party for each resource needed to work in the consultancy team. These costs vary depending on the target that outsourced collaborators will be working with and this variation is related to the skills and expertise needed to perform the job (this is deeply explained in the Price Section). Additionally, **Marketing Costs** are referred to in the budget of the previously mentioned communication plans whose focus is to sell the current service of ECs and at the same time attract clients to the new service "Poupança Unida" (will be further explained). Finally, the **General Operating Expenses** will be composed of **Personal Costs** and **External Services and Supplies**. The **Personnel Costs** of GVC' **core business**, represent 80% of the Gross Margin in both scenarios. While **External Services and Supplies** are only considered when Anchor Members make the investment, which is related to the installation of solar panels provided by Greenvolt Next (576€*44kwp). In conclusion, the Operating Expenses are **1.1M€** in year 1, **1.2M€** in year 2 and **1.8M€** in year 3.

8.5 Marketing Costs and CAPEX

For the purpose of this project, a deeper understatement of the Marketing Costs on the **Final P&L** (Exhibit 103) is required. Considering the 3% market penetration goal, the marketing communication' budget is expected to be **452k€** in the first year of the project since a high level of initial investment is required to accomplish communication objectives of sell category need, increase brand awareness, create a positive brand attitude, generate brand intention and incorporate brand facilitation on the brand's marcoms. In the remaining years, the Marketing Costs will decrease to **132k€** and remain constant since an aggressive approach will be no longer necessary. The total **CAPEX** considered among the 3 first years is **2.5M€** ($576€ \times 44kwp \times 100 \text{ projects}$) with the assumption that GVC invests in 100 projects (50% of the total amount of projects in the third year) of 44kwp.

8.6 Results

As an overview, the revenues of the project for the first year of this new service implementation are **874k€**, whereas **275k€** comes from "Poupança Unida" service. In the following years a substantial growth in revenues will be observed, achieving **3M€** in the third year. The Operating Expenses are a combination of all the factors mentioned in the respective section. On year 1, the total Operating Expenses are **1.1M€** and on year 3 it increases for **1.8M€**. As a result, a negative Net Income in year 1 of **347k€** is achieved which will be offset in the following years by **385k€** in year 2 and **651k€** in year 3. The payback period will occur during year 2. In addition, the **Net Present Value (NPV)** of the **Final P&L** (Exhibit 103) represents **11.7M€** while in the **Company's Current P&L** (Exhibit 101) is **8M€**. In conclusion, the new service "Poupança Unida" creates a huge incremental value to the current business of GVC increasing its **NPV** by 47%. It brings added value to the stand-alone project, increasing EBITDA, as well as creating retention on Households, Small Businesses and Anchor Members.

9. Control Measures: Key Performance Indicators

To ensure the success of the project, certain KPIs were determined and monitored throughout the entire duration of the project. The KPIs are classified into three main categories: revenues, customers, and processes (Wishart 2022). A detailed explanation can be found in Exhibit 104.

Table 6: Key Performance Indicators

Revenues			
Gross Profit Margin First indicator of success for the company	Net Profit Margin Indicates company's control of costs	Sales Growth Rate Indicates how total profit of company is developing on an annual basis	Cost of Acquiring new Customers (CAC) Acquisition of customers should be reduced over time due to learning curves
Customers			
Customer Satisfaction Customer satisfaction indicates success of service	Customer Retention Measures loyalty from customers towards brand and indicates overall satisfaction	Customer Lifetime Value Distinguishes value of customers for the company	Number of Referrals Necessary tracking for the referral program
Process			
Internal Process Quality: Hygiene checks		Internal Process Quality: Customer Opinions	

10. Contingency Plan

From the moment a company operates within a certain market, it is susceptible to internal and external threats. Consequently, the implementation strategy of this service might have a Contingency Plan that helps the company to identify if dangerous situations happen. For each possible threat a specific action was defined. On a pessimistic scenario, a 1% market penetration was considered, which means that the company will have less clients and consequently less revenue. This will lead to an erosion of the EBITDA and an impact of less 399k€ in Revenues. To mitigate a scenario like this, it is important that managers take actions, starting by reviewing marketing and variable costs. In addition, it is critical to understand why sales are not growing. On an optimistic scenario the market penetration will be 5%, nevertheless it might result in a dangerous scenario if the company has lack of internal capacity to capture all the clients that will come. An action plan would be to expand the company to be able to accommodate all the clients or prioritize the high value customers.

11. Why we believe in “Poupança Unida”

“Renewable energy growth is poised to accelerate in 2022, as concern for climate change and support for environmental, social, and governance (ESG) considerations grow and demand for cleaner energy sources from most market segments accelerates”, (2022 renewable energy industry outlook, Deloitte”). The price of solar panels has decreased over the past years, and it is expected to continue to drop over the long term. Portugal is one of Europe’s most sunny countries and provides the ideal conditions for solar energy use. Additionally, there is a growing interest in the new generations for alternative and efficient energy consumption. ECs have become a **new trend** all over the world and are increasingly gaining more and more popularity. The cost of energy is increasing, therefore more and more people are looking out for reducing their costs. However, this search has turned out to be an overwhelming challenge for most of them, as there are way too many alternatives available on the market. People need some sort of guidance to make the right choices for their specific situations. GVC new service “Poupança Unida” has the answer to all the challenges presented and is represented by a fast-forward team that can quickly adapt to the technological, environmental, economic, and social trends.

12. Individual Report

1.Pricing

Pricing is the only element of the marketing mix that generates revenue, it represents the firm’s attempt to capture some of the value in the profit it earns. However, an effective pricing can

never compensate for poor execution of the other elements (Nagle and Müller 2018). The job of this P (price) is to define how the value that has been created can be divided correctly between customers and the company. This happens by providing consumers with a good incentive to buy the product or service, and by making the company's cover the costs associated with the value-creation effort, providing funds for profit and reinvestment in the company (Dolan and Gourville 2014). Assessing and understanding the value that "Poupança Unida" creates for consumers is of utmost importance and is in the base of this service's creation. When deciding on which pricing strategy to follow, there is no better option than the **value-based pricing approach**, where the target price is based on an estimate of the perceived value it has for consumers, an estimate of the benefits the service will be able to provide them. Differently from a **cost-based pricing approach**, that is product driven, where price is set according to the cost of the goods or services being sold, and then, adding an extra standard percentage markup to it (Nagle and Müller 2018). With the goal of establishing a successful price, a correct price-setting process should be implemented. "Price setting is the ultimate intersection of value creation and value extraction where the seller seeks simultaneously to capture a fair share of the value created, maximize long term profitability and enhance his or her market position" (Nagle and Müller 2018, 134). The first step is the creation of a clear and feasible pricing objective for Greenvolt Comunidades. It is very important to set an objective that is aligned with the company's overall business strategy. The following step refers to the definition of a pricing window for each one of the segments served. To define those windows and to capture the key elements of value-based pricing, Value-Pricing Thermometers will be assembled (Dolan and Gourville 2014).

1.1 Pricing Objective

When deciding which pricing strategy to follow, a company can choose between the following three options: penetration strategy, skimming strategy and neutral strategy. However, this choice must be taken having in consideration the overall business strategy of the company,

never forgetting the goal of supporting and optimizing its marketing objectives (Nagle and Müller 2018). Greenvolt Comunidades is a startup company which purpose is to reduce energy costs with clean energy. “Poupança Unida” is contributing even more to an out of the box solution, bringing to the market an innovative approach of reducing even more energy costs. As mentioned in the Group Report (Felten, et al. 2022), the ultimate strategic goal of “Poupança Unida” is to reach a 3% penetration rate on Energy Communities for households, small businesses, and anchor members, in the first year of its operations. However, it cannot be forgotten that this company operates in a niche market, with price sensitive potential customers. As a result, a skimming pricing strategy is not adequate in this case since “by definition, skim prices are high in relation to what most buyers in the segment can be convinced to pay” (Nagle and Müller 2018, 138). Moreover, a skimming pricing strategy is usually designed to capture high margins in the short run from early adopters, at the expense of a higher volume of sales (Nagle and Müller 2018). As so, it would contradict the purpose of “Poupança Unida” which is to potentialize the energy cost reduction and consequently provide the highest amount of savings possible. Therefore, developing a skimming strategy that is directed to price-insensitive customers, by charging a high price would not be a good option, since it would discredit the company’s promise of increase savings. Another possibility, that in theory would be perfect to apply in this situation, is a market penetration pricing strategy. It involves setting a price that is considered “low enough” to attract and hold a large base of consumers, thus increasing penetration rate (Nagle and Müller 2018). Even though it looked like a good possibility, this strategy is only effective if a large share of the market is willing to change brands in response to lower prices. Since Greenvolt Comunidades operates inside a niche market, a strategy like this would not be profitable. After excluding the implementation of a skimming or a penetration strategy, only a neutral pricing strategy is missing to be the chosen one for “Poupança Unida”. A neutral pricing strategy minimizes the role of price as a marketing tool in favour of other tactics that management believes are more powerful and cost effective for a product or service

(Nagle and Müller 2018). This means that consumers will chose “Poupança Unida” for its proven savings, and not because of how much it costs, of course that the new service’s price still needs to match the price sensitiveness of consumers. A neutral pricing is not necessarily near the middle of the range, it can, in principle, be the highest or lowest price in the market and still be neutral (Nagle and Müller 2018). In conclusion, to better understand how a neutral pricing should be applied, it is crucial to first set a pricing window for each segment.

1.2 Pricing Window

After deciding which pricing approach and strategy to follow, it is time to establish an initial price window for each target (Households, Small Businesses and Anchor Members). Since the chosen pricing approach was the value-based, a value-pricing thermometer scheme was used to capture the key elements of the value-based approach (Dolan and Gourville 2014). There are 3 critical inputs to any value-based pricing decision. The first one, is the Cost of Goods Sold (COGS) for “Poupança Unida”, which represents the lowest allowable price point of the pricing window. The second one is the True Economic Value (TEV), which is the value that a fully informed buyer on the benefits of the service would pay for it. It also represents the highest allowable price point of the window, which in this case is 50% of the potential savings that “Poupança Unida” can guarantee to a customer inside its target segment. Finally, the third critical input is the Perceived Value (PV), it represents the perceived value of the service in the customer’s mind. This value is normally much lower than the TEV, one of the possible reasons is that the customer might not be 100% aware of the service’s benefits. However, the company has the power to influence PV through marketing efforts. In this case, the PV is 30% of the potential savings that “Poupança Unida” can guarantee to a customer inside its target segment.

1.2.1 Cost of Service

The COGS shows the true cost of the products sold. Being “Poupança Unida” a service, Cost of Services will be considered instead of COGS. The only cost that this new service incurs are

outsourcing costs, which refer to the amount that Greenvolt Comunidades will pay to a third party for each resource needed to work in the consultancy team. There is one different consultancy team per target segment. Each team is in charge of analysing the cheapest energy supplier in the market for each customer, and to study the clients' habits to see if they can decrease their energy consumption by adopting more sustainable habits. The cost of each team vary depending on the target that they work with, and this variation is related to the skills and expertise needed to perform the job. Greenvolt Comunidades will pay 1000€ to the outsourcing company for each employee needed to be in charge of the households' target, 1200€ regarding each employee needed in charge of small businesses, and 1500€ to the ones in charge for the anchor members. These outsourcing costs are considered variable, since they grow depending on the clients' base growth. In order to guarantee service efficiency, at the end of the first year a total of 5 people will be needed to take care of the households' portfolio (1027 clients). In addition, a total of 7 people will be necessary to deal with the small businesses' portfolio and only 1 person to take care of anchor members portfolio (1205 and 99 clients respectively). In conclusion, the cost of services sold is $\cong 5\text{€}$ ($5 \cdot 1000 / 1027$) for households; $\cong 7\text{€}$ ($7 \cdot 1200 / 1205$) for small businesses; and $\cong 15\text{€}$ ($1 \cdot 1500 / 99$) for anchor members.

1.3 Savings Calculation and Price Setting

With the aim of calculating the True Economic Value and the Perceived Value, several calculations had to be made with the goal of achieving the real amount of savings that “Poupança Unida” can provide to each of the targets. As mentioned before the **TEV** is **50%** of the savings and the **PV** only **30%** of the savings. To facilitate the comprehension of the following topics where savings will be explained, it is important to mention that 3 scenarios were analyzed for each target: **scenario 1** is the target's current situation without any Greenvolt Comunidades' service; **scenario 2** is the target's current situation with the addition of Energy Communities; and **scenario 3** is the target's current situation with Energy Communities plus “Poupança Unida”. Additionally, a real electricity invoice from each target was used as example

for the calculations. After understanding the logic behind the savings of each target and demonstrating the efficiency of the new service “Poupança Unida”, a **monthly fixed price** was defined for each target. It is important to mention that these pricing plans were done based on 2022 prices, not including inflation.

All the **assumptions** regarding the **savings calculations** of the three scenarios for each one of the three targets, are addressed in further detail on the Pricing Window sections of the Group Report (Felten, et al. 2022).

1.3.1 Households’ Savings Calculation and Price Setting

In **scenario 1** the household pays 250€ per month (Exhibit 1). In **scenario 2**, it saves around 16,38€ per month only by entering an Energy Community (Exhibit 2). Finally in **scenario 3**, an additional 38,17€ will be saved thanks to “Poupança Unida”, which makes a total of 54,65€ saved (Exhibit 3). With the goal of reaching the **final price** for the service, a **Value-Pricing Thermometer** was created (Exhibit 12). For that, **Cost of Services**, **TEV** and **PV** were computed, achieving the following results, **5€**; **15,55€** ($38,17 \times 0,5$); and **9,33€** ($38,17 \times 0,3$) respectively. Finally, a service’s price had to be defined between the cost of services, and the PV. By having in mind, the price sensitivity of the target, the analysis of the quantitative research, and the neutral pricing strategy, **7,50€** is a fair monthly fee that households would feel comfortable paying in exchange for a monthly saving of almost 40€ only with “Poupança Unida”.

1.3.2 Small Businesses’ Savings Calculation and Price Setting

In **scenario 1** the restaurant pays 647€ per month (Exhibit 4). In **scenario 2**, it can save around 47,72€ per month (Exhibit 5). In **scenario 3**, an additional 111,33€ will be saved thanks to “Poupança Unida”, which makes a total of 159,05€ saved (Exhibit 6).

Once again, a **Value-Pricing Thermometer** was created (Exhibit 13). **Cost of Services**, **TEV** and **PV** were computed, achieving the following results, **7€**; **55,67€** ($111,33 \times 0,5$) and **33,40€**

(111,33*0,3) respectively. The price window goes from 7€ to 33,40€. This combined with the savings that “Poupança Unida” alone can provide to a small business, helps define the service monthly fee of **22,5€**.

1.3.3 Anchor Members’ Savings Calculation and Price Setting

This target can be divided into two different perspectives. The first one is when the anchors invest themselves on the solar panels, and the second is when they have Greenvol Comunidades investing for them. In **scenario 1**, both perspectives are the same, meaning that the company pays 3029€ per month (Exhibit 7). In **scenario 2**, the differences between the two perspectives start to appear. In the first perspective the anchor saves 2130€, and in the second one it saves 1362€ monthly (Exhibits 8 and 9). Regarding **scenario 3**, the anchor saves an additional 205,14€ in the first perspective and 240,21€ in the second (Exhibits 10 and 11). Just like in the other targets, two Value-Pricing Thermometer were created (Exhibits 14 and 15). **Cost of Services, TEV and PV** were computed, achieving the following results, **15,20€; 102,57€** ($205,14€ \times 0,5$) and **61,54€** ($205,14€ \times 0,3$) respectively for the first perspective and **15,20€; 120,11€** ($240,21€ \times 0,5$); **72€** ($240,21€ \times 0,3$); for the second one. Even though the pricing windows are different in each perspective, the price for this service is the same for both, **49€** since costs are the same and that the variation in PV is not brutal.

2. Place

2.1 Greenvolt Comunidades Distribution Channels

A marketing channel is defined as a “set of interdependent but in many cases independent organizations involved in the process of taking a product or service to market and making it available for use or consumption” (Palmatier et al. 2020, 3). A first analysis of Greenvolt Comunidades’ current distribution channel will be made to evaluate if there is the need to adapt it to suit the strategy and objectives of the new service “Poupança Unida”. The company reaches its end-users through the company’s website (where both consumers and anchors can run a

simulation to assess the average amount of savings, they would have by joining an energy community); call-center; and direct sales (personal selling). A detailed scheme of Greenvolt Comunidades' current routes to market and process explanation can be found in Exhibit 16.

2.2 Poupança Unida Distribution Channels Strategy

2.2.1 End-User Analysis: Segmentation and Targeting

According to Robert Palmatier, “the focus of any channel strategy should be to understand how people buy and then devise ways that make it easy, convenient, efficient, and cost effective for them to do so, using their preferred mode” (Palmatier et al. 2020, 319). When segmenting the market, it is a must to consider how end-users want to buy and use the service, rather than what they want to consume. Types of preferences are the most critical points to evaluate when it comes to **segmenting end-users**. With the purpose of defining those preferences, an analysis of each of the **6 service outputs** (whose detailed theoretical definition can be found in Exhibit 17) was conducted. The analysis was done considering the new service “Poupança Unida” and can be seen in Exhibit 18. After analyzing the **service outputs**, it was possible to detect differences concerning preferences on **spatial convenience** (as some customers prefer a direct contact process and others prefer indirect contact) and on **customer service**. Direct contact opposed by indirect contact refers to the preference of buying the service with the direct help of a selling assistant. As for customer service, it is high or low, depending on the aspects of easing the shopping and purchase of the service. Considering these two factors, 4 different segments can be defined: **Segment A** – Direct Contact, High Customer Service; **Segment B** – Indirect Contact, High Customer Service; **Segment C** – Direct Contact, Low Customer Service; and **Segment D** – Indirect Contact, Low Customer Service. After segmenting the market according to the service outputs required, segments should be analysed in terms of attractiveness. And if needed, target a subset of the segments identified. In this case, all segments are attractive, and will be reached through a customized channel strategy. Based on

the positioning map of Exhibit 19, the most suitable channels for each segment were assessed and can be identified in Exhibit 20.

2.2.2 Channel Design

Channel design is a decision faced by the marketer which includes either setting up channels from scratch or modifying existing channels. The term design presupposes that the marketer is cautiously and actively allocating the distribution tasks to create an efficient channel (Dubale 2021).

2.2.2.1 Channel Structure

To better understand the channel structure of Greenvolt Comunidades with the new service “Poupança Unida”, this section should be read together with the analysis of exhibit 21.

Being “Poupança Unida” a supplementary service, the current distribution channel of Greenvolt Comunidades’ core service will not suffer any modification (exhibit 16). Instead, two steps will be added to the channel structure. Despite being Greenvolt Comunidades the one providing and managing the new supplementary service, an outsourced team with specialized knowhow and the right software’s needed, was hired. This way Greenvolt Comunidades can save on fixed costs and guarantee service quality due to the outsourcing company prestige and reputation. However, communication is a must between Greenvolt Comunidades and the outsourced consultancy team (4) for the core and supplementary’s service to run smoothly. Both services happen at the same time, meaning that coordination and coherence is strictly necessary between the teams. As previously mentioned, the entire “Poupança Unida” service is planned and supervised by Greenvolt Comunidades, however, the consultancy team has direct contact with the end user (5) since they are the ones that perform all the research to find the cheapest energy supplier in the market, and that analyze the consumption habits of the end user with the aim of optimizing them. The contact between the channels (online (Greenvolt Comunidades Website), call-center and personal selling) and end-users happens during the entire process.

2.2.2.2 Channel Flows

To better understand the channel flows, Exhibit 22 (where the channel functions are described in detail) should be analyzed first and then Exhibit 23 should be analyzed together with this section. **Information sharing** occurs between all the involved parties, in the form of direct contact between the consultancy company and Greenvolt Comunidades and through the previously defined channels between Greenvolt Comunidades and end-consumers.

Greenvolt Comunidades should maintain its **negotiation** agreements with the consultancy company, and maybe one day starts benefiting from a certain degree of bargaining power. The higher the number of clients, the higher the number of workers needed, the higher the bargaining power. Regarding end-users, there is no room for negotiation since the service has a monthly fixed price. In relation to **ordering and payment**, in what concerns the relationship between the consultancy company and Greenvolt Comunidades, a monthly payment is done to the outsourced company, and the amount varies depending on the number of workers needed in that month. Relatively to the flow between Greenvolt Comunidades and the end-consumer, an order occurs every time a contract is signed, however, every customer has the right of monthly monitorization. Payments are done every month at a fixed amount prior defined in the contract. **Risk** moves in both directions, and in “Poupança Unida’s” case it refers to the scenario where the consumers cancel their contracts and stop paying for the service. However, since the consultancy team is outsourced, the costs are variable and can be reduced at any time. Similar to risk, **financing** is also a two-way flow, and it refers to the willingness of either the outsourced consultancy company or Greenvolt Comunidades to finance the end-users purchase for a period of time. Regarding **promotion**, “Poupança Unida” is promoted to end-users through the previously defined channels (website, telemarketing, and personal selling) together with a well-structured advertising campaign that can be analyzed in the communications plan section on the Group Report (Felten, et al. 2022). There are no **ownership** flows of the service tangible items since “Poupança Unida” has no tangible items in its operations. Regarding **physical**

possession, it typically is a forward flow from producer to consumer, however, being “Poupança Unida” a service without tangible items, this physical possession can only relate to data, and in this case, it is shared between Greenvolt Comunidades and the consultancy team.

2.2.3 Channel Gaps Analysis

An initial analysis of internal **managerial bounds** and external **environmental bounds** that might create limitations or bounds to the channel implementation was conducted and can be analyzed in detail in Exhibit 24. Most part of the channels used by “Poupança Unida” already exist at some extent in Greenvolt Comunidades to run their core service of Energy Communities, which means that there is no need to establish a zero-based channel. However, it is important to analyze the potential **demand gaps** and the potential **supply gaps** (Exhibit 25) as well as establishing how to **close those gaps** (Exhibit 26).

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Group Appendix

Exhibit 1: Renewable Energy Legislation

“Decree-Law 29/2006” - organizational framework of the national electricity system and handles the topic of coexistence between a public service electricity system and an independent electricity system, the latter being regarded in a market sense. It was first approved in 1995 but underwent changes in 1997. These changes established the principles of Directive 96/92/EC, of the European Parliament and Council of December 19. Further changes took place in 2003 and 2004, due to the lacking integration into a duly systematized legislative framework. Finally, the Council of Ministers Resolution 169/2005 of 24 October 2005, approved the national energy strategy and established guidelines for the liberalization and promotion of competition in the energy markets (Diário Da República Eletrónico 2006). In other words, the “Decree-Law 29/2006” is the basis of all activities concerning the Portuguese energy market, be it generating, transmitting, distributing, or selling energy (Costa and Mateus 2021).

“Decree-Law 172/2006” - establishes the principles for the organization and operation of the electricity sector. It refers to several issues related to the implementation of these principles to supplementary legislation, namely the legal and procedural regulations for the exercise of the “Decree-Law 29/2006”. Within the framework, of the development and implementation of the principles of this decree, it established the procedures for the granting of concessions for the generation of electricity under the normal system and for the supply of electricity, as well as for the granting of the concession for the National Electricity Transmission Network (Rede Nacional de Transporte de Electricidade, RNT) and the concessions for the distribution of electricity in the high, medium and low voltage sectors (Diário Da República Eletrónico 2006). Thus, this decree further “develops the general principles regarding the organization and functioning of the National Electricity System (Sistema Eléctrico Nacional) (“SEN”)” (Costa and Mateus 2021).

“Decree-Law 162/2019” - lays the foundation for the self-consumption “of renewable energy, individual, collective or by renewable Energy Communities” ([Presidency of the Council of Ministers 2019](#)), also known as “Comunidades de Energia Renovável” (CER).

Three definitions are hereby established:

- *Renewable energy “is energy from renewable sources” (Presidency of the Council of Ministers 2019), such as solar, hydro or geothermal.*
- *Self-consumption “is the consumption of electricity produced by infrastructures that produce renewable energy” (Presidency of the Council of Ministers 2019).*
- *Self-consumers are “those who engage in self-consumption of renewable energy and may also, in addition to production and consumption, share, store and sell such energy” (Presidency of the Council of Ministers 2019).*

This decree was put in place to reach the National Energy and Climate plans (NECPs) introduced by the “Regulation on the governance of the energy union and climate action (EU 2018/1999, agreed as part of the Clean energy for all Europeans package” (European Commission 2019). This plan includes multiple goals including energy efficiency and renewables. In terms of renewables, Portugal set an ambitious goal to reach 47% share of energy consumption by the end of 2030. In 2020, Portugal reached a renewable energy share of 31% (European Commission 2020) thus the above-mentioned legislation, aims to contribute to the end goal of 2030.

“Decree-Law 15/2022” – sets in foundation the organization and functioning rules of the National Electric System (SEN) and incorporates Decree-Law no. 29/2006 and Decree-Law no. 172/2006. It is designed for the selling of excess electricity generated through self-consumption in the grid through organized markets or bilateral contracts. Now self-consumers can request the issue of certificates of origin for any excess electricity brought into the grid. They can also now operate

storage facilities without having to be connected to the UPAC or consumer facilities. No additional cost duplication will thus apply. This decree supports the more self-consumption of electricity (CMS 2022).

Exhibit 2: Future Trends for the Solar Energy Sector

Solar energy takes the lead in terms of fastest-growing energy source. In 2021, it was the third largest source on a global scale, with the United Arab Emirates producing most of the generated solar energy (Just Energy 2021). Possible explanations for this development are to reduce power shortages and increased interest in living self-sufficiently after the pandemic (Lozanova 2022). While it does not occur too often, Portugal still faces 0,3 power outages in a firm per month (The World Bank 2019) which could lead to loss of productivity and output which then in turn affects sales and profits (Sims 2021).

The future of solar energy production will only improve in the following years. **Solar panels** will become increasingly efficient in generating electricity in limited locations, such as crowded cities with multiple high-rise buildings. **Smart cities** are on the horizon following the success of smart cars and smart homes. More and more cities are looking for ways to transform their current state by changing their infrastructures and integrating connected solutions into the everyday life of their citizens. Of course, becoming sustainable is also one of the most important goals for smart cities and they are increasingly incorporating existing and new technologies to reach that goal. While not a city, Germany has the ambitious goal to run on sustainable energy by 2050 and thus puts its resources into the exploration of electric buses, green constructions, smart grids, and rooftop farms (solar and produce related) (Brooken 2017)

Apart from solar panels, **solar shingles**, which can be explained as miniature solar panels in roof tiles, are increasing in usage. While currently, solar shingles are about 4% less efficient as panels, they are more pleasing to the eye for homeowners and have a lifespan that lasts as long as that of a typical roofing (S. Lozanova, Greenlancer 2018). Another promising advance in the solar panel sector is the development of liquid solar panels. **Liquid solar panels**, or liquid solar, still apply the principles of normal solar mechanisms, however, it also makes use of an additional chemical by the name of norbornadiene. Norbornadiene is known to capture 30% of raw radiation and can last as long as 18 years. The only pitfall to this technology is the usage of toxic solvents which are dangerous long-term (Chelsea 2021). Apart from home usage, new streetlights in form of **solar-powered LEDs** aim to reduce energy bills, carbon emissions for communities and bring many more benefits (Enel x 2022). Finally, **floating photovoltaics** (FPVs), which are considered to be the third pillar of solar energy, are also gaining more recognition on the market (AE Solar 2021). EDP in Portugal is said to commence work to create Europe's largest floating solar park as of July 2022. This park will contain over 12.000 solar panels which can generate 7,5 GWh of electricity per year whilst in the Alqueva reservoir (Goncalves and Pereira 2022).

Exhibit 3: Energy Communities Members Definition

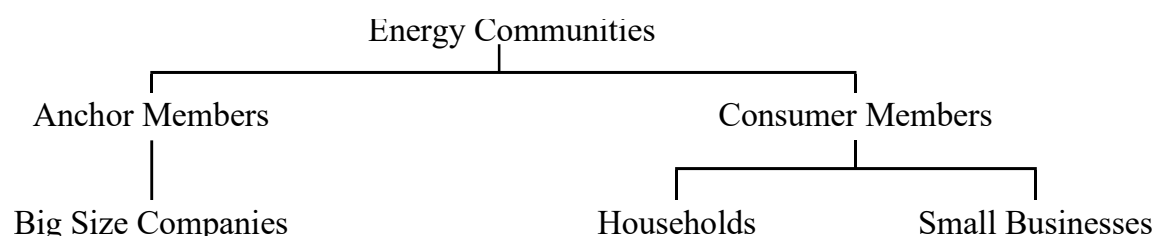


Figure 1: Energy Communities Members Definition

Exhibit 4: Horizontal and Vertical Energy Communities

		
Vertical REC Anchor Building	Horizontal REC Unique Anchor	Horizontal REC Multiple Anchors
• Production and consumption in the same building • Approval of the construction manager for production • Supply contract with consumers	• Production at one anchor member and several consumption points • Contract with anchor member for production • Supply contract with consumers	• Production at multiple anchor members and multiple consumption points • Contract with anchor customers for production • Supply contract with consumers

Figure 2: Horizontal and Environmental Energy Communities

There are two main types of Energy Communities: **Vertical Energy Communities**, which are buildings with apartments where energy can be shared within and outside the building and the approval from the manager of the construction is needed to settle the community up (City Switch 2020); and **Horizontal Energy Communities**. The latter are divided into unique anchors (production at one Anchor Member and several consumption points) and multiple anchors (production at multiple Anchor Members and multiple consumption points (Almeida and Klausmann 2021)).

Exhibit 5: SWOT/TOWS Analysis

Strengths - one of Greenvolt Comunidades' key strengths is its **affiliation with its parent company** Greenvolt. As described above, Greenvolt has a strong and solid reputation in the Portuguese market of renewable energies. The sub-brand can take advantage of the **positive synergies** that the associations with the mother company provides. Another strength is their **excellent client service** represented by an expert team of employees.

