ERG
EVOLVING ENERGIES

EMAS

ENVIRONMENTAL DECLARATION 2019

ERG Power S.r.l.

Pursuant to EC regulation no. 1221/2009 and 2017/1505/EU

ENVIRONMENTAL DECLARATION
2019

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Priolo Gargallo Thermoelectric Power Plant (SR)

Revision 2019

(updated performance data as at 31 December 2018)

EMAS
VERIFIED ENVIRONMENTAL MANAGEMENT
IT-001713

« When one tugs at a single thing in nature,
he finds it attached to the rest of the world »

John Muir

Courtesy translation

Contents

1938-2018...the ERG Group story is an 80-year tale of sustainable development and innovation. Over the years ERG has undergone a radical business transformation process: from leading private Italian oil company to leading independent operator in the market of electricity primarily from renewable sources, and from natural gas, with the ERG Power thermoelectric power plant whose operations combine high efficiency with low environmental impact.

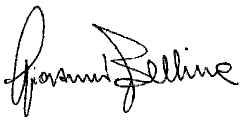
A change made possible by the strong business and management culture it has developed over its 80-year history. This year ERG's commitment to sustainable development was rewarded with an important acknowledgment: leading Italian company and 16th overall in the "Corporate Knights Global 100 Most Sustainable Corporations in the World Index".

And once again ERG Power presents its Environmental Declaration this year with the aim of providing complete and up-to-date information on its plants, its environmental performances and its commitment to the environment. In particular, this document provides an update on the commitments undertaken and goals achieved in 2018.

Priolo Gargallo, 15 May 2019

General Manager

Giovanni Bellina



1. APPROVAL STATEMENT

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ERG Power S.r.l.

Registered Office
Torre WTC - Via De Marini, 1 - 16149 Genoa

Operating office
Strada provinciale ex SS 114, Litoranea Priolese km 9,5 - 96010 Priolo Gargallo (SR)

Activity code
EA: 25-27 - Production of electricity and steam via a combined cycle gas/steam and thermal boiler power station, electricity distribution. Production of demineralised water
NACE 35.11 - Production of electricity
NACE 35.30 - Steam and air conditioning supply

The accredited Environmental Inspector, Rina Services S.p.A. (accreditation number: IT – V – 0002) with head office at 12 via Corsica, Genoa verified, through a visit to the Organisation, interviews with staff and an analysis of documentation and registrations, that the Policy, Management System and Audit procedures conform with EC Regulation 1221/2009 of 25/11/2009 as amended by Regulation 2017/1505/EU, and verified and certified the data reported in this update of the Environmental Declaration.

ERG Power S.r.l. undertakes to submit this revision of the Environmental Declaration to the Competent Authority and to make it available to the public at www.erg.eu.

2. ERG: AN 80-YEAR STORY

2. ERG: AN 80-YEAR STORY

2018 was a very important year for the ERG Group. In fact, on 19 October 2018 ERG celebrated 80 years in the energy world with a special event at the Doge's Palace in Genoa. The 80th anniversary coincided with the completion of the company's change of business process: with the sale of TotalErg and its entry in the photovoltaic solar sector, ERG concluded its transformation from leading Italian oil company to leading European operator in the production of energy primarily from renewable sources and from natural gas with the high-efficiency and low environmental impact ERG Power cogeneration thermoelectric power plant.

1938 2018	**80** years of history
	7 countries in which it operates
	737 employees
GLOBAL 100	**Sixteenth** in the world **First** in italy
CDP DRIVING SUSTAINABLE ECONOMIES	**Rating B** (higher than both the average in the Utilities sector and the European average)
	3 million families supplied with **7,485 GWh** of energy
	3,029 kt di CO_2 avoided equal to **780,000** return flights from rome to new york

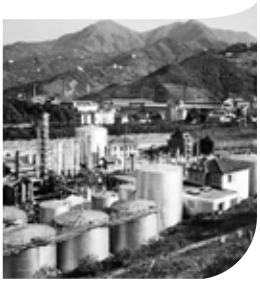
OUR HISTORY: 1938-2018

1938

Edoardo Garrone establishes ERG in Genoa.

