



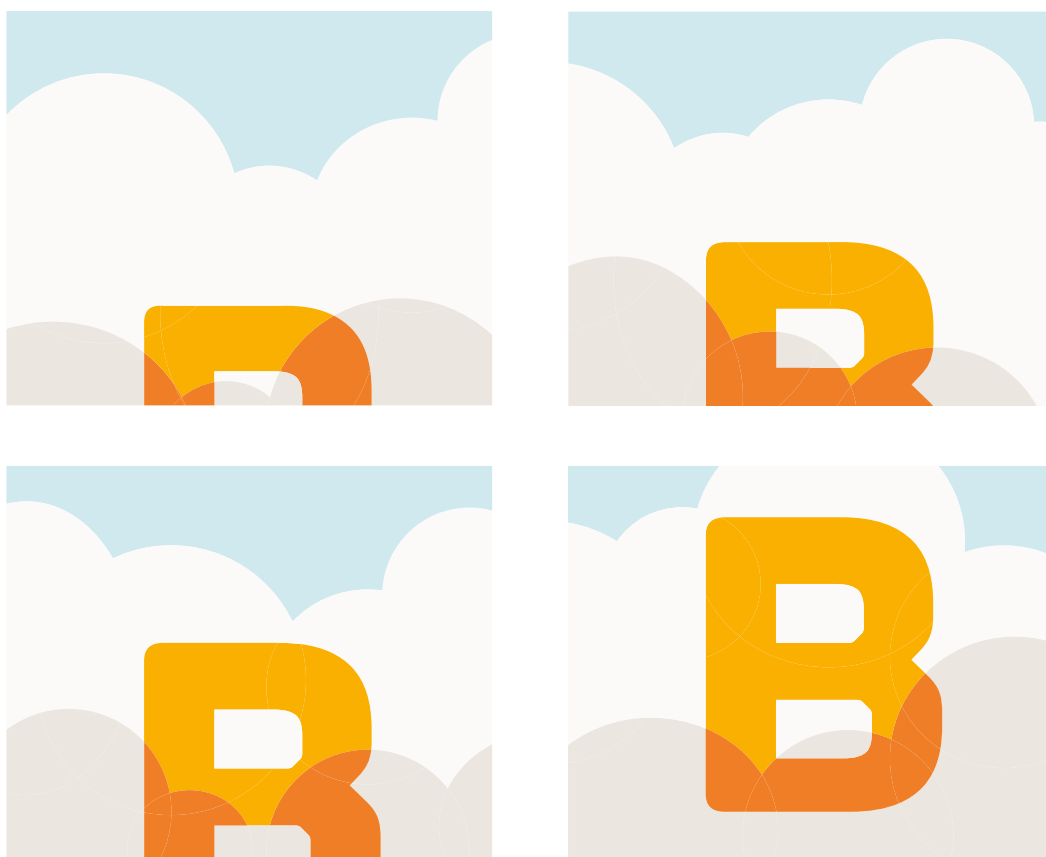
**2017**  
Green Bond Report  
—  
REPSOL Group



# Contents



Page 2	1. Summary of the Green Bond Framework
Page 4	2. Allocation of the proceeds
Page 5	3. Avoided GHG emissions
Page 5	4. Total amount invested and GHG emissions avoided 2014-2017
Page 6	5. ESG Performance indicators



## 1. Summary of the Green Bond Framework

Repsol is committed to Sustainability and is convinced that innovation and technological development are keys for ensuring reliable and sustainable energy supply in the long run. In Repsol's strategy there are clear energy efficiency and climate change objectives that supports the global goals that have to be pursued; the mitigation of climate change and the access to affordable energy in order to support economic growth and development.

Society increasingly requires more energy as the population grows and economies develop. This energy must be supplied in a safe, efficient and sustainable manner, along with a reduction in Greenhouse Gas (GHG) emissions. At Repsol, we share society's concerns over the effects that human activity is having on climate. We recognize that the current trend of GHG emissions is greater than the required to limit the increase of the average global temperature to no more than 2°C above preindustrial levels.

Repsol, as signatory of the Paris Pledge for Action, supports the Paris Agreement and is working to ensure that is an active part of the solution to climate change.