Weaknesses - Greenvolt Comunidades is a new company and therefore not well known. The main weakness is represented by the fact that the **low category awareness** for Energy Communities. As a result, many do not even feel the need, in the first place, for this type of service. Another weakness is the **invoice system** since Consumer Members receive two separate invoices: one from their energy supplier and a second one from Greenvolt Comunidades.

Opportunities - are mainly represented by the increasing need of society to **adopt new sustainable ways of producing and consuming energy**. People and companies are highly interested in finding ways to save their costs on energy bills. Moreover, the Covid-19 pandemic has increased the desire to be more energy independent on a global level. Solar energy supports this development. Additionally, the government and the Energy Efficiency Fund are providing **subsidies** to projects that address these relevant environmental problems. Finally, in a world where uncertainty is more and more common, people are desperately looking for a way to feel like they **belong to a group** built on the same values. This need can be addressed by the entry on an Energy Community.

Threats - one of the main threats is represented by **bureaucracy** regarding the creation of Energy Communities. Many different factors need to be considered and evaluated before a community is created. These processes can be lengthy and can slow down progress. The other threat is the **lack of knowledge and awareness** about energy services alternatives, the way they function and the alternatives available on the market.

Exhibit 6: Competitors' Positioning Map



Figure 3: Competitor's Positioning Map

Exhibit 7: PESTLE Environment of Portugal Analysis

Political Environment - Portugal is a semi-presidential republic, with a stable democracy and a multiparty political system (Expatica 2022). During the electoral process, it is seen with utmost urgency that the entire process is free and fair. While the prime minister holds the highest executive power, the by vote elected president has the power to veto legislation and dissolve the parliament and prolong legislation. The president him-/herself typically serves two five-year terms. Currently the position of president is held by Marcelo Rebelo de Sousa, who is supported by two center-right parties, won the re-election with 61% of the votes. While Portugal is generally seen as a stable and secure country, there are still doubt concerning issues such as corruption, journalistic constraints, and racial discrimination (Freedom House 2022). Corruption remains to be a problem for the country as reinforcement and persecution of law are not handled efficiently after laws to better accountability and transparency were ruled into effect in 2019.

Additionally, Portugal is a member of the European Union since 1986 (European Union 2022). As part of the European Union, Portugal needs to adhere to the United Nations 2030 Agenda and its Sustainable Development Goals (SDGs), particularly to SDG 7 “Affordable and clean energy”

(European Commission 2022). As of this year, Portugal is performing well, with indicators showing an overall achievement of SDG 7 (Sustainable Development Report 2022).

Economic Environment - the biggest sectors account for services (64,89%), agriculture (2,19%) and industry (19,23%) (Statista 2021). The global lockdowns caused by the COVID-19 pandemic were detrimental to the country's economy and healthcare system. It is estimated to have caused an 8,4% fall in GDP in 2020 (OECD 2021). Now, Portugal is forecasted to grow by 5,4% (OECD 2022) from 2021, amounting to a GDP of \$260 B in 2022. In 2023, a growth rate of 1,7% (OECD 2022) is expected, raising the GDP to about \$280 B (Trading Economics 2022). The growth in Portugal has been boosted by public investment funded by the EU, as well as the return of tourism in the country after COVID-19 restrictions have been lifted (OECD 2022). More specifically, Portugal receives EUR 13,9 billion in grants and EUR 2,7 billion in loans for the years 2021-2026 (Coface 2022).

Though problems with the pandemic are slowly being lifted, the Ukraine-Russia war is weighing down heavily on the global economy, Portugal included, by disrupting supply chains, lowering confidence, and increasing commodity and energy costs. While Portugal itself does not have too many close ties to Russia, it relies heavily on the foreign trade channel. 71% of Portugal's exports go to the European Union where demand is forecasted to slow down. An inflation of 6,3% in 2022 and 4% in 2023 are to be expected (Coface 2022).

Social Environment - Portugal's total population amounts to 10,3 million inhabitants as of October 2022 with a declining growth rate of 0,07%. The growth rate of the population has been steadily declining for many years and is expected to continue declining in the coming years. With this pace, the population in 2050 might sink to 9 million (World Population Review 2022).

With a surface area of 92.090 square kilometers, the population density is about 112 people per square kilometer. Two thirds of the entire population live in urban environments. The city with the

biggest population, about 2,8 million inhabitants, is Lisbon, followed by Porto with about 2,2 million inhabitants. Looking at the median ages of the country, females represent a higher median age of 46,5 opposed to males with 42,7, making the total median age 44,6 years. All in all, there are about 8,6 million people over the age of 18 living in Portugal (World Population Review 2022).

Sharing communities are becoming more present in the Portuguese landscape. Especially in the housing sector, many Portuguese purchase their first property starting with age 30 and upwards and until then live with their parents. Thus, the sharing model is viable for those who are looking for more flexible ways to live independently. While saving costs is the main reason for sharing economies, other reasons enter the decision-making process, namely social interaction, being part of a community and the flexibility. (The Portugal News 2019).

Technological Environment - Portugal is also strongly investing and advancing in technologies for the future (ECO News 2021). Among all 28 European Union member states, Portugal ranked 19th in year 2020. While Portugal is refining its digital public services, it still lacks improvement in digital literacy and in the usage of internet service. The Ministry of Economy and Digital Transition is promoting more digital competencies as well as the digitalization of the entire economy. These plans belong to the second phase of the “Indústria 4.0”, or “the Fourth Industrial Revolution”, which aims to reduce cost by investing into technology and increase technological capacity (International Trade Administration 2020). The term of “living online” will become even more relevant as the internet continues to connect more aspects of a person’s everyday life with digital processes and technologies (Compete 2020 2020).

Research shows that 8,58 million people used the internet in January 2021, an increase by 0,7% from the year before. This means, that the penetration rate of the internet in January 2021 was 84,2% (Datareportal 2021). Since 2015 up to 2022 the amount of smartphone users has increased from 5,05 million to 6,52 million (Statista 2017). With this data, it can be assumed that services

need to provide users with mobile apps to facilitate points of contact and points of purchase. It provides the user with more value due to the digital nature of today's lifestyle (Haselmayr 2022).

Legal Environment - all tariffs concerning energy and electricity are regulated by the Entidade Reguladora Dos Serviços Energéticos (ERSE) for a calendar year. Hereby, regulations concerning tariffs and prices include the total allowed revenues and end-user consumers (ERSE 2022). As mentioned above, producing solar energy, and selling the surplus to the grid or to neighbors is made possible under the *Decree-Law No.162/2019*.

Finally, the National Plan for Energy and Climate 2021-2030 (PNEC 2030) sets national targets for the use of renewable energy sources for Portugal until 2030. Despite not presenting specific targets for the implementation of renewable Energy Communities, the plan refers the importance of Energy Communities for the achievement of national goals for the use of renewable energy sources and for the reduction of greenhouse gas emissions, essentially relevant to the specific goals of photovoltaic solar generation.

Environmental Environment - In terms of environment, Portugal is facing most of air and water pollution in its urban centers. The air pollutants include nitrous oxide, sulfur dioxides, and carbon emissions mainly stemming from vehicles emissions or road traffic, even prompting the European Commission to sue the country (REUTERS 2021). In terms of water pollution, the entire coast is threatened by the oil and cellulose industries. On the other side, Portugal has 37 cubic kilometers of renewable water, from which slightly more than half (53%) is used for agricultural and 40% is used for industrial activities. The average amount of solid waste produced by the country is 2.6 million tons. Concerning the wildlife of Portugal, 13 native to the country's mammal, 7 bird and 186 plant species have been specified as endangered as of 2001. The cause can be traced back to erosion and the desertification of land (Nations Encyclopedia n.d.).

Exhibit 8: Factors Influencing B2B Customers and B2C Consumers' Choice Behaviour and Key Influencers

Throughout the years, becoming more sustainable has become very relevant. **Global warming** and **climate changes** are the main reasons behind the increase of environmentally friendly choices (United Nations 2022). People's awareness of the consequences of these problems has increased. In consequence they are willing to switch to greener solutions (Zaidi, et al. 2022). The **increasing price of energy** is also aiding this change. It is possible to identify some factors influencing the motivations to purchase solar panels and to belong to an EC. The most relevant factor is that solar energy allows to **save costs** and **use cleaner energy** that contributes to the reduction of greenhouse gas emissions' consequences (Leaman 2015). In addition, the **social value** (Grębosz-Krawczyk, et al. 2021) plays an important role during the decision- and buying process because consumers feel the need of belonging and acceptance and companies will be seen as more ethical (Motion 2019). Also, **emotional**, and **sustainable** values (Grębosz-Krawczyk, et al. 2021) have an impact on people as they feel they are participating in environmental change for a better world to live in. This means that most of the times, the reason behind the purchase of greener products/services is correlated with the **need of satisfying social and moral norms** (Canova 2022). **Social media** plays an important role in fighting global warming and climate changes by influencing citizens to take greener actions (Andrio and Safrina 2021). It has the power to spread information all over the world and allow people to be informed in real time. However, Family, **friends**, and **colleagues** are the main influences regarding the choice of eco-friendly products/services (White, Hardisty and Habib 2019).

Exhibit 9: Interview Guidelines Current Anchor members

CURRENT ANCHOR MEMBERS

Introduction

Good morning / afternoon / evening. My name is _____ and I'm currently finishing my master's in management, at NOVA School of Business and Economics.

For the aim of my Thesis Project in the field of Energy Communities, we are conducting research related to Renewable Energy Communities and their value for consumers and companies (anchor members).

For this purpose, I would like to interview you for approximately 20 to 45 minutes, by means of an in-depth-interview.

This is a non-directive method, which means that, for the most part, I will not ask you questions, but instead let you talk freely after the first initial question. This also means there are no right, or wrong answers and you are free to say whatever comes to your mind on the subject.

For the purpose of analyzing our interviews later, I would like to ask if I can record our conversation and inform you that it will remain anonymous. Do you agree?

Filter Questions

F1. Is your company based in Portugal?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

F2. Does the company you work for belong to an Energy Community from Energia Unida?

Y (START INTERVIEW) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

Section I – ANCHORS SUSTAINABILITY BEHAVIOUR

- Please elaborate on the relationship your company has with the topic of sustainability.
 - **Sub-topics:**
 - Efforts/initiatives (for example: recycling, protecting green spaces, reducing and measuring the emission of greenhouse gases, optimizing employee transportation, reducing waste, etc.)
 - Goals and accomplishments
 - Level of Commitment
 - Opinion as a company
 - Alternative energy solutions

Section II – ENERGY COMMUNITIES AWARENESS (FOR CURRENT ANCHOR MEMBERS)

- You have mentioned you are an Anchor Member of an Energy Community. Can you please elaborate on how your company became aware of this solution and describe the implementation process?
 - Sub-topics:
 - Awareness
 - Decision process
 - Why did you choose Energy Communities instead of other alternatives?
 - Motivation (is that considered an asset?)
 - Chosen vendor and why?
- What were the main benefits and challenges while implementing this type of solution?
 - Sub-topic:

- What could work better
- How was your overall experience with the service until now?
 - Sub-topics:
 - Expectations vs Reality
 - Did the company comply with its promises?

Section III – GENERAL BRAND PERCEPTION

- When we talk about energy companies which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?

○ EDP	○ Galp
○ Goldenergy	○ Greenvolt
○ Iberdrola	○ Luzboa
○ Endesa	○ Alfa
- Please provide 3 adjectives/characteristics of each one of the following brands **(only ask about the brands they recognized before max.3)**

Section IV – BRAND PERCEPTION (FOR ANCHORS)

- When we talk about Energy Communities which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?

○ Simples Energia	○ CME
○ Cleanwatts	○ Martifer Renewables
○ Bairro Solar EDP	○ Reneewing
○ EDP Renováveis	○ Capwatt
○ Energia Unida	

- Please provide 3 adjectives/characteristics of each one of the following brands (**only ask about the brands they recognized before max.3**)

I will now describe a business model and ask some questions about it:

BUSINESS MODEL FROM ENERGIA UNIDA: Imagine that you produce energy for an Energy Community where there is no initial investment in the purchase of solar panels (the company could make it for you). With the excess of solar energy produced you would be able to share it with the community that surrounds your company, and by that you would not only be helping the environment with clean energy for everyone but also receive a payment for that. The company would give you all the support so that you would not have to worry about maintenance, the way energy would be shared, and payments from consumer members.

- Which brand do you think would provide this solution and why?
- From the mentioned characteristics which ones do you value the most and the least?

Firmographics

For the purpose of describing the whole sample of respondents, could you just indicate the following:

Company Type:

- | | |
|---|---|
| ☐ Cooperativa | ☐ SGPS (Sociedade Gestora de Participações Sociais) |
| ☐ S.A. (Sociedade Aberta) | ☐ SUA (Sociedade Unipessoal Anónima) |
| ☐ S.F. (Sociedade Fechada) | ☐ SGOIC (Sociedades Gestoras de Organismos de Investimento Coletivo) |
| ☐ Lda. (Limitada) | |

☐ SIC (Sociedades de Investimento Coletivo)

☐ Other: _____

Company Size:

☐ Small (1-50 employees)

☐ Big (501-5000 employees)

☐ Medium (51-250 employees)

☐ Very big (>5000)

☐ Medium big (251-500 employees)

Yearly Turnover:

☐ <2M €

☐ 10M – 50M €

☐ 20M - 10M €

☐ > 50M €

Location: _____

Sector: _____

Is your company located in a residential, industrial, or commercial cluster?

Y ☐ N ☐

What is your company' energy consumption per year?

☐ < 1.500 €

☐ 9.751€ - 15.000€

☐ 1.501 € – 3.000 €

☐ 15.001 - 19.999€

☐ 3.001 € – 5.625 €

☐ 20.000€ - 30.000€

☐ 5.626 €– 9.750 €

☐ 30.001€ - 50.000€

☐ $\geq 50.000\text{€}$

Do you own or rent the building where your company works?

Own ☐ Rent ☐ Other _____

Thank you very much for your time and feedback – your opinions are really important to make improvements and we value them a lot! Have a great day!

Exhibit 10: Interview Guidelines Potential Anchor members

POTENTIAL ANCHOR MEMBERS

Introduction

Good morning / afternoon / evening. My name is _____ and I'm currently finishing my master's in management, at NOVA School of Business and Economics.

For the aim of my Thesis Project in the field of Energy Communities, we are conducting research related to Renewable Energy Communities and their value for consumers and companies (anchor members).

For this purpose, I would like to interview you for approximately 20 to 45 minutes, by means of an in-depth- interview.

This is a non-directive method, which means that, for the most part, I will not ask you questions, but instead let you talk freely after the first initial question. This also means there are no right, or wrong answers and you are free to say whatever comes to your mind on the subject.

For the purpose of analyzing our interviews later, I would like to ask if I can record our conversation and inform you that it will remain anonymous. Do you agree?

Filter Questions

F1. Is your company based in Portugal?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

F2. Do you have a physical location with space for solar panels and not isolated?

Y (START INTERVIEW) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

Section I – ANCHORS SUSTAINABILITY BEHAVIOUR

- Please elaborate on the relationship your company has with the topic of sustainability.
 - **Sub-topics:**
 - Efforts/initiatives (for example: recycling, protecting green spaces, reducing, and measuring the emission of greenhouse gases, optimizing employee transportation, reducing waste, etc.)
 - Goals and accomplishments
 - Level of Commitment
 - Opinion as a company

Section II – ENERGY COMMUNITIES AWARENESS (FOR POTENTIAL ANCHOR MEMBERS)

- Considering renewable energy alternatives, can you please elaborate on the solutions you know that your company can adopt, please?
- [IF THEY HAVE ALTERNATIVE ENERGIES SOLUTIONS] Why did you choose that type of solution?
- [IF THEY DO NOT HAVE ALTERNATIVE ENERGIES SOLUTIONS] Have you considered adopting an alternative energy solution?

I will now describe a solution and ask some questions about it:

DEFINITION OF ENERGY COMMUNITIES: Energy Communities are a solar solution that allows the sharing of energy. It all starts with a client, which is the producer, that installs solar panels, starting the production of clean, cheaper, and for-all energy. The producer

consumes its own produced energy and distributes the excess to the community. Everyone pays less for electricity, contributing to a more sustainable world.

- Have you ever heard about Energy Communities and their meaning?
- Are you aware of the benefits those communities can bring to your company and to the environment?
- Considering the described solution what do you consider to be the main benefits? And the biggest challenges to implementing it.

Section III – GENERAL BRAND PERCEPTION

- When we talk about energy companies which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?
 - EDP
 - Galp
 - Goldenergy
 - Greenvolt
 - Iberdrola
 - Luzboa
 - Endesa
 - Alfa
- Please provide 3 adjectives/characteristics of each one of the following brands **(only ask about the brands they recognized before max.3)**

Section IV – BRAND PERCEPTION (FOR ANCHORS)

- When we talk about Energy Communities which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?

- Simples Energia
 - Cleanwatts
 - Bairro Solar EDP
 - EDP Renováveis
 - Energia Unida
 - CME
 - Martifer Renewables
 - Reneewing
 - Capwatt
- Please provide 3 adjectives/characteristics of each one of the following brands **(only ask about the brands they recognized before max.3)**

I will now describe a business model and ask some questions about it:

BUSINESS MODEL FROM ENERGIA UNIDA: Imagine that you produce energy for an Energy Community where there is no initial investment in the purchase of solar panels (the company could make it for you). With the excess of solar energy produced you would be able to share it with the community that surrounds your company, and by that you would not only be helping the environment with clean energy for everyone but also receive a payment for that. The company would give you all the support so that you would not have to worry about maintenance, the way energy would be shared, and payments from consumer members.

- Which brand do you think would provide this solution and why?
- From the mentioned characteristics which ones do you value the most and the least?

Firmographics

For the purpose of describing the whole sample of respondents, could you just indicate the following:

Company Type:

- | | |
|--|---|
| ☐ Cooperativa | ☐ S.F. (Sociedade Fechada) |
| ☐ S.A. (Sociedade Aberta) | ☐ Lda. (Limitada) |

☐ SGPS (Sociedade Gestora de Participações Sociais)

☐ SIC (Sociedades de Investimento Coletivo)

☐ SUA (Sociedade Unipessoal Anónima)

☐ Other: _____

☐ SGOIC (Sociedades Gestoras de Organismos de Investimento Coletivo)

Company Size:

☐ Small (1-50 employees)

☐ Big (501-5000 employees)

☐ Medium (51-250 employees)

☐ Very big (>5000)

☐ Medium big (251-500 employees)

Yearly Turnover:

☐ <2M €

☐ 10M – 50M €

☐ 20M - 10M €

☐ > 50M €

Location: _____

Sector: _____

Is your company located in a residential, industrial, or commercial cluster?

Y ☐

N ☐

What is your company' energy consumption per year?

☐ < 1.500 €

☐ 15.001 - 19.999€

☐ 1.501 € – 3.000 €

☐ 20.000€ - 30.000€

☐ 3.001 € – 5.625 €

☐ 30.001€ - 50.000€

☐ 5.626 €– 9.750 €

☐ >=50.000€

☐ 9.751€ - 15.000€

Do you own or rent the building where your company works?

Own ☐

Rent ☐

Other _____

Thank you very much for your time and feedback – your opinions are really important to make improvements and we value them a lot! Have a great day!

Exhibit 11: Interview Guidelines Non-Solar Panel Consumers

NON-SOLAR PANEL CONSUMERS

Introduction

Good morning / afternoon / evening. My name is _____ and I'm currently finishing my master's in management, at NOVA School of Business and Economics.

For the aim of my Thesis Project in the field of Energy Communities, we are conducting research related to Renewable Energy Communities and their value for consumers and companies (anchor members).

For this purpose, I would like to interview you for approximately 20 to 45 minutes, by means of an in-depth interview.

This is a non-directive method, which means that, for the most part, I will not ask you questions, but instead let you talk freely after the first initial question. This also means there are no right, or wrong answers and you are free to say whatever comes to your mind on the subject.

For the purpose of analyzing our interviews later, I would like to ask if I can record our conversation and inform you that it will remain anonymous. Do you agree?

Filter Questions

F1. Are you currently living in Portugal?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

F2. Were you born before 1998?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

F3. Do you have solar panels installed in your house/building?

Y (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW) N (START INTERVIEW)

Section I – BEHAVIOR AND ATTITUDE TOWARDS GREEN HABITS, RENEWABLE ENERGY AND TYPE OF CONSUMER

Sustainability

- Please elaborate on your current efforts to be more sustainable.
 - Sub-topics:
 - Recycling
 - Supporting brands that are sustainable
 - Motivation to be more sustainable
 - Further actions for the future
 - External influences of environmental behavior.

Energy Consumption

- Can you please elaborate on your energy consumption?
 - Sub-topics:

- Type of energy (electricity, gas, solar, pellets, etc.)
- Spending
- Seasonality, etc.
- Have you ever thought about adopting alternative sources of energy?
 - Sub-topics:
 - Type of alternative sources considered
 - Reason for not implementing it

Section II – REASON FOR NOT SOLAR PANEL PURCHASE/ INSTALLATION

- Why don't you use solar panels?
 - Sub-topics:
 - Do they use other alternative energies solutions

Section III – AWARENESS AND BENEFITS OF ENERGY COMMUNITIES (FOR NON-SOLAR PANEL CONSUMERS)

- Considering solar energy alternatives, can you please elaborate on the solutions you know that you can adopt, please?

DEFINITION OF EC: Energy Communities is a solar solution that allows the sharing of energy (same concept of sharing economies) and making more efficient use of assets. You can produce and share energy with people that are close enough to each other.

- Have you ever heard about Energy Communities and their meaning?
- Are you aware of the benefits those communities can bring to you and to the environment?

- Considering the described solution what do you consider to be the main benefits? And the biggest challenges to implement it?

Section IV – GENERAL BRAND PERCEPTION

- When we talk about electricity companies which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?
 - EDP
 - Galp
 - Goldenergy
 - GreenVolt
 - Iberdrola
 - Luzboa
 - Endesa
 - Alfa
- Please provide 3 adjectives/characteristics of each one of the following brands (**only ask about the brands they recognized before max.3**)

Section V – BRAND PERCEPTION (FOR CONSUMERS)

- When we talk about energy communities which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?
 - Simples Energia
 - Energia Unida
 - Cleanwatts
 - CME
 - Energy Ring
 - Martifer Renewables
 - Bairro Solar EDP
 - Reneewing
 - EDP Renováveis
 - Capwatt

- Please provide 3 adjectives/characteristics of each one of the following brands **(only ask about the brands they recognized before max.3)**
- Do you remember any ad from an energy company? If yes, could you describe it?
 - Subtopics:
 - From which company
 - Topic
 - Media type

I will now describe a business model and ask some questions about it:

BUSINESS MODEL FROM EU: Imagine that you are part of an energy community that links solar energy producers and consumers through an app. In this community, producers would share the excess solar energy they produce with you in real time. This way you would be able to reduce your footprint and your energy costs.

- Which brand do you think would provide this solution and why?
- From the mentioned characteristics which ones do you value the most and the least?
- Which type of person would you see using this service?
 - Sub-topics:

▪ Age ▪ Personality ▪ Living arrangements (house/apartment) ▪ Average income	▪ Type of car used (fuel, hybrid, 100% electric, other) ▪ Number of children
---	---

Demographics

For the purpose of characterizing the whole sample of respondents, could you just indicate the following:

Age (in years): _____

Nationality: _____

Number of people in the household: _____

Level of annual income:

☐ Less than 9000€

☐ 40000€ -59999€

☐ 9000€ -19999€

☐ 60000€ -79999€

☐ 20000€ -39999€

☐ 80000€ or more

[DO NOT ASK – JUST REGISTER] Gender: _____

Education *[SHOW LIST]*

☐ Can't read / write

☐ Less than 4th grade

☐ 4th grade

☐ 6th grade

☐ 9th grade

☐ 11th /12th grades

☐ Professional or Arts Degree

☐ Incomplete undergrad

☐ Undergrad in Nursing, Social Services, Childcare, Primary Schooling, Tourism, Secretariat,
Accounting, Archiving

☐ Other undergrad programs

☐ Post-grad or Masters

☐ PhD

Occupation *[SHOW LIST]*

☐ GO1 – Middle and Top Management

☐ GO2 – Specialized Technicians and Small Business Owners

☐ GO3 – Employees of Tertiary Sector

☐ GO4 – Qualified / Skilled Workers

☐ GO5 – Unqualified / Unskilled Workers

☐ GO6 – Retired / Unemployed

☐ GO7 – Students

☐ GO8 – Housewives

Thank you very much for your time and feedback – your opinions are important to make improvements and we value them a lot! Have a great day!

Exhibit 12: Interview Guidelines Solar Panel Consumers

SOLAR PANEL CONSUMERS

Introduction

Good morning / afternoon / evening. My name is _____ and I'm currently finishing my master's in management, at NOVA School of Business and Economics.

For the aim of my Thesis Project in the field of Energy Communities, we are conducting research related to Renewable Energy Communities and their value for consumers and companies (anchor members).

For this purpose, I would like to interview you for approximately 20 to 45 minutes, by means of an in-depth-interview.

This is a non-directive method, which means that, for the most part, I will not ask you questions, but instead let you talk freely after the first initial question. This also means there are no right, or wrong answers and you are free to say whatever comes to your mind on the subject.

For the purpose of analyzing our interviews later, I would like to ask if I can record our conversation and inform you that it will remain anonymous. Do you agree?

Filter Questions

F1. Are you currently living in Portugal?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

F2. Were you born before 1998?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

F3. Do you have solar panels installed in your house/building?

Y (START INTERVIEW)
INTERVIEW)

N (THANK YOU FOR YOUR TIME AND FINISH

**Section I – BEHAVIOR AND ATTITUDE TOWARDS GREEN HABITS,
RENEWABLE ENERGY AND TYPE OF CONSUMER**

Sustainability

- Please elaborate on your current efforts to be more sustainable.
 - Sub-topics:
 - Recycling
 - Supporting brands that are sustainable
 - Motivation to be more sustainable
 - Further actions for the future
 - External influences of your behavior.

Energy Consumption

- Can you please elaborate on your energy consumption?
 - Sub-topics:
 - Type of energy (electricity, gas, solar, pellets, etc.)
 - Spending
 - Seasonality, etc.
- Have you ever thought about adopting alternative sources of energy?

- Sub-topics:
 - Type of alternative sources considered
 - Reason for not implementing it

Section II – REASON FOR SOLAR PANEL PURCHASE/ INSTALLATION

- Please elaborate on your Solar Panel usage experience:
 - Sub-topic:
 - Usage time
 - Type of acquisition (buy, rent, etc.)
 - Influences
 - Current experience/opinion
 - Why solar panels and not other solutions for alternatives energies

Section III – AWARENESS AND BENEFITS OF ENERGY COMMUNITIES (SOLAR PANEL CONSUMERS)

- Considering solar energy alternatives, can you please elaborate on the solutions you know that you can adopt, please?

I will now describe a solution and ask some questions about it:

DEFINITION OF EC: Energy Communities is a solar solution that allows the sharing of energy (same concept of sharing economies) and making more efficient use of assets. You can produce and share energy with people that are close enough to each other.

- Have you ever heard about Energy Communities and their meaning?

- Are you aware of the benefits those communities can bring to you and to the environment?
- Considering the described solution what do you consider to be the main benefits? And the biggest challenges to implement it?
- With that being said, would you be interested in being part of such a community?
 - Sub-topics:
 - Would it be worth it for you since you already have solar panels?
 - What led you to that conclusion?

Section IV – GENERAL BRAND PERCEPTION

- When we talk about electricity companies which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?

○ EDP	○ Galp
○ Goldenergy	○ GreenVolt
○ Iberdrola	○ Luzboa
○ Endesa	○ Alfa
- Please provide 3 adjectives/characteristics of each one of the following brands **(only ask about the brands they recognized before max.3)**

Section V – BRAND PERCEPTION (FOR CONSUMERS)

- When we talk about energy communities which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?

- Simples Energia
 - Cleanwatts
 - Energy Ring
 - Bairro Solar EDP
 - EDP Renováveis
 - Energia Unida
 - CME
 - Martifer Renewables
 - Reneewing
 - Capwatt
- Please provide 3 adjectives/characteristics of each one of the following brands (**only ask about the brands they recognized before max.3**)
 - Do you remember any ad from an energy company? If yes, could you describe it?
 - Subtopics:
 - From which company
 - Topic
 - Media type

I will now describe a business model and ask some questions about it:

BUSINESS MODEL FROM EU: Imagine that you are part of an energy community that links solar energy producers and consumers through an app. In this community, producers would share the excess solar energy they produce with you in real time. This way you would be able to reduce your footprint and your energy costs.

- Which brand do you think would provide this solution and why?
- From the mentioned characteristics which ones do you value the most and the least?
- Which type of person would you see using this service?
 - Sub-topics:

▪ Age ▪ Personality	▪ Living arrangements (house/apartment) ▪ Average income
--	---

- Type of car used
(fuel, hybrid, 100%
electric, other)

- Number of children

Demographics

For the purpose of characterizing the whole sample of respondents, could you just indicate the following:

Age (in years): _____

Nationality: _____

Number of people in the household: _____

Level of annual income:

☐ Less than 9000€

☐ 40000€ -59999€

☐ 9000€ -19999€

☐ 60000€ -79999€

☐ 20000€ -39999€

☐ 80000€ or more

[DO NOT ASK – JUST REGISTER] Gender: _____

Education *[SHOW LIST]*

☐ Can't read / write

☐ Professional or Arts Degree

☐ Less than 4th grade

☐ Incomplete undergrad

☐ 4th grade

☐ Undergrad in Nursing, Social Services,
Childcare, Primary Schooling, Tourism,
Secretariat, Accounting, Archiving

☐ 6th grade

☐ 9th grade

☐ Other undergrad programs

☐ 11th /12th grades

☐ Post-grad or Masters

☐ PhD

Occupation *[SHOW LIST]*

☐ GO1 – Middle and Top Management

☐ GO2 – Specialized Technicians and
Small Business Owners

☐ GO3 – Employees of Tertiary Sector

☐ GO4 – Qualified / Skilled Workers

☐ GO5 – Unqualified / Unskilled Workers

☐ GO6 – Retired / Unemployed

☐ GO7 – Students

☐ GO8 – Housewives

Thank you very much for your time and feedback – your opinions are important to make improvements and we value them a lot! Have a great day!