1947

Production begins at the refinery in Genoa San Quirico.



1975

Production begins at the ISAB Refinery in Priolo.

1997

ERG is listed on the Italian Stock Exchange.

2000

ERG - through ISAB Energy - begins to produce and market electricity from the gasification of heavy refinery residues.

2006

ERG enters the renewable energy sector by acquiring EnerTAD.

2008

ERG sells 49% of the ISAB refinery to LUKOIL.

2010

ERG Power's combined cycle power plant starts up (480 MW) fuelled by natural gas.

Launch of TotalErg, a joint venture to market petroleum products.

2013

ERG becomes the leading wind power operator in Italy with 1,087 MW of installed capacity, and among the top ten in Europe (overall 1,340 MW). It purchases a company for the running and maintenance activities of the wind farms.

ERG sells the ISAB refinery and completes its exit from refining.

2014

ERG sells the ISAB Energy plant and its ERG Oil Sicilia fuel networks.

2015

ERG enters the hydroelectric business, with plants in Umbria, Marche and Lazio (527 MW).

ERG acquires 6 wind farms in France (64 MW) and builds 3 wind farms in Poland totalling 82 MW.

Installed wind power at the end of 2015 totals 1,506 MW.

2016

ERG enters the UK wind power market with a 47.5 MW project.

Installed wind power at the end of 2016 totals 1,721 MW.

2017

ERG continues to grow in the wind sector: 48 MW in operation in Germany; 16 MW in operation in France.

Installed wind power in Europe at the end of 2017 totals 1,814 MW.

2018

ERG enters the solar sector: 30 photovoltaic plants acquired totalling 89 MW.

Definitive exit from the Oil sector with the sale of TotalErg.

Installed wind power at the end of 2018 totalled 1,822 MW.

Today ERG has become an independent operator in the market of electricity from well-balanced and diversified renewable sources.

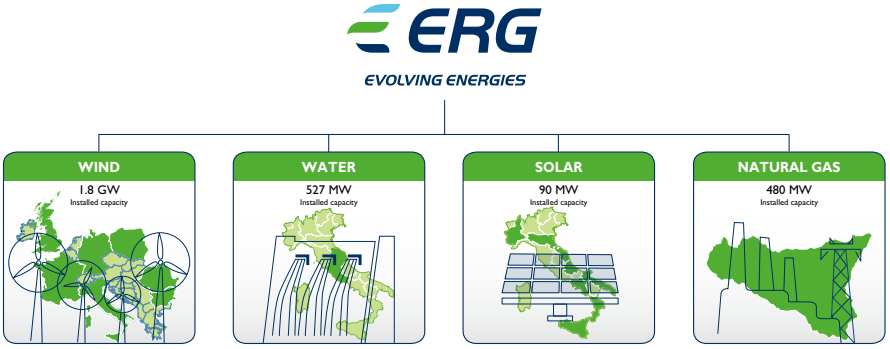


Fig. 1 - ERG Group electricity generation sources

The energy produced by ERG comes from nature, from well-balanced and diversified sustainable sources:

Wind • ERG is Italian leader and one of the leading operators in Europe.

Water • one of the leading operators in the production of electricity from water in Italy.

Solar • it entered the solar business in January 2018 and today is already present in 8 different Italian regions.

Natural gas • high-efficiency and low environmental impact thermoelectric power generation through a high-tech plant that respects strict environmental criteria.

It is natural gas which is used to produce electricity and steam at the ERG Power CCGT (Combined Cycle Gas Turbine) thermoelectric power plant which consists of two modules, each of which composed of two gas turbines and a steam turbine. It is a highly efficient process based on a plant with high yield and low emissions thanks to a next-generation technology.

ERG Power is the owner of plant facilities for the production and distribution of electricity and for the production of steam and demineralised water, which are located in the multi-company site of Priolo Gargallo, a municipality in the province of Syracuse; it also possesses the necessary authorisations to operate the plants. It does not possess its own workforce and so all management, maintenance and material procurement activities are performed by staff belonging to ERG Power Generation, another Group company, on the basis of a specific Operation and Maintenance Contract.

