ANALYSIS OF RISKS ASSOCIATED WITH WATER USE

APPLICATION OF THE GLOBAL WATER TOOL FOR OIL&GAS

EQS AND SUSTAINABILITY DEPARTMENT

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CONTENTS

TABLES

ACRONYMS AND ABBREVIATIONS

CDP	Carbon Disclosure Project
CI	Conservation International
EQSSD	Environment, Quality, Safety and Sustainability Department
DJSI	Dow Jones Sustainability Index
E&P	Exploration and Production
FAO	Food and Agriculture Organization
G&P	Gas and Power
GRI	Global Reporting Initiative
GWT	Global Water Tool
IPIECA	Global oil and gas industry association for environmental and social issues
IWMI	International Water Management Institute
TRWR	Total Renewable Water Resources
UNH	University of New Hampshire
WBCSD	World Business Council for Sustainable Development
WHO	World Health Organization
WRI	World Resources Institute

1. INTRODUCTION

Water is an essential natural resource for the operation of all industrial activities. The current trends of population growth and consequent urbanization and industrialization have resulted in this resource being increasingly subject to numerous pressures - locally, regionally and globally -, which threaten its sustainability.

In that sense, companies are increasingly concerned with assessing the future availability of water in the areas where they operate and in determining the risks and impacts inherent in the use of water in their activities. In recent years, various tools and methodologies have been developed to help companies respond to this challenge.

The Environment, Quality, Safety and Sustainability Department (EQSSD) of Galp, whilst aware of the need to highlight these topics in its corporate activities, has drawn up and published strategic plans and support studies related with potential impacts of its operations, demonstrating its permanent concern with this theme.

One of the tools available is the Global Water Tool (GWT) for Oil and Gas, developed by the Global oil and gas industry association for environmental and social issues (IPIECA) in collaboration with the World Business Council for Sustainable Development (WBCSD). This tool is specific to the Oil&Gas sector and allows the evaluation of the use of water in the context of water availability at the sites, according to data available on countries and watersheds (with global coverage and validated by stakeholders).

This tool has the advantage of being available online, free of charge, and useful for companies to assess and disclose the use of water and qualitative risks associated with it, in terms of availability and access to water, both in their chain of operations and chain of suppliers. On the other hand, this tool does not allow the evaluation of impacts or risks at the local level, nor risks related to quality and discharges of water.

In more detail, the GWT for Oil&Gas enables to separately evaluate different activities in the Oil&Gas sector, namely the areas of Exploration & Production (E&P), Transport&Terminals, Gas Processing, Refining, Petrochemical and Retail, providing the following indicators for each of these areas:

- **Global Reporting Initiative (GRI) indicators, IPIECA, Dow Jones Sustainability Index (DJSI), Bloomberg, Carbon Disclosure Project Water (CDP Water)** (i.e. Total consumption of freshwater; Total water recycled/reused);

- **Intensity indicators** (i.e. Total consumption of freshwater/ton of product refined);
- **Countries indicators** (i.e. Total Renewable Water Resources per person; Population served with improper sanitation);
- **Watershed indicators** (i.e. Annual renewable water supply per person; Mean Annual Relative Water Stress Index);
- **Maps** that let you see the location of each site compared to site access and water availability in each country and/or watershed;
- **Interface with Google Earth** to obtain a global perspective of each site location.

Anexx I shows a detailed list of all the indicators provided by the GWT for Oil&Gas.

To conclude this introductory chapter it is important to reiterate that although this tool uses the best available global databases, it is not suitable for analysis at the local level, for it can generate imprecise results that are unable to support the operational management of the activity, since the information is presented at a macro scale (national or of the watersheds).

Thus, the application of the tool presented can be interesting as a first approach to the dissemination of the use of water in Galp and to a risk assessment. However, for the proper management of risks associated with water quality and availability, it is necessary to complement the results obtained in the application of this tool with studies and specific instruments of operational management of the risks and impacts to the facilities at a local scale.

2. SCOPE AND LIMITATIONS

At Galp, any scarcity or uncertainty related with resources, in particular water, both in the present and in the future, represents an operational and strategic concern. In this sense, the knowledge of the risks associated with the use of water in the various regions where it operates or holds a stake is fundamental to the sustainable growth of the Company.

The present document has been prepared with the purpose of presenting the risks associated with water resources, in all locations where Galp Energia is inserted, through the results obtained from the application of the GWT tool for Oil&Gas. Thus the scope of the study extends to all facilities in which Galp Energia operates or holds a stake, with the exception of the Retail department. On the other hand, this analysis also includes the upstream projects portfolio of the Company, including projects at different stages of development (operation, sanctioned and/or pre-sanctioned, etc...), in order to accompany the strong growth of the upstream segment. In total **73 sites were analysed according to the Company's activities**, organized into the following areas:

- Biofuel units (3);
- E&P Blocks (41) (7 *onshore* and 34 *offshore*);
- Renewable Energy Sources (2);
- Storage Facilities (SF) & Terminals (23);
- Refining (2);
- Cogeneration Units (2).

The list of sites under consideration can be consulted in detail in Annex II, as well as the respective coordinates used in the application of the GWT for Oil &Gas.

According to currently available information associated with the use of water, for each operational area of Galp, and in accordance with the functionalities of GWT for Oil & Gas, it has been considered that among the indicators provided by this tool, one should only use the indicators of use/availability of water of the countries and watersheds.

In summary, the indicators applied to the tool and analyzed in this document are divided into two large groups, indicators per use/availability of water of the countries and indicators per watershed.

Indicators per use/availability of water of the countries:

- Total Renewable Water Resources - TRWR in 2008 and projections scenarios for 2025 and 2050;
- Total Water Withdrawal in 2002 (average);
- Industrial Water Withdrawal as part of Total Water Withdrawal in 2002 (average);
- Dependency Ratio;
- Population Served with Improved Water in 2008;
- Population Served with Improved Sanitation in 2008;

Watershed Indicators:

- *Annual Renewable Water Supply* in 1995 and projections scenarios for 2025;
- Mean Annual Relative Water Stress Index in 2000;
- Physical and Economical Water Scarcity in 2007.

The meaning of these indicators can be better understood by reading the corresponding GWT for Oil&Gas definitions, available in the Glossary.

The use of the GWT entails several limitations, which must be considered when interpreting study results, particularly in what concerns the scale of analysis. In fact, local information is limited, as the GWT is based on a series of global databases. Moreover, the potential effects of climate change on water resources are not considered in GWT projections for 2025 and 2050, owing to the complexity of this subject. As such, these projections should be viewed as rough indicators, given the uncertainty involved.