Exhibit 13: Interview Guidelines Small Businesses

SMALL BUSINESS OWNERS

Introduction

Good morning / afternoon / evening. My name is _____ and I'm currently finishing my master's in management, at NOVA School of Business and Economics.

For the aim of my Thesis Project in the field of Energy Communities, we are conducting research related to Renewable Energy Communities and their value for consumers and companies (anchor members).

For this purpose, I would like to interview you for approximately 10 to 15 minutes, by means of an in-depth interview.

This is a non-directive method, which means that, for the most part, I will not ask you questions, but instead let you talk freely after the first initial question. This also means there are no right, or wrong answers and you are free to say whatever comes to your mind on the subject.

For the purpose of analyzing our interviews later, I would like to ask if I can record our conversation and inform you that it will remain anonymous. Do you agree?

Filter Questions

F1. Are you the owner of a small business based in Portugal?

Y (GO TO NEXT QUESTION) N (THANK YOU FOR YOUR TIME AND FINISH INTERVIEW)

Section I – BEHAVIOR AND ATTITUDE TOWARDS GREEN HABITS, RENEWABLE ENERGY AND TYPE OF CONSUMER

Sustainability

- Please elaborate on your current efforts to be more sustainable inside your small business.
 - **Sub-topics:**
 - Efforts/initiatives (for example: recycling, protecting green spaces, reducing and measuring the emission of greenhouse gases, optimizing employee's transportation, reduce waste, etc.)
 - Goals and accomplishments
 - Level of commitment
 - Opinion as a company

Energy Consumption

- Can you please elaborate on your energy consumption?
 - Sub-topics:
 - Type of energy (electricity, gas, solar, pellets, etc.)
 - Level of satisfaction
 - Spending
 - Seasonality
 - , etc.
- Have you ever thought about adopting alternative sources of energy?
 - Sub-topics:

- Type of alternative sources considered or not (example: solar panels)
- Reason for implementing it or for not implementing it

Section II – GENERAL BRAND PERCEPTION

- When we talk about energy companies which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?
 - EDP
 - Goldenergy
 - Iberdrola
 - Endesa
 - Galp
 - Greenvolt
 - Luzboa
 - Alfa

Section III – AWARENESS OF ENERGY COMMUNITIES

DEFINITION OF ENERGY COMMUNITIES: Energy Communities is a solar solution that allows the sharing of energy. It all starts with a client, which is the producer, that installs solar panels, starting the production of clean, cheaper and for all energy. The producer consumes its own produced energy and distributes the excess to the community. Everyone pays less for electricity, contributing to a more sustainable world.

- Have you ever heard about Energy Communities and their meaning?

Section IV – BRAND PERCEPTION

- When we talk about energy communities which brand/company comes to your mind and why?
- Which brands from the listed ones do you know?

- Simples Energia
- Cleanwatts
- Bairro Solar EDP
- EDP Renováveis
- Energia Unida
- CME
- Martifer Renewables
- Reneewing
- Capwatt

I will now describe a business model and ask some questions about it:

BUSINESS MODEL FROM ENERGIA UNIDA: Imagine that you are part of an Energy Community that links solar energy producers and consumers through an app. In this community, producers would share the excess solar energy they produce with you in real time. This way you would be able to reduce your footprint and your energy costs.

- Would a service like this be helpful for your business?
- Which brand do you think would provide this solution and why?
- From the mentioned characteristics which ones do you value the most and the least?

Section V – PROOF OF CONCEPT

NEW SERVICE: Imagine that in addition of being part of an Energy Community (and already saving costs in your energy bill with that), you could also benefit from a complete analysis that would check all the energy suppliers available in the market and be provided with the best and cheaper alternative for your business. As a final step, your consumption behaviors would be examined and optimized, with the final goal of decreasing even more the cost of your energy bill.

- Would you be willing to share your monthly energy invoices with a company that would provide you this service?
- Would you value a service like this when joining an energy community?

- Understand the reason why or why not

Firmographics

For the purpose of describing the whole sample of respondents, could you just indicate the following:

Type of business:

☐ Coffee shop/ Pastries

☐ Mini markets

☐ Bakeries

☐ Hair salon

☐ Restaurant

☐ Other: _____

☐ Laundry

Location: _____

Number of employees: _____

Yearly Turnover:

☐ <10.000€

☐ 150.001€ - 200.000€

☐ 10.001€ – 50.000€

☐ 250.001€ - 300.000€

☐ 50.001€ – 100.000€

☐ 350.001€ - 400.000€

☐ 100.001€ - 150.000€

☐ >400.001€

What is your business' energy consumption per year?

☐ < 1.500 €

☐ 1.501 € – 3.000 €

☐ 3.001 € – 5.625 €

☐ 15.001 - 19.999€

☐ 5.626 €– 9.750 €

☐ 20.000€ - 30.000€

☐ 9.751€ - 15.000€

☐ > 30.001€

Do you own or rent the building where your company works?

Own ☐

Rent ☐

Other _____

Thank you very much for your time and feedback – your opinions are really important to make improvements and we value them a lot! Have a great day!

Exhibit 14: Potential Anchor Member Quote

“The benefits I would point out are 2, which are extremely relevant. The first has to do with its contribution to carbon neutrality, as I said earlier, energy is one of the main factors in CO2 emissions. And second, the advantage of being able to consume energy at a lower price, and it is the community itself that sets the price” (interviewee 1, Potential Anchor Members 2022)

Exhibit 15: Solar Panel User Quote

"The first thing is that people are very suspicious, and they think that if we are sharing something we are trying to trick them. The biggest challenge is to change people's mentality and get them to understand that this is for good and not for bad, [...]. In terms of benefits, we are talking about clean energy and not harming other people, if we all contribute to this, it is a good step towards improving the future." (Interviewee 2, Solar Panel User 2022)

Exhibit 16: Non-Solar Panel User Quote

"I live in a building and nowadays is not easy to install solar panels just for me in a building specially because I live in the first floor. Also, because in terms of investment I do not have the financial conditions to do it at the moment and renewable energies are more expensive than electricity. As long as renewable energy is more expensive than electricity, only people with money will invest in them. While it is an expensive and unpractical solution, the grip won't be much. Also, the payback is little and I live in a place with little sun exposure (in the middle of lisbon)." (Interviewee 4, Non-Solar Panel User 2022)

Exhibit 17: Small Business Owner Quote

"We have a lot of ovens, and the energy bill is getting bigger every day, it even hurt to pay for it" (Interviewee 1, Small Business Owner 2022).

Exhibit 18: Survey Guideline

The following questionnaire is dedicated to our work project about "Creating a breakthrough in consumer-based energy communities in Portugal" and was developed as part of our master's thesis in the Department of Marketing Management at NOVA School of Business and Economics and aims primarily to investigate people's sustainable behavior, energy consumption, as well as awareness about energy communities. Therefore, it is of utmost

importance to know your perception and experience in the energy sector. All responses to this questionnaire will remain anonymous and will only be used for academic purposes.

We are genuinely interested in learning your opinions as it would help us greatly!
If you have any questions regarding the questionnaire, please contact: Carolina Moraes,
47920@novasbe.pt. We thank you in advance for your cooperation.

FILTER QUESTION:

1. Have you been living in Portugal for the past 3 years?

YES (continue) NO (cancel)

2. Are you aged 25 or over?

YES (continue) NO (cancel)

First, we will start off with questions about your Sustainable Behaviour.

3. How much do you agree or disagree with the following statements

PART 1: Sustainable behaviour on consumption	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
a. I care about sustainability.					
b. I consider myself to act sustainable most of the times.					
c. I recycle as much as I can.					
d. I am using greener energy alternatives in my house already.					
e. I follow sustainable consumption principles.					

f. I own a hybrid vehicle.					
g. I like to learn more about sustainable consumption practices.					
h. I always switch of lights in rooms unused.					
i. I try to avoid traveling by car or plain to minimize my ecological footprint.					
j. I often participate in public activities promoting sustainable consumption.					
k. I enjoy teaching others about more sustainable consumption ways.					

4a. Next, we are going to ask you questions concerning your Energy Consumption.

4b. Are you aware of your household's current energy costs?

YES / NO

4c. Do you use alternative sources of energy?

YES / NO

4d. (IF YES) What type of alternatives sources of energy are you using?

Solar

Wind

Biogas

Geothermal

Biomass

Low-impact hydroelectricity

Wave and tidal power

4e. (IF YES) What are the main reasons for using alternative sources of energy?

Reduction of CO2 emissions

Diversifying energy supply and reducing dependence on imported fuels

Creating economic development and jobs in renewable energy sector

Personal interest in renewable energy

Availability of renewables (fossil fuels do not replenish themselves)

Fear of future geopolitical occurrences

Energy cost savings

Other

5a. Which of the following energy companies are you aware of?

EDP, Goldenergy, Iberdrola, Endesa, Galp, Luzboa, Alfa, Greenvolt, Other

5b. Which is your current energy provider?

EDP, Goldenergy, Iberdrola, Endesa, Galp, Luzboa, Alfa, Greenvolt, Other

5c. Please indicate your level of satisfaction with your current energy provider.

(Scale 0-10)

5d. NOT MANDATORY If you answered from 0-5, Please tell us the main reason of your dissatisfaction:

Costs, Convenience, Unsatisfactory service, better offer, other

5e. Have you already switched providers before?

YES/ NO

5g. If YES, why?

Costs, Convenience, better service promise, better offer (e.g. bundle prices), other

6a. Please rank the following motivations to be sustainable according to personal importance:

PART 3: Motivation
Reduction of CO2 emissions
Diversifying energy supply and reducing dependence on imported fuels
Creating economic development and jobs in renewable energy sector
Personal interest in renewable energy
Availability of renewables (fossil fuels do not replenish themselves)
Fear of future geopolitical occurrences
Energy cost savings

6b. How much do you agree with the following statements?

PART 4: Willingness	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
a. When I buy a new appliance energy efficiency is the most					

important decision-making factor.					
b. I am willing to invest in installing renewable energy in my home.					
c. I am willing to spend more money to have renewable energy supplied to my home.					

6c. Would you be willing to share your monthly energy invoices with a third party, if they could help reduce your energy costs in the long term by offering price comparisons of energy providers?

This service would be similar to that of the flight searching platform "Skyscanner" in which the most optimal prices are searched and compared to give the customer the best offer in the market.

YES / NO

6d. If NO, please state the main reason for not choosing such a service

Not interested

Unsure about price

Unsure about the performance of the service

Privacy concerns

Other

6e. How likely are you to employ this service if you can save costs in the months to come?

Highly unlikely, Unlikely, Neutral, Likely, Very likely

6f. Which kind of payment package would you prefer?

Once a month (monthly fee)

Once every Quarter (every 3 months)

Bi-annually (every 6 months)

Once a year

6g(IF MONTH) In your opinion, which price do you think is fair for such a service?

< 5€

Between 5 and 10€

10 < €

6h(IF 3) In your opinion, which price do you think is fair for such a service?

Between 15 and 20

Between 20-30

Over 30

6j(IF 6) In your opinion, which price do you think is fair for such a service?

Between 40 and 50€

Between 50-60€

Over 60€

6k(IF 12) In your opinion, which price do you think is fair for such a service?

Between 70 and 80€

Between 80-100€

Over 100€

6l. What would be the main motivators for paying for such a service?

Easiness in finding the optimal energy supplier

Support in the search for energy alternatives

Support in consumption habits transition within household

Cost reductions

Other

6m. Which essential components would have to be included in such a service for you to choose it?

Data protection

Specialized and personalized consultation

Immediate service rating

Smartphone app

Customer satisfaction guarantee

Subscription options (quarterly/ bi-annually checkups)

Clear communication

Other

That concludes the first part of the questionnaire, next we will talk about: Awareness of Energy Communities

7a. Have you ever heard about the concept of Energy Communities (A)?

YES / NO

ENG: What are Energy Communities? It all starts with a client, which is the producer, that installs solar panels, starting the production of clean, cheaper and for all energy. The producer

consumes its own produced energy and distributes the excess to the community. Everyone pays less for electricity, contributing to a more sustainable world.

7b. Do you consider Energy Communities to have benefits for its users?

YES / NO

7c. From the benefits listed below, please indicate up to 3 you think as more relevant to you

a. Contribution to carbon neutrality
b. Being able to consume energy at a lower price
c. Cost reduction
d. Clean energy
e. Zero waste of energy
f. Communal feeling
g. Social prestige / showing a good example
h. None of these benefits are relevant to me

7d. Would you be interested in joining an Energy Community?

YES

NO

I still don't understand enough the concept of Energy Communities

Imagine a company whose mission is to create and manage communities where families and businesses share cleaner energy for all the members, with a reduction in the electricity bill price. It seeks to offer safety, advice and quality of service to customers, sharing environmental, economic and social values.

8. Are you aware of companies in Portugal with similar business models?

YES / NO

8. If YES, could you please name those companies?

Simples Energia, Cleanwatts, Energy Ring, EDP, Energia Unida

FILTER QUESTION: CEO

Are you a strategic / financial / operational decision maker in your company / organization?

YES (continue) NO (questionnaire ends here)

(IF YES) Would you be available for a short interview with the aim of deepening this topic, but from a business perspective? If available, please add your email address so we can contact you.

FIN Demographics:

1. Nationality:

2. In which type of area do you currently live in?

Rural areas

Urban areas

Suburbs

City center

3. How big is your household:

Number question

4. Gender

Female / Male / Other / Prefer not to say

5. Age

25 – 34

35 – 44

45 – 54

55 – 65

65 +

Prefer not to say

6. What is the highest level of education you have completed?

Graduated high school or equivalent

Bachelors degree

Master degree

Postgraduate degree

MBA

PhD

Prefer not to say

7. Which of the following categories best describes your employment status?

Self-employed

Employed by other

Not employed

Retired

Domestic

Working student

Student

Prefer not to say

8. Which of the following options best describe your current occupation?

Middle and Top Management

Specialized Technicians and Small Business Owners

Employees of Tertiary Sector

Qualified / Skilled Workers

Unqualified / Unskilled Workers

Retired / Unemployed

Student

Prefer not to say

9. Which of the following best describes your monthly gross income

Less than 750€

750€ -1666€

1666€ -3333€

3333€ -5000€

5000€ -6666€

6666€ or more

Prefer not to say

Thank you so much for the time you spent taking this questionnaire.

Your response has been recorded.

Exhibit 19: Frequency Table and Pie Chart of Gender

Table 7: Frequency table of gender

What is your gender?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	67	58.8	58.8	58.8
	Male	46	40.4	40.4	99.1
	Other	1	.9	.9	100.0
	Total	114	100.0	100.0	

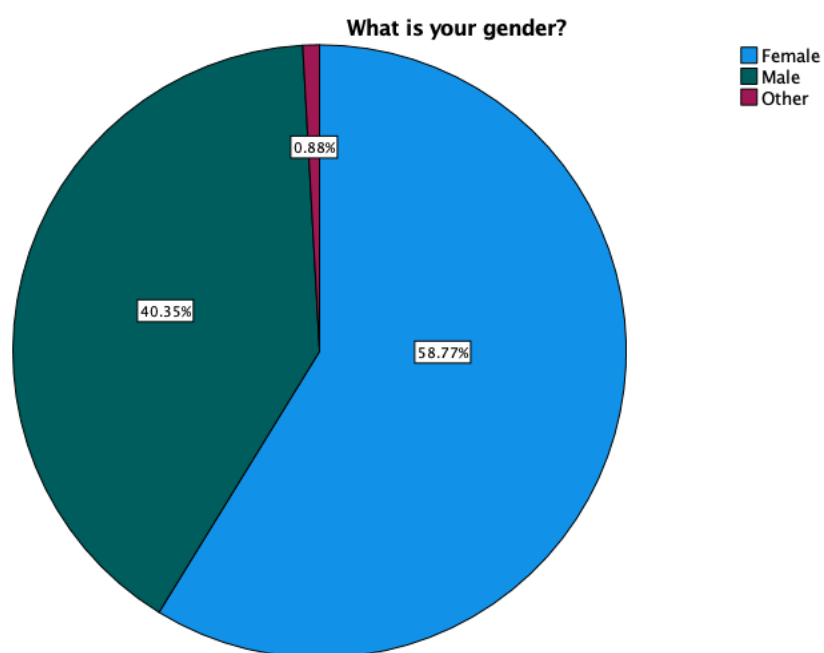


Figure 4 Pie chart of gender

Exhibit 20: Frequency Table of Nationalities

Table 8: Frequency Table of Nationalities

What is your nationality? – Nationalities					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Angolan	1	.9	.9	.9
	Argentinian	1	.9	.9	1.8
	Brazilian	4	3.5	3.5	5.3
	British	1	.9	.9	6.1
	German	5	4.4	4.4	10.5
	Italian	3	2.6	2.6	13.2
	Portuguese	98	86.0	86.0	99.1
	Togolese	1	.9	.9	100.0
	Total	114	100.0	100.0	

Exhibit 21: Frequency Table and Pie Chart of Area

Table 9: Frequency table of area

In which type of area do you currently live in?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	City center	29	25.4	25.4	25.4
	Rural areas	7	6.1	6.1	31.6
	Suburbs	22	19.3	19.3	50.9
	Urban areas	56	49.1	49.1	100.0
	Total	114	100.0	100.0	

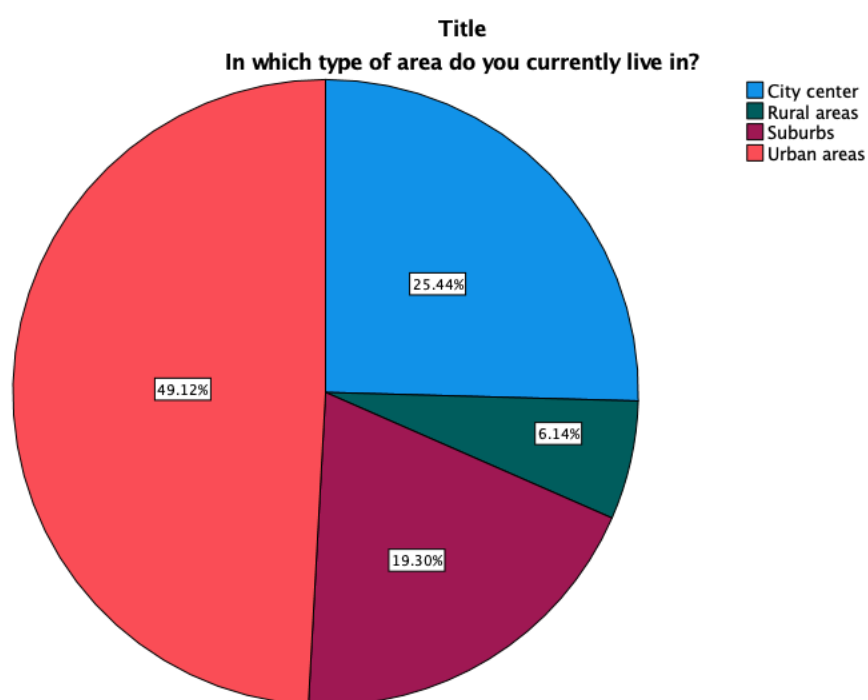


Figure 5: Pie chart of area

Exhibit 22: Frequency Table and Pie Chart of Household Size

Table 10: Frequency table of household

How big is your household?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	39	34.2	34.2	34.2
	2	28	24.6	24.6	58.8
	3	28	24.6	24.6	83.3
	4	10	8.8	8.8	92.1
	5	8	7.0	7.0	99.1
	7	1	.9	.9	100.0
	Total	114	100.0	100.0	

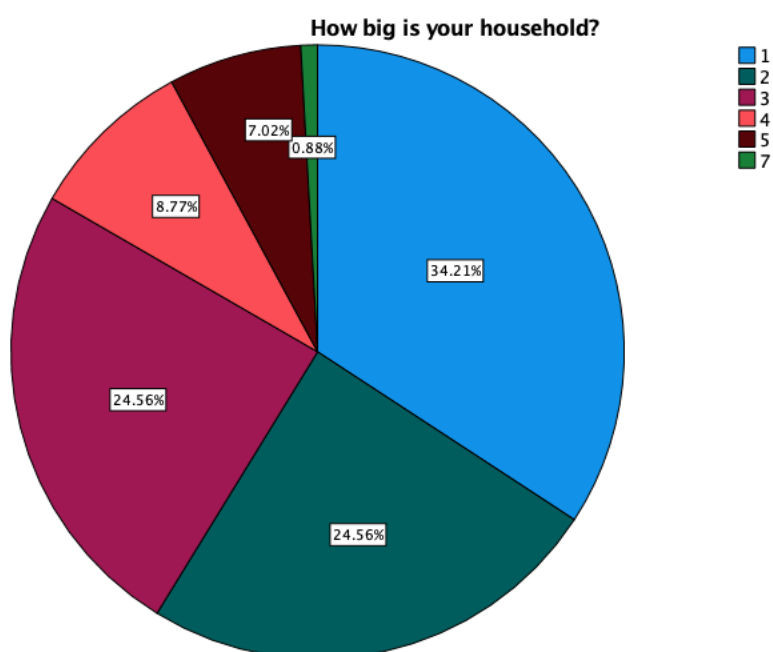


Figure 6: Pie chart of households

Exhibit 23: Frequency Table of Age

Table 11: Frequency Table of Age

What is your age?			
		Frequency	Percent
Valid	25 - 34	53	46.5
	35 - 44	12	10.5
	45 - 54	23	20.2
	55 - 65	20	17.5
	65 +	6	5.3
	Total	114	100.0

Exhibit 24: Frequency Table and Pie Chart of Highest Level of Education

Table 12: Frequency table of highest level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelors degree	44	38.6	38.6	38.6
	Graduated high school or equivalent	16	14.0	14.0	52.6
	Masters degree	29	25.4	25.4	78.1
	MBA	1	.9	.9	78.9
	PhD	6	5.3	5.3	84.2
	Postgraduate degree	13	11.4	11.4	95.6
	Prefer not to say	5	4.4	4.4	100.0
	Total	114	100.0	100.0	

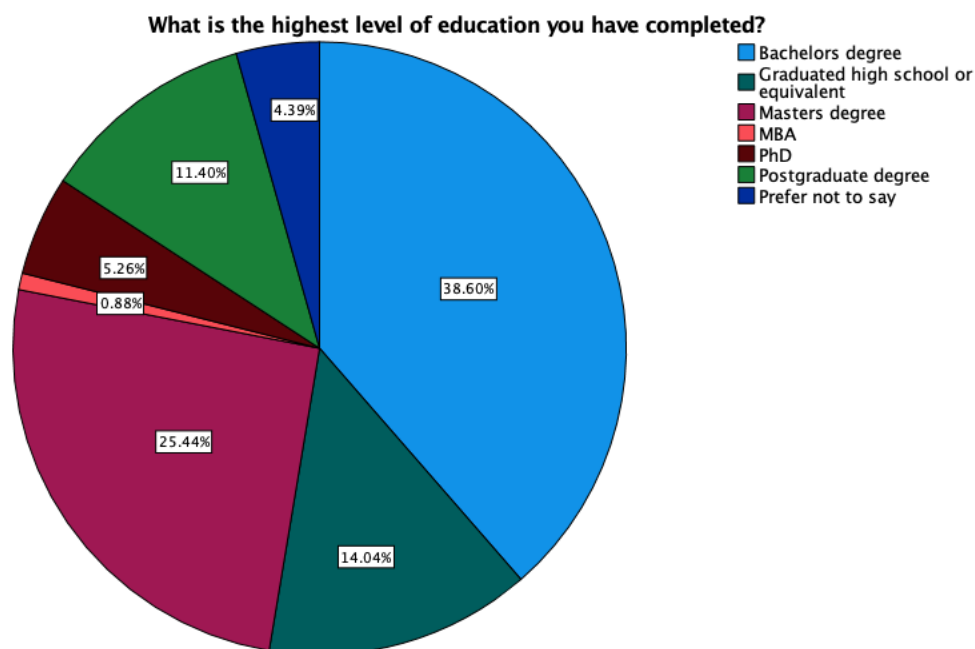


Figure 7: Pie chart of highest level of education

Exhibit 25: Frequency Table and Pie Chart of Employment Status

Table 13: Frequency table of employment status

Which of the following categories best describes your employment status?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employed by other	66	57.9	57.9	57.9
	Not employed	2	1.8	1.8	59.6
	Retired	5	4.4	4.4	64.0
	Self-employed	33	28.9	28.9	93.0
	Student	5	4.4	4.4	97.4
	Working student	3	2.6	2.6	100.0
	Total	114	100.0	100.0	

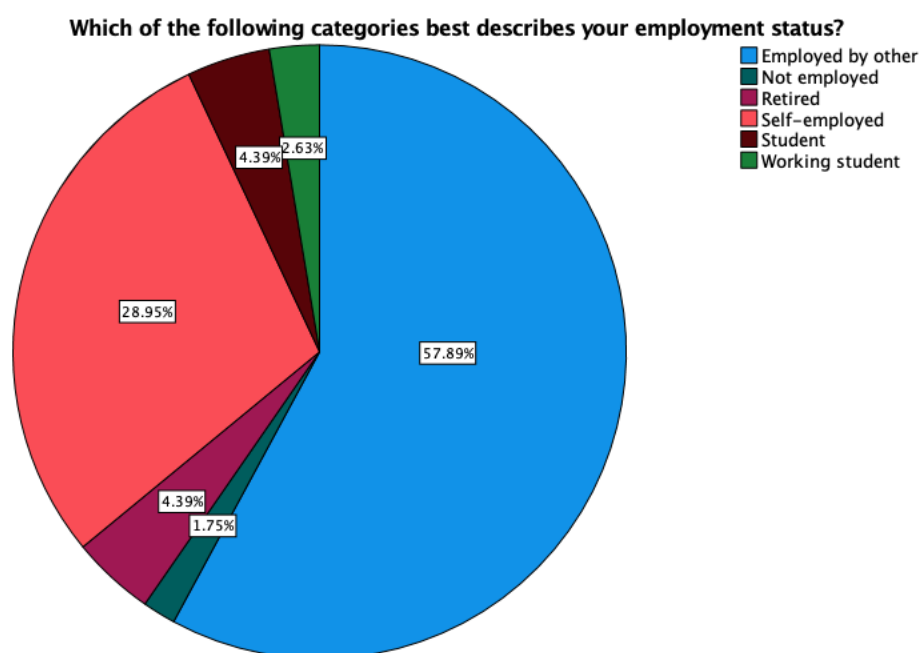


Figure 8: Pie chart of employment status

Exhibit 26: Frequency Table and Pie Chart of Occupation Description

Table 14: Frequency table of occupation description

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employees of Tertiary Sector	10	8.8	8.8	8.8
	Middle and Top Management	29	25.4	25.4	34.2
	Prefer not to say	6	5.3	5.3	39.5
	Qualified / Skilled Workers	36	31.6	31.6	71.1
	Retired / Unemployed	6	5.3	5.3	76.3
	Specialized Technicians and Small Business Owners	17	14.9	14.9	91.2
	Student	7	6.1	6.1	97.4
	Unqualified / Unskilled Workers	3	2.6	2.6	100.0
	Total	114	100.0	100.0	

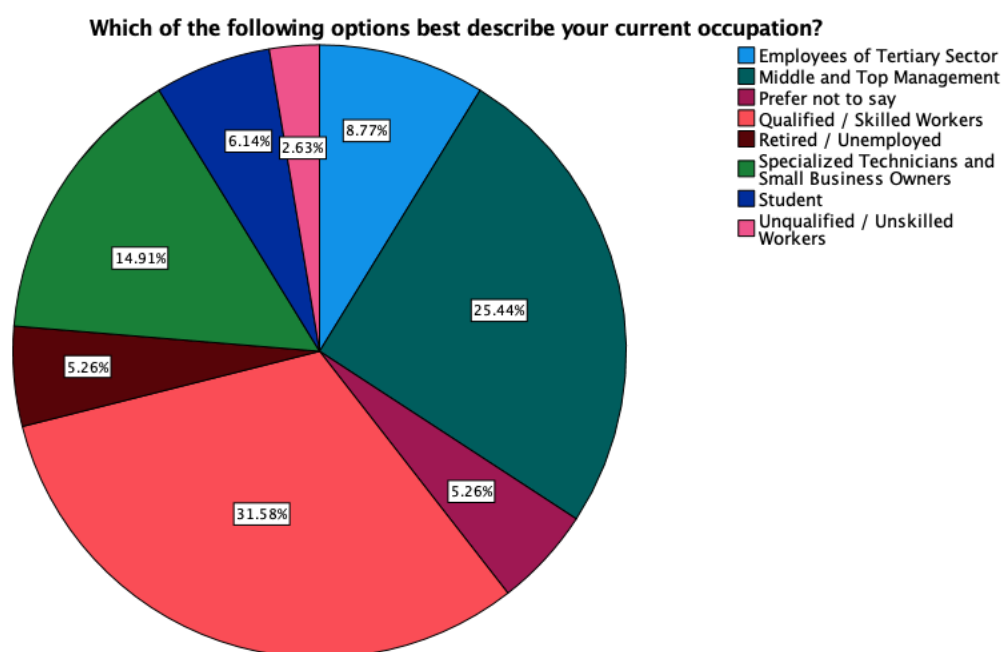


Figure 9: pie chart of occupation description

Exhibit 27: Frequency table and pie chart of monthly gross income

Table 9: Frequency table of monthly gross income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1666€ – 3333€	37	32.5	32.5	32.5
	3333€ – 5000€	13	11.4	11.4	43.9
	5000€ – 6666€	4	3.5	3.5	47.4
	6666€ or more	4	3.5	3.5	50.9
	750€ – 1666€	34	29.8	29.8	80.7
	Less than 750€	10	8.8	8.8	89.5
	Prefer not to say	12	10.5	10.5	100.0
	Total	114	100.0	100.0	