In order to guarantee the increasing reliability of the service and the optimum functionality of the energy system, starting in 2005 ERG Power's plants underwent a modernisation process which has

resulted in the current asset base:

- **CCGT plant**: for the production of electricity and thermal energy (steam) used by the ERG Power plants and the multi-company site; a proportion of the electricity is allocated for sale on the domestic market.
- **SA1/N1 unit**: for the production of steam for customers of the multi-company site. This plant has been inactive since September 2015 due to site production choices.
- **SA2 facility**: for the distribution of electricity within the multi-company site and its introduction on the national grid.
- **SA9 facility**: for the production of demineralised water used to supply the ERG Power CCGT plant and SA1/N1 unit, and for the technological requirements of the plants of the multi-company site.

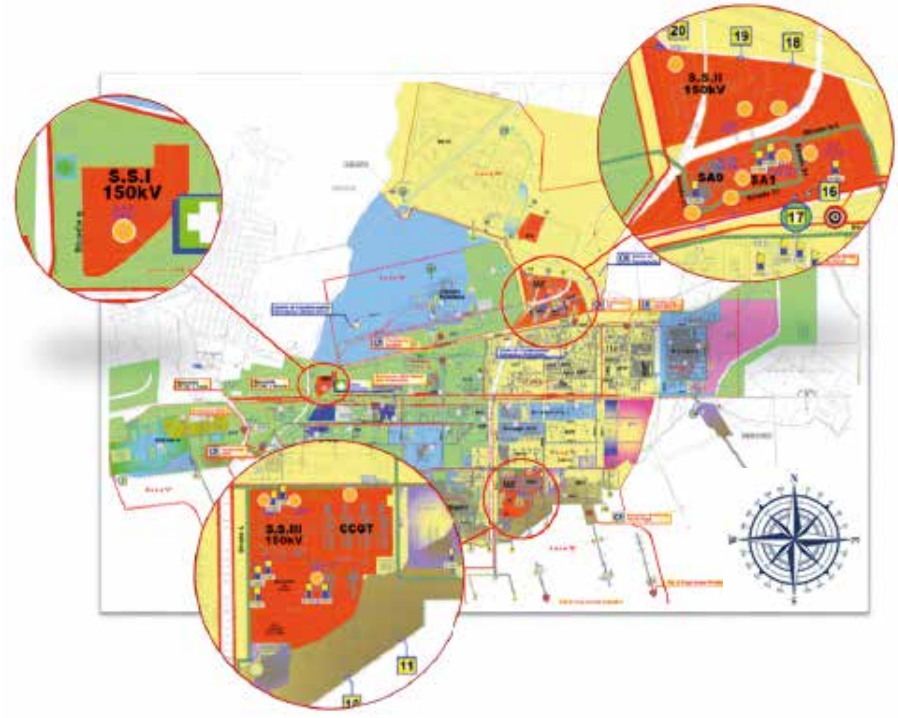


Fig. 2 - Plan of the ERG Power plants at the Priolo Gargallo multi-company site

The electricity (EE) generated is made available to the multi-company site and the electricity market. Energy Management is the department assigned to ensure the economic sustainability of the generation portfolio. In particular, it is responsible for the daily maximisation of the contribution margin through the sale of electricity, the optimisation of procurement and production activities and the hedging of the generation portfolio risk.