Offshore E&P Blocks were only considered for the purpose of assessing eventual risks for the corresponding geographical land areas that are associated with or near them. It should be note that in the most of offshore blocks, the fresh water consumption is represented by a small portion of the total amount of water used in upstream activities. This fresh water has the main purpose human supply, representing no significant volume for the activity, which main use/consumption comes from saltwater. Since saltwater, a resource not classed as scarce, is predominantly used, the risks associated with these facilities are virtually negligible. Therefore, the conclusions reached within the scope of risk analysis by country should be considered. Regarding risk analysis by watershed, these sites shall be included in the "No Data" category.

3. RESULTS AND DISCUSSION

In this chapter we present the results obtained per activity of Galp, also taking into account the countries where these activities are in place. Subsequently, in each approach there are nine water indicators obtained through the GWT tool for Oil&Gas, which are grouped into two categories: water indicators per country (6) and water indicators per watershed (3).

In Annex III, Table 3 and Table also present the values of the specific indicators for each site, grouped by type of activity. These tables are a summary of the results presented in the document, which allows a better distinction between sites located in areas of greatest risk associated with availability/use of water.

We present the results of the sites under analysis, synthesized according to the area of activity of each one. The areas of activity are broken down as follows:

- Biofuels
- Exploration & Production Blocks
- Gas and Power
- Storage Facilities & Terminals
- Refining

Biofuels

In the biofuels activity, plant for the production of second generation biofuels is analyzed - Enerfuel (Portugal) - and two fields with crop plantations for the production of biofuels (Brazil).

Indicators by country

Total Renewable Water Resources:

- For the three scenarios, the countries where the sites are located presented values of abundant water availability.

Total Water Withdrawal (industrial, domestic and agricultural):

- Portugal is a country characterized as medium-high in terms of total withdrawal.
- In Brazil the level of Total Water Withdrawal is considered low.

Industrial Water Withdrawal:

- Countries characterized with low percentage of withdrawal in this sector.

Dependency Ratio:

- Countries characterized with an average Dependency Ratio.

Population Served with Improved Water:

- Both countries characterized with an average Dependency Ratio.

Population Served with Improved Sanitation:

- Portugal: High percentage of population served.
- Brazil: medium-high percentage of population served.

Watershed Indicators

Annual Renewable Water Supply *per capita*:

- For both scenarios, current (1995) and medium-term (2025), the watersheds where the sites are located presented values of water availability characterized as abundant.

Mean Annual Relative Water Stress Index:

- The three sites under analysis are located in watersheds whose index is classified as low, thus revealing that for these sites, water consumption at current levels does not put in risk the sustainability of existing water resources.

Physical and Economical Water Scarcity:

- Portugal and Brazil are characterized as having little or no water scarcity, in particular in the watersheds where the sites under study are inserted.

Note: The sites associated with the biofuels activity do not have water risks. Although within the scope of this study there are no water risks related, water monitoring campaign to this sites may be done, in order to check the sensitivities to which they may be subject to.

Exploration & Production Blocks

In the E&P area, Galp holds a stake in Blocks located in Angola (3), Brazil (25), Mozambique (2), Namibia (2), Portugal (4), Sao Tome and Principe (4) and East Timor (1), totaling a set of 41 blocks.

In this study, we are reminded that in the blocks of offshore E&P (34) the analysis follows a merely informative purpose regarding water risks, since they are located in the ocean and the data presented here are associated with terrestrial geographical areas located nearby. Note also that in most offshore Blocks, the consumption of water from sources of fresh water corresponds to a small fraction of the activity's consumption, which aims to supply water for human consumption, whereby it represents negligible volumes, where the main consumption/use comes from salt water. Thus, the water risks associated with the sites under these conditions are practically negligible, since the main use comes from a water source whose use is not characterized as being scarce – unlike freshwater.

Indicators by country

Total Renewable Water Resources:

- Current scenario – All the countries where Galp has activity in the E&P area do not have, currently, water risks. For East Timor it has not been possible to obtain information.
- Medium (2025) and long-term (2050) scenario – East Timor is characterized, in medium and long-term, as having water extreme scarcity risks. However, given the offshore location, these risks for this activity are reduced as explained before.
- The remaining E&P Blocks, for both scenarios, are located in countries where water availability is abundant or sufficient.

Total Water Withdrawal (industrial, domestic and agricultural):

- Smaller withdrawal volumes are recorded in countries located in Africa (Angola, Mozambique, Namibia and Sao Tome and Principe).
- Larger volumes of water withdrawal can be seen in the remaining countries.
- No information was obtained for East Timor.

Industrial Water Withdrawal:

- Similar results in all countries, with a low percentage of withdrawal in this sector (below 20%).
- No information was obtained for East Timor.

Dependency Ratio:

- Greater external dependence on water: Mozambique and Namibia.
- Zero water dependency: Angola.
- Medium external dependency: Brazil and Portugal.
- No information was obtained for East Timor.

Population Served with Improved Water:

- Low percentage of population served: Mozambique.
- Medium percentage of population served: Angola and East Timor.
- High percentage of population served: Sao Tome and Principe, Brazil and Portugal.

Population Served with Improved Sanitation:

- Low percentage of population served: Mozambique.
- Medium-high percentage of population served: Brazil and East Timor.
- High percentage of population served: Portugal.

Watershed Indicators

In this section of indicators per water withdrawal area, it has not been possible to obtain results for all the sites presented for the E&P activity. Below is the information collected for sites located in onshore Blocks for which it was possible to get results: Brazil (6) and Mozambique (1).

Annual Renewable Water Supply *per capita*:

- Current scenario – two of the onshore blocks, located in Brazil (Rabo Branco Field) and Mozambique (LPG Plant) are located in watersheds with water availability classified as being sufficient.

- Medium term scenario (2025) – renewable water resources are likely to decrease in the watershed of Rabo Branco Field, becoming liable to water stress. Also, the watershed of the Sanhaçu Field tends to decrease water availability, being likely to reach levels characterized as sufficient.
- For the remaining blocks, water risks are not identified in terms of water availability, as they are located in watersheds with abundant water availability, for both scenarios.

Mean Annual Relative Water Stress Index:

- Of the Blocks under analysis, with available results, all are located in watersheds whose index is classified as low, revealing that, for these sites, water consumption at current levels do not put in risk the sustainability of existing water resources.