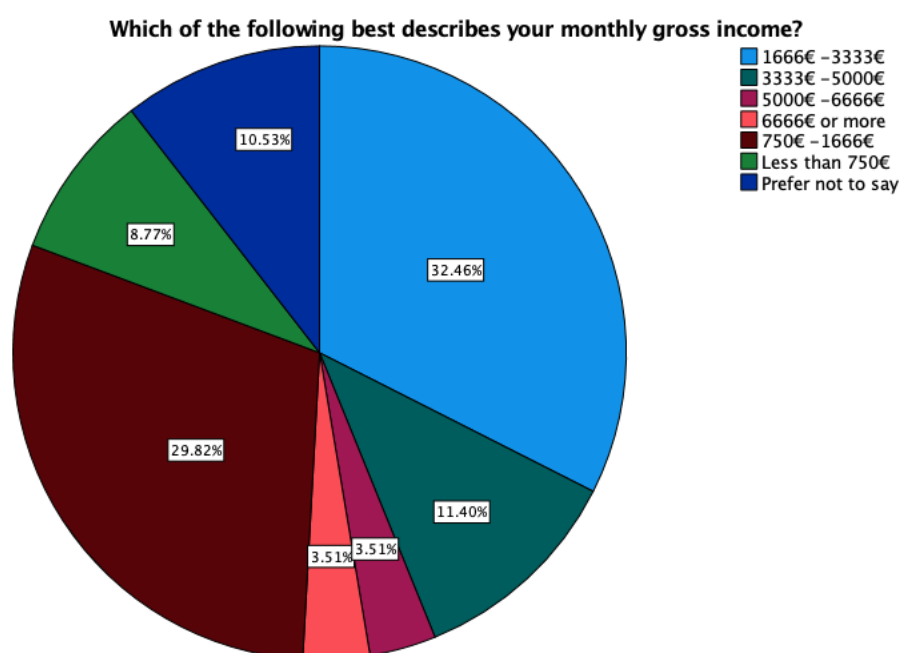


Figure 10: Pie chart of monthly gross income

Exhibit 28: Statistics - Behavior towards sustainability

Table 10: Behavior towards sustainability

Statistics												
		I care about sustainability	I consider myself to act sustainable most of the times	I recycle as much as I can	I am using greener energy alternatives in my house already	I follow sustainable consumption principles	I own a hybrid vehicle	I like to learn more about sustainable consumption practices	I always switch of lights in rooms unused	I try to avoid traveling by car or plain to minimize my ecological footprint	I often participate in public activities promoting sustainable consumption	I enjoy teaching others about more sustainable consumption ways
N	Valid	114	114	114	114	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0	0	0	0	0
Mean		2.50	2.42	2.91	2.42	2.16	3.78	2.68	3.21	2.71	2.59	2.34
Mode		4strongly agree	Somewhat agree2	2	2	2	Strongly disagree5	2	4	Somewhat disagree3	3	2
Std. Deviation		.655	1.012	1.141	1.174	.974	1.561	1.033	1.000	1.274	1.181	1.189
Variance		.429	1.025	1.302	1.379	.948	2.438	1.068	1.000	1.623	1.395	1.413

Exhibit 29: Correlations – Age and Sustainable Behaviors

Table 11: Age and Sustainable Behaviors

Correlations													
		What is your age?	I care about sustainability	I consider myself to act sustainable most of the times	I recycle as much as I can	I am using greener energy alternatives in my house already	I follow sustainable consumption principles	I own a hybrid vehicle	I like to learn more about sustainable consumption practices	I always switch of lights in rooms unused	I try to avoid traveling by car or plain to minimize my ecological footprint	I often participate in public activities promoting sustainable consumption	I enjoy teaching others about more sustainable consumption ways
What is your age?	Pearson Correlation	1	.292**	.177	.020	.035	.282**	-.316**	.210*	-.013	-.067	-.293**	-.014
	Sig. (2-tailed)		.002	.059	.833	.712	.002	<.001	.025	.895	.480	.002	.880
	N	114	114	114	114	114	114	114	114	114	114	114	114
I care about sustainability	Pearson Correlation	.292**	1	.427**	.213*	-.104	.236*	-.212*	.248**	.135	-.164	-.257**	.074
	Sig. (2-tailed)		.002	<.001	.023	.273	.012	.024	.008	.152	.081	.006	.435
	N	114	114	114	114	114	114	114	114	114	114	114	114
I consider myself to act sustainable most of the times	Pearson Correlation	.177	.427**	1	.323**	.043	.354**	-.019	.145	-.001	.027	-.061	.225*
	Sig. (2-tailed)		.059	<.001	<.001	.649	<.001	.837	.123	.992	.778	.521	.016
	N	114	114	114	114	114	114	114	114	114	114	114	114
I recycle as much as I can	Pearson Correlation	.020	.213*	.323**	1	.120	.180	.123	.164	-.007	.329**	.071	.192*
	Sig. (2-tailed)		.833	.023	<.001	.202	.056	.192	.081	.942	<.001	.450	.041
	N	114	114	114	114	114	114	114	114	114	114	114	114
I am using greener energy alternatives in my house already	Pearson Correlation	.035	-.104	.043	.120	1	.274**	.234*	.162	-.121	.372**	.299**	.080
	Sig. (2-tailed)		.712	.273	.649	.202	.003	.012	.086	.198	<.001	.001	.399
	N	114	114	114	114	114	114	114	114	114	114	114	114
I follow sustainable consumption principles	Pearson Correlation	.282**	.236*	.354**	.180	.274**	1	-.012	.314**	.066	.073	.011	.282**
	Sig. (2-tailed)		.002	.012	<.001	.056	.003	.900	<.001	.488	.441	.908	.002
	N	114	114	114	114	114	114	114	114	114	114	114	114
I own a hybrid vehicle	Pearson Correlation	-.316**	-.212*	-.019	.123	.234*	-.012	1	.017	.064	.057	.291**	-.036
	Sig. (2-tailed)		<.001	.024	.837	.192	.012	.900	.857	.500	.549	.002	.708
	N	114	114	114	114	114	114	114	114	114	114	114	114
I like to learn more about sustainable consumption practices	Pearson Correlation	.210*	.248**	.145	.164	.162	.314**	.017	1	.031	.085	-.216*	.283**
	Sig. (2-tailed)		.025	.008	.123	.081	.086	<.001	.857	.746	.371	.021	.002
	N	114	114	114	114	114	114	114	114	114	114	114	114
I always switch of lights in rooms unused	Pearson Correlation	-.013	.135	-.001	-.007	-.121	.066	.064	.031	1	.111	.007	.073
	Sig. (2-tailed)		.895	.152	.992	.942	.198	.488	.500	.746	.241	.944	.441
	N	114	114	114	114	114	114	114	114	114	114	114	114
I try to avoid traveling by car or plain to minimize my ecological footprint	Pearson Correlation	-.067	-.164	.027	.329**	.372**	.073	.057	.085	.111	1	.361**	.136
	Sig. (2-tailed)		.480	.081	.778	<.001	<.001	.441	.549	.371	.241	<.001	.149
	N	114	114	114	114	114	114	114	114	114	114	114	114
I often participate in public activities promoting sustainable consumption	Pearson Correlation	-.293**	-.257**	-.061	.071	.299**	.011	.291**	-.216*	.007	.361**	1	.089
	Sig. (2-tailed)		.002	.006	.521	.450	.001	.908	.002	.944	<.001	.001	.348
	N	114	114	114	114	114	114	114	114	114	114	114	114
I enjoy teaching others about more sustainable consumption ways	Pearson Correlation	-.014	.074	.225*	.192*	.080	.282**	-.036	.283**	.073	.136	.089	1
	Sig. (2-tailed)		.880	.435	.016	.041	.399	.002	.708	.002	.441	.348	.002
	N	114	114	114	114	114	114	114	114	114	114	114	114

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

During the evaluation, possible correlations were identified. The age, environment, employment status, and income were matched with other data and it was clear to see that age has the most significant correlations with regard to sustainable behaviors and habits, as well as with consumption behaviors. Although the correlations were not strong and were mostly between $r=0.185$ and $r=0.292$, they were significant with $p<0.05$ or $p<0.005$. Age had positive and significant correlations with saying sustainability was important to the participant ($r=0.292$

p=0.002), being aware of energy costs (r=0.288 p=0.002), using alternative energy (r=0.242 p=0.009), following sustainable principles (r=0.282 p=0.002), and wanting to learn more about sustainability (r=0.210 p=0.025). Area, employment status and income had similar values, but not as many significant correlations as for age.

Exhibit 30: Statistics – Motivations

Table 12: Motivations

		Statistics						
		Diversifying energy supply and reducing dependence on imported fuels	Creating economic development and jobs in renewable energy sector	Personal interest in renewable energy	Availability of renewables (fossil fuels do not replenish themselves)	Fear of future geopolitical occurrences	Energy cost savings	Reduction of CO2 emissions
N	Valid	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0
Mean		3.89	4.89	4.83	3.82	5.30	2.71	2.56
Mode		4	6	7	3	7	1	1
Std. Deviation		1.655	1.527	1.918	1.906	1.651	1.676	1.824
Variance		2.739	2.332	3.680	3.633	2.724	2.809	3.328
Skewness		.125	-.457	-.562	.217	-.862	.871	1.173

Exhibit 31: Level of Satisfaction

Table 13: Level of satisfaction

Statistics		
Please indicate your level of sa		
N	Valid	114
	Missing	0
Mean		7.43
Median		7.00
Mode		6

Exhibit 32: Statistics – Supplementary Service

Table 14: *Supplementary Services*

Statistics								
		How likely are you to employ this service if you can save costs in the months to come?	Would you be willing to share your monthly energy invoices?	Which kind of payment package would you prefer?	In your opinion, which price do you think is fair for such a service? Monthly	In your opinion, which price do you think is fair for such a service? Quarterly	In your opinion, which price do you think is fair for such a service? Bi-annually	In your opinion, which price do you think is fair for such a service? Yearly
N	Valid	114	114	114	114	114	114	114
	Missing	0	0	0	0	0	0	0
Mean		2.90	1.79	2.75	2.42	1.12	1.01	1.04
Mode		4 (Likely)	2 (Yes)	3 (Monthly)	4 (Under 5€)	1 (Between 20 -30€)	1 (Between 40-50€)	1 (Between 70 - 80€)
Std. Deviation		1.401	.409	1.054	1.268	.482	.094	.185
Variance		1.964	.168	1.112	1.609	.233	.009	.034
Skewness		.018	-1.439	-.209	.220	4.185	10.677	5.121

Exhibit 33: Personas

Households' Persona: Joana is a 35-year-old woman who lives with her husband and three children in the Cascais council. She works in a multinational company, meaning that her routine is very busy between work and private life. During the weekends Joana tries to do family activities so that they can spend quality time together. Sustainability is a topic that this couple takes into consideration in their daily actions, mainly when it is directly related to cost reductions. Even though they have a comfortable life, this family is currently looking for energy solutions that would help them save costs, due to the energy crisis that Europe is facing, and make them feel more relieved between all the expenses they have with their kids.

Small Businesses' Persona: Manuel is 47-year-old man who lives in Oporto. Cooking and spending time with his family is what he loves the most. Together with his wife, he owns a small restaurant near a big warehouse that is currently collaborating with Greenvolt Comunidades to develop an Energy Community. The warehouse's collaborators have the habit of having lunch at Manuel's restaurant, and as a result he has been developing a very good relationship with them. His restaurant has a significant amount of energy consumption, and for that reason Manuel and his wife are very concerned about the rise in energy prices, so they are looking for alternatives that allow them to save costs and be more sustainable. However, they do feel a little lost with all the information they search for on the internet, and they find it difficult to understand what the best solution for their specific case is.

Anchor Member's Persona: José is 56 years old, his income ranges from 60 000 and 80 000 per year. He lives in Lisbon and is married with two children. His personality type is extrovert, analytical, loyal and active. José has recently built a new house outside of Braga where his wife and two children reside in. His interest in newer and more sustainable trends led him to install smart gadgets into his home as well as solar panels. Since João is concerned for the future of his children, he also wishes to aid in the fight against climate change. As manager of IKEA Braga, a big company, he will put high efforts into transforming the company to make it carbon negative in the upcoming years. However, he is not sure what is the right alternative for his company's needs and does feel a little overwhelmed with all the information he has gathered. "IKEA Braga" fulfills all necessary conditions to become an Anchor Member of Greenvolt Comunidades:

1. Availability of space and amount of energy consumed below that produced;
2. Infrastructure for solar energy installation (>500m²);
3. Location in industrial cluster;
4. Significant energy consumption (>20000€/year);
5. Social responsibility initiatives.

Exhibit 34: Households Consumer Members Market Segmentation

Underprivileged: Individuals with a low-income of up to 10.732€ per year (Outeiro 2022), who at most have completed compulsory education (12th grade), which leads to limited access to information. This segment does not spend time researching for the best energy alternatives nor supplier, even if it could help them save costs. The reason behind this behavior is probably the fact they are receiving subsidies from the government. These subsidies' main purpose is to help solve energy poverty and allows people covered by Decreto-Lei n.º 138-A/2010, to have a 33,8% (Diário da República 2021) discount based on "tarifas transitórias de venda a clientes

finais de eletricidade, excluído o IVA, demais impostos, contribuições, taxas e juros de mora que sejam aplicáveis” (Diário da República 2021). Their house should be in proximity to Anchor Members.

Privileged: This segment is mainly represented by individuals whose income can go from 10.732€ up to 80.882€ per year (Outeiro 2022). Their educational background is mainly composed of Bachelors’ and Masters’ degrees, PhD’s and MBA’s, which provides them with the right knowledge to understand how this service can help them reduce energy costs and how their sustainable behavior can have a positive environmental impact. Their house should be in proximity to Anchor Members.

Elite: Individuals with incomes higher than 80.882€ per year (Outeiro 2022), and whose educational background is mainly composed of Bachelors’ and Masters’ degrees, PhD’s and MBA’s. However, when looking at this service their main concern is not saving on their energy bills, therefore their only motivation to purchase it would be personal interest in sustainability.

Exhibit 35: Small Businesses Consumer Members Market Segmentation

High Energy Consumers: owners of Small Businesses (such as cafes, restaurants, or laundries) who are searching for possibilities to reduce their high energy costs. These kinds of business activities usually have long working hours, therefore a significant energy consumption. Ideally, they are located near Anchor Members and frequently present synergies with their collaborators.

Low Energy Consumers: owners of Small Businesses (such as clothing stores, libraries or stationary stores) whose energy consumption is lower as they have more limited opening times. The store might be located in a strategic position for a potential Energy Community, but there wouldn’t be a significant benefit for both parties.

Exhibit 36: Anchor Members Market Segmentation

Compliers: medium to large size companies which have an infrastructure or land fit for solar energy installation equal to or higher than 500m² (offices, buildings or warehouses). They have a minimum amount of energy consumption of 20 000€ per year. They must be located in a residential, industrial or commercial cluster with multiple installations (around 4km). Ideally, these businesses have occasional energy consumption (week vs weekend). Usually, the most common types of industries that comply with these requirements are tourism, FMCG, logistics, health, education, retail, sports and wineries.

Non-Compliers: medium to large size companies that do not fulfill at least one of the mandatory requirements mentioned in the Compliers' description¹².

Exhibit 37: Households' Positioning Statements

To people who belong to the middle and upper class who want to reduce their energy costs while being more sustainable (**Target Market**). “Poupança Unida” is a sustainable consultancy service based on Energy Communities (**Frame of Reference**) whose aim is providing their clients with the best solution in energy costs reduction through Energy Communities, whilst advising on the cheapest energy supplier in the market and educate them on how to be more energy efficient based on their consumption habits (**POD**). The solution is offered by Greenvolt Comunidades, a company that belongs to Greenvolt, and is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp, that guarantees excellent and personalized service provided by the know-how of their experienced team (**Reason to Believe**).

¹² Area >500m², minimum amount of energy consumption of 20 000€ per year, located in a residential, industrial or commercial cluster

Exhibit 38: Small Businesses' Positioning Statements

To Small Business Owners who have a significant amount of energy consumption and want to reduce their energy costs while being more sustainable (**Target Market**). “Poupança Unida” is a sustainable consultancy service based on Energy Communities (**Frame of Reference**) whose aim is providing their clients with the best solution in energy costs reduction through Energy Communities, whilst advising on the cheapest energy supplier in the market and educate them on how to be more energy efficient based on their consumption habits (**POD**). The solution is offered by Greenvolt Comunidades, a company powdered by Greenvolt, market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp, that guarantees excellent and personalized service provided by the know-how of their experienced team (**Reason to Believe**).

Exhibit 39: Anchor Members Positioning Statements

To companies who fulfill the necessary criteria to become an Anchor Member and want to reduce their energy costs while being more sustainable (**Target Market**). “Poupança Unida” is a sustainable consultancy service based on Energy Communities (**Frame of Reference**) whose aim is providing their clients with the best solution in energy costs reduction through Energy Communities where they have the possibility to produce their own energy and share it within the community, having an additional source of revenue. Additionally, advising on the cheapest energy supplier in the market and educating them on how to be more energy efficient based on their consumption habits are also features of this service (**POD**). The solution is offered by Greenvolt Comunidades, a company that belongs to Greenvolt, and is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp, that guarantees excellent and personalized service provided by the know-how of their experienced team (**Reason to Believe**).

Exhibit 40: The Kapferer's Brand Identity Prism B2C

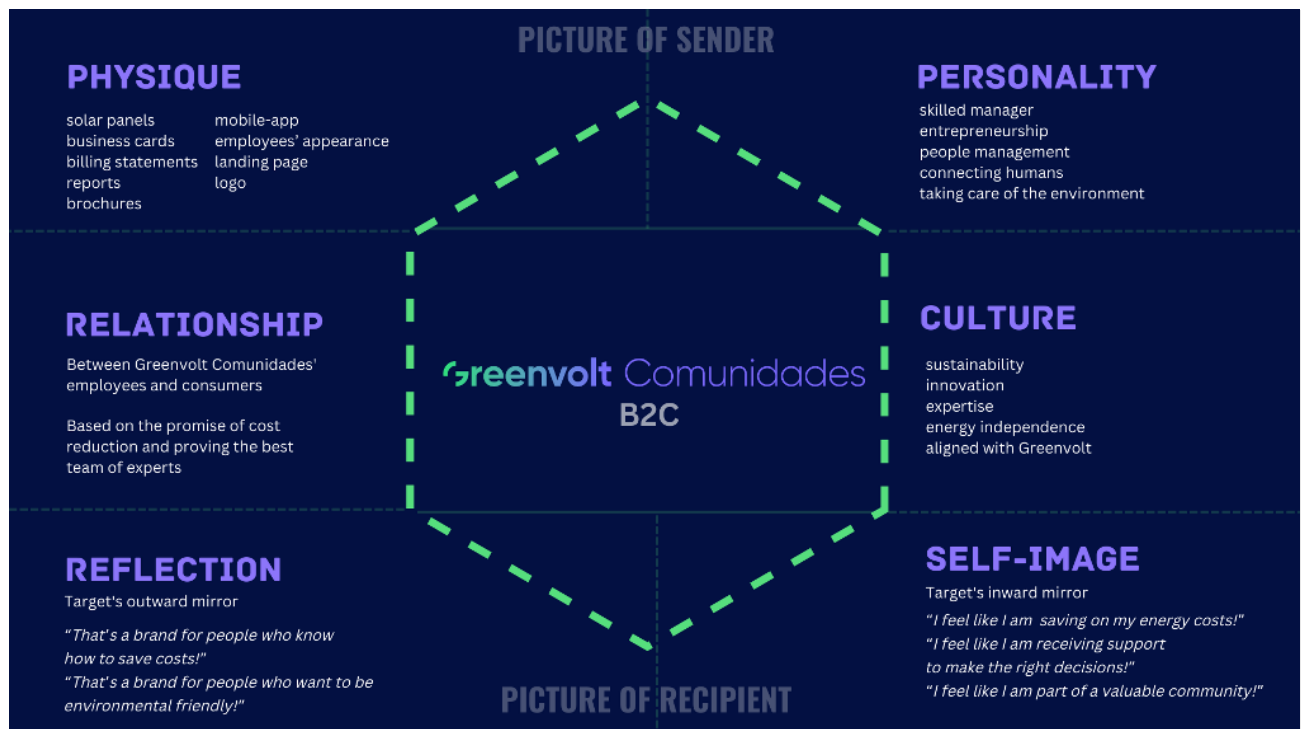


Figure 11: The Kapferer's Brand Identity Prism B2C

Exhibit 41: The Kapferer's Brand Identity Prism B2B

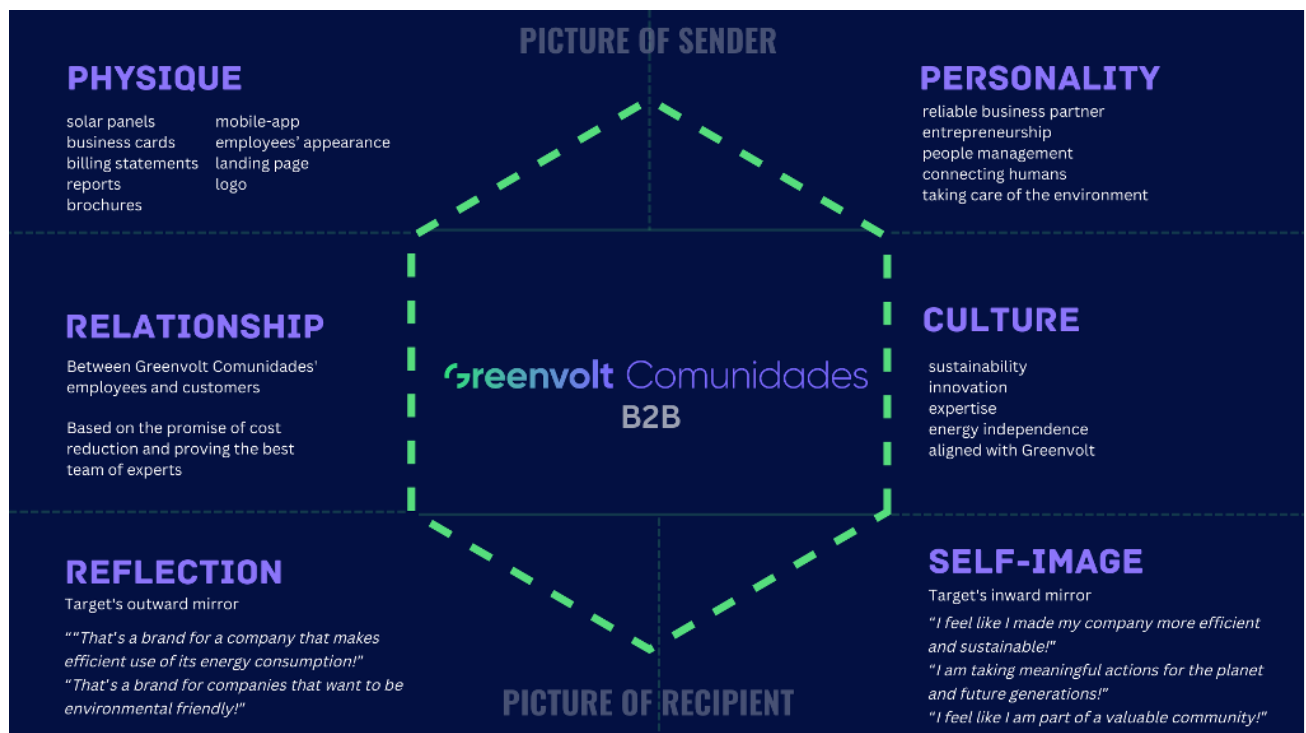


Figure 12: The Kapferer's Brand Identity Prism B2B

Exhibit 42: Graphic Charter of Greenvolt, Greenvolt Comunidades and Greenvolt Next

Greenvolt

Figure 13: Greenvolt logo (Source: Greenvolt 2022)

Greenvolt Comunidades

Figure 14: Greenvolt Comunidades logo (Source: Greenvolt Comunidades 2022)

Greenvolt Next

Figure 15: Greenvolt Next logo (Source: Greenvolt Next 2022)

Exhibit 43: Core Service Modell

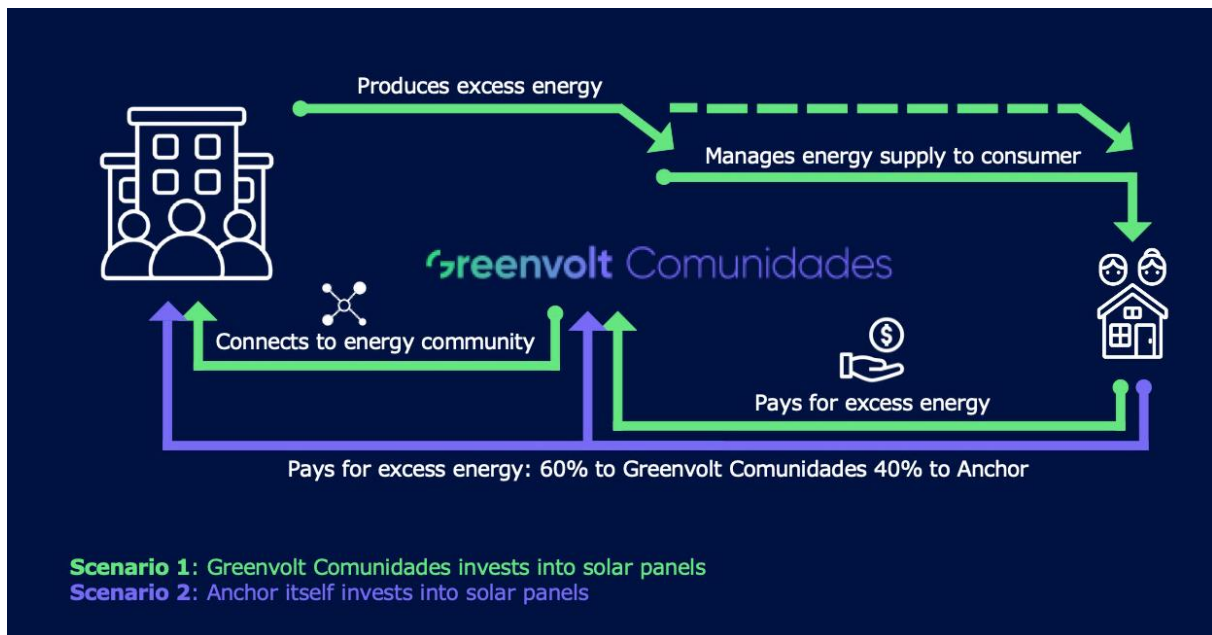


Figure 16: Core Service model

Exhibit 44: Supplementary Services Model

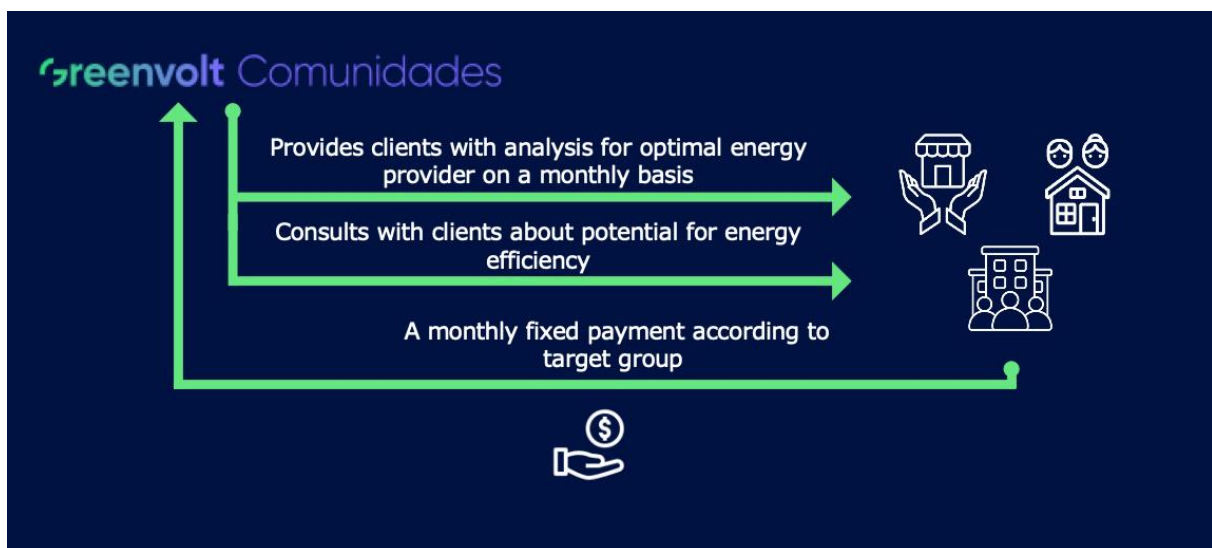


Figure 17: Supplementary Services model

Exhibit 45: Detailed Explanation of How the New Service “Poupança Unida” Works

The Solution – How it works

The full extent of the service will be provided by **Greenvolt Comunidades**. In order to take advantage of the benefits of the **supplementary service** of “Poupança Unida”, clients will have to join an Energy Community. Currently, Anchor Members have two options: they can purchase the core service by **making the full investment** on the solar panels or the **company makes the investment** for them. In the first scenario, they will receive **40%** of the consumers’ and Small Business Owners’ energy bill payment (related to the Energy Community) and the company will receive the other **60%**; in the second scenario the company receives **100%** of the payments’ amount. Consumers and Small Business Owners **do not pay a fee** to enter the Energy Community and on average they have a three months or 1-2 years **contract**, respectively. What they pay is the energy bill (mentioned above) at the end of the month. The way in which the new features of the solution “Poupança Unida” can be purchased is via Greenvolt Comunidades **website, telemarketing or personal selling** through **monthly fixed payments**. The amount will vary depending on the client type, which will be further explored later in the Price section. It is possible for clients to **end their contracts earlier**; the cancellation policy will vary depending on their role in the community. Anchor Members can resign their contract, but they must pay a fine depending on the amount of energy produced and the year in which they end the contract. Consumers have a free cancellation policy. Since Small Business Owners consume more energy than regular consumer members, they have a small fine to pay if they decide to leave the community before their contract ends.