With the issuance of this Green Bond in May 2017, Repsol reinforces its commitment with Sustainability demonstrating its investment in sustainable purposes. On May 9th, Repsol announced its inaugural Green Bond offering having previously made available to the investors a NetRoadshow presentation and links to the Company's Green Bond Framework and Second Party Opinion, provided by Vigeo. In addition, during the day one-on-ones and group calls were held with investors. The deal was announced to the market with Initial Price Talks of MS+55bp area. At the time of Guidance announcement, the spread was revised to MS+40bp as the orderbook reached €2.7 billion, which represents an oversubscription of five times the amount offered. Given the strong demand and continued

9

**May**  
inaugural  
Green Bond  
offering

growth of the orderbook, the deal was revised further to MS+35bp. Repsol finally issued €500 million in a 5-year deal and the coupon was set at 0.500%, which represents the lowest coupon ever achieved by Repsol in a public benchmark. Circa 45% of the bonds were allocated to investors with Environmental, Social and Governance (ESG) mandates.

As shown in the **Green Bond Framework**, the Green Bond will allocate € 500 million to investment projects aimed to avoid GHG emissions by around 1.2 millions of tons of CO<sub>2</sub>eq. This includes the refinancing of implemented projects since 2014, and financing of two Eligible Projects categories solely in our production facilities:

- energy efficiency projects
- low emissions technologies

**Energy efficiency projects** is the main category where the Green Bond proceeds are being allocated. Currently, the Green Bond scope is 100% focus on the downstream activities, refineries and chemical facilities, in Spain and Portugal to operation improvement. In the coming years by 2022, Repsol will seek additional projects to include in the Green Bond portfolio corresponding to the second category “**low emission technologies**”. Excluded Projects are those in connection with the exploration of new oil and gas resources or reserves. In case of an asset divestment or cancellation of a project, Repsol will use the net proceeds to finance other eligible projects which are compliant with the current Green Bond framework. In this regard, an independent Third Party will verify annually the reporting metrics and the compliance with the Green Bond Principles until the allocation of the net proceeds.

The process of evaluation and selection of projects includes the proposal of the potentially eligible projects by the Technical Management according to profitability and the avoidance of GHG emissions as well as the monitoring at Corporate level by the Sustainability Division and the Green Bond Committee. It is worth mentioning that the Green Bond Committee has proposed a more restrictive criterion on the eligibility of the projects, and it leads to some deviations regarding the estimated percentages of the refinancing and

financing projects disclosed during the Green Bond issuance. More precisely, the Green Bond Committee has included a constraint to the Green Bond selection, so as to only include those projects for which CO<sub>2</sub>eq emissions avoided have been verified with ISO 14064-1 standard.

Section 2 and 3 of this Report disclose in detail the real allocation of the proceeds and the avoided GHG emissions associated to the refinancing and financing projects.

Furthermore, at the facilities where the investment projects are implemented, Repsol is monitoring and ensuring the performance according to its Sustainability Model<sup>1</sup> and ESG standards on the following matters:

- Labor management
- Community dialogue and management
- Training and development
- Occupational health
- Personal and process safety
- Spill prevention and management
- Air quality – Pollution control
- Water management
- Waste management

Regarding these matters, Repsol discloses the Key Performance Indicators in the [Management Report 2017](#)<sup>2</sup> in accordance with the Global Reporting Initiative (GRI) G4 Guidelines, using the “comprehensive” option.

Moreover, Repsol deploys its Sustainability Model through sustainability plans in the main facilities. These plans contain the initiatives to address the stakeholders ‘concerns nearby the facilities. We would like to highlight that so far 2017 no controversies arose in [Repsol’s facilities](#) in Spain and Portugal.

Additional information regarding Repsol’s Sustainability Model is available on the [website](#) and [sustainability plans](#).

1. Repsol adopted a sustainability model in 2010, which consists of integrating Environmental, Social and Governance (ESG) requirements in the decision-making processes of the Company to prevent negative impacts and contribute to sustainable development when operating. The Repsol Sustainability Model Framework is divided into 6 main areas of work, where the Company sets long term goals and carries on annual action plans to ensure progress, which are assessed by Sustainability Division that reports directly to the CEO, with the participation of the Senior Management.