Physical and Economical Water Scarcity:

- PN-T-136, PN-T-150, PN-T-166, PN-T-182 and Sanhaçu Field Blocks are located in a watershed characterized as having levels close to water scarcity.
- The LNG Plant, associated to the Rovuma project, and Park of Beira in Mozambique, is located in a watersheds characterized with economical water scarcity.
- Rabo Branco Field, in Brazil, is located in a watershed characterized as having low or no water scarcity.

Note: The E&P blocks identified as having water risks, should be monitored with particular attention by their respective business units in order to minimize possible impacts in terms of this resource. In the case of blocks likely subject to water risks, taking into account the projections at medium and long-term, it is recommended that actions and measures aimed at the adaptation of these sites be promoted in order to check the sensitivities to which they may be subject to. It is further recommended, in prior studies of project realization, that the analysis on availability of the water resource at the site be included in order to predict, in advance, the possible risks that may affect the sustainable development of the activity, as well as of the surrounding community.

Gas and Power

In the Gas and Power (G&P) activity, 4 facilities are included, which are categorized as Renewable Energies (2) and Cogeneration Units (2), located in Mainland Portugal.

Indicators by country

Total Renewable Water Resources:

- Both in the current scenario, medium (2025) and long-term (2050) projections, the facilities are associated to a country with abundant water availability.

Total Water Withdrawal (industrial, domestic and agricultural):

- Portugal is a country characterized as being medium-high in terms of total withdrawal.

Industrial Water Withdrawal:

- Portugal is a country characterized by a low percentage of withdrawal in this sector.

Dependency Ratio:

- Portugal has a medium external dependency.

Population Served with Improved Water:

- Portugal has a high percentage of population served.

Population Served with Improved Sanitation:

- Portugal has a high percentage of population served.

Watershed Indicators

Annual Renewable Water Supply *per capita*:

- Current scenario – the Cogeneration Unit, Agroger, is located in a watershed characterized as being sufficient. This result may be because this indicator is presented in the form of m3/person/year, which will vary depending on the population density associated with the location of the watershed.
- Medium term scenario (2025) - the situation described in the "current scenario" remains.
- For the remaining facilities, water risks in terms of water availability in either scenario have not been identified.

Mean Annual Relative Water Stress Index:

- The four facilities are located in watersheds whose index is classified as being low, thus revealing that for these sites the consumption of water at current levels does not put in risk the sustainability of existing water resources.

Physical and Economical Water Scarcity:

- Portugal is characterized by a little or no water scarcity.

Note: The facilities identified as having water risks should be monitored with particular attention by their respective business units in order to minimize possible impacts in terms of this resource as well as of the surrounding community. In the case of facilities likely to being subject to water risks, taking into account the projections in the medium and long-term, it is recommended that actions and measures aimed at the adaptation of these sites be promoted in order to check the susceptibilities that they may be subject to.

Storage Facilities & Terminals

The fuel storage parks owned by Galp are spread over several geographical areas: Cape Verde (3), Spain (3), Guinea-Bissau (3), Mozambique (2), Portugal (11) and Swaziland (1). As for the three terminals, all are located in Portugal. In total, 23 facilities are addressed in this activity, which are below analyzed according to each indicator.

Indicators by country

Total Renewable Water Resources:

- Current scenario - facilities located in Cape Verde are characterized by water scarcity situation.
- Medium (2025) and long-term (2050) scenario- facilities located in Cape Verde are more likely to match a situation of extreme water scarcity.
- The remaining storage parks and terminals, in both scenarios, are located in countries where water availability is abundant or sufficient.

Total Water Withdrawal (industrial, domestic and agricultural):

- Smaller withdrawal volumes were recorded in the countries located on the African continent.
- Larger volumes of water withdrawal are identified in Portugal, followed by Spain.

Industrial Water Withdrawal:

- Similar results in all countries, with a low withdrawal percentage in this sector (below 20%).

Dependency Ratio:

- Greater external dependency on water – Mozambique was the country that showed a greater dependency for this area of activity.

- Lower external dependency - in Spain and Cape Verde. In particular for Cape Verde, this water independence may be due to water being obtained through a desalination process.
- The other countries under analysis have a medium Dependency Ratio.

Population Served with Improved Water

- Low percentage of population served: Mozambique.
- Medium percentage of population served: Guinea-Bissau and Swaziland.
- Medium-high percentage of population served: Cape Verde.
- High percentage of population served: Spain and Portugal.

Population Served with Improved Sanitation:

- Low percentage of population served: Mozambique and Guinea-Bissau.
- Medium percentage of population served: Cape Verde and Swaziland.
- High percentage of population served: Spain and Portugal.

Watershed Indicators

In this section of indicators per watershed, it has not been possible to obtain results for all facilities belonging to this activity. Below is the information collected for facilities located in Mainland Portugal, Spain (Mérida Park), Mozambique and Swaziland.

Annual Renewable Water Supply *per capita*:

- Current scenario - The Storage Park of Mitrena is located in a watershed whose water availability is scarce. This result may be because this indicator is presented in the form of m^3/person/year, which will vary depending on the population density associated with the location of the watershed.
- Medium term scenario (2025) - the situation for the Mitrena Storage Park remains and you can see that the LPG Park located in Mozambique will be likely to be located in a watershed with water shortage.
- For the remaining Galp sites there are no water supply risks associated in both scenarios.

Mean Annual Relative Water Stress Index:

- The facilities with available data are located in watersheds whose index is classified as being low, thus revealing that, for these sites, water consumption at current levels does not put at risk the sustainability of existing water resources.

Physical and Economical Water Scarcity:

- LPG Park (Mozambique) - a facility located in a watershed with physical scarcity of water.
- Matsapha Fuels Park (Swaziland) – a facility located in a watershed close to the risk of physical scarcity of water.
- The watersheds characterized as having economic water scarcity, where Galp has activity, are located in Africa, namely in Guinea-Bissau and Mozambique.

Note: The facilities identified as having water risks should be monitored with particular attention by their respective business units in order to minimize possible impacts in terms of this resource as well as of the surrounding community. In the case of facilities likely to being subject to water risks, taking into account the projections in the medium and long-term, it is recommended that actions and measures aimed at the adaptation of these sites be promoted in order to check the susceptibilities that they may be subject to.

Refining

The Refining activity covers two refineries, both located in Mainland Portugal (Matosinhos e Sines).

Indicators by country

Total Renewable Water Resources:

- Both in the current scenario, medium (2025) and long-term (2050) projections, the facilities are associated to a country with abundant water availability.

Total Water Withdrawal (industrial, domestic and agricultural):

- Portugal is a country characterized as being medium-high in terms of total withdrawal.