Exhibit 46: Process Flowchart

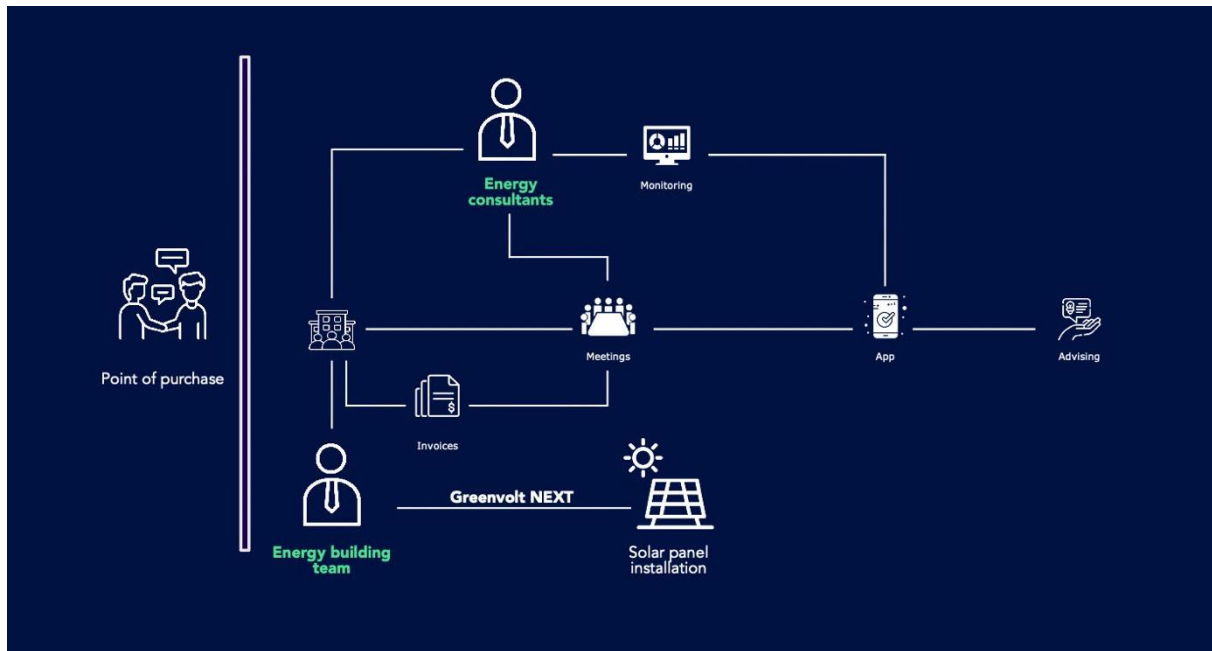


Figure 18: Process Flowchart

Households Consumer Members (B2C) and Small Businesses Consumer Members (B2B)

In the clients' case, after they decide to purchase the service, they will schedule a first meeting with the company to better understand the whole process. Once the contract is closed, they will join the Energy Community and the consultancy team will get in touch with them to organize a second meeting. During this meeting the client needs to help the team understand what their main goals are in terms of energy consumption. They will need to provide useful information to let the team analyze their behavior. The company will ask for the client's contacts in order to be able to reach them in case something is needed. In this phase, the client will also provide its login credentials to have access to the mobile app. After the second meeting, the internal work can start. Market research will be conducted to evaluate the most convenient options available and build a tailored solution to that specific client. Once the solution is built, a third meeting will take place to present the personalized service together with the expected result. The next step will be monitorization: check client satisfaction, if everything is working as expected and keep in touch with them. After a period for the monitorization, other meetings can be scheduled to reevaluate the strategy and check if it needs potential changes. Here the same

applies, if a better opportunity in the market appears, the consultancy team will get in touch with the client.

Anchor Members (B2B)

After the client purchases the service, there will be two different teams working together to provide them with the service. One team will focus on the creation and building of the Energy Community together with the other Greenvolt sub-brand, Greenvolt Next, which will take care of the solar panel installation process; the other team will provide the consultancy service. Once the contract is closed, the process will start with the first meeting between the consultancy team and the Anchor Member. The purpose of the first meeting is carefully explained to the client how the process works and to understand the specific client needs to solve them with “Poupança Unida” complementary services (energy consumption behavior analysis or energy supplier change). The client will need to provide the energy invoices to help the team with useful information to analyze its situation. In addition, some questions will be asked with the assistance of a pre-defined script, where the goal is to assess the current situation of the client’s consumption habits. The company will ask for the client’s contacts in order to be able to reach them in case something is needed. In this phase, the client will also provide with its login credentials to have access to the mobile-app. After the first meeting, the internal work can start. Market research will be conducted to evaluate the most convenient options available and build a tailored solution to that specific client. Once the solution is built, a second meeting will take place to present the personalized service together with the expected result. The next step will be monitorization: check client satisfaction, if everything is working as expected and keep in touch with them. After a period for the monitorization, other meetings can be scheduled to reevaluate the strategy and check if it needs potential changes. It is important to mention that if during the contract period, a better energy supplier offer appears on the market, then the consultancy team will immediately contact the client and advise the company.

Exhibit 47: Service Blueprint B2C

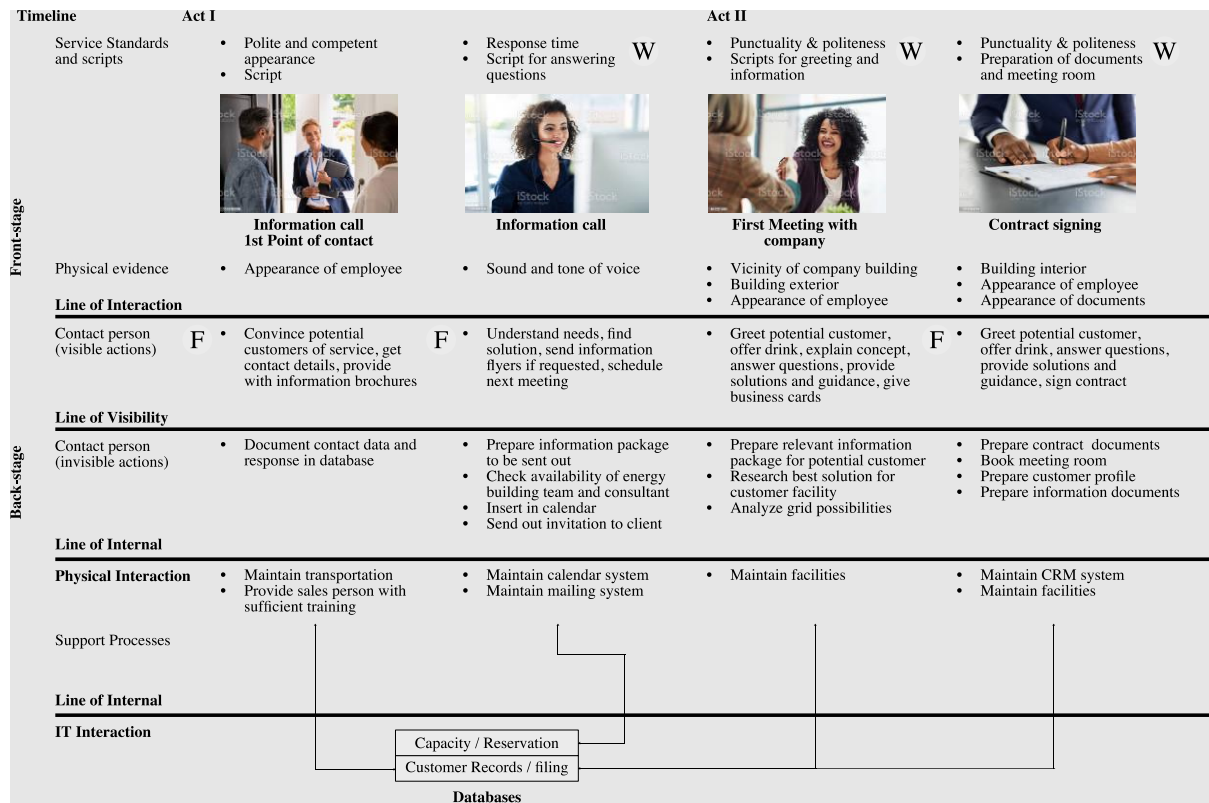


Figure 19: Service Blueprint B2C part 1

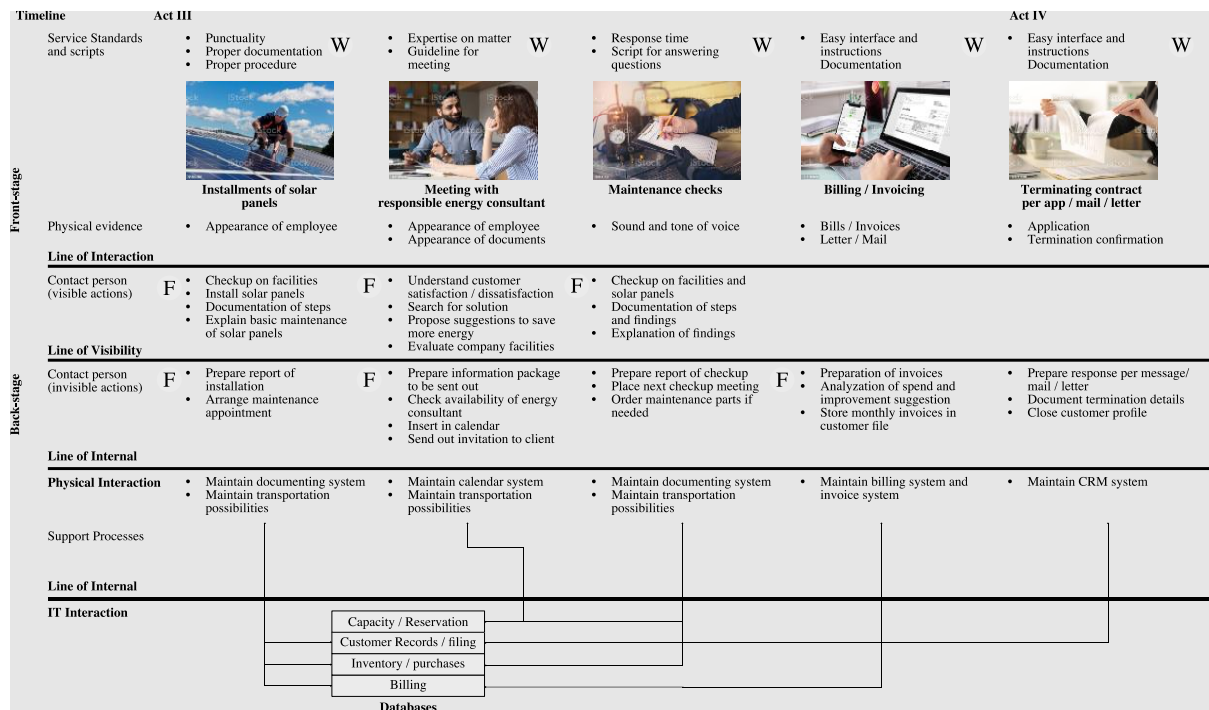


Figure 20: Service Blueprint B2C part 2

Exhibit 48: Service Blueprint B2B

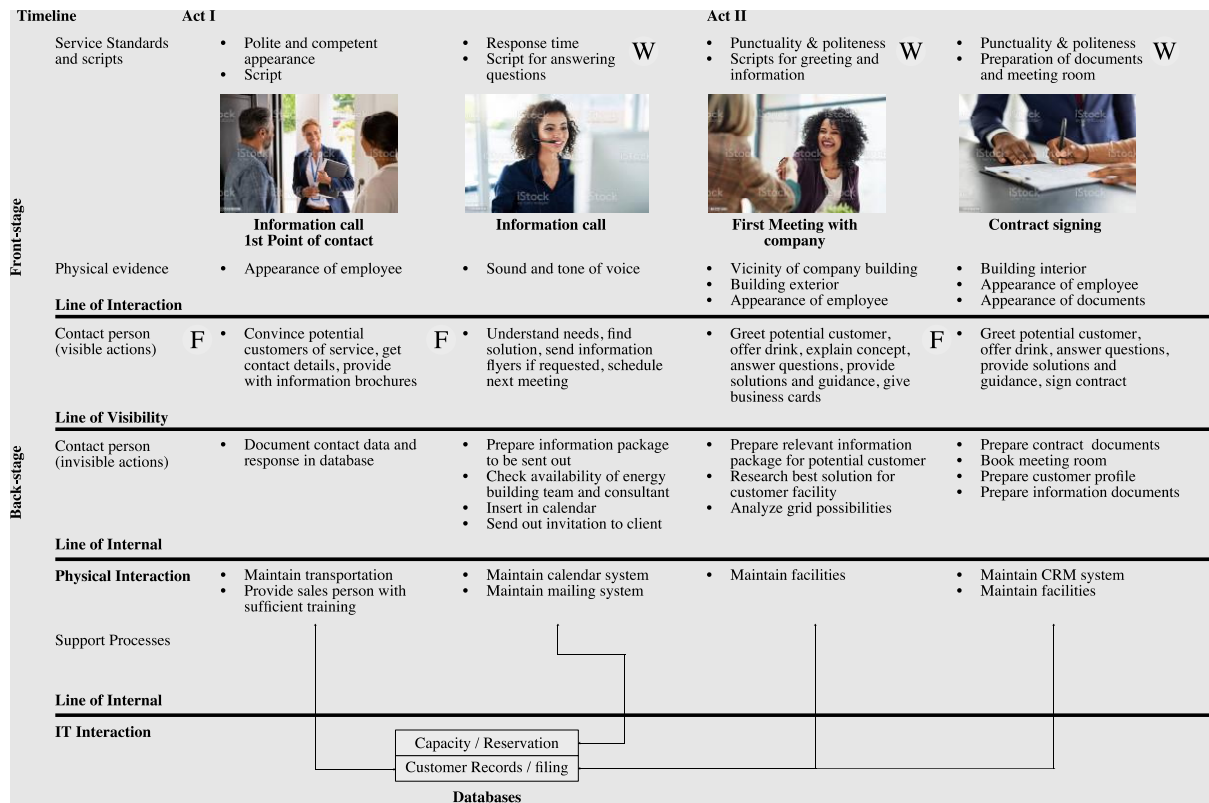


Figure 21: Service Blueprint B2B part 1

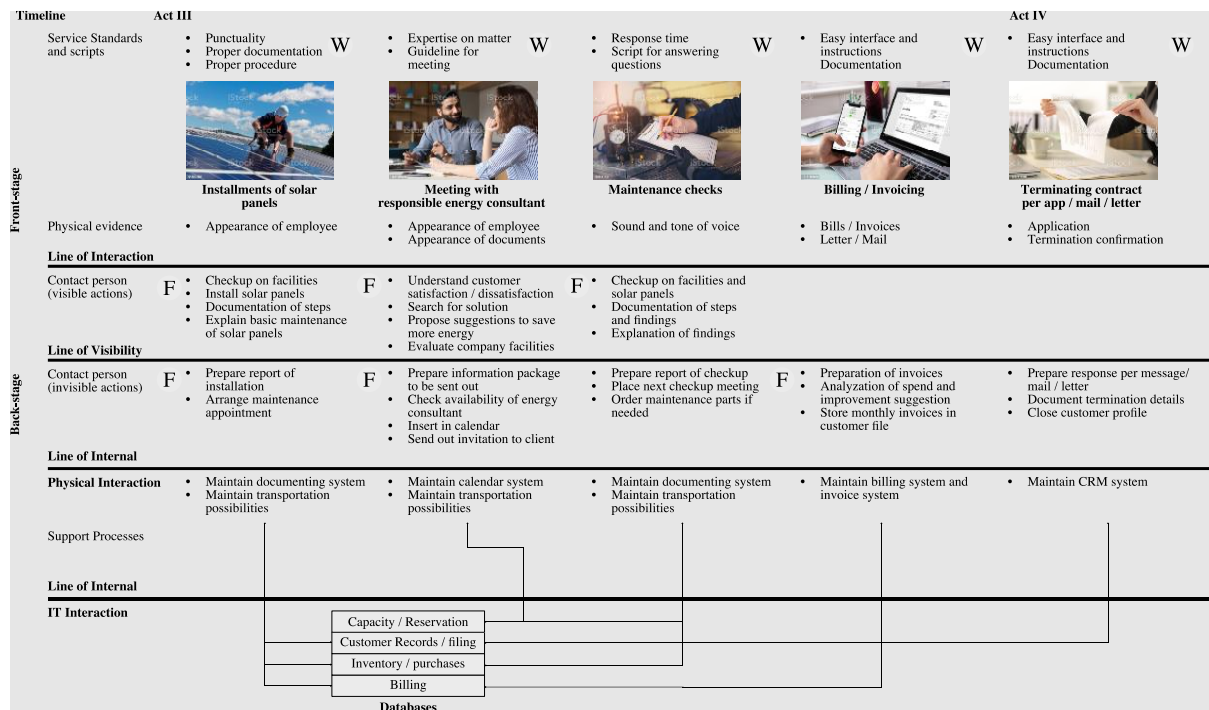


Figure 22: Service Blueprint B2B part 2

Exhibit 49: Household's current energy cost

Table 15: Household's Scenario 1

HOUSEHOLD AS IS			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1000		€ 166,50
Energy price	0,1665		
Potencia Contratada (20,70 kVA)	0,5649	per day	€ 17,51
Acesso às redes da Potencia Contratada	0,5424	per day	€ 16,81
Taxas	3,06		€ 3,06
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH	€ 250,78

Exhibit 50: Household's energy cost after entering an Energy Community

Table 16: Household's Scenario 2

HOUSEHOLD WITH ENERGY COMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	600		€ 99,90
Energy price	0,1665		
Potencia Contratada (20,70 kVA)	0,5649	per day	€ 17,51
Acesso às redes da Potencia Contratada	0,5424	per day	€ 16,81
Taxas	3,06		€ 3,06
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 168,86
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	400		€ 53,28
Energy price	0,1332		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 65,53
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	
			€ 234,40

Exhibit 51: Household's energy cost after entering an Energy Community with the service "Poupança Unida" included

Table 17: Household's Scenario 3

HOUSEHOLD WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	510		€ 79,61
Energy price	0,1561		
Potencia Contratada (20,70 kVA)	0,5649	per day	€ 17,51
Acesso às redes da Potencia Contratada	0,5424	per day	€ 16,81
Taxas	3,06		€ 3,06
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 143,91
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	340		€ 42,46
Energy price	0,12488		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 52,22
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	€ 196,13

Exhibit 52: Households' Value-Pricing Thermometer

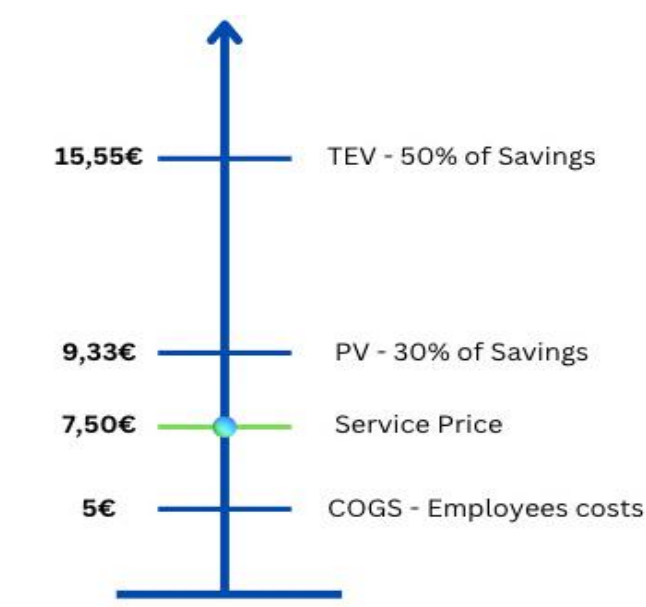


Figure 23: Households' Value-Pricing Thermometer

Exhibit 53: Small Business's current energy cost

Table 18: Small Business's Scenario 1

SMALL BUSINESS AS IS			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	3216		€ 484,97
Energy price	0,1508		
Potencia Contratada (20,70 kVA)	1,2194	per day	€ 37,80
Acesso às redes da Potencia Contratada	0		€ -
Taxas	3,06		€ 3,06
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH	€ 646,78

Exhibit 54: Small Business's energy cost after entering an Energy Community

Table 19: Small Business's Scenario 2

SMALL BUSINESS WITH ENERGY COMMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1929,6		€ 290,98
Energy price	0,1508		
Potencia Contratada (20,70 kVA)	1,2194	per day	€ 37,80
Acesso às redes da Potencia Contratada	0		€ -
Taxas	3,06		€ 3,06
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF ES	€ 408,17
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	1286,4		€ 155,19
Energy price	0,12064		
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF EC	€ 190,89
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	€ 599,05

Exhibit 55: Small Business's energy cost after entering an Energy Community with the service "Poupança Unida" included

Table 20: Small Business's Scenario 3

SMALL BUSINESS WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	1640,4		€ 231,95
Energy price	0,1414		
Potencia Contratada (20,70 kVA)	1,2194	per day	€ 37,80
Acesso às redes da Potencia Contratada	0		€ -
Taxas	3,06		€ 3,06
		TOTAL AVERAGE PRICE PER MONTH OF ES	€ 335,56
IVA 23%	1,23		
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	1093,6		€ 123,71
Energy price	0,11312		
		TOTAL AVERAGE PRICE PER MONTH OF EC	€ 152,16
IVA 23%	1,23		
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	€ 487,72

Exhibit 56: Small Businesses' Value-Pricing Thermometer

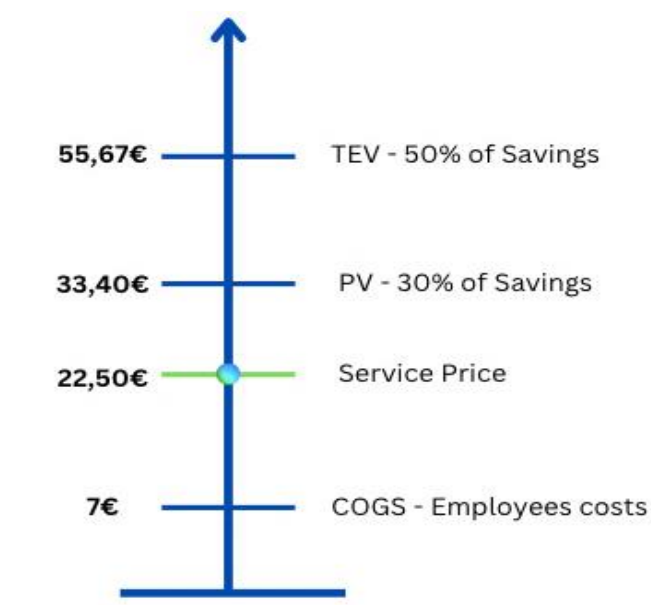


Figure 24: Small Businesses' Value-Pricing Thermometer

Exhibit 57: Anchor Member's current energy cost – equal in the perspective where the Anchor invests and, in the perspective, where the Anchor does not invest

Table 21: Anchor Member's Scenario 1 in both perspectives

ANCHOR MEMBER AS IS			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	6884		€ 2 200,13
Energy price	0,3196		
Potencia Contratada (79 kVA)	8,11		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH	€ 3 029,28

Exhibit 58: Anchor Member's energy cost after entering an Energy Community – perspective where the Anchor invests

Table 22: Anchor Member's Scenario 2 - perspective where Anchor invests

ANCHOR MEMBER WITH ENERGY COMMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1376,8		€ 440,03
Energy price	0,3196		
Potencia Contratada (79 kVA)	8,11		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF ES	€ 864,35
ENERGY COMMUNITY			
Monthly fee to manage the community	€ 35		
Electricity Consumption (kw/month)	5507,2		€ -
Energy price	0		
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF EC	€ 35,00
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	€ 899,35

Exhibit 59: Anchor Member's energy cost after entering an Energy Community – perspective where the Anchor does not invest

Table 23: Anchor Member's Scenario 2 - perspective where Anchor does not invest

ANCHOR MEMBER WITH ENERGY COMMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1376,8		€ 440,03
Energy price	0,3196		
Potencia Contratada (79 kVA)	8,11 per day		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 864,35
ENERGY COMMUNITY			
Electricity Consumption (kw/h)	5507,2		€ 652,60
Energy price	0,1185		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 802,70
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	
			€ 1 667,05

Exhibit 60: Anchor Member's energy cost after entering an Energy Community with the service “Poupança Unida” included – perspective where the Anchor invests

Table 24: Anchor Member's Scenario 3 – perspective where Anchor invests

ANCHOR MEMBER WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	929,4		€ 273,24
Energy price	0,294		
Potencia Contratada (79 kVA)	8,11		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 659,21
ENERGY COMMUNITY			
Monthly fee to manage the community	€ 35		€ 35
Electricity Consumption (kw/month)	5266,6		€ -
Energy price	0		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 35
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	
			€ 694,21

Exhibit 61: Anchor Member’s energy cost after entering an Energy Community with the service “Poupança Unida” included – perspective where the Anchor does not invest

Table 25: Anchor Member’s Scenario 3 – perspective where Anchor does not invest

ANCHOR MEMBER WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	929,4		€ 273,24
Energy price	0,294		
Potencia Contratada (79 kVA)	8,11 per day		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF ES	€ 659,21
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	5266,6		€ 624,09
Energy price	0,1185		
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF EC	€ 767,63
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	€ 1 426,84

Exhibit 62: Anchor Members’ Value-Pricing Thermometer – perspective where anchor invests

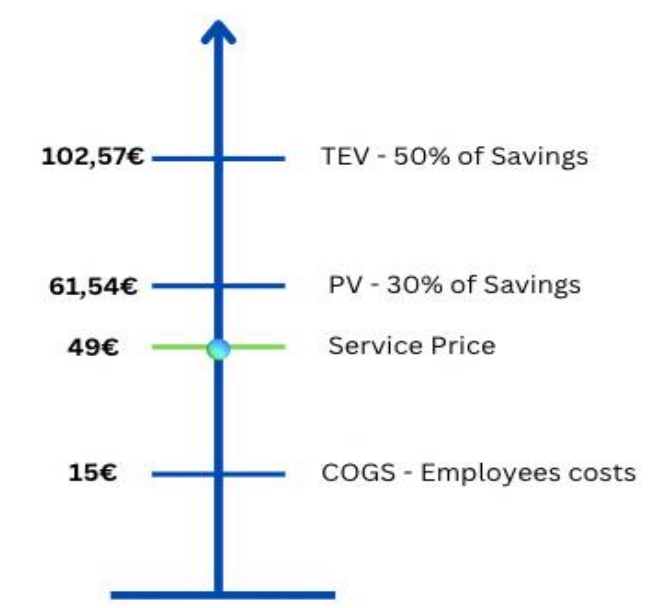


Figure 25: Anchor Members’ Value-Pricing Thermometer – anchor invests

Exhibit 63: Anchor Members’ Value-Pricing Thermometer – perspective where anchor does not invest

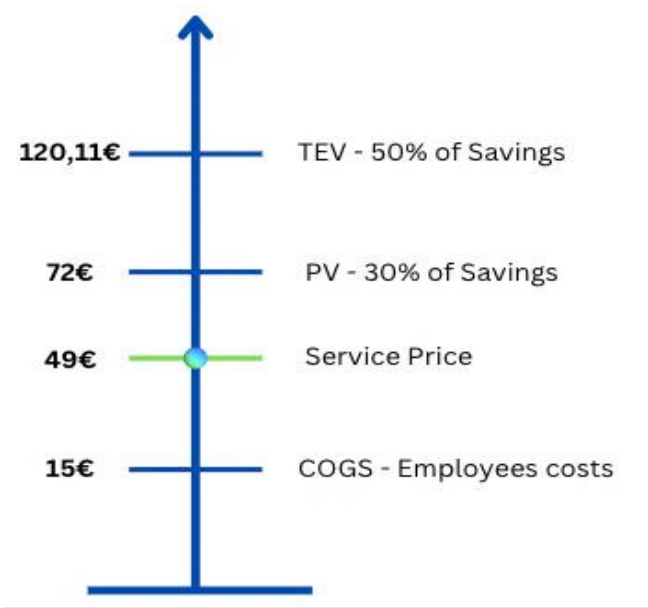


Figure 26: Anchor Members’ Value-Pricing Thermometer – anchor does not invest

Exhibit 64: Market Penetration Anchor Members¹³¹⁴¹⁵

¹³ <https://www.macrotrends.net/cities/22167/lisbon/population>
¹⁴ <https://portuguese-chamber.org.uk/news/lisbon-a-complete-city-for-business/>
¹⁵ <https://www.hithorizons.com/eu/analyses/country-statistics/portugal>

Table 26: Market Penetration Anchor Members

Type of member		#
Consumers		15
Anchor Members		41
Market size assumption ANCHOR		#inhabitants / market size
Portugal	92.212	3.000.000
Greater fokus: Lisbon Metropolitan Area	3.015	3.000.000
Lisbon area in relation to Portugal	3%	
Portugal Number of Companies headquartered in Lisbon		354.000
Assumption 1: only less than 0,5% of all companies can become anchor members		1.770
Reason for assumption:		
Lisbon has many small companies in city center that cant accomodate solar panels		
Many buildings of the copanies arent suited for the installation of solar panels		
Only select few companies comply with the conditions of Greenvolt Comunidades		
Market penetration scenarios in next year in Lisbon		
Optimistic	5%	89
Neutral	3%	53
Pessimistic	1%	18
#companies in Portugal	580.020	
subtracting amount of companies in Lisbon	226.020	
Assumption 2: Porto has about half as many companies as Lisbon	150.000	
Reason: Porto is nearly half in terms of population		
Density should be somewhat similar		
Assumption 3: only less than 0,5% of all companies in Porto can become anchor members		750
subtracting porto from all companies in Portugal		76.020
Market penetration scenarios in next year in Porto		
Optimistic	5%	38
Neutral	3%	23
Pessimistic	1%	8
Going with the same principle as above, however using 2% because company headquarters outside of bigger cities are more probable to accomodate solar panels		
Assumption 2: only 2% of all companies in Portugal can become anchor members		1.520
Market penetration scenarios in next year in Rest of Portugal		
Optimistic	5%	76
Neutral	3%	46
Pessimistic	1%	15
Market penetration scenarios in next year in Portugal		
Optimistic	5%	202
Neutral	3%	121
Pessimistic	1%	40