ERG Power in short

high yield cogeneration plant

four 75 MW General Electric gas turbines

two 86 MW Ansaldo Energia steam turbines

methane-powered

480 MW
Overall capacity

2,151 million kWh

Data as at 31/12/2018

3. COMMITMENT TO PROTECTING HEALTH, SAFETY AND THE ENVIRONMENT

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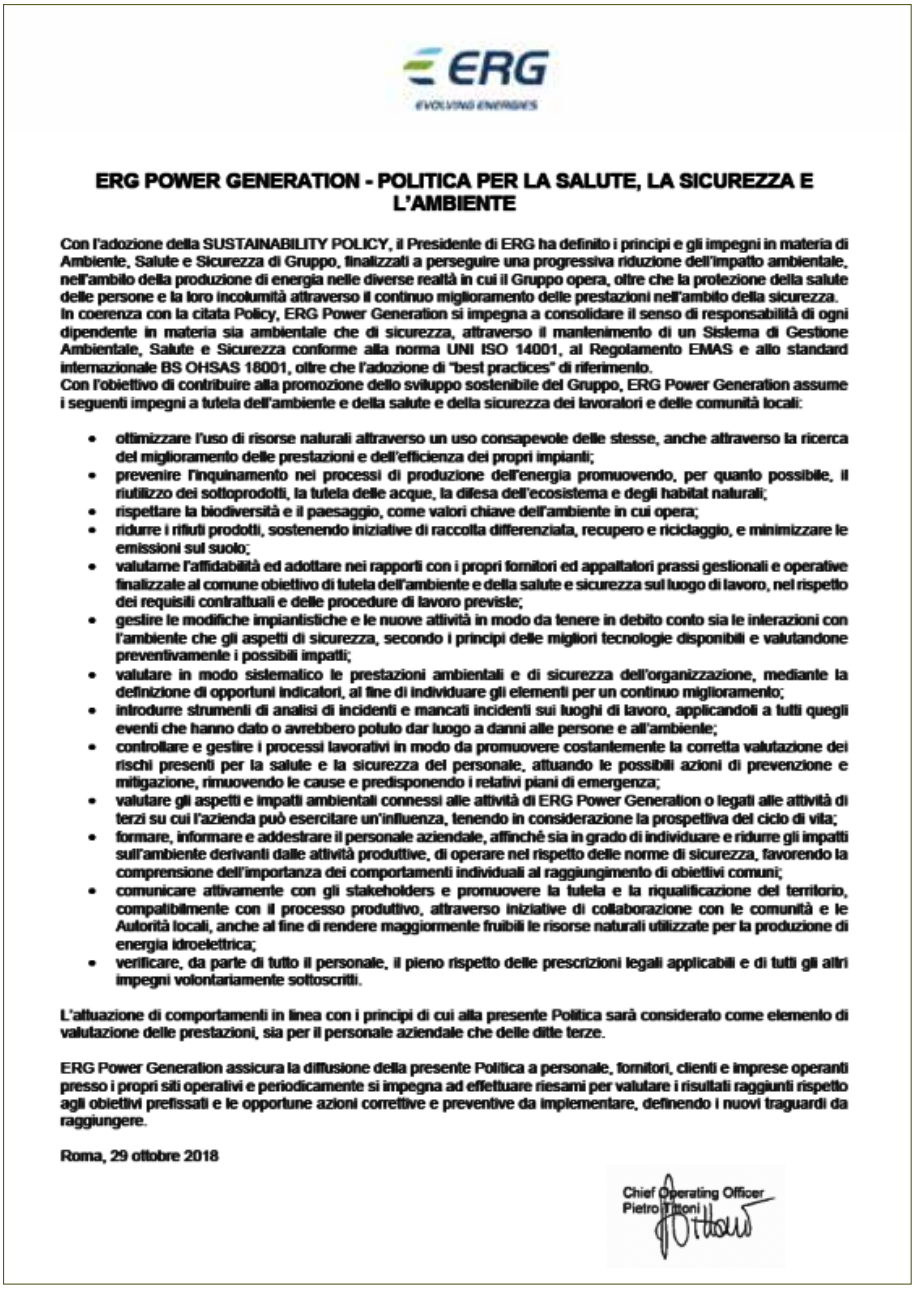
3.1. POLICY

Having been fully integrated in ERG Power Generation, ERG Power has adopted the HSE policy of that Group company since October 2018.

The HSE policy revisits the principles outlined in the ERG Group Code of Ethics and Sustainability Policy.

The fifth edition of the Code of Ethics and the revised Sustainability Policy were approved in 2018. The new Human Rights Policy was also published.