Industrial Water Withdrawal:

- Portugal is a country characterized by a low percentage of withdrawal in this sector.

Dependency Ratio:

- Portugal has a medium external dependency.

Population Served with Improved Water:

- Portugal has a high percentage of population served.

Population Served with Improved Sanitation:

- Portugal has a high percentage of population served.

Watershed Indicators

Annual Renewable Water Supply *per capita*:

- For both scenarios, the refineries are associated to a watershed with abundant water availability.

Mean Annual Relative Water Stress Index:

- The Sines refinery is located in a watershed whose index is classified as low, thus revealing that, for these sites, water consumption at current levels does not put at risk the sustainability of existing water resources.
- No results have been found for Matosinhos Refinery.

Physical and Economical Water Scarcity:

- Portugal is characterized by a little or no water scarcity.

Note: No water risks have been identified in the refineries – however it is a condition that does not invalidate monitoring by the respective business unit in order to guarantee their non-existence.

3. CONCLUSIONS

Through the analysis performed to the Galp sites with the GWT for Oil&Gas, and according to that which has been presented throughout the document, it is possible to retain the following findings regarding sites owned by Galp in 2019:

- **94.5% of sites** where Galp operates are located **in countries where water availability is abundant or sufficient.**
- **Cape Verde is characterized for being a country with water scarcity**, whose projections tend to worsen towards a scenario of extreme water scarcity. This situation led Galp to developing a more detailed **local study that demonstrates the absence of impacts on freshwater**, given the use of water from the desalination of seawater.
- The **LPG Park in Mozambique** was characterized as being located in a watershed with physical scarcity of water.
- For the LPG Park in Mozambique and the Rabo Branco Field it is estimated that, in the future, there will be higher water risks;
- The Mitrena Park in Portugal was associated with a risk of scarcity, due to the characteristics of the watershed.

The data obtained result from large-scale analysis of the risks associated with water use in certain geographical areas. As such, detailed analysis is recommended for individual sites, when applicable and according to project lifecycle, so that local risks can be fully understood. Only through a detailed analysis of local conditions will the Company be able to define and adopt management and operating practices that may contribute to mitigating eventual risks.

During the analysis it is observed the need to update the information relating to the GWT for Oil&Gas that characterizes the current scenarios, seeing as references dating from 1995 are being used, which may thus distort some conclusions.

In Table 1 there is a summary list that allows to trace the general panorama of the Galp sites in terms of the risks associated with water resources.

Table 1 – Summary of the risks associated with water resources in Galp Energia sites.

Indicator	
Number of sites analysed	73
GE sites located in countries with water scarcity[1]	4.1%
GE sites located in countries whose water availability are abundant or sufficient	94,5%

1- According to the results obtained for the TRWR indicator.

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GLOSSARY

Annual Renewable Water Supply: Mean annual renewable water available per watershed, calculated from global runoff data, based on a water balance model developed by the University of New Hampshire (UNH).

Dependency Ratio: Percentage of renewable water resources located outside a country (including the percentage of rainwater falling on watersheds in neighbouring countries that runs off and is consumed by the country in question). This indicator ranges between 0 and 100%, where 0% represents a country whose entire water resources are located within its borders and 100% represents a country whose entire water supply comes from abroad.

Indicator: Qualitative or quantitative data that reflects the results or performance of a company.

Industrial Water Withdrawal as part of Total Water Withdrawal: Total amount of water withdrawn by the industrial sector as a percentage of Total Water Withdrawal, i.e. not including withdrawal for municipal and agricultural uses.

Mean Annual Relative Water Stress Index: Ratio of the amount of water used for domestic, industrial and agricultural purposes (human use) to the amount of renewable water available, calculated based on total runoff in the area/region in question. A ratio of 0.4 or higher is indicative of stress.

Physical and Economic Water Scarcity: Indicator that relates water use for human consumption to its physical or economic availability. Physical scarcity means that consumption of water resources is becoming close to, or has already exceeded, sustainable limits. Economic scarcity means that human, institutional and/or financial access to water is limited, although water resources are sufficient to meet human needs.

Population Served with Improved Water: Population with access to adequate sources of water for human consumption, i.e. free from external contamination, particularly fecal contamination, either owing to their hydrogeological characteristics or as a result of active intervention.

Population Served with Improved Sanitation: Population with access to sanitation facilities that prevent contact with human waste.

Renewable Water Resources: Amount of water maintained by the water cycle, thus renewed on a regular basis.

Total Renewable Water Resources *(TRWR)*: Maximum theoretical annual amount of water effectively available in a given country, at a given moment, calculated based on data collected by the Food and Agriculture Organization (FAO). Although this indicator reflects the same concept as "Annual Renewable Water Supply", the values of both indicators are not necessarily identical, as the corresponding calculation methods are significantly different.

Total Water Withdrawal: Total amount of water withdrawn from all sources, permanently or temporarily, for domestic, industrial and agricultural uses. Total water withdrawal includes the withdrawal of surface and underground water, rainwater collection, municipal water supply and use of desalinated and treated water.

ANNEXES

ANNEX I – INDICATORS OBTAINED IN THE GWT *FOR* OIL&GAS

Reporting metrics for GRI, IPIECA, DJSI, Bloomberg and CDP Water report:

- Indicators of total water withdrawal:
  - Total freshwater withdrawals (m^3/year);
  - Total non-fresh water withdrawal (m^3/year);
  - Total water withdrawals (m^3/year);
- Indicators of total water discharge:
  - Total freshwater discharge (m^3/year);
  - Total non-fresh water discharge (m^3/year);
  - Total water discharge (m^3/year);
- Indicators of total water consumption[1]:
  - Total freshwater consumption (m^3/year);
  - Total non-fresh water consumption (m^3/year);
  - Total water consumption (m^3/year);
- Total Recycled/Reused (m^3/year);
- Percent Recycled/Reused;
- Total petroleum hydrocarbons discharged (tons/year);
- Chemical Oxygen Demand (COD) (tons/year);
- Percentage of sites in water stressed areas.