Exhibit 65: Market Penetration Households¹⁶¹⁷¹⁸

Table 27: Market Penetration Consumers

Type of member	#	Ratio
Consumers	15	0,365853659
Anchor Members	41	
Market size assumption ANCHOR	#inhabitants / market size	Source
Portugal	10.300.000	
Lisbon Metropolitan Area	3.000.000	
Porto Metropolitan Area	1.700.000	
Rest of Portugal	5.600.000	
Scenario 1: Division through current ratio	1:2,7	For every consumer you have 2,7 ~3 anchor members
Market penetration scenarios in next year in Portugal		New consumers
Optimistic	5%	164 55
Neutral	3%	99 33
Pessimistic	1%	33 11
Scenario 2: Ratio calculations Households		
% of people who do not consume self produced energy	87%	8.961.000
Willing to use service	68%	6.052.605
Target: People who have medium to high income	45%	2.723.672
% of people who achieved higher education	44%	1.198.416
% age most likely to employ such service (30+ yrs)	73%	878.838
People who are aware of energy communities	10%	84.800 Survey
Interest in joining energy communities	40%	34.218 Survey
Market penetration scenarios in next year in Portugal		
Optimistic	5%	1.711
Neutral	3%	1.027
Pessimistic	1%	342

Exhibit 66: Market Penetration Small Businesses¹⁹²⁰

¹⁶ <https://www.macrotrends.net/cities/22167/lisbon/population>

¹⁷ <https://rb.gy/x6j61f>

¹⁸ <https://erudera.com/news/44-of-young-people-in-portugal-hold-a-higher-education-degree-data-show/>

¹⁹ <https://www.pordata.pt/en/portugal/small+and+medium+sized+enterprises+total+and+by+size-2927>

²⁰ <https://www.pordata.pt/en/portugal/small+and+medium+sized+enterprises+total+and+by+size-2927>

Table 28: Market Penetration Small Businessse

Type of member		#	Ratio
SMEs			
Market size assumption SMEs		#SMEs	Source
Portugal		1.314.944	
Micro size		1.064.115	
SMEs total		250.829	
% Sector of economic activity			SMEs interesting for us
Agriculture, farming of animals, forestry, fishing	10%	126.885	24.204
Mining and quarrying	0%	1.019	194
Manufacturing	5%	66.098	12.608
Electricity, gas and water	0%	6.113	1.166
Construction	7%	92.261	17.599
Wholesale and retail trade (...)	16%	214.815	40.977
Transportation and storage	3%	34.155	6.515
Accommodation and food service activities	9%	112.294	21.420
Financial and insurance activities	1%	15.194	2.898
Real estate activities	4%	51.937	9.907
Education	4%	57.488	10.966
Human health and social work activities	8%	103.358	19.716
Other	33%	433.327	82.658
Assumption 1: Some sectors are irrelevant as potential consumer members and fall out (red)			
	30%	175.737	This is the number of all SME in PT without irrelevant secotrs = SMERel
Assumption 2: 80% of alle wholesalers are in city centers with dense population and won't be able to connect to anchor members			
Amount of wholesalers	SMEs total * Wholesale and retail trade	40.977	A
Amount Wholesale and retailers who can be in Ecs	* 80 %	32.781	B
Amount wholealers interesting for us	A-B	8.195	
Assumption 3: 60% of all educational buildings are in city centers with dense population and won't be able to connect to anchor members			
	SMERel * Education	7.683	C
	* 60 %	4.610	D
	C-D	3.073	
Assumption 4: 60% of all accomodation buildings are in city centers with dense population and won't be able to connect to anchor members			
	SMERel * Accomodation	15.008	E
	* 60%	9.005	F
	E-F	6.003	

Assumption 5: 60% of all human health buildings are in city centers with dense population and won't be able to connect to anchor members			
	SMERel * Human H	13.813	G
	* 60%	8.288	H
	G-H	5.525	
Assumption 5: 70% of all other buildings are in city centers with dense population and won't be able to connect to anchor members			
	SMERel * Other	57.912	I
	* 70%	40.539	J
	I-J	17.374	
Total amount of interesting SMEs for us in total market PT		40.171	
Market penetration scenarios in next year in Portugal			
Optimistic	5%		2.009
Neutral	3%		1.205
Pessimistic	1%		402

Exhibit 67: Target Audience Selection

For the **Households' campaign**, the primary target is **New Category Users (NCUs)**, meaning people who want to save energy costs but do not know that the category of ECs can solve their problem. Based on primary and secondary Research, it was concluded that people who belong to the **medium-upper class** and do have a **high education level** would be more likely to enter this new category. The secondary target for this campaign is **Favorable Brand Switchers** which means Households who are already inside the category buying other brands. However, they do not reject the option to change to GVC.

For the **Small Businesses' campaign**, the primary target is also **New Category Users (NCUs)**. The goal is to target owners of Small Businesses, based on their **high levels of energy consumption**, who are not aware of ECs. This target is very attractive for GVC due to their high levels of energy consumption when compared with Households consumer members. The secondary target for this campaign is **Favorable Brand Switchers**.

Lastly, for the **Anchors Members' campaign**, it is important to target **New Category Users (NCUs)** too. This is representative of companies who fulfil all the necessary criteria to be an

Anchor Member in an EC but whose CEO is not aware of the category. These companies are looking for ways to reduce their energy costs (problem removal) but do not know that ECs are a possible solution for them. The secondary target for the Anchor Members' campaign is **Favorable Brand Switchers**.

Exhibit 68: BSM Households

Table 29: BSM Households

WHAT	NEED	INFORMATION SEARCH	CHOICE	USAGE
WHO	Household responsible (initiator)	Household responsible (influencer) Relatives and friends (influencer)	Household responsible (decider)	Household (user)
WHERE	Home	Internal (previous media exposure and online search) External (peers)	Point of Sale (Greenvolt Comunidades' website or a phone call)	Home
WHEN	Moment when energy invoices are received	At the point of decision	As soon as the decider takes the decision (after deep consideration)	Every time that the anchor member does have some energy excess to share with the community
HOW	As soon as the price of energy started to increase, and consumers do feel the need to reduce the energy costs	Analysis all solution in the market	After considering all the choices, they choose the one according with the price	Through the grid

Exhibit 69: BSM Small Businesses

Table 30: BSM Small Businesses

WHAT	NEED	INFORMATION SEARCH	CHOICE	USAGE
WHO	Small Business Owner (initiator)	Small Business Owner Relatives and friends (influencers)	Small Business Owner (decider)	Small Business Owner (user)
WHERE	Small Business Facilities	Internal (previous media exposure and online search) External (peers)	Point of Sale (Personal Selling moment or a phone call)	Small Business Facilities
WHEN	Moment when energy invoices are received	At the point of decision	Some days after	Every time that the anchor member does have some energy excess to share with the community
HOW	Since it is a small business with high energy consumption, then with inflation of energy prices, owners started to feel the need to search for energy alternatives	Analysis all solution in the market	After considering all the choices, they choose the one according with the price	Through the grid

Exhibit 70: BSM Anchor Members

Table 31: BSM Anchor Members

WHAT	NEED	INFORMATION SEARCH	CHOICE	USAGE
WHO	CFO (initiator) Sustainability Department' responsible (initiator) Operations Department' responsible (initiator)	CEO (influencer) CFO (influencer) Sustainability Department' responsible (influencer) Operations Department' responsible (influencer)	CEO (decider)	Company (user)
WHERE	Companies Facilities	Internal (previous media and online search) External (companies' collaborators)	At a meeting with Greenvolt Comunidades; or Personal Selling moment; or phone call	Companies Facilities
WHEN	Moment when energy invoices are received	At the point of decision	Days after	Months after (after all the technical and bureaucratic process is completed)
HOW	Companies are suffering with energy crisis, and they are looking for alternatives to reduce their costs	Analysis all solution in the market	After considering all the choices, they choose the one according with the price	Producing own energy -> through solar panels Sharing with the community -> through the grid

Exhibit 71: Communication Objectives for the Campaigns

For the **Households' campaign**, it is necessary to sell the **category need** since consumers do not recognize this category as being a requisite to help them to remove the problem of high energy costs. Consequently, the first goal of these campaigns is to “grow the category” by making consumers acknowledge and accept it while establishing it in consumers' minds (Rossiter, Percy and Bergkvist 2018). Consumers need to be aware of the brand so that, when they have the need, they immediately remember the brand as the right solution. In this case, the second goal of this campaign is to create **brand awareness**, more precisely **brand recall**, since the brand wants the consumer to remember the brand as an option *prior* to the purchase. First consumers will attain the category need and then they will connect it to the brand's name. By recalling the brand's name, it will be easier for consumers to directly search for the brand's website (point of sale) and make the purchase. After creating brand recall, the other universal campaign objective is **brand attitude**, which is positively formed when the brand meets the purchase motive (problem removal). Since the target for this campaign is NCUs, they do not have any prior attitude towards the brand, meaning the campaign should create a positive brand attitude by removing their problem (high energy costs). In **brand purchase intention**, the goal

is generate it. Since it is a high-involvement action, the campaign should create a “*conscious action intention*” (Rossiter, Percy and Bergkvist 2018, 111) in consumers by having call-to-action measures. Finally, **purchase facilitation** should be incorporated in the campaign’s marcoms, since it is a new category and consumers are not aware of where and how to buy it. The communication objectives for **Small Businesses’ campaign** will be similar to the Households’s campaign, but with different communication channels to achieve it. It is necessary to **sell the category** since the target audience of this campaign is NCUs. However, in this case, the goal of brand awareness is to make Small Business’ owners **recognize** the brand’s logo and name at the point of purchase and attain it to the category need. This moment will happen during the Personal Selling strategy or in the Telemarketing approach. For **brand attitude**, it is essential to show consumers that the company can remove their problem so that this can result in the creation of a positive attitude towards the brand. Relating to **brand purchase intention**, the campaign wants to generate it. Finally, **purchase facilitation** should be incorporated in the marcoms of this campaign since it is a new category for the target.

In the case of the **Anchor Members’ campaign**, the communication objectives will be like the previous campaigns, but the way to achieve them will be slightly different. In this campaign it is necessary to **sell the category**, the brand wants companies to **recognize** its logo and name and immediately connect it to the category. **Brand attitude** needs to be created and **brand purchase intention** needs to be generated. Finally, **purchase facilitation** should be incorporated in the marcoms of these campaigns since it is a new category and companies have no idea how and where to purchase it.

Exhibit 72: Positioning Statement for Households’ Campaign

To Households with members over 30 years-old, who want to reduce their energy costs while being more sustainable (New Category Users), “Poupança Unida” is a sustainable consultancy service based on Energy Communities provided by Greenvolt Comunidades (where the service is the hero) that offers their clients the best solution on saving energy costs through Energy Communities (problem removal) because Greenvolt Comunidades is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp. The advertising should emphasize the personalized service that the brand provides which helps solving the problem of high energy prices (benefit) by presenting the most optimal solution to reduce costs through Energy Communities combined with an extra consultancy service tailored to their energy supplier and daily habits (attribute). This results from an attribute to a benefit a-->b mentioned in the attribute-benefit-emotion model.

Exhibit 73: Positioning Statement for Small Businesses’ Campaign

To Small Business Owners who are over 30 years-old, who want to reduce their energy costs due to the nature of their businesses (New Category Users), “Poupança Unida” is a sustainable consultancy service based on Energy Communities provided by Greenvolt Comunidades (where the service is the hero) that offers their clients the best solution to reduce their really high energy bills due to the nature of their businesses through Energy Communities (problem removal) because Greenvolt Comunidades is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp. The advertising should emphasize the personalized service that the brand provides which helps solving the problem of high energy prices (benefit) by presenting the most optimal solution to reduce costs through Energy Communities combined with an extra consultancy service tailored to their energy supplier and daily habits (attribute). This results from an attribute to a benefit a->b mentioned in the attribute-benefit-emotion model.

Exhibit 74: Positioning Statement for Anchor Members' Campaign

To big size companies who fulfil the criteria to be an Anchor Member and want to reduce their high energy costs with cleaner energy (New Category Users), “Poupança Unida” is a sustainable consultancy service based on Energy Communities provided by Greenvolt Comunidades (where the service is the hero) that offers their clients the best solution on saving energy costs through Energy Communities and still get some profit by selling the energy to consumers members (problem removal) because Greenvolt Comunidades is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp. The advertising should emphasize the personalized service that the brand provides which helps solving the problem of high energy prices (benefit) by presenting the most optimal solution to reduce costs through Energy Communities combined with the possibility of getting extra profit by selling energy to the consumers and benefit from a consultancy service tailored to their energy supplier and daily habits (attribute). This results from an attribute to a benefit a-->b mentioned on the attribute-benefit-emotion model.

Exhibit 75: Characters

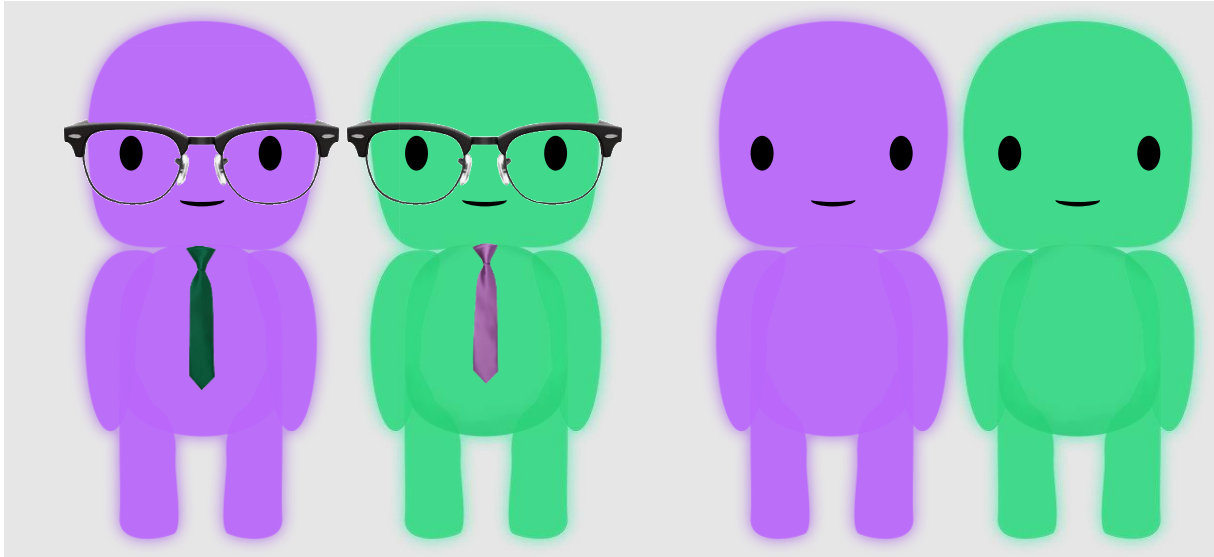


Figure 27: New Characters used in the Brand's Marcoms

Exhibit 76: Characters' Idea for Marcoms



Figure 28: Examples of Brand's Marcoms with the usage of the New Characters

Exhibit 77: Storyboard Video Idea



Figure 29: Storyboard Video Idea with the usage of the New Characters

Exhibit 78: VisCap Model

According to the VisCAP Model (Rossiter, Percy and Bergkvist 2018) having someone who is familiar to them and that transmits sincerity and honesty, will increase the consumers' belief about the brand (trustworthiness). Cláudia Vieira' lifestyle is valued by the target audience since they do see themselves in it (ideal similarity). The presenter has participated in popular shows during the target's childhood, which contributes to her immediate recognition (visibility). The usage of Cláudia Vieira will increase consumers' trust and familiarity with the brand while guaranteeing extra value added to the benefit claim.

Exhibit 79: Creative Brief for Households' Campaign

Creative Target: Household Responsible

Media: Internet

Action Objective: Increase “first purchases” for the households responsible (New Category Users). The first-year goal is to increase households' purchases to 1027.

Communication Objectives:

- **Category Need:** Sell the Category
- **Brand Awareness:** Brand Recall
- **Brand Attitude:** Create Brand Attitude
- **Brand Purchase Intention:** Generate Purchase Intention
- **Purchase Facilitation:** Incorporate Purchase Facilitation in the Marcoms

Positioning Statement for the Campaign

To households' responsible members over 30 years old, who want to reduce their energy costs while being more sustainable (New Category User). Greenvolt Comunidades is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp.

Key benefit: Cost reduction and a personalized service

Entry-ticket benefits: Possibility of access to cleaner and cheaper energy in a community

Inferior benefit to be traded-off: None

Exhibit 80: Creative Brief for the Small Businesses' Campaign

Creative Target: Small Business Owner

Media: Personal Selling, Telemarketing, and Internet

Action Objective: Increase “first purchases” for small business owners (New Category Users).

The first-year goal is to increase small business owners' purchases to 1205.

Communication Objectives:

- **Category Need:** Sell the Category
- **Brand Awareness:** Brand Recognition
- **Brand Attitude:** Create Brand attitude
- **Brand Purchase Intention:** Generate Purchase Intention
- **Purchase Facilitation:** Incorporate Purchase Facilitation in the Marcoms

Positioning Statement for the Campaign

To small business owners who want to reduce their energy costs due to the nature of their businesses (New Category Users). Greenvolt Comunidades is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp.

Key benefit: Cost reduction, higher profitability, and a personalized service

Entry-ticket benefits: Possibility of access cleaner and cheaper energy in a community

Inferior benefit to be traded-off: None

Exhibit 81: Creative Brief for the Anchor Members Campaign

Creative Target: CEO

Media: Personal Selling, Telemarketing, and Internet

Action Objective: Increase “first purchases” for big-size companies (New Category Users).

The first-year goal is to increase anchors members’ purchases to 99.

Communication Objectives:

- **Category Need:** Sell the Category
- **Brand Awareness:** Brand Recognition
- **Brand Attitude:** Create Brand attitude
- **Brand Purchase Intention:** Generate Purchase Intention
- **Purchase Facilitation:** Incorporate Purchase Facilitation in the Marcoms

Positioning Statement for the Campaign

To big-size companies who fulfil the criteria to be anchor members and want to reduce their high energy costs with cleaner energy whilst having an additional revenue source, Greenvolt Comunidades is the market leader in collective self-consumption with a total of more than 40 projects under implementation corresponding to 29 MWp.

Key benefit: Cost reduction, extra revenue source and personalized service

Entry-ticket benefits: Possibility of sharing energy in a community

Inferior benefit to be traded-off: None

Exhibit 82: Campaigns’ Budgets

The campaigns' budgets were developed based on information retrieved from web sources, which was adapted to the reality of the current Work Project²¹.

Table 32: Households' Campaign Budget

	COSTS (1 year campaign)
HOUSEHOLDS	
Celebrity Endorsement: Cláudia Vieira	105 000,00 €
Email Marketing	4 500,00 €
Social Media Strategy: Instagram and Facebook	24 000,00 €
Instagram Ads Campaign	29 700,00 €
Creation of Small Promotional Videos for Households	15 900,00 €
Script or Storyboard	400,00 €
Illustrations	5 000,00 €
Animation	10 000,00 €
Voiceover, Music, or Sound Effects	500,00 €
PR: Instagram Stories Shared by Influencers	6 588,00 €
Ricardo Martins Pereira	2 832,00 €
Rita Patrocínio	3 756,00 €
New Content for the Blog	840,00 €
Google Ads Campaign	5 580,00 €
TOTAL COST OF THE CAMPAIGN	192 108,00 €

²¹ <https://tech.co/digital-marketing/email-marketing-cost>

<https://www.linkedin.com/pulse/how-much-does-content-creation-cost-sharlyn-carrington-mcm-she-her/>

<https://herospark.com/blog/quanto-custa-promover-no-instagram/>

<https://explain.ninja/blog/promotional-video-production-cost/>

<https://thecontentpanel.com/content-marketing/content-writing-service-costs/>

<https://support.google.com/google-ads/answer/2375454?hl=en>

<https://blog.sellfy.com/how-to-price-t-shirts/>

<https://www.merchology.com/pages/how-much-do-custom-pullovers-cost>

<https://www.b12.io/resource-center/traffic-generation/the-2021-guide-to-linkedin-advertising-costs-beginner-tips.html>

<https://www.expocart.com>

<https://www.quadrant2design.com/exhibition-stand-prices/>

<https://www.expocart.com/shop/portrait-flags>

<https://www.expocart.com/shop/roller-banners>

<https://blog.ironmarkusa.com/brochures-cost>

<https://en.99designs.pt/blog/logo-branding/business-card-cost/>

<https://www.lazerdesigns.com/blog/how-much-do-custom-pens-costs/>

<https://qualitycontactsolutions.com/company-news/how-calculate-call-center-outsourcing-cost-outbound/>

<https://www.sendx.io/blog/how-is-email-marketing-pricing-done>

<https://blog.hubspot.com/marketing/pr-agency>

Table 33: Small Businesses' Campaign Budget

	COSTS (1 year campaign)
SMALL BUSINESSES	
Personal Selling	48 105,00 €
Salaries	36 000,00 €
Transportation Costs	11 520,00 €
Material to use on the Door-to-door Strategy	585,00 €
Social Media Strategy: LinkedIn	12 000,00 €
LinkedIn Ads	2 790,00 €
Creation of Small Promotional Videos for SB	15 900,00 €
Script or Storyboard	400,00 €
Illustrations	5 000,00 €
Animation	10 000,00 €
Voiceover, Music, or Sound Effects	500,00 €
PR Strategy (Events for B2B) - 3 Events per Year in Average	18 528,00 €
People at Stand	100,00 €
Costs travel Expenses	600,00 €
Stand Equipment:	5 476,00 €
Small Stand (area 4x4 + design)	3 900,00 €
Banner Flags (1x)	80,00 €
Roller Banners (2x)	200,00 €
Brochures and Flyers	1 110,00 €
Call Cards	120,00 €
Pens x 150	66,00 €
Telemarketing	52 400,00 €
Fixed rate for setting up the telemarketing program	2 000,00 €
Email Marketing	4 500,00 €
TOTAL COST OF THE CAMPAIGN	151 433,00 €

Table 34: Anchor Members' Campaign Budget

	COSTS (1 year campaign)
ANCHOR MEMBERS	
Personal Selling	24 150,00 €
Salaries	18 000,00 €
Transportation Costs	5 760,00 €
Material to use on the Door-to-door Strategy	390,00 €
Social Media Strategy: LinkedIn	12 000,00 €
LinkedIn Ads	2 790,00 €
Creation of Small Promotional Videos for AM	15 900,00 €
Script or Storyboard	400,00 €
Illustrations	5 000,00 €
Animation	10 000,00 €
Voiceover, Music, or Sound Effects	500,00 €
PR Strategy	12 000,00 €
Telemarketing	39 800,00 €
Fixed rate for setting up the telemarketing program	2 000,00 €
Email Marketing	4 500,00 €
TOTAL COST OF THE CAMPAIGN	108 350,00 €
TOTAL COST OF THE THREE CAMPAIGNS	451 891,00 €

Exhibit 83: Households' Campaign Schedule

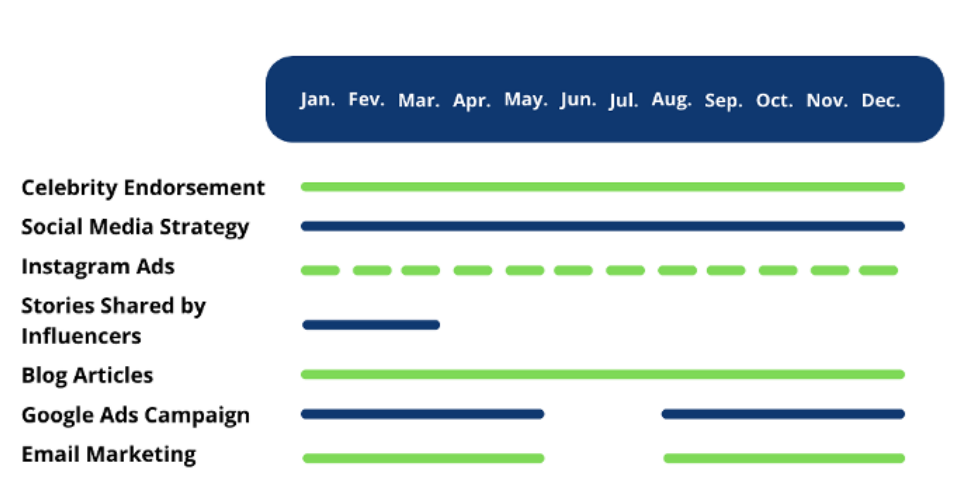


Figure 28: Households' Campaign Schedule

Exhibit 84: Small Businesses' Campaign Schedule

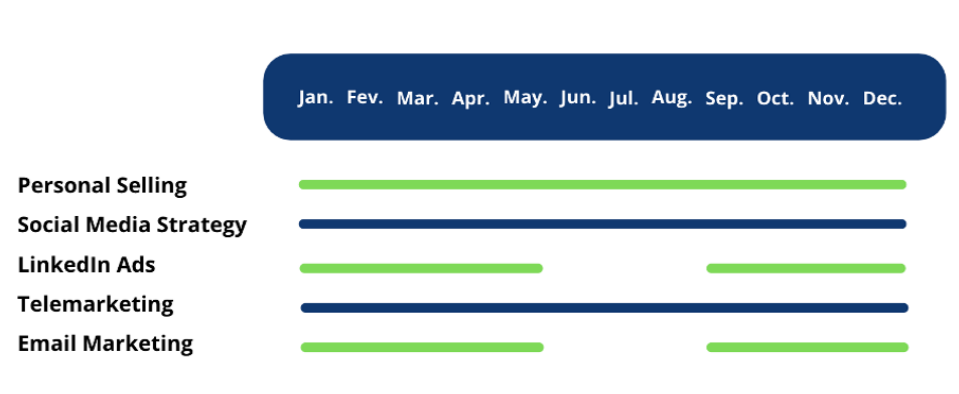


Figure 29: Small Businesses' Campaign Schedule

Exhibit 85: Anchors Members' Campaign Schedule



Figure 30: Anchors Members' Campaign Schedule

Exhibit 86: Households' Campaign KPIs

Table 35: Households' Campaign KPIs

General KPIs	
Return on Investment	Positive
Sales	Reaching the end of the first year with 1027 new households.
Digital KPIs	
Social Media: Engagement Rate	Facebook: 2% Instagram: 4% to 6%
Social Media: Number of Followers	Facebook: increase it to 5k Instagram: increase it to 10k
Social Media: Number of Impressions	Increase it by 50% in both social media
Social Media: Interaction Rate	Increase it by 50% in both social media
Social Media: Reach	Increase it by 50% in both social media
Instagram Ads Campaign: Website' traffic	Increase it by 50%
Google Ads Campaign: CTR	4%
Google Ads Campaign: Conversion Rate	Higher than 5%
Google Ads Campaign: Quality Score	Closer to 10
Google Ads Campaign: Average Position	Appear on the top 3 of the Google' first page

The first KPI that should be analyzed on a weekly basis is how the **Return-on-Investment (ROI)** is behaving, basically if the investment made in this campaign is having return in terms of sales. In addition, it is also very important to assess the **levels of Brand Awareness**, in this case if people can already recall the brand. For example, it is feasible to know, by seeing on Google Analytics, if consumers are searching for the name's brand since the website is the point of purchase (they recall the brand or not). Also, following the **Number of Sales** is mandatory for this campaign. As mentioned before, in the end of the first year Regarding the Social Media

Strategy, some KPI's need to be followed: **Engagement Rate** (Facebook is expected to have an engagement rate of 2% (Adobe Express 2022) and Instagram between 4% to 6% (Scrunch 2022)), **Number of Followers** (on Facebook it increases to 5k (Facebook 2022) and on Instagram grow it by 10k (Instagram 2022)), **Number of Impressions, Interaction Rate and Reach** (increase all by at least 50% in both social media). Regarding the Instagram Ads Campaign, it is also expected an increasement on the **website's traffic by** at least 50%. On the Google Ads platform, it is viable to follow the performance of each campaign through the **Click Through Rate** (which is expected to have at least a 4% rate (Clickta Digital 2022)), **Conversion Rate** (higher than 5% (Popupsmart 2022)), **Quality Score** (it is measured on a scale from 1 to 10, so closer to 10 the better) **Average Position** (at least appear on the top 3 of the Google's first page).

Exhibit 87: Small Businesses and Anchors Members' Campaigns KPIs

Table 36: Small Businesses and Anchors Members' Campaigns KPIs

General KPIs	
Return on Investment	Positive
Sales	Reaching the end of the first year with 1205 new small businesses and 99 new anchors members.
Digital KPIs	
LinkedIn: Engagement Rate	2%
LinkedIn: Number of Followers	Increase it to 5k
LinkedIn: Number of Impressions	Increase it by 50%
LinkedIn: Interaction Rate	Increase it by 50%
LinkedIn: Reach	Increase it by 50%
LinkedIn Ads Campaign: CTR	Higher than 1%
LinkedIn Ads Campaign: Conversion Rate	7% per each campaign
Email Marketing: Open Rate	22%
Personal Selling KPIs	
Conversion Rate	3%
Telemarketing KPIs	
Conversion Rate per day	3%

For the general KPIs, the **Return on Investment (ROI)** will be followed and analyzed frequently to see if the marketing strategy' investment is having results. It is also necessary to assess if the **brand awareness' objective** of recognizing the brand on the point-of-sale is being reached. This is possible to understand through the Personal Selling moment if people when approached can recognize the brand and immediately attain it to the category need. In addition, the **Number of Sales** for each target is important to understand how the campaign is behaving. Regarding the Personal Selling strategy is expected to have a **Conversion Rate** of 3%

(Sunbasedata 2022). Considering the Social Media strategy for LinkedIn the following KPIs will be measured: **Engagement Rate** (expected to have a rate of 2% (Adobe Express 2022)), **Number of Followers** (increase to 5k (LinkedIn 2022)), **Number of Impressions, Interaction Rate and Reach** (all increase by at least 50%). On the LinkedIn Ads Campaign, the goals are a **CTR** higher than 1% (Mitchell 2022) and a **Conversion Rate** of 7% per each campaign (Shaun 2022). Regarding the Telemarketing strategy, it is expected to have a 3% (Jabbar 2022) **Conversion Rate** per day. In addition, an **Open Rate** of 22% (Mailchimp 2022) is contemplated per each email sent.