ERG
EVOLVING ENERGIES

ERG POWER GENERATION - POLITICA PER LA SALUTE, LA SICUREZZA E L'AMBIENTE

Con l'adozione della SUSTAINABILITY POLICY, il Presidente di ERG ha definito i principi e gli impegni in materia di Ambiente, Salute e Sicurezza di Gruppo, finalizzati a perseguire una progressiva riduzione dell'impatto ambientale, nell'ambito della produzione di energia nelle diverse realtà in cui il Gruppo opera, oltre che la protezione della salute delle persone e la loro incolumità attraverso il continuo miglioramento delle prestazioni nell'ambito della sicurezza.
In coerenza con la citata Policy, ERG Power Generation si impegna a consolidare il senso di responsabilità di ogni dipendente in materia sia ambientale che di sicurezza, attraverso il mantenimento di un Sistema di Gestione Ambientale, Salute e Sicurezza conforme alla norma UNI ISO 14001, al Regolamento EMAS e allo standard internazionale BS OHSAS 18001, oltre che l'adozione di "best practices" di riferimento.
Con l'obiettivo di contribuire alla promozione dello sviluppo sostenibile del Gruppo, ERG Power Generation assume i seguenti impegni a tutela dell'ambiente e della salute e della sicurezza dei lavoratori e delle comunità locali:

- ottimizzare l'uso di risorse naturali attraverso un uso consapevole delle stesse, anche attraverso la ricerca del miglioramento delle prestazioni e dell'efficienza dei propri impianti;
- prevenire l'inquinamento nei processi di produzione dell'energia promuovendo, per quanto possibile, il riutilizzo dei sottoprodotti, la tutela delle acque, la difesa dell'ecosistema e degli habitat naturali;
- rispettare la biodiversità e il paesaggio, come valori chiave dell'ambiente in cui opera;
- ridurre i rifiuti prodotti, sostenendo iniziative di raccolta differenziata, recupero e riciclaggio, e minimizzare le emissioni sul suolo;
- valutarne l'affidabilità ed adottare nei rapporti con i propri fornitori ed appaltatori prassi gestionali e operative finalizzate al comune obiettivo di tutela dell'ambiente e della salute e sicurezza sul luogo di lavoro, nel rispetto dei requisiti contrattuali e delle procedure di lavoro previste;
- gestire le modifiche impiantistiche e le nuove attività in modo da tenere in debito conto sia le interazioni con l'ambiente che gli aspetti di sicurezza, secondo i principi delle migliori tecnologie disponibili e valutandone preventivamente i possibili impatti;
- valutare in modo sistematico le prestazioni ambientali e di sicurezza dell'organizzazione, mediante la definizione di opportuni indicatori, al fine di individuare gli elementi per un continuo miglioramento;
- introdurre strumenti di analisi di incidenti e mancati incidenti sui luoghi di lavoro, applicandoli a tutti quegli eventi che hanno dato o avrebbero potuto dar luogo a danni alle persone e all'ambiente;
- controllare e gestire i processi lavorativi in modo da promuovere costantemente la corretta valutazione dei rischi presenti per la salute e la sicurezza del personale, attuando le possibili azioni di prevenzione e mitigazione, rimuovendo le cause e predisponendo i relativi piani di emergenza;
- valutare gli aspetti e impatti ambientali connessi alle attività di ERG Power Generation o legati alle attività di terzi su cui l'azienda può esercitare un'influenza, tenendo in considerazione la prospettiva del ciclo di vita;
- formare, informare e addestrare il personale aziendale, affinché sia in grado di individuare e ridurre gli impatti sull'ambiente derivanti dalle attività produttive, di operare nel rispetto delle norme di sicurezza, favorendo la comprensione dell'importanza dei comportamenti individuali al raggiungimento di obiettivi comuni;
- comunicare attivamente con gli stakeholders e promuovere la tutela e la riqualificazione del territorio, compatibilmente con il processo produttivo, attraverso iniziative di collaborazione con le comunità e le Autorità locali, anche al fine di rendere maggiormente fruibili le risorse naturali utilizzate per la produzione di energia idroelettrica;
- verificare, da parte di tutto il personale, il pieno rispetto delle prescrizioni legali applicabili e di tutti gli altri impegni volontariamente sottoscritti.