2. Prior to 2017, Sustainability indicators were disclosed in the [Sustainability Report](#)

€  
500  
millions  
invested to avoid  
GHG emissions

CO<sub>2</sub>  
1.2  
millions  
tons of  
CO<sub>2</sub>eq

## 2. Allocation of the proceeds

The funds raised have been incorporated into Repsol Group's cash-pooling system, and later distributed to the Group's subsidiaries that have already implemented or will soon implement projects aimed to reduce CO<sub>2</sub> emissions (new investment as well as refinancing projects). The Group's internal control system ensures that the funds under the cash-pooling system are allocated to projects included in the framework.

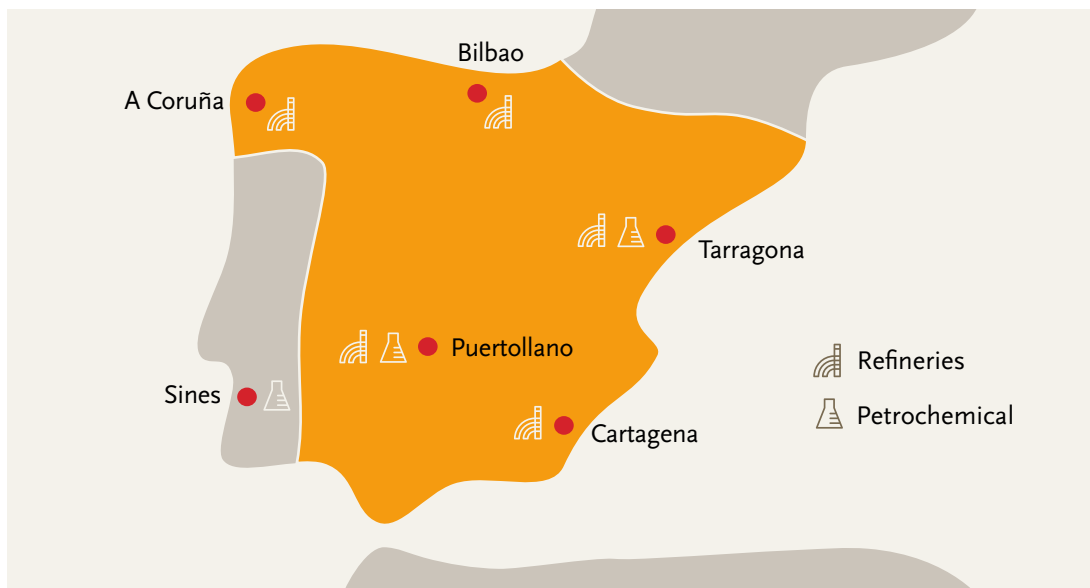
Energy Efficiency Projects (Thousands of euros)	Financing Projects 2017 <sup>(1)</sup>	Refinancing Projects 2016-2014
Technical typologies		
<b>Refining</b>	<b>39,931</b>	<b>119,431</b>
Upgrade of equipment: Heat	9,230	25,496
Upgrade of equipment: Dynamic equipment	25,526	9,531
Improvements of operating criteria	736	4,582
Energy Integration	3,636	39,336
New units / Process scheme modification	249	25,520
Network optimization	554	14,967
<b>Chemical</b>	<b>209</b>	<b>92,682</b>
Upgrade of equipment: Heat	-	8,890
Upgrade of equipment: Dynamic equipment	-	230
Improvements of operating criteria	-	35,917
Energy Integration	-	1,781
New units / Process scheme modification	209	45,763
Network optimization	-	100
<b>Total amount invested</b>	<b>40,140</b>	<b>212,113</b>

(1) 2017 financing project data may change in Green Bond Report to be published 1H2019. Despite the projects are technically completed, there may be pending disbursements.



**40,140**  
**thousands**  
 for financing  
 energy efficiency  
 projects in 2017

### Repsol refineries and petrochemical facilities



### 3. Avoided GHG emissions

Energy Efficiency Projects Verified Avoided GHG Emissions (tons of CO <sub>2</sub> eq)	Financing Projects 2017 <sup>(1)</sup>	Refinancing Projects 2016-2014 <sup>(2)</sup>
Technical typologies		
<b>Refining</b>	<b>99,681</b>	<b>378,866</b>
Upgrade of equipment: Heat	16,573	99,261
Upgrade of equipment: Dynamic equipment	59,806	13,298
Improvements of operating criteria	12,919	33,049
Energy Integration	8,823	74,161
New units / Process scheme modification	197	69,455
Network optimization	1,363	89,642
<b>Chemical</b>	<b>579</b>	<b>184,162</b>
Upgrade of equipment: Heat	-	8,726
Upgrade of equipment: Dynamic equipment	-	230
Improvements of operating criteria	-	95,888
Energy Integration	-	7,755
New units / Process scheme modification	579	70,805
Network optimization	-	785
<b>Total amount invested</b>	<b>100,260</b>	<b>563,028</b>

(1) Annual avoided GHG emissions correspond to a 12-month period.