Intensity indicators:

- Total freshwater consumed/BOE (m^3/year/BOE);
- Total non-fresh water consumed/BOE (m^3/year/BOE);
- Total freshwater discharge/BOE (m^3/year/BOE);
- Total non-fresh water discharge/BOE (m^3/year/BOE);
- Total freshwater consumption/BOE (m^3/year/BOE);
- Total non-fresh water consumption/BOE (m^3/year/BOE);

Combined indicators for countries (for each facility and for each type of value chain) – figures and Tables:

- Total Renewable Water Resources per person (calculated based on data from the FAO) in 2008 + projections for 2025 and 2050;
- Total water consumption per person (calculated based on data from the FAO in 2002);
- Dependency Ratio (calculated based on data from the FAO in 2006);
- Industrial Water Withdrawal (as part of the Total Water Withdrawal) (calculated based on data from the FAO in 2002);
- Population Served with Improved Water (calculated based on data from the World Health Organization-WHO/UNICEF in 2008);
- Population served with improved sanitation (calculated based on data from the WHO/UNICEF in 2008);
- Annual Renewable Water Supply per capita (calculated based on data from the FAO in 2008);
- Total external renewable water resources (calculated based on data from the FAO in 2008);
- Domestic and agriculture water consumption as part of the total water consumption (calculated based on data from the FAO in 2002);

[1] Difference between water consumption and discharges, i.e. the amount of water that is evaporated, lost during transmission processes, incorporated in the products and/or used for irrigation or road maintenance.

- Desalinated water produced (calculated based on data from the FAO in 2005);
- Urban and rural population (calculated based on data from the WHO/UNICEF in 2008);
- Proportion of urban and rural population served with water and sanitation inappropriate (calculated based on data from the WHO/UNICEF in 2008);
- Annual urban growth rate (calculated based on data from the *United Nations Population Division* for 2010-2015);

Combined indicators for the watersheds (for each facility and for each type of value chain) – figures and Tables:

- Annual Renewable Water Supply per person in 1995 and projections for 2025 (calculated based on data from the World Resources Institute-WRI);
- Mean Annual Relative Water Stress Index (calculated based on data from the UNH in 2000);
- Biodiversity Hotspots (calculated based on data from the Conservation International-CI, in 2000);

Interactive map linked to WBCSD servers, with several viewing options:

- Previews informations related to the countries and the watershed;
- Environmental indicator of water scarcity (calculated based on data from the International Water Management Institute-IWMI);
- Physical and economical water scarcity (calculated based on data from the IWMI);

Interface with Google Earth, to obtain a global perspective of the location of each site (comments may be added to the tool, which will be available on Google Earth).

ANNEX II – COORDINATES OF THE GALP ENERGIA SITES

Table 2 – Coordinates (latitude and longitude) of Galp sites.

Site	Country	Latitude (deg min seg)	Longitude (deg min seg)	Latitude (deg.ddd)	Longitude (deg.ddd)
Biofuels					
Palma crops (Tailândia/Pará)	Brazil	02° 57' 14''S	46° 57’ 00''W	-2.954	-46.95
Palma crops (Tomé-açu/Pará)	Brazil	02° 23' 31''S	48° 08' 52''W	-2.392	-48.148
Biofuel plant of 2nd Generation (Enerfuel)	Portugal	37° 59' 40''N	08° 49' 30''W	37.995	-8.825
Exploration & Production Blocks					
Campos block 791	Brazil	-24° 33' 54"S	-40° 35' 46"W	-24.565	-40.596
Uirapuru	Brazil	-25° 02' 56"S	-43° 48' 40"W	-25.049	-43.811
BM-S-8	Brazil	-25° 28' 34"S	-44° 11' 56"W	-25.476	-44.199
North Carcara	Brazil	25º 20’ 9’’S	43º 59’ 27’’ W	-25.336	-43.991
BM-S-11 A (Iara)	Brazil	-24° 58' 23"S	-42° 36' 25"W	-24.973	-42.607
Lula Field (BM-S-11)	Brazil	-25° 27' 40"S	-42° 49' 30"W	-25.461	-42.825
Rabo Branco Field (onshore) (SEAL-T-412/439)	Brazil	-10° 48' 24''S	-37° 01' 51''W	-10.807	-37.031
Field Sanhaçu (onshore) (POT-T-436/479/480)	Brazil	-05° 13' 52''S	-36° 55' 54''W	-5.231	-36.932
BAR-M-300	Brazil	-01° 38' 52''S	-42° 07' 49''W	-1.647	-42.130
BAR-M-342	Brazil	-01° 52' 26''S	-42° 07' 24''W	-1.873	-42.130
BAR-M-344	Brazil	-01° 52' 32''S	-42° 52' 23''W	-1.875	-42.873
BAR-M-388	Brazil	-02° 04' 16''S	-41° 56' 17''W	-2.071	-41.938
BM-S-24	Brazil	-25° 24' 54"S	-42° 20' 42"W	-25.415	-42.345
BM-PEPB-783	Brazil	-08° 09' 43"S	-34° 21' 04"W	-8.162	-34.351
BM-PEPB-839	Brazil	-08° 22' 12"S	-34° 22' 48"W	-8.370	-34.380
PN-T-136 (onshore)	Brazil	-06° 45' 00"S	-43º 15' 00"W	-6.750	-43.250
PN-T-150 (onshore)	Brazil	-07º 15' 00"S	-44º 15' 00"W	-7.250	-44.250
PN-T-166 (onshore)	Brazil	-07º 45' 00"S	-44º 45' 00"W	-7.750	-44.750
PN-T-182 (onshore)	Brazil	-08º 15' 00"S	-44º 45' 00"W	-8.250	-44.750
POT-M-663 (BM-POT-16)	Brazil	-03° 53' 20"S	-37° 22' 01"W	-3.889	-37.367
POT-M-665 (BM-POT-17)	Brazil	-03° 53' 20"S	-37° 07' 05"W	-3.889	-37.118
POT-M-760 (BM-POT-16)	Brazil	-04° 07' 30"S	-37° 07' 34"W	-4.125	-37.126
POT-M-764	Brazil	-04° 07' 30''S	-36° 37' 27''W	-4.125	-36.624
POT-M-853 (BM-POT-17)	Brazil	-04° 23' 35"S	-36° 51' 54"W	-4.393	-36.865
POT-M-855 (BM-POT-17)	Brazil	-04° 23' 35"S	-36° 36' 43"W	-4.393	-36.612
Block 14	Angola	-05° 39' 12''S	11° 26' 48''E	-5.653	11.447
Block 14K-A-IMI	Angola	-05° 38' 15''S	11° 18' 50''E	-5.638	11.314

Table 2 (continuation) – Coordinates (latitude and longitude) of Galp Energia sites.