Exhibit 88: Greenvolt Comunidades Distribution Channel Structure and Process

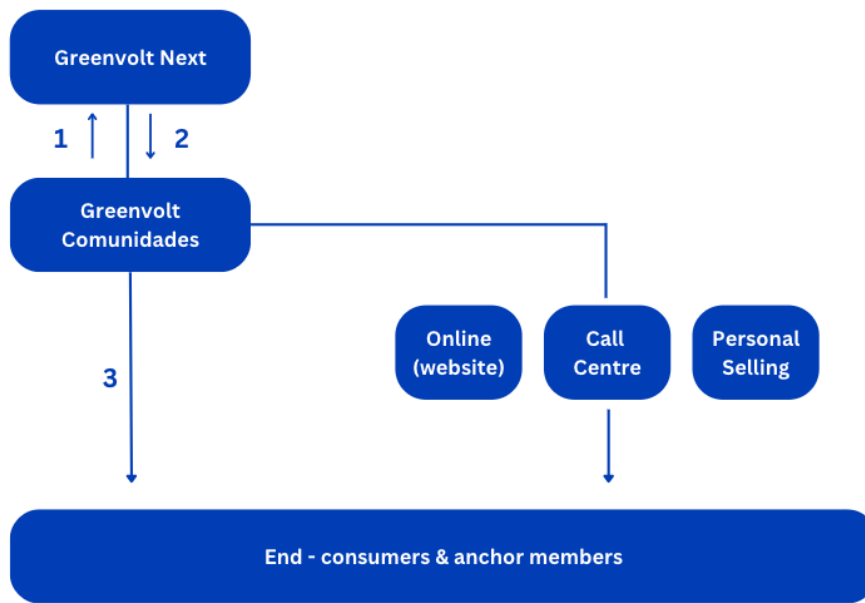


Figure 31: Greenvol Comunidades Distribution Channel Structure

Channel members and responsibilities:

- **Greenvolt Next:** is the producer of the solar panels that are sold to anchor members through Greenvolt Comunidades.
- **Greenvolt Comunidades:** is the service provider and the channel captain - acting as the prime mover in establishing and maintaining channel links.
- **Online:** refers to the company's Website, through which the consumer is informed about the concept of Energy Communities, the differences between being a consumer member or an anchor member, have the possibility to run a simulation in order to assess the average amount of savings, they would have by joining an energy community. In addition, if interested in joining the community the consumers/anchors can leave their information's there and a prepared telemarketing team will be ready to establish the contact.
- **Call-Center:** refers to the telemarketing channel, mainly in charge of sales and information sharing.
- **Personal Selling:** refers to the direct sales (personal selling) team.

Process:

There is a constant contact between Greenvolt Next and Greenvolt Comunidades, as Greenvolt Comunidades makes the contracts with the anchor members, receives the payments of the solar panels and orders the panels to Greenvolt Next (1). Greenvolt Next takes care of delivery the goods (2). Once an anchor decides to initiate an Energy Community, the service is provided by Greenvolt Comunidades that takes care of all the bureaucracy needed, and that makes the installation of the solar panels together with Greenvolt Next (3). Regarding consumers the service is 100% delivered by Greenvolt Comunidades, however the contact with the channels (online, call-centre, personal selling) happens during the whole process and is crucial for a better service experience.

Exhibit 89: Detailed Theoretical Definition of Service Outputs*Table 37: Detailed Definition of Service Outputs*

Bulk Breaking	It refers to the end-user 's ability to buy a desired number of units, even if the product or service originally was produced in mass.
Spatial Convenience	Is provided by market decentralization in wholesale and/or retail outlets which increase consumers' satisfaction by reducing transportation requirements and search costs.
Waiting Time	It represents the time the end-user must wait between buying and receiving the goods or service.
Product Variety and Assortment	Variety describes different classes of goods that constitute the product offering (breadth of product lines) and assortment refers to the depth of product brands or models offered within each product category.

Customer Service	Refers to all aspects that ease the shopping and purchase process for end-users during their interactions with commercial suppliers. Excellent customer service has a direct interference with sales and profits.
Information Sharing	It refers to education provided to end-users about product attributes or usage capabilities, as well as pre and post purchase services.

Adapted from: Palmatier, Robert W., Eugene Sivadas, Louis W Stern, and Adel I. El Ansary. 2020. *Marketing Channel Strategy: An Omni-Channel Approach*. 9th edition. New York : Routledge

Exhibit 90: Service Outputs Analysis Regarding “Poupança Unida”

Bulk-Breaking - applying this concept into “Poupança Unida” the sense of unit is not applicable.

Spatial convenience - considering that Greenvolt Comunidades it still at a startup business level, “Poupança Unida” will be present for households, small businesses, and anchor members at Greenvolt Comunidades’ website. The service will also be present for small businesses and anchor members through personal selling and telemarketing (call-center).

Waiting Time - “Poupança Unida” is sold to customers at the same time they join an Energy Community. However, there is some time needed for the consultancy team to analyze the energy market to find the cheapest supplier available, and to examine the consumers’ current consumption habits. Nonetheless, the entire process, since the moment the customer signs the contract until the service is put into practice, does not take more than 1 month.

Product variety and assortment - there is no more personalized service than “Poupança Unida”, it is 100% customized to the customer’s needs. Each client has his’ own consumption habits which means that different sustainable measures might have to be taken for each client.

Also, each client has his own energy supplier, with a specific energy price and potência contratada. Naturally many of them belong to the same supplier or have the same potência contratada, however, each case will be analyzed in detail with the goal of providing the most tailored solution possible.

Customer Service - given the differences between the three target segments (households, small businesses, and anchor members) the levels of customer service required for each will be different. “Poupança Unida” would adapt its customer service supply, ranging from high to low within all the channels used. Regarding the online channels (website), the user is completely autonomous in searching for information and conducting the savings simulation by himself, however, consumers will have the possibility of using an online chat box that will be available inside the website, having the chance to clarify some doubts. With this extra feature Greenvolt Comunidades can increase the customer service provided through the website. Additional direct sales channels, in the form of personal selling and telemarketing, reach the consumer directly. Even though both provide a relatively high level of customer service, suiting some customers’ preferences, telemarketing can not be considered as high as personal selling, since the contact is made over the phone and not in person.

Information Sharing - the end-user is confronted with information about “Poupança Unida” in many ways: informational advertising (more detailed in the communications plan), website, information personally provided by telemarketing and personal selling.

Exhibit 91: End-User Segmentation: Positioning Map

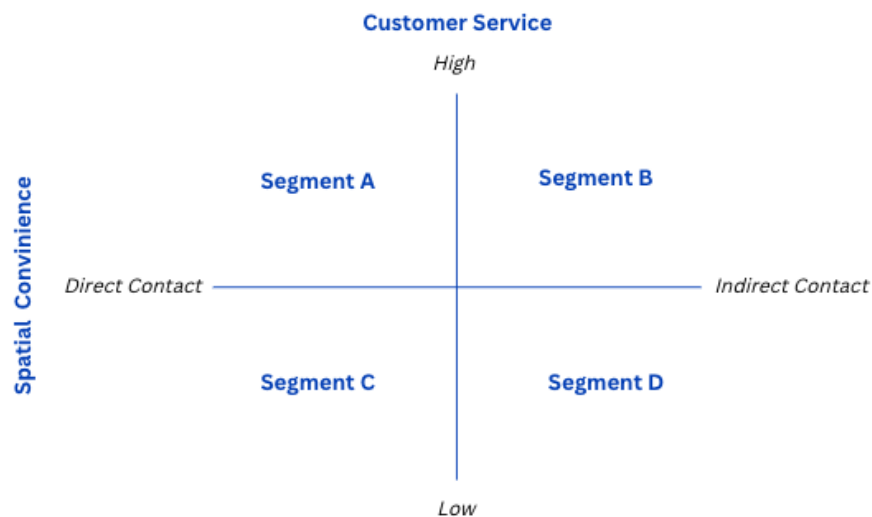


Figure 32: Distribution Segments Positioning Map

Exhibit 92: Types of Preferences and Most Suitable Channel per Segment

Table 38: Types of Channel per Segment

SEGMENTS	PREFERENCES		MOST SUITABLE CHANNEL
	CUSTOMER SERVICE	SPATIAL CONVENIENCE	
A	High	Direct Contact	Personal Selling
B	High	Indirect Contact	Website (with the help of the chat box)
C	Low	Direct Contact	Telemarketing
D	Low	Indirect Contact	Website (without the help of the chat box)

Segment A - demands high customer service and has preference for a service with direct contact.

This means that personal selling would be the most adequate channel to reach these consumers.

Segment B - demands high customer service and has preference for a service with indirect contact (meaning that the consumer will not have a direct interaction with a selling assistant).

Therefore, the use of the website with the help of a chat box can be a good combination to reach this type of customers.

Segment C - demands low customer service and prefers a service with direct contact. Through telemarketing customers are free to terminate the phone call at any time and still have the possibility of a direct contact type of service.

Segment D - demands low customer service and has preference for a service with indirect contact. As so, the website is the most adequate channel to serve this segment's preferences, as the consumer has a completely autonomous and individual experience. However, clients still have the option of using the chat box in case they need assistance.

Exhibit 93: “Poupança Unida” Channel Structure - Distribution Scheme

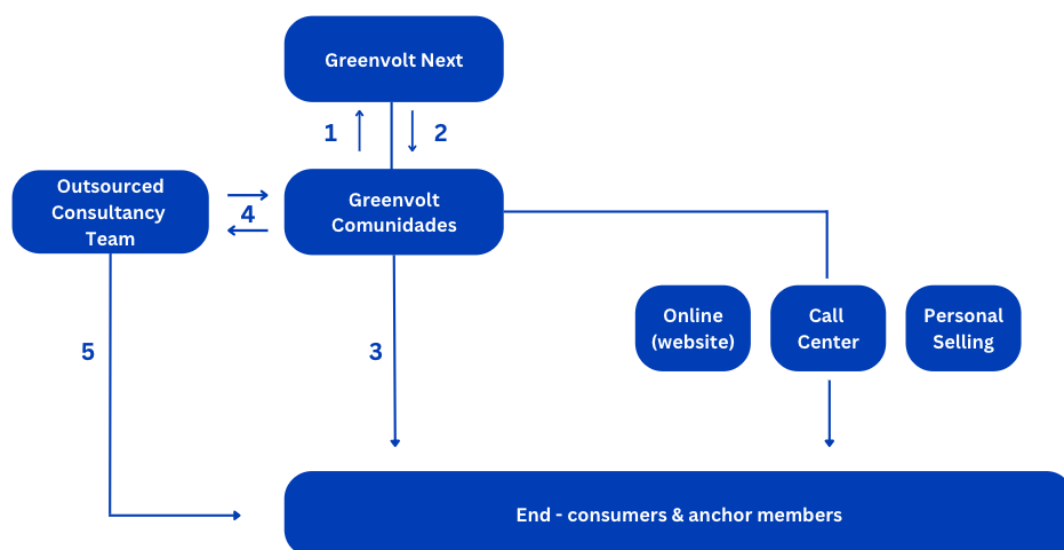


Figure 33: "Poupança Unida" Distribution Channel Scheme

Exhibit 94: Managerial and Environmental Bounds of “Poupança Unida” channel implementation

Table 39: Managerial and Environmental Bounds

Managerial Bounds	It refers to constraints on the distribution structure that arise from the rules imposed by a company usually due to managers' lack of knowledge (Palmatier, et al., 2020). Regarding "Poupança Unida", a information provision gap might occur if the outsourced consultancy team lack knowledge about the service and its process. Also, if the client's needs are not properly communicated between the consultancy team and Greenvolt Comunidades, this can result in an unsatisfactory service provided by the team.
Environmental Bounds	Two key instances of environmental bounds are local legal constraints and the sophistication of the local physical and retailing infrastructure. Environmental bounds are constraints imposed from outside the channel such as local legal constraints, or the sophistication of the local physical and retailing infrastructure (Palmatier, et al., 2020). Legal constraints already make the bureaucracy process long and complicated for the clients. It is therefore important that these constraints do not increase, otherwise the company will slow its process down and this can lead to client dissatisfaction. The legal laws regarding electricity and the environment in general are changing often and becoming stricter every year, so Poupança Unida must carefully monitor them and keep a good relationship with the government in order to comply with its business activities.

Exhibit 95: Demand Side Gaps and How to Close them

Potential Demand Gaps: since the new service is only sold together with the core service of Energy Communities, a **customer service gap** and **information sharing gap** were identified.

Energy is a hard topic to understand and there is general lack of awareness regarding Energy Communities in society, as so, even though the commercial teams are very well prepared to serve and inform the customers, unforeseen events can happen and prejudice information sharing and consequently customer service. **Spatial convenience** can also be seen as a gap, since, as mentioned before “Poupança Unida” for now can only be sold together with the company’s core service (Energy Communities). The problem with it is that Energy Communities are not yet available on the whole country, due to a lack of Anchor Members that make the Communities possible. As so, even if a Household or a Small Business want to join “Poupança Unida” and consequently an Energy Community, it will only be possible if there is an Anchor Member available in a 4km radius.

Another gap found was the **waiting time**, Greenvolt Comunidades does its best together with the outsourced consultancy team to deliver the service as quickly as possible, however, there are some steps that take time, like analyzing the customers consumption habits, as well as breaking the customer’s current energy contract for a cheaper supplier in the market.

How to Close Gaps: in order to close the gaps identified on the demand side gaps some measures have to be taken. In relation to **customer service** and **information sharing** gaps, it is crucial to invest on the best training programs for the teams (mainly the telemarketing and the personal selling) so that they can have the best communication skills and present the service’s key benefits in a very appealing way. When it comes to **spatial convenience**, one solution could be to sell this service separately from the core service of Energy Communities, in the future. However, this might cause a decrease on the Energy Communities breakthrough plan. Another solution is to keep raising awareness about Energy Communities. The higher the number of people aware of Energy Communities and their benefits, the more Anchor Members will join all over the country, increasing the number of Portuguese regions where “Poupança Unida” will be available. Regarding **waiting time** related with the process duration, it cannot be completely overcome as it depends on the consumption habits analysis and on the energy

suppliers to terminate old contracts and initiate new ones. One thing that can be done to minimize the gap is a better management of the clients waiting time expectations.

Exhibit 96: Hiring and Training Process, Incentive System Recommendations

Hiring

Quality begins with the hiring process. In the case of Greenvolt Comunidades, they are not yet well known. They do, however, have a more well-known parent company, Greenvolt, which can help raise awareness about the company. The first goal a company needs to target is to become a company to which many will want to apply. Therefore, Greenvolt Comunidades needs to become a “**preferred employer**” to get a head start in the competition. Once the hiring process begins, the human resources department needs to **select the right people** from the pool of applicants. There are tools that help recruiters sort out the applicants who do not seem like a good fit: **multiple structured interviews, assessment centers or behavior simulations, personality tests** and **showing realistic overviews** of what they can expect when working at the company

- **Multiple structured interviews:** not only does it eliminate biases since there will be two separate interviewers who will ask the same questions, it will also show a more faceted side of the candidate as he or she will be able to elaborate in two different ways.
- **Assessment centers or behavior simulations:** the candidate will have to convince the recruiters with their behavior towards problem solving. The recruiter won't interfere with the candidate, or only to a certain degree. This gives the candidate the freedom to freely express him- or herself.
- **Personality tests:** of which the 16 personalities by Myers-Briggs is one of the most well-known. Personality tests can indicate the fit of a candidate for the future as each personality's has its certain set of traits. This option, however, shouldn't be the only

decision criteria because it does not represent the candidate in his or her entirety. Personality test results can change each time a candidate takes one, depending on the mood or on the circumstances.

- **Showing candidates a realistic overview** of what they can expect when working at the company. Not only will the candidate find out if he or she is a good fit, he or she will also get a glimpse of the company culture and work ethics. On the company's side, they can also determine whether the candidate is a good fit for the company and its values (Kotler and Keller 2012).

Once the candidate has been hired by Greenvolt Comunidades and turned into an employee, the next step to achieve service excellence is to incorporate proper **training**.

Training

To ensure the consistent success of the services, the company must invest in training initiatives to provide employees with the right tools and skills to deliver excellent service. The appropriate and successful training will provide employees with the necessary confidence and know-how, and thus increase the performance level of the entire service. Increased performance levels, in turn, lead to empowered employees and thus increase the motivation of employees to work towards the success of the company. Therefore, training should happen at least once a year to keep up with the new trends, as well as to help all new employees reach the same level of service quality. The training will focus on the following: sales personnel need to know how to negotiate successfully and how a salesperson has to interact with new customers, also the soft skills should be enhanced or strengthened as this is a peoples business. In other words, the charisma of an employee can have a great impact on the customer and the customer's view of the company.

Incentive System

To motivate employees, the company must offer an incentive program. These incentives can be both monetary or non-monetary. Since the company is still quite young and therefore does not have enough capital to offer incentives to all employees on a yearly basis, a system must be implemented in which the best 10% of the employees are rewarded. Not only will the rewarded employees receive recognition for their work, but other employees will also be motivated to work harder to be rewarded next time. For example, salary incentives could be offered by increasing the monthly salary by 500€ or by giving a voucher of the same amount from any chosen brand. For the energy consultants, the company could introduce a program where the consultant with the highest customer satisfaction wins a half day of vacation per month to reward them for their hard work and dedication to their customers. Since the sales activities are outsourced, these employees are not included in the incentive program.

Exhibit 97: Key Success Factors

After presenting the communication plan for the launch of Greenvolt Comunidades' new service "Poupança Unida", it must be analyzed the project's ability to generate the required cashflows and the Key Success Factors to assess its performance. Key Success Factors (or KSF) are the elements of a strategy, brand or company that are vital to its long-term success. These elements vary from business to business, from campaign to campaign and from brand to brand. In the case of renewable energy industry and energy management industry, it was possible to identify different important KSF. Energy Communities are a fresh and innovative service available on the market, therefore, **Category Knowledge** (Awareness and Acceptance) is the first major indicator of the success of this project. All target segments must become aware of all the economic and environmental benefits that the solution can bring them. The second Key Success Factor that was identified is represented by **Brand Success** since Greenvolt Comunidades is a new sub-brand providing an exclusive and unique service tailored on each client's need. The current offerings provided by competitors mainly focus on selling energy;

Greenvolt Comunidades service focuses on the efficient management of energy, which will bring cost savings to its clients inside the community and constant, tailored support from the employees. Basically, the brand is providing a unique service that is currently not present on the market and its success represents an entry ticket to gain shares. The third KSF highlighted is the **Service Experience** since the positive network effect derived from customer satisfaction will organically enhance the brand reputation and the willingness of other people to become part of Energy Communities to benefit from the tailored services of “Poupança Unida”. The positive word-of-mouth can help saving advertising costs, which is particularly relevant for a new brand like Greenvolt Comunidades. Additionally, reinforcing customer satisfaction can have a positive impact on the brand in different ways, such as employee and strategy efficiency because objectives are clear. Lastly, **Agile Process** and **Optimization** are two interconnected Key Success Factors that Greenvolt Comunidades should keep monitoring. As the brand is new, processes might be less smooth in the very beginning. That is why by the launch of the new service “Poupança Unida” and the acquisition of more clients, the company should learn how to efficiently achieve economies of learnings. This factor is also particularly relevant for Greenvolt Comunidades as one of its credibility factors is the expertise of its employees.

In addition to the company's own employees, this category contains all the subjects who influence customers, public decision-makers and residents or other stakeholders. Greenvolt Comunidades should make sure all the individuals have a positive consideration of the company, as they will probably generate constructive and profitable word of mouth. Stakeholders and Investors represent high value and potential for the company, especially since this brand has been freshly launched; it needs support and a network of people that put effort into it. Representatives from the government also need to maintain a great relationship with Greenvolt Comunidades as their support is fundamental in order to achieve the firm's goals and promote greener initiatives. Since the company also takes care of the whole bureaucratic process when

building the Energy Community and providing customer care, a good cooperation within the government can for sure facilitate the procedures.

Exhibit 98: P&L Assumptions

- 50% of the energy production is consumed by the Anchor Member and the remaining 50% is excess for the Energy Community. This means 63000 KW/h for the client.
- Annual Sunshine hours are 2800 according with Weather Portugal Annual Sunshine hours, which gives an average of 7,67 hours per day (Current Results, 2022)
- Each community is composed by 1 Anchor Member and an average of 22 customers, (Households plus Small Businesses) each one with an average consumption of 240KW/h.
- In terms of anchors members, it was estimated 99 in year 1 due to the 3% of market penetration, 130 in year 2 and 200 in year 3. This will be accounted for in the P&L as number of projects per year.
- It was considered that the energy production will have an erosion of 2% in the first year and 0,55% in the remaining years due to the detrition of solar panels, which will affect the energy production throughout the years.
- A projection of 15 years, in line with project amortization was conducted, although for the purpose of this project only a three-year plan will be considered.
- In scenario two, where Grennvolt Comunidades invests for its clients, the investment needs support by financial institutions, as so the loans were calculated at Euribor at 12 months (2,8%) + a spread of 1,2%, which gives a total of 4% (Euribor, 2022).
- In both scenarios a Growth Margin of 10% was considered.
- The Operating Expenses represent 80% of the Gross Margin.
- For the cost of the project, it was considered 576€ per KWp, which represents 90% of the sales value of each KWp (640€).

- It was also assumed that customers pay Greenvolt Comunidades 20% below average of current energy price, it was assumed a value of 0,128€ per KWh.

Exhibit 99: Greenvolt Comunidades current P&L if the 99 Anchor members invest by themselves

Table 40: Greenvolt Comunidades current P&L if the 99 Anchor members invest by themselves

	Year 1	Year 2	Year 3
Revenue	425 174	732 327	1 121 417
Cogs			
Gross Margin	425 174	732 327	1 121 417
% Gross Margin	100%	100%	100%
Operating Expenses	562 799	585 861	897 134
General operating Expenses	562 799	585 861	897 134
Outsourcing costs			
Marketing costs			
% Operating Expenses vs Revenue	132%	80%	80%
Ebitda	(137 624)	146 465	224 283
%Ebitda vs Revenue	-32%	20%	20%
Amortization			
Ebit	(137 624)	146 465	224 283
Interest	5 505		
Taxes		31 490	48 221
Net Income	(143 129)	114 975	176 062
Payback		(28 154)	291 038
NPV	438 161 €		

Revenues:

In this scenario, it was taken into consideration during calculations that they pay for their own solar panels an amount of 640€ per 44 Kwp. Then, only in the first year of the contract they must pay an Energy Community creation fee of 1 145€. In addition, a 35€ monthly fee to manage the community is charged: 35*6 (in year 1 because the first 6 months are for the community to get ready) and 35*12 in the remaining years. Another additional fee is related to the operation and maintenance costs of the solar panels which are translated into 450€*50% in year 1 and

450€ in the remaining years. In addition, the amount that consumers pay to Greenvolt Comunidades in the end of each month will also be considered in the revenues, this value represents a 20% discount on their current electricity price. However, since it is the Anchor Member making the investment, in this case Greenvolt Comunidades do not receive 100% of the consumers. Instead, a 60%/40% division is made, where Greenvolt Comunidades gets 60% of the total payment from consumers. The main driver for the revenue's growth over the 3 years comes from the incremental number of Anchors from 99 to 130, in year 2, and from 130 to 200 in year 3.

Exhibit 100: Greenvolt Comunidades current P&L if the 99 Anchor members have Greenvolt Comunidades investing for them

Table 41: Greenvolt Comunidades current P&L if the 99 Anchor members have Greenvolt Comunidades investing for them

	Year 1	Year 2	Year 3
Revenue	772 220	1 987 492	3 040 863
Cogs	-	-	-
Gross Margin	772 220	1 987 492	3 040 863
% Gross Margin	100%	100%	100%
Operating Expenses	440 166	1 132 871	1 733 292
General operating Expenses	440 166	1 132 871	1 733 292
Outsourcing costs			
Marketing costs			
% Operating Expenses vs Revenue	57%	57%	57%
Ebitda	332 055	854 622	1 307 571
%Ebitda vs Revenue	43%	43%	43%
Amortization	167 270	219 648	337 920
Ebit	164 784	634 974	969 651
Interest	104 362	135 789	196 709
Taxes	12 991	107 325	166 183
Net Income	47 431	31 033	46 417
Payback	47 431	78 465	124 881
NVP	236 990 €		

Revenues:

In this scenario, it was considered in revenue an energy flat fee of 0,1185per kwh, which is multiplied by the anchor's yearly average consumption. As mentioned before on the assumptions, 50% of the solar energy produced is consumed by the anchor and the remaining 50% to the consumers within the community. In addition, the amount that consumers pay to Greenvolt Comunidades in the end of each month will also be considered in the revenues, this value represents a 20% discount on their current electricity price. The estimation of this number was made based on the assumption that if a consumer pays 0,16€ per Kw/h for its electricity it will result in a flat fee of 0,128€ per kw/h consumed from the community. The main reason for the revenue's growth from year 1 to year 3 comes from the increase in the number of projects, being 99 in year 1, 130 in year 2 and 200 in year 3. Additionally, it is of extreme importance to mention that the revenues from the first year are influenced by a 50% cut since it was considered

a 6-month period to build the structures for the solar panels and to take care of all the bureaucracy needed.

Exhibit 101: Greenvolt Comunidades Current P&L (if 50% of the Anchor members invest by themselves and the other 50% have Greenvolt Comunidades investing for them)

Table 42: Greenvolt Comunidades current P&L if 50% of the Anchor members invest by themselves and the other 50% have Greenvolt Comunidades investing for them

Revenue	598 697	1 359 910	2 081 140
Cogs	-	-	-
Gross Margin	598 697	1 359 910	2 081 140
% Gross Margin	100%	100%	100%
Operating Expenses	953 373	991 153	1 447 000
General operating Expenses	501 482	859 366	1 315 213
Outsourcing costs			
Marketing costs	451 891	131 787	131 787
% Operating Expenses vs Revenue	159%	73%	70%
Ebitda	(354 676)	368 757	634 140
%Ebitda vs Revenue	-59%	27%	30%
Amortization	83 635	109 824	168 960
Ebit	(438 311)	258 933	465 180
Interest	54 934	67 894	98 354
Taxes	6 495	69 407	107 202
Net Income	(499 740)	121 631	259 624
Payback	(499 740)	(378 109)	(118 485)
NPV	7 912 693 €		

Exhibit 102: P&L of the New Service “Poupança Unida” Alone

Table 43: P&L of the new service “Poupança Unida” alone

	Year 1	Year 2	Year 3
Revenue	274 750	559 659	829 846
Cogs			
Gross Margin	274 750	559 659	829 846
% Gross Margin	100%	100%	100%
Operating Expenses	127 800	224 600	331 200
General operating Expenses			
Outsourcing costs	127 800	224 600	331 200
Marketing costs			
% Operating Expenses vs Revenue	47%	40%	40%
Ebitda	146 950	335 059	498 646
%Ebitda vs Revenue	53%	60%	60%
Amortization			
Ebit	146 950	335 059	498 646
Interest			
Taxes	31 594	72 038	107 209
Net Income	115 356	263 021	391 437
Payback	115 356	378 377	769 814

Exhibit 103: Final P&L

Table 44: Final P&L

FINAL P&L			
	YEAR 1	YEAR 2	YEAR3
Revenue	873 447	1 919 569	2 910 986
Cogs	-	-	-
Gross Margin	873 447	1 919 569	2 910 986
% Gross Margin	100%	100%	100%
Operating Expenses	1 081 173	1 215 753	1 778 200
General Operating Expenses	501 482	859 366	1 315 213
Outsourcing costs	127 800	224 600	331 200
Marketing costs	451 891	131 787	131 787
% Operating Expenses vs Revenue	124%	63%	61%
Ebitda	(207 726)	703 816	1 132 786
%Ebitda vs Revenue	-24%	37%	39%
Amortization	83 635	109 824	168 960
Ebit	(291 361)	593 992	963 826
Interest	54 934	67 894	98 354
Taxes	-	141 445	214 411
Net Income	(346 295)	384 652	651 061
Payback	(346 295)	38 357	689 419
NPV	11 699 925		

Exhibit 104: Key Performance Indicators

First the KPIs of the revenue are looked upon. These include the **gross and net profit margin**, and the **sales growth rate**. The two profit margins are taken into consideration as their values indicate how profitable the whole project / company is. A distinction between gross and net profit is made to understand how much of the revenue is left when the cost of revenues is deducted. This is the first indicator of the success of the project. The net profit margin is the last indicator in the income statement of how well the company is controlling its operating costs (Murphy 2022). The sales growth rate indicates annually how the total profit of the company is developing. This rate indicates significant changes that occur during the year and need to be looked at more closely (Kelwig 2021). Ideally, the sales growth rate should show a steady trend. Lastly, the **costs of acquiring a new customer (CAC)** should be assessed. The success of the service depends heavily on the successful acquisition of customers but should be reduced over the years through learning curves. The next main topic is customers. Here, the **customer satisfaction and retention, customer lifetime value (CLV)** and the **number of referrals** are looked at. Since the company's product is a service, customer satisfaction plays a particularly important role here (Marr 2013). If customers are dissatisfied with the service, mouth-to-mouth interactions can lead to a loss of trust and interest in the service and the company. Customer retention measures the level of loyalty of a customer, or the ability to retain a customer in the customer base. This rate also indicates the overall satisfaction of a customer (Gillis und Sachs 2021). The CLV must be tracked to identify how much a particular customer is worth to the company and how much money said customer will generate. Essentially, this metric determines whether a relationship with the customer should be preserved or not (Lew 2017). The number of referrals is an important indicator as the project also has a referral program. Here it is decided afterwards whether the referral program should be continued or changed. Finally, the **internal process quality** is looked at within the **processes**. Companies need to ensure that all services and products (in this case the solar panels provided by a partner company) meet certain

standards and are optimized over time (Marr 2013). Therefore, **hygiene checks** and **customer opinions** should always be asked for.