(2) Even though the ISO 14064-1 verification methodology aims at verifying a 12-month period, this may not coincide with a calendar year period. Hence, the verification process may encompass 12 months over two different years. Consequently, 2017 annual data may be subject to modification since projects that started in 2017 may be verified in two different periods, 2018 and 2019.



**51%**

of the funds were allocated by the year 2017

### 4. Total amount invested and GHG emissions avoided 2014-2017

Consolidated information

Energy Efficiency Projects Refining and Chemical	Total amount invested (Thousands of euros)	Verified avoided GHG Emissions (tons of CO <sub>2</sub> eq)
<b>Financing and Refinancing projects 2014-2017</b>	<b>252,253</b>	<b>663,288</b>



**55%**

of the GHG emissions were avoided by the year 2017

The commitment of Repsol is to invest € 500 million in selected projects and avoid 1.2 millions of tons of CO<sub>2</sub>eq before three years after the issuance. By the year 2017, 51% of the funds were allocated and 55% of the GHG emissions were avoided.

## 5. ESG performance indicators

All ESG information is reported annually in the Management Report of Repsol, which is prepared by the Board of Directors of Repsol and verified by an external auditor. The following table summarizes the ESG Indicators for Refining and Chemical facilities in Spain and Portugal.

<b>Energy Efficiency Projects</b>		<b>2017</b>
<i>(Refining and Chemical segment-Spain and Portugal)</i>		
<b>Social</b>		
<b>Workforce</b>		
Total employees (% women)		6,751 (18.7%)
New employees (% women)		250 (27.2%)
Employee turnover rate (%)		3.1%
Occupational disease rate		0%
Nº of employees with disabilities		136
Hours of training per employee		51
% of employees receiving training		77%
% women in leadership positions		22%
<b>Community dialogue and management</b>		
Voluntary Social Investments (€ thousand)		2,133
<b>Safety</b>		
Lost Time Injury Frequency (LTIF) <sup>1</sup>		0.99
Total Recordable Incident Rate (TRIR) <sup>2</sup>		1.86
Nº of fatalities		0
PSIR (TIER1+TIER2) <sup>3</sup>		0.50
<b>Environment</b>		
Nº of spills (>1bbl) (t)		5.28
<b>Energy and carbon management</b>		
Energy intensity in Refining (GJ/t processed crude oil)		2.90
Intensity of greenhouse gas emissions in Refining (tCO <sub>2</sub> e/t proprocessed crude oil)		0.197
Direct emission of CO <sub>2</sub> (million tons)		11.47
Direct emission of CH <sub>4</sub> (million tons)		0.003
Direct emission of N <sub>2</sub> O (thousand tons)		0.623
Direct emission of CO <sub>2</sub> e (million tons)		11.73
<b>Water management</b>		
Fresh water withdrawn (kilotons)		46,933
Recycled water (kilotons)		14,445
Water discharged (kilotons)		24,047
Hydrocarbons in discharged in water (tons)		60
<b>Waste management</b>		
Hazardous waste (metric tons)		19,843
Non-hazardous waste (metric tons)		56,239
<b>Air quality – Pollution control</b>		
Tons SO <sub>2</sub> / thousands of tons of oil processed tons (Refining)		0.499
NOX (tons)		14,151
COVNM (tons)		16,350



**No controversies  
arose 2017  
in Spain  
and Portugal  
facilities**

- (1) LTIF: Number of fatalities plus lost time injuries accumulated within the period for every 1,000,000 hours worked.
- (2) TRIR: Total number of injuries (fatalities, lost time injuries, medical treatment and restricted work) accumulated within the period per Gmillion hours worked.
- (3) Number of Tier 1 and Tier 2 process safety incidents which occurred within the period per 1,000,000 hours worked related to process. A process safety event is an unplanned or uncontrolled release of any material including non-toxic and non-flammable materials (e.g., steam, hot water, nitrogen, compressed CO<sub>2</sub>, or compressed air) from a process, or an undesired event or condition, that under slightly different circumstances, could have resulted in a release of material. The TIER levels categorization of these kind of incidents will be done following the “API Recommended Practice 754 (Second Edition – April 2016): Process Safety Performance Indicators for the Refining and Petrochemical” standard.