Site	Country	Latitude (deg min seg)	Longitude (deg min seg)	Latitude (deg.ddd)	Longitude (deg.ddd)
Exploration & Production Blocks (continuation)					
Block 32	Angola	-07° 19' 11''S	11° 17' 39''E	-7.320	11.294
LNG Plant (Rovuma Project - onshore)	Mozambique	-10° 49' 40''S	40° 33' 00''E	-10.828	40.550
Rovuma Área 4	Mozambique	-11° 06' 07''S	41° 02' 47''E	-11.102	41.046
Block PEL 82	Namibia	-22° 20' 44''S	12° 36' 01''E	-22.346	12.600
Block PEL 83	Namibia	-28° 60' 00''S	14° 00' 00''E	-29.000	14.000
Block E	East Timor	-09° 52' 37"S	126° 14' 53"E	-9.877	126.248
Lavagante	Portugal	37° 48' 32"N	-09° 23' 13"W	37.809	-9.387
Santola	Portugal	37° 23' 56"N	-09° 26' 06"W	37.399	-9.435
Gamba	Portugal	36° 57' 58"N	-09° 30' 18"W	36.966	-9.505
Camarao	Portugal	40° 38' 35"N	-09° 36' 25"W	40.643	-9.607
Block 5	Sao Tome e Principe	1º 19' 45" N	8º 12' 39"E	1.329	8.210
Block 6	Sao Tome e Principe	0º 37' 59" N	7º 55' 21"E	0.633	7.922
Block 11	Sao Tome e Principe	0º 13' 15" N	7º 18' 11"E	0.220	7.302
Block 12	Sao Tome e Principe	-0º 38' 45" S	7º 17' 35"E	-0.645	7.292
Renewable Energy Sources					
Parkalgar (PV Solar Park)	Portugal	37° 13' 54''N	08° 37' 46''W	37.232	-8.629
Ventiveste (Wind Park Vale Grande)	Portugal	40° 13' 06''N	08° 03' 13''W	40.218	-8.056
Storage Facilities & Terminals					
Mitrena Park	Portugal	38° 28' 43,21"N	08° 48' 30"W	38.479	-8.808
Perafita Park	Portugal	41° 12' 54,76"N	08° 42' 9"W	41.215	-8.703
Park CL - Horta	Portugal	38° 31' 37''N	28° 37' 24''W	38.527	-28.623
Park LPG – Horta	Portugal	38° 32' 32''N	28° 37' 43''W	38.542	-28.629
Park CL – Flores	Portugal	39° 22' 40,4''N	31° 10' 17''W	39.378	-31.171
Park of Praia da Vitória - Terceira	Portugal	38° 44' 23''N	27° 03' 58''W	38.740	-27.066
Park Nordela LPG – S. Miguel	Portugal	37° 44' 11''N	25° 41' 36''W	37.736	-25.693
CLCM	Portugal	32° 44' 33''N	16° 43' 36''W	32.743	-16.727
Leixões Terminal	Portugal	41° 11' 11,67"N	08° 42' 24"W	41.187	-8.707
Sines Terminal	Portugal	37° 57' 13,16"N	08° 52' 53"W	37.954	-8.881
Viana do Castelo Terminal	Portugal	41º 40,5' 00"N	08º 50' 00"W	41.686	-8.828

Table 2 (continuation) – Coordinates (latitude and longitude) of Galp Energia sites.

Site	Country	Latitude (deg min seg)	Longitude (deg min seg)	Latitude (deg.ddd)	Longitude (deg.ddd)
Storage Facilities & Terminals (continuation)					
Park of Mérida	Spain	38° 54' 15"N	06° 23' 10"W	38.904	-6.386
Park of Gijon	Spain	43° 33' 2"N	05° 41' 31"W	43.551	-5.692
Park of Valência	Spain	39° 26' 51''N	-00° 18' 10''W	39.447	-0.303
Park of S.Vicente Island	Cape Verde	16° 52' 57''N	-24° 59' 24''W	16.882	-24.990
Park of Sal Island	Cape Verde	16° 45' 22''N	-22° 58' 33''W	16.756	-22.976
Park of Santiago Island	Cape Verde	14° 54' 45''N	-23° 29' 45''W	14.913	-23.496
Park of Bolola	Guinea-Bissau	11° 51' 38'' N	-15° 34' 31''W	11.861	-15.575
Parks of LPG	Guinea-Bissau	11° 50' 25''N	-15° 35' 24''W	11.840	-15.590
CLC	Guinea-Bissau	11° 50' 19''N	-15° 35' 26''W	11.839	-15.591
Park of Beira	Mozambique	19º 48' 18''S	34º 50' 35'E	-19.805	34.843
Park of LPG	Mozambique	25° 57' 7''S	32° 29' 18''E	-25.952	32.488
Fuels Park of Matsapha	Swaziland	26° 30' 8''S	31° 18' 25''E	-26.502	31.307
Refining					
Sines Refinery	Portugal	37° 57' 55"N	-8° 47' 59"W	37.965	-8.800
Matosinhos Refinery	Portugal	41° 12' 13"N	-8° 42' 35"W	41.204	-8.710
Cogeneration Units					
Agroger	Portugal	39° 08' 17''N	-09° 16' 32''W	39.138	-9.275
Carriço Co-generation	Portugal	40° 00' 55"N	-08° 48' 55"W	40.015	-8.815

ANNEX III – GLOBAL RESULTS PER *SITE*

Table 3 – National indicators by site. Note: See the legend at the end of the Table.

Site	Country	Total Renewable Water Resources (TRWR)			Total Water Withdrawal	Industrial Water Withdrawal	Dependency Ratio	Population Served with Improved Water	Population Served with Improved Sanitation
		2008 m^3/person/year	2025 m^3/person/year	2050 m^3/person/year	2002 m^3/person/year	2002 (%)	2006 (%)	2008 (%)	2008 (%)
Biofuels									
Palma crops (Tailândia/Pará)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Palma crops (Tomé-açu/Pará)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Biofuel plant of 2nd Generation (Enerfuel)	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Exploration & Production Blocks									
Campos bl. 791	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Uirapuru	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BM-S-8	Brazil	42886	38508	37678	331	18.0	34.2	97	81
North Carcara	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BM-S-11 A (Iara)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BM-S-24	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BAR-M-342	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BAR-M-344	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BAR-M-388	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BAR-M-342	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Field Sanhaçu (onshore) (POT-T-436/479/480)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Rabo Branco Field (*onshore)* (SEAL-T-412/439)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Field Lula (BM-S-11)	Brazil	42886	38508	37678	331	18.0	34.2	97	81

Table 3 (continuation) - National indicators by site. Note: See the legend at the end of the Table.