Individual Appendix

Exhibit 1: Household's current energy cost

Table 45: Household's Scenario 1

HOUSEHOLD AS IS			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1000		€ 166,50
Energy price	0,1665		
Potencia Contratada (20,70 kVA)	0,5649	per day	€ 17,51
Acesso às redes da Potencia Contratada	0,5424	per day	€ 16,81
Taxas	3,06		€ 3,06
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH	€ 250,78

Exhibit 2: Household's energy cost after entering an Energy Community

Table 46: Household's Scenario 2

HOUSEHOLD WITH ENERGY COMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	600		€ 99,90
Energy price	0,1665		
Potencia Contratada (20,70 kVA)	0,5649	per day	€ 17,51
Acesso às redes da Potencia Contratada	0,5424	per day	€ 16,81
Taxas	3,06		€ 3,06
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF ES	€ 168,86
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	400		€ 53,28
Energy price	0,1332		
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF EC	€ 65,53
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	€ 234,40

Exhibit 3: Household's energy cost after entering an Energy Community with the service “Poupança Unida” included

Table 47: Household's Scenario 3

HOUSEHOLD WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	510		€ 79,61
Energy price	0,1561		
Potencia Contratada (20,70 kVA)	0,5649	per day	€ 17,51
Acesso às redes da Potencia Contratada	0,5424	per day	€ 16,81
Taxas	3,06		€ 3,06
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 143,91
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	340		€ 42,46
Energy price	0,12488		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 52,22
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	€ 196,13

Exhibit 4: Small Business's current energy cost

Table 48: Small Business's Scenario 1

SMALL BUSINESS AS IS			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	3216		€ 484,97
Energy price	0,1508		
Potencia Contratada (20,70 kVA)	1,2194	per day	€ 37,80
Acesso às redes da Potencia Contratada	0		€ -
Taxas	3,06		€ 3,06
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH	€ 646,78

Exhibit 5: Small Business's energy cost after entering an Energy Community

Table 49: Small Business's Scenario 2

SMALL BUSINESS WITH ENERGY COMMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1929,6		€ 290,98
Energy price	0,1508		
Potencia Contratada (20,70 kVA)	1,2194	per day	€ 37,80
Acesso às redes da Potencia Contratada	0		€ -
Taxas	3,06		€ 3,06
		TOTAL AVERAGE PRICE PER MONTH OF ES	€ 408,17
IVA 23%	1,23		
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	1286,4		€ 155,19
Energy price	0,12064		
		TOTAL AVERAGE PRICE PER MONTH OF EC	€ 190,89
IVA 23%	1,23		
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	€ 599,05

Exhibit 6: Small Business's energy cost after entering an Energy Community with the service “Poupança Unida” included

Table 50: Small Business's Scenario 3

SMALL BUSINESS WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	1640,4		€ 231,95
Energy price	0,1414		
Potencia Contratada (20,70 kVA)	1,2194	per day	€ 37,80
Acesso às redes da Potencia Contratada	0		€ -
Taxas	3,06		€ 3,06
		TOTAL AVERAGE PRICE PER MONTH OF ES	€ 335,56
IVA 23%	1,23		
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	1093,6		€ 123,71
Energy price	0,11312		
		TOTAL AVERAGE PRICE PER MONTH OF EC	€ 152,16
IVA 23%	1,23		
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	€ 487,72

Exhibit 7: Anchor Member's current energy cost – equal in perspective where the Anchor invests and also in the perspective where the Anchor does not invest

Table 51: Anchor Member's Scenario 1 in both perspectives

ANCHOR MEMBER AS IS			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	6884		€ 2 200,13
Energy price	0,3196		
Potencia Contratada (79 kVA)	8,11		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH	€ 3 029,28

Exhibit 8: Anchor Member's energy cost after entering an Energy Community - perspective where the Anchor invests

Table 52: Anchor Member's Scenario 2 - perspective where Anchor invests

ANCHOR MEMBER WITH ENERGY COMMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1376,8		€ 440,03
Energy price	0,3196		
Potencia Contratada (79 kVA)	8,11		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF ES	€ 864,35
ENERGY COMMUNITY			
Monthly fee to manage the community	€ 35		
Electricity Consumption (kw/month)	5507,2		€ -
Energy price	0		
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF EC	€ 35,00
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	€ 899,35

Exhibit 9: Anchor Member's energy cost after entering an Energy Community - perspective where the Anchor does not invest

Table 53: Anchor Member's Scenario 2 - perspective where Anchor does not invest

ANCHOR MEMBER WITH ENERGY COMMUNITIES			
ENERGY SUPPLIER X			
Electricity Consumption (kw/h)	1376,8		€ 440,03
Energy price	0,3196		
Potencia Contratada (79 kVA)	8,11	per day	€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 864,35
ENERGY COMMUNITY			
Electricity Consumption (kw/h)	5507,2		€ 652,60
Energy price	0,1185		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 802,70
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC	
			€ 1 667,05

Exhibit 10: Anchor Member's energy cost after entering an Energy Community with the service "Poupança Unida" included - perspective where the Anchor invests

Table 54: Anchor Member's Scenario 3 – perspective where Anchor invests

ANCHOR MEMBER WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	929,4		€ 273,24
Energy price	0,294		
Potencia Contratada (79 kVA)	8,11		€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
		TOTAL AVERAGE PRICE PER MONTH OF ES	
IVA 23%	1,23		€ 659,21
ENERGY COMMUNITY			
Monthly fee to manage the community	€ 35		€ 35
Electricity Consumption (kw/month)	5266,6		€ -
Energy price	0		
		TOTAL AVERAGE PRICE PER MONTH OF EC	
IVA 23%	1,23		€ 35
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	
			€ 694,21

Exhibit 11: Anchor Member's energy cost after entering an Energy Community with the service "Poupança Unida" included - perspective where the Anchor does not invest

Table 55: Anchor Member's Scenario 3 – perspective where Anchor does not invest

ANCHOR MEMBER WITH ENERGY COMMUNITIES AND POUPANÇA UNIDA			
NEW ENERGY SUPPLIER Y			
Electricity Consumption (kw/h)	929,4		€ 273,24
Energy price	0,294		
Potencia Contratada (79 kVA)	8,11	per day	€ 251,41
Acesso às redes da Potencia Contratada	0		€ -
Taxas (Contribuição Audio-Visual + Banda de Reserva de Regulação)	11,29		€ 11,29
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF ES	€ 659,21
ENERGY COMMUNITY			
Electricity Consumption (kw/month)	5266,6		€ 624,09
Energy price	0,1185		
IVA 23%	1,23	TOTAL AVERAGE PRICE PER MONTH OF EC	€ 767,63
		TOTAL AVERAGE PRICE PER MONTH OF ES + EC W/POUPANÇA UNIDA	€ 1 426,84

Exhibit 12: Households' Value-Pricing Thermometer

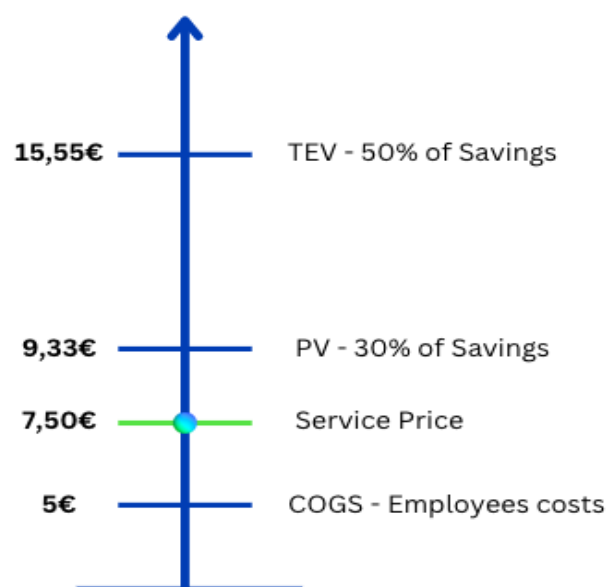


Figure 34: Households' Value-Pricing Thermometer

Exhibit 13: Small Businesses' Value-Pricing Thermometer

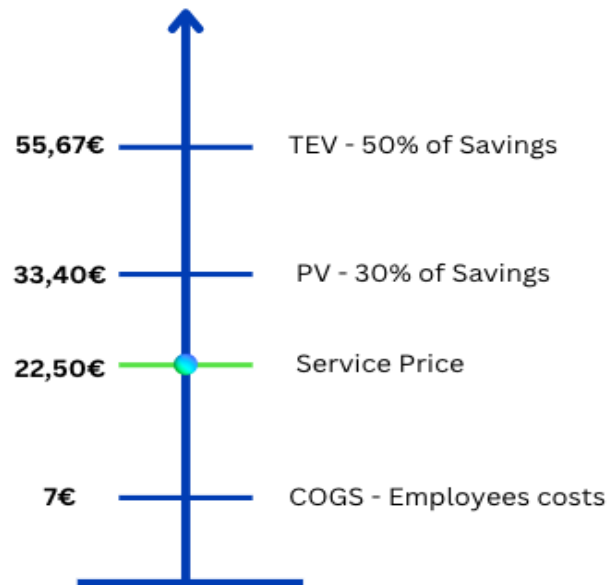


Figure 35: Small Businesses' Value-Pricing Thermometer

Exhibit 14: Anchor Members' Value-Pricing Thermometer – perspective where anchor invests

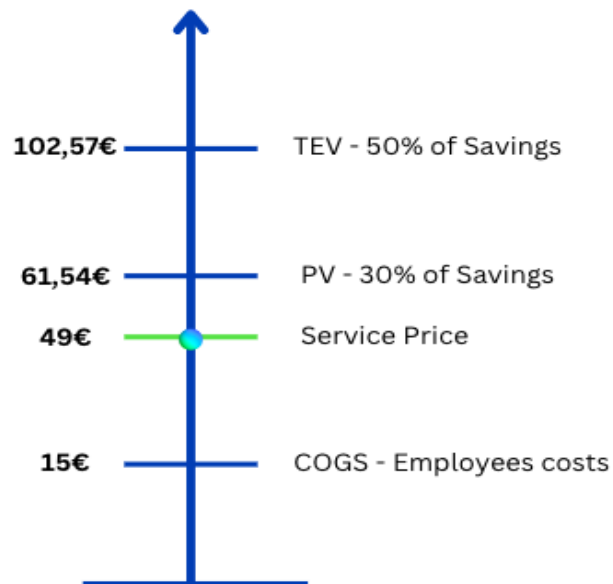


Figure 36: Anchor Members' Value-Pricing Thermometer – anchor invests

Exhibit 15: Anchor Members' Value-Pricing Thermometer – perspective where anchor does not invest

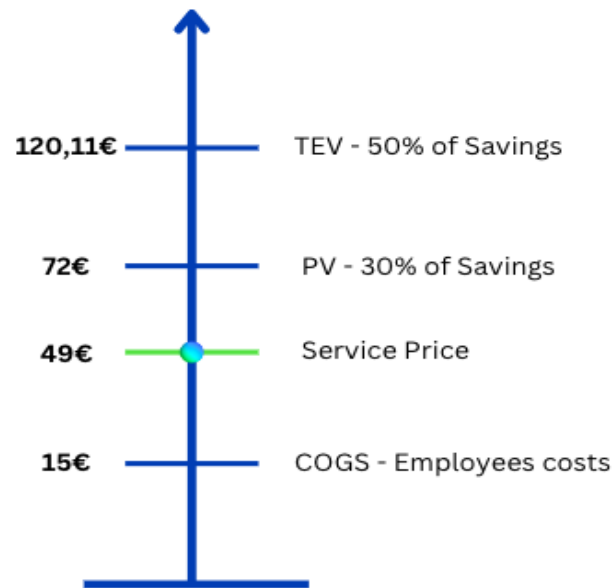


Figure 37: Anchor Members' Value-Pricing Thermometer – anchor does not invest

Exhibit 16: Greenvolt Comunidades Distribution Channel Structure and Process

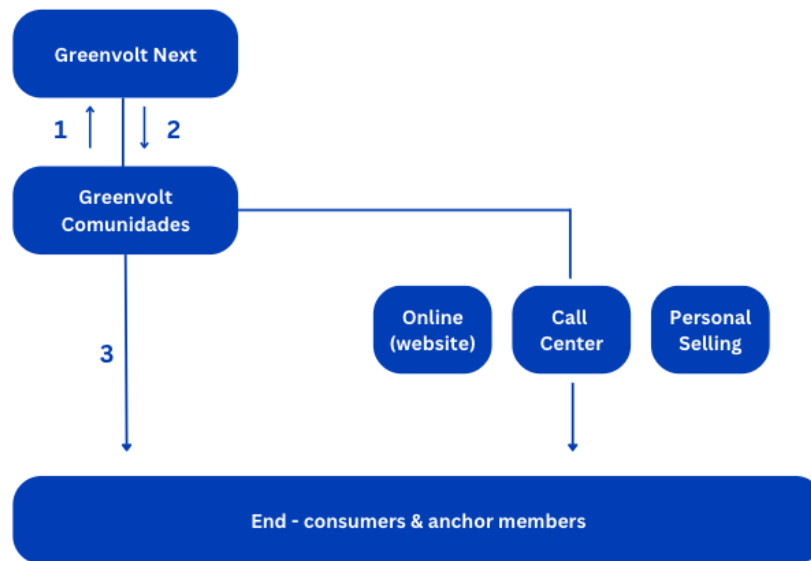


Figure 38: Greenvolt Comunidades Distribution Channel Structure

Channel members and responsibilities:

- **Greenvolt Next:** is the producer of the solar panels that are sold to anchor members through Greenvolt Comunidades.
- **Greenvol Comunidades:** is the service provider and the channel captain - acting as the prime mover in establishing and maintaining channel links.
- **Online:** refers to the company's Website, through which the consumer is informed about the concept of Energy Communities, the differences between being a consumer member or an anchor member, have the possibility to run a simulation in order to assess the average amount of savings they would have by joining an energy community. In addition, if interested in joining the community the consumers/anchors can leave their information's there and a prepared telemarketing team will be ready to establish the contact.
- **Call-Center:** refers to the telemarketing channel, mainly in charge of sales and information sharing.
- **Personal Selling:** refers to the direct sales (personal selling) team.

Process:

There is a constant contact between Greenvolt Next and Greenvolt Comunidades, as Greenvolt Comunidades makes the contracts with the anchor members, receives the payments of the solar panels and orders the panels to Greenvol Next (1). Greenvolt Next takes care of delivering the goods (2). Once an anchor decides to initiate an Energy Community, the service is provided by Greenvolt Comunidades that takes care of all the bureaucracy needed, and that makes the installation of the solar panels together with Greenvolt Next (3). Regarding consumers the service is 100% delivered by Greenvolt Comunidades, however the contact with the channels (online, call-center, personal selling) happens during the whole process and is crucial for a better service experience.

Exhibit 17: Detailed Theoretical Definition of Service Outputs

Table 56: Detailed Definition of Service Outputs

Bulk Breaking	It refers to the end-user 's ability to buy a desired number of units, even if the product or service originally was produced in mass.
Spatial Convenience	Is provided by market decentralization in wholesale and/or retail outlets which increase consumers' satisfaction by reducing transportation requirements and search costs.
Waiting Time	It represents the time the end-user must wait between buying and receiving the goods or service.
Product Variety and Assortment	Variety describes different classes of goods that constitute the product offering (breadth of product lines) and assortment refers to the depth of product brands or models offered within each product category.
Customer Service	Refers to all aspects that ease the shopping and purchase process for end-users during their interactions with commercial suppliers. Excellent customer service has a direct interference with sales and profits.
Information Sharing	It refers to education provided to end-users about product attributes or usage capabilities, as well as pre and post purchase services.

Adapted from: Palmatier, Robert W., Eugene Sivadas, Louis W Stern, and Adel I. El Ansary. 2020. *Marketing Channel Strategy: An Omni-Channel Approach*. 9th edition. New York : Routledge

Exhibit 18: Service Outputs Analysis Regarding “Poupança Unida”

Bulk-Breaking - applying this concept into “Poupança Unida” the sense of unit is not applicable.

Spatial convenience - considering that Greenvolt Comunidades it still at a startup business level, “Poupança Unida” will be present for households, small businesses, and anchor members at Greenvolt Comunidades’ website. The service will also be present for small businesses and anchor members through personal selling and telemarketing (call-center).

Waiting Time - “Poupança Unida” is sold to customers at the same time they join an Energy Community. However, there is some time needed for the consultancy team to analyze the energy market to find the cheapest supplier available, and to examine the consumers’ current consumption habits. Nonetheless, the entire process, since the moment the customer signs the contract until the service is put into practice, does not take more than 1 month.

Product variety and assortment - there is no more personalized service than “Poupança Unida”, it is 100% customized to the customer’s needs. Each client has his’ own consumption habits which means that different sustainable measures might have to be taken for each client. Also, each client has his own energy supplier, with a specific energy price and potência contratada. Naturally many of them belong to the same supplier or have the same potência contratada, however, each case will be analyzed in detail with the goal of providing the most tailored solution possible.

Customer Service - given the differences between the three target segments (households, small businesses, and anchor members) the levels of customer service required for each will be different. “Poupança Unida” would adapt its customer service supply, ranging from high to low within all the channels used. Regarding the online channels (website), the user is completely autonomous in searching for information and conducting the savings simulation by himself, however, consumers will have the possibility of using an online chat box that will be available inside the website, having the chance to clarify some doubts. With this extra feature Greenvolt Comunidades can increase the customer service provided through the website. Additional direct sales channels, in the form of personal selling and telemarketing, reach the consumer directly. Even though both provide a relatively high level of customer service, suiting

some customers' preferences, telemarketing can not be considered as high as personal selling, since the contact is made over the phone and not in person.

Information Sharing - the end-user is confronted with information about “Poupança Unida” in many ways: informational advertising (more detailed in the communications plan), website, information personally provided by telemarketing and personal selling.

Exhibit 19: End-User Segmentation: Positioning Map

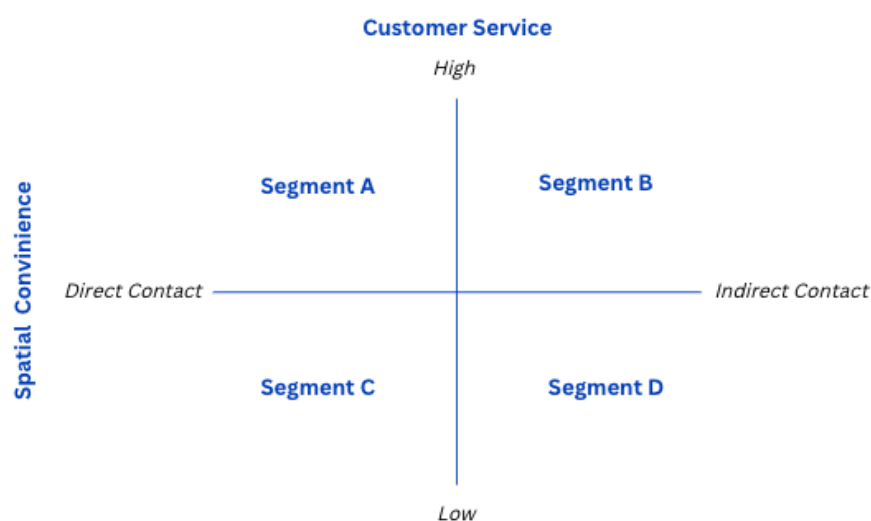


Figure 39: Distribution Segments Positioning Map

Exhibit 20: Types of Preferences and Most Suitable Channel per Segment

Table 57: Types of Channel per Segment

SEGMENTS	PREFERENCES		MOST SUITABLE CHANNEL
	CUSTOMER SERVICE	SPATIAL CONVENIENCE	

A	High	Direct Contact	Personal Selling
B	High	Indirect Contact	Website (with the help of the chat box)
C	Low	Direct Contact	Telemarketing
D	Low	Indirect Contact	Website (without the help of the chat box)

Segment A - demands high customer service and has preference for a service with direct contact. This means that personal selling would be the most adequate channel to reach these consumers.

Segment B - demands high customer service and has preference for a service with indirect contact (meaning that the consumer will not have a direct interaction with a selling assistant).

Therefore, the use of the website with the help of a chat box can be a good combination to reach this type of customers.

Segment C - demands low customer service and prefers a service with direct contact. Through telemarketing customers are free to terminate the phone call at any time and still have the possibility of a direct contact type of service.

Segment D - demands low customer service and has preference for a service with indirect contact. As so, the website is the most adequate channel to serve this segment's preferences, as the consumer has a completely autonomous and individual experience. However, clients still have the option of using the chat box in case they need assistance.

Exhibit 21: “Poupança Unida” Channel Structure - Distribution Scheme

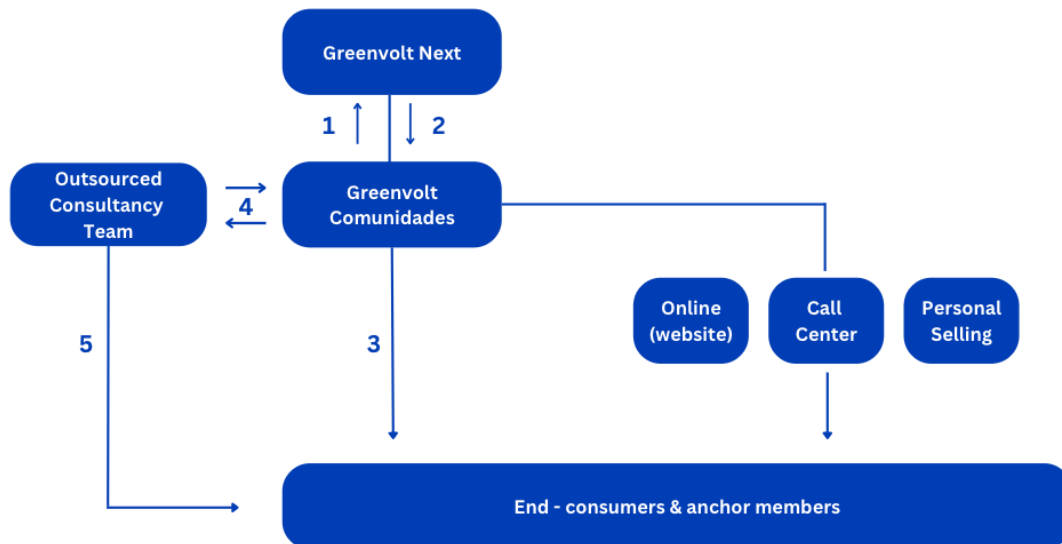


Figure 40: "Poupança Unida" Distribution Channel Scheme

Exhibit 22: Channel Functions

Table 58: Detailed Definition of Channel Functions

Physical Possession	It refers to channel activities pertaining to the storage of goods, including transportation between channel members. For a service, such as online bill payment, physical possession costs seemingly should be lower, but they still apply to channel members who host the data.
Ownership	It is when a channel member takes title of goods, bearing the cost of carrying the inventory, which makes its capital tied up in the product.
Promotion	It can take many forms: personal selling by an employee or outside sales force, media advertising, sales promotion, publicity, and other PR activities.
Negotiation	It is only present in the channel if the terms of sale or the persistence of certain relationships are open to discussion.

Financing	Financing costs are inherent to any sale that moves from one level of the channel to another. It refers to a company buying inventory from the manufacturer and financing it until customers buy and pay for them.
Risk	It can have many forms. For example, long-term contracts between a distributor and end-user may specify price guarantees that lock in the distributor to a certain price. Or, if the market price for that product rises while the contract is in force, the distributor loses revenue, because it must continue to sell at the price agreed in the contract.
Ordering and Payment	These costs are the ones incurred during the actual purchase of and payment for the product.
Information Sharing	It takes place among and between every channel member, in both routine and specialized ways.

Adapted from: Palmatier, Robert W., Eugene Sivadas, Louis W Stern, and Adel I. El Ansary. 2020. *Marketing Channel Strategy: An Omni-Channel Approach*. 9th edition. New York : Routledge

Exhibit 23: “Poupança Unida” Channel Flows

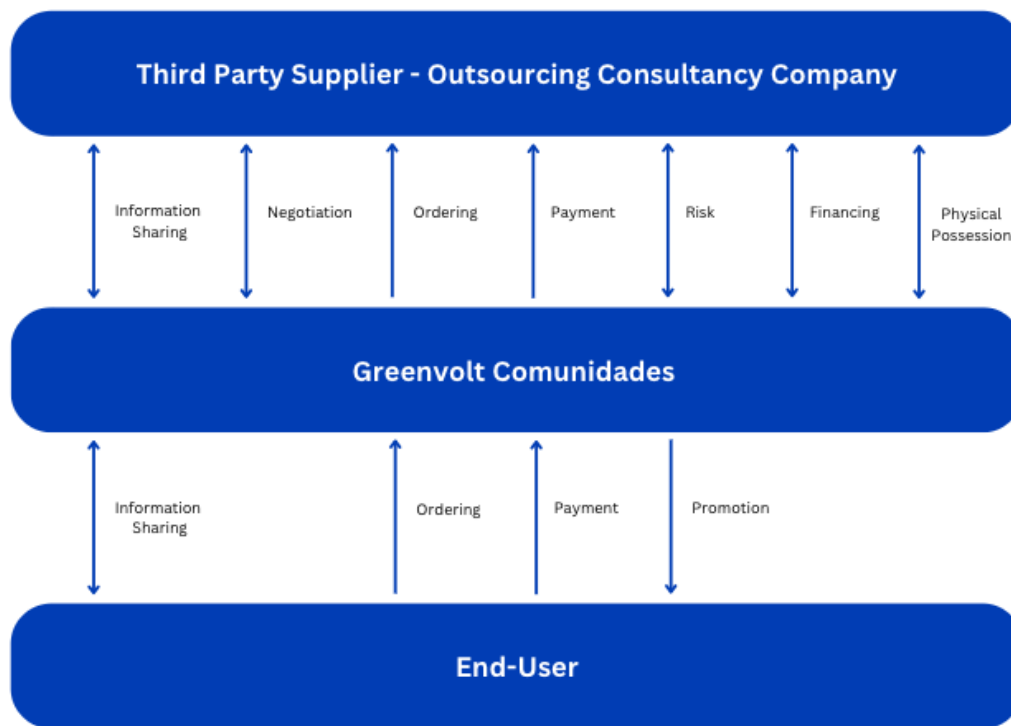


Figure 41: "Poupança Unida" Channel Flows

Exhibit 24: Managerial and Environmental Bounds of “Poupança Unida” channel implementation

Table 59: Managerial and Environmental Bounds

Managerial Bounds	It refers to constraints on the distribution structure that arise from the rules imposed by a company usually due to managers' lack of knowledge (Palmatier, et al., 2020). Regarding “Poupança Unida”, a information provision gap might occur if the outsourced consultancy team lack knowledge about the service and its process. Also, if the client's needs are not properly communicated between the consultancy team and Greenvolt Comunidades, this can result in an unsatisfactory service provided by the team.
Environmental Bounds	Two key instances of environmental bounds are local legal constraints and the sophistication of the local physical and retailing infrastructure. Environmental bounds are constraints imposed from outside the channel such as local legal constraints, or the sophistication of the local physical and retailing infrastructure (Palmatier, et al., 2020). Legal constraints already make the bureaucracy process long and complicated for the clients. It is therefore important that these constraints do not increase, otherwise the company will slow its process down and this can lead to client dissatisfaction. The legal laws regarding electricity and the environment in general are changing often and becoming stricter every year, so Poupança Unida must carefully monitor them and keep a good relationship with the government in order to comply with its business activities.

Exhibit 25: Supply and Demand Side Gaps

Potential Supply Gaps: These gaps exist when the total costs of performing all channel functions is too high, usually due to high-cost performance of any of the relevant channel flows, from physical possession to payment (Palmatier et al. 2020). When analyzing “Poupança Unida” channel flows, no supply side gaps were identified, meaning that there is no flow in the distribution channel being too expensive. And this is true due to the decision of using an outsourced consultancy company, meaning that there are no fixed costs incurred in this service.

Potential Demand Gaps: it exists either when the amount of a service output supplied is less than the amount demanded ($SOS < SOD$) or when the amount supplied is greater than the amount demanded ($SOS > SOD$) (Palmatier, et al., 2020). Since the new service is only sold together with the core service of Energy Communities, a **customer service gap** and **information sharing gap** were identified. Energy is a hard topic to understand and there is general lack of awareness regarding Energy Communities in society, as so, even though the commercial teams are very well prepared to serve and inform the customers, unforeseen events can happen and prejudice information sharing and consequently customer service.

Spatial convenience can also be seen as a gap, since, as mentioned before “Poupança Unida” for now can only be sold together with the company’s core service (Energy Communities). The problem with it is that Energy Communities are not yet available on the whole country, due to a lack of Anchor Members that make the Communities possible. As so, even if a Household or a Small Business want to join “Poupança Unida” and consequently an Energy Community, it will only be possible if there is an Anchor Member available in a 4km radius.

Another gap found was the **waiting time**, Greenvolt Comunidades does its best together with the outsourced consultancy team to deliver the service as quickly as possible, however, there are some steps that take time, like analyzing the customers consumption habits, as well as breaking the customer’s current energy contract for a cheaper supplier in the market.

Exhibit 26: How to Close Gaps

In order to close the gaps identified on the demand side gaps some measures have to be taken.

In relation to **customer service** and **information sharing** gaps, it is crucial to invest on the best training programs for the teams (mainly the telemarketing and the personal selling) so that they can have the best communication skills and present the service's key benefits in a very appealing way. When it comes to **spatial convenience**, one solution could be to sell this service separately from the core service of Energy Communities, in the future. However, this might cause a decrease on the Energy Communities breakthrough plan. Another solution is to keep raising awareness about Energy Communities. The higher the number of people aware of Energy Communities and their benefits, the more Anchor Members will join all over the country, increasing the number of Portuguese regions where "Poupança Unida" will be available.

Regarding **waiting time** related with the process duration, it cannot be completely overcome as it depends on the consumption habits analysis and on the energy suppliers to terminate old contracts and initiate new ones. One thing that can be done to minimize the gap is a better management of the clients waiting time expectations.