Division  
of Investor Relations:  
Speak to us by calling  
+34 91 753 55 48, or  
alternatively, you can  
send us an email to  
[investorsrelations@repsol.com](mailto:investorsrelations@repsol.com)



Independent  
Assurance Report on the  
“Green Bond Report 2017”

**Deloitte.**



## **Independent Assurance Report on the "Green Bond Report 2017" of Repsol**

To the Green Bond Committee of Repsol S.A.:

### **Scope of our work**

We have been engaged by Repsol, S.A. (the "Company") to perform a limited assurance engagement in relation to the following information (collectively the "Subject Matter") on the green bond issued on 30 May 2017 (the "Green Bond") and that is contained in the "Green Bond Report 2017":

- The monetary amounts of investments from the Green Bond proceeds that were earmarked to eligible projects until 31 December 2017, as disclosed in the "Allocation of the proceeds" section of the "Green Bond Report 2017";
- The earmarking of the above monetary amounts in accordance with the criteria for Eligible Investments, as set out in the Company's Green Bond Framework and as disclosed in the "Allocation of the proceeds" section of the "Green Bond Report 2017".
- The internal controls established for managing the use of Green Bond proceeds, which we reviewed for implementation and compliance with the Company's Green Bond in 2017, as described in the Green Bond Framework and summarized as follows:
  - Request for earmarking of the proceeds of the Green Bond to specific projects; and
  - Review of the eligibility and approval of the earmarking of funds by the Treasury and Sustainability Departments.
- The estimated CO<sub>2</sub> emissions avoided per year as disclosed in the "Green Bond Report 2017" and the reasonableness of standards, assumption, estimations and calculations applied.

However, we have no responsibility for challenging the Eligibility Criteria and, in particular; we give no interpretation on the Final Terms.

### **Responsibilities**

The preparation and contents of the "Green Bond Report 2017" are the responsibility of the Sustainability Direction, supported by the Corporate Tax and Economic Direction, the Finance Direction and the Industrial Technical Direction of Repsol S.A., who are also responsible for defining, adapting and maintaining the management and internal control systems from which the reported information is derived.

Our responsibility is to issue a limited assurance report based on the procedures applied in our review. Since a limited assurance is substantially less in scope than a reasonable assurance engagement, we do not provide reasonable assurance on the "Green Bond Report 2017". This report has been prepared in the interest of Repsol in accordance with the terms and conditions of our Engagement Letter. We do not assume responsibility or accept liability to any other person for the contents of this report.

### **Procedures performed**

We conducted a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC). The Standard requires that we plan and perform the engagement to obtain limited assurance about whether the Subject Matter is free from material misstatement and compliant with the Company's Green Bond Framework.

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Deloitte maintains, in accordance with the International Standard on Quality Control 1 (ISQC1), a global system of quality control including policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. Our team consisted of professionals with assurance on Financial and Non-Financial Reports qualifications and, specifically, on financial and environmental performance.

Our work comprised of the following limited procedures:

- Interviews with relevant management and personnel involved in providing information relating to the Subject Matter;
- Review and sample testing of documentary evidence relating to the Subject Matter;
- Analytical procedures; and
- Recalculations.

### **Conclusions**

Based on the procedures we have performed and the evidences we have obtained, nothing has come to our attention that caused us to believe that:

- The monetary amounts of investments from the Green Bond proceeds that were earmarked to eligible projects until 31 December 2017, as disclosed in the "Allocation of the proceeds" section of the "Green Bond Report 2017" were materially misstated;
- The earmarking of the above monetary amounts as disclosed in the "Green Bond Report 2017" was not in accordance with the criteria for eligible investments set out in the Company's Green Bond Framework;
- The internal controls established for managing the use of Green Bond proceeds, which we reviewed in 2017, were not implemented and operated as set out in the Company's Green Bond Framework, as described in the "Allocation of the proceeds" section of the "Green Bond Report 2017"; and
- The estimated CO<sub>2</sub> emissions avoided per year, as disclosed in the "Green Bond Report 2017", were materially misstated and standards, assumptions, estimations and calculations applied.

DELOITTE, S.L.



Helena Redondo

June 20, 2018