Site	Country	Total Renewable Water Resources (TRWR)			Total Water Withdrawal	Industrial Water Withdrawal	Dependency Ratio	Population Served with Improved Water	Population Served with Improved Sanitation
		2008 m³/person/year	2025 m³/person/year	2050 m³/person/year	2002 m³/person/year	2002 (%)	2006 (%)	2008 (%)	2008 (%)
Exploration & Production Blocks (continuation)									
BM-PEPB-783	Brazil	42886	38508	37678	331	18.0	34.2	97	81
BM-PEPB-839	Brazil	42886	38508	37678	331	18.0	34.2	97	81
PN-T-136 (onshore)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
PN-T-150 (onshore)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
PN-T-166 (onshore)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
PN-T-182 (onshore)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
POT-M-665 (BM-POT-17)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
POT-M-663 (BM-POT-16)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
POT-M-764	Brazil	42886	38508	37678	331	18.0	34.2	97	81
POT-M-760 (BM-POT-16)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
POT-M-853 (BM-POT-17)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
POT-M-855 (BM-POT-17)	Brazil	42886	38508	37678	331	18.0	34.2	97	81
Block 14K-A-IMI	Angola	8213	5393	3502	24	17.1	0.0	50	57
Block 14	Angola	8213	5393	3502	24	17.1	0.0	50	57
Block 32	Angola	8213	5393	3502	24	17.1	0.0	50	57
LNG Plant (Project Rovuma)	Mozambique	9699	6961	4918	33	1.6	53.8	47	17
Rovuma Área 4	Mozambique	9699	6961	4918	33	1.6	53.8	47	17
Block PEL 82	Namibia	8319	6306	4939	154	4.7	65.2	93	32
Block PEL 83	Namibia	8319	6306	4939	154	4.7	65.2	93	32
Block E	East Timor	n.d.	0	0	n.d.	n.d.	n.d.	n.d.	n.d.

Table 3 (continuation) - National indicators by site. Note: See the legend at the end of the Table.

Site	Country	Total Renewable Water Resources (TRWR)			Total Water Withdrawal	Industrial Water Withdrawal	Dependency Ratio	Population Served with Improved Water	Population Served with Improved Sanitation
		2008 m³/person/year	2025 m³/person/year	2050 m³/person/year	2002 m³/person/year	2002 (%)	2006 (%)	2008 (%)	2008 (%)
Exploration & Production Blocks (continuation)									
Lavagante	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Santola	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Gamba	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Camarao	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Block 5	Sao Tome and Principe	13625	10093	7365	53	s.d.	0.0	97	34
Block 6	Sao Tome and Principe	13625	10093	7365	53	s.d.	0.0	97	34
Block 11	Sao Tome and Principe	13625	10093	7365	53	s.d.	0.0	97	34
Block 12	Sao Tome and Principe	13625	10093	7365	53	s.d.	0.0	97	34

Table 3 (continuation) - National indicators by site. Note: See the legend at the end of the Table.

Site	Country	Total Renewable Water Resources (TRWR)			Total Water Withdrawal	Industrial Water Withdrawal	Dependency Ratio	Population Served with Improved Water	Population Served with Improved Sanitation
		2008 m³/person/year	2025 m³/person/year	2050 m³/person/year	2002 m³/person/year	2002 (%)	2006 (%)	2008 (%)	2008 (%)
Renewable Energies									
Parkalgar	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Ventiveste	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Storage Facilities & Terminals									
Viana do Castelo Terminal	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park of Mitrena	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park of Perafita	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park CL - Horta	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park LPG – Horta	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park CL – Flores	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park Praia da Vitória - Terceira	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park Nordela LPG – S. Miguel	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
CLCM	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Leixões Terminal	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Sines Terminal	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Park of Mérida	Spain	2506	2263	2175	861	18.5	0.3	100	100
Park of Gijon	Spain	2506	2263	2175	861	18.5	0.3	100	100
Park of Valencia	Spain	2506	2263	2175	861	18.5	0.3	100	100

Table 3 (continuation) - National indicators by site. Note: See the legend at the end of the Table.

Site	Country	Total Renewable Water Resources (TRWR)			Total Water Withdrawal	Industrial Water Withdrawal	Dependency Ratio	Population Served with Improved Water	Population Served with Improved Sanitation
		2008 m³/person/year	2025 m³/person/year	2050 m³/person/year	2002 m³/person/year	2002 (%)	2006 (%)	2008 (%)	2008 (%)
Storage Facilities & Terminals (continuation)									
Park of S.Vicente island	Cape Verde	601	487	427	47	1.8	0.0	89	63
Park of Sal island	Cape Verde	601	487	427	47	1.8	0.0	89	63
Park of Santiago island	Cape Verde	601	487	427	47	1.8	0.0	89	63
Park of Bolola	Guinea-Bissau	19683	13502	8720	120	4.6	48.4	72	19
Parks of LPG	Guinea-Bissau	19683	13502	8720	120	4.6	48.4	72	19
CLC	Guinea-Bissau	19683	13502	8720	120	4.6	48.4	72	19
Park of Beira	Mozambique	9699	6961	4918	33	1.6	53.8	47	19
Park of LPG	Mozambique	9699	6961	4918	33	1.6	53.8	47	19
Fuels Park of Matsapha	Swaziland	3861	3100	2579	957	1.2	41.5	72	57
Refining									
Sines Refinery	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Matosinhos Refinery	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Cogeneration Units									
Agroger	Portugal	6434	6417	6860	1088	12.2	44.7	99	100
Carriço Co-generation	Portugal	6434	6417	6860	1088	12.2	44.7	99	100

Legend of Table 3:

n.d. – no data

Total Renewable Water Resources TRWR

No data	Extreme Scarcity	Scarcity	Stress	Sufficient	Abundant

Total Water Withdrawal (m^3/person/year)

No data	1-250	251-500	501-1000	1001-2000	>2000

Industrial Water Withdrawal (%)

No data	0-25	26-50	51-75	76-90	91-100

Dependency Ratio (%)

No data	0-5	5-20	20-50	50-85	85-100

Population Served with Improved Water/saneamento básico (%)

No data	Very low	Low	Medium	Medium-High	High

Table 4 – Watershed Indicators by Galp Energia site. Note: See the legend at the end of the Table.

Site	Country	Annual Renewable Water Supply		Mean Annual Relative Water Stress Index
		2008 m³/person/year	2025 m³/person/year	2000 dimensionless
Biocombustíveis				
Palma crops (Tailândia/Pará)	Brazil	> 4,000	> 4,000	< 0.2
Palma crops (Tomé-açu/Pará)	Brazil	> 4,000	> 4,000	< 0.2
Biofuel plant of 2nd Generation (Enerfuel)	Portugal	> 4,000	> 4,000	< 0.2
Exploration & Production Blocks				
Campos bl. 791	Brazil	n.d.	n.d.	n.d.
Uirapuru	Brazil	n.d.	n.d.	n.d.
BM-S-8	Brazil	n.d.	n.d.	n.d.
North Carcara	Brazil	n.d.	n.d.	n.d.
BM-S-11 A (Iara)	Brazil	n.d.	n.d.	n.d.
BM-S-24	Brazil	n.d.	n.d.	n.d.
BAR-M-342	Brazil	n.d.	n.d.	n.d.
BAR-M-344	Brazil	n.d.	n.d.	n.d.
BAR-M-388	Brazil	n.d.	n.d.	n.d.
BAR-M-342	Brazil	n.d.	n.d.	n.d.
Field Lula (BM-S-11)	Brazil	n.d.	n.d.	n.d.
Field Rabo Branco (onshore) (SEAL-T-412/439)	Brazil	1,700 - 4,000	1,000 - 1,700	< 0.2
Field Sanhaçu (onshore) (POT-T-436/479/480)	Brazil	> 4,000	1,700 - 4,000	< 0.2
BM-PEPB-783	Brazil	n.d.	n.d.	n.d.
BM-PEPB-839	Brazil	n.d.	n.d.	n.d.
PN-T-136 (onshore)	Brazil	> 4,000	> 4,000	< 0.2
PN-T-150 (onshore)	Brazil	> 4,000	> 4,000	< 0.2
PN-T-166 (onshore)	Brazil	> 4,000	> 4,000	n.d.
PN-T-182 (onshore)	Brazil	> 4,000	> 4,000	n.d.
POT-M-665 (BM-POT-17)	Brazil	n.d.	n.d.	n.d.
POT-M-663 (BM-POT-16)	Brazil	n.d.	n.d.	n.d.
POT-M-760 (BM-POT-16)	Brazil	n.d.	n.d.	n.d.
POT-M-764	Brazil	n.d.	n.d.	n.d.
POT-M-853 (BM-POT-17)	Brazil	n.d.	n.d.	n.d.
POT-M-855 (BM-POT-17)	Brazil	n.d.	n.d.	n.d.
Block 14K-A-IMI	Angola	n.d.	n.d.	n.d.
Block 14	Angola	n.d.	n.d.	n.d.
Block 32	Angola	n.d.	n.d.	n.d.
LNG Plant (Project Rovuma)	Mozambique	> 4,000	> 4,000	< 0.2
Rovuma Área 4	Mozambique	n.d.	n.d.	n.d.

Table 4 (Continuation) – Watershed Indicators by Galp Energia site.

Site	Country	Annual Renewable Water Supply		Mean Annual Relative Water Stress Index
		2008	2025	2000
		m^3/person/year	m^3/person/year	dimensionless
Exploration & Production Blocks (continuation)				
Block PEL 82	Namibia	n.d.	n.d.	n.d.
Block PEL 83	Namibia	n.d.	n.d.	n.d.
Block E	East Timor	n.d.	n.d.	n.d.
Lavagante	Portugal	n.d.	n.d.	n.d.
Santola	Portugal	n.d.	n.d.	n.d.
Gamba	Portugal	n.d.	n.d.	n.d.
Camarao	Portugal	n.d.	n.d.	n.d.
Block 5	Sao Tome and Príncipe	n.d.	n.d.	n.d.
Block 6	Sao Tome and Príncipe	n.d.	n.d.	n.d.
Block 11	Sao Tome and Príncipe	n.d.	n.d.	n.d.
Block 12	Sao Tome and Príncipe	n.d.	n.d.	n.d.
Renewable Energies				
Parkalgar	Portugal	> 4,000	> 4,000	< 0.2
Ventiveste	Portugal	> 4,000	> 4,000	< 0.2
Storage Facilities & Terminals				
Viana do Castelo Terminal	Portugal	> 4,000	> 4,000	< 0.2
Park of Mitrena	Portugal	500 - 1000	500 - 1000	< 0.2
Park of Perafita	Portugal	> 4,000	> 4,000	n.d.
Park CL - Horta	Portugal	n.d.	n.d.	n.d.
Park LPG – Horta	Portugal	n.d.	n.d.	n.d.
Park CL – Flores	Portugal	n.d.	n.d.	n.d.
Park Praia da Vitória - Terceira	Portugal	n.d.	n.d.	n.d.
Park Nordela LPG – S. Miguel	Portugal	n.d.	n.d.	n.d.
CLCM	Portugal	n.d.	n.d.	n.d.
Terminal de Leixões	Portugal	> 4,000	> 4,000	n.d.
Terminal de Sines	Portugal	> 4,000	> 4,000	< 0.2
Park de Mérida	Spain	1,700 - 4,000	1,700 - 4,000	< 0.2
Park de Gijon	Spain	n.d.	n.d.	n.d.
Park de Valencia	Spain	n.d.	n.d.	n.d.

Table 4 (Continuation) – Watershed Indicators by Galp Energia site.

Site	Country	Annual Renewable Water Supply		Mean Annual Relative Water Stress Index
		2008	2025	2000
		m^3/person/year	m^3/person/year	dimensionless
Storage Facilities & Terminals (continuation)				
Park of S.Vicente Island	Cape Verde	n.d.	n.d.	n.d.
Park of Sal Island	Cape Verde	n.d.	n.d.	n.d.
Park of Santiago Island	Cape Verde	n.d.	n.d.	n.d.
Park of Bolola	Guinea-Bissau	n.d.	n.d.	n.d.
Parks de LPG	Guinea-Bissau	n.d.	n.d.	n.d.
CLC	Guinea-Bissau	n.d.	n.d.	n.d.
Park of Beira	Mozambique	> 4,000	> 4,000	< 0.2
Park of LPG	Mozambique	1,700 - 4,000	1,000 - 1,700	< 0.2
Park de Combustíveis de Matsapha	Swaziland	1,700 - 4,000	1,700 - 4,000	< 0.2
Refining				
Sines Refinery	Portugal	> 4,000	> 4,000	< 0.2
Matosinhos Refinery	Portugal	> 4,000	> 4,000	n.d.
Cogeneration Units				
Agroger	Portugal	1,700 - 4,000	1,700 - 4,000	< 0.2
Carriço Cogeração	Portugal	> 4,000	> 4,000	< 0.2

Legend of Table 4:

n.d. – no data

Annual Renewable Water Supply

No data	Extremely Scarcity	Scarcity	Stress	Sufficient	Abundant

Mean Annual Relative Water Stress Index

No data	Scarcity	Stress	Medium	Low