L'attuazione di comportamenti in linea con i principi di cui alla presente Politica sarà considerato come elemento di valutazione delle prestazioni, sia per il personale aziendale che delle ditte terze.

ERG Power Generation assicura la diffusione della presente Politica a personale, fornitori, clienti e imprese operanti presso i propri siti operativi e periodicamente si impegna ad effettuare riesami per valutare i risultati raggiunti rispetto agli obiettivi prefissati e le opportune azioni correttive e preventive da implementare, definendo i nuovi traguardi da raggiungere.

Roma, 29 ottobre 2018

Chief Operating Officer
Pietro Titoni

Fig. 3 - ERG Power Generation Health, Safety and Environment Policy

3.2. HSE MANAGEMENT

The environment and workplace safety are two fundamental issues to which the ERG Group dedicates ongoing attention, in particular thanks to the implementation of the Integrated environmental and safety management system, compliant with the international ISO 14001:2015 and OHSAS 18001:2007 standards, by the various ERG Group companies. In this way we guarantee the ongoing supervision of the processes carried out in our production sites through a management approach that permits the systemic integration of the two areas (Environment and Safety).

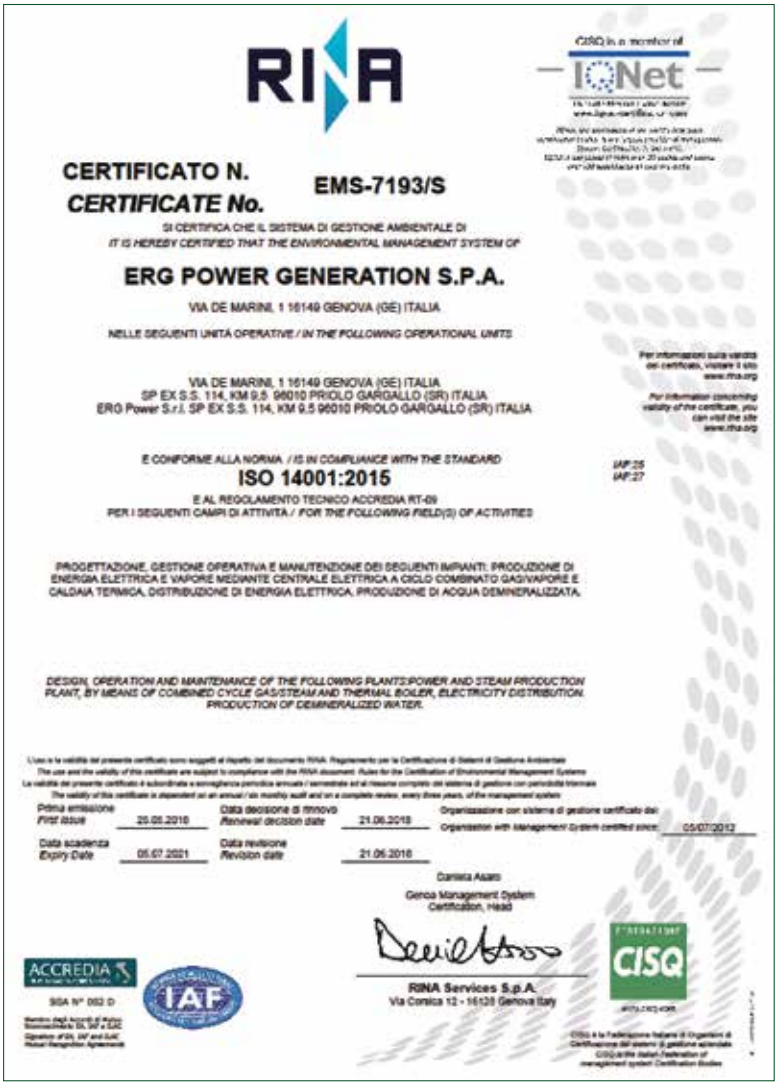
In 2018 a manual on the integrated functioning of the Management Systems was published together with a new framework of Group guidelines and procedures. In this way the management criteria of key aspects like risk management in activities with third parties, and health, safety and environmental risk assessment methods in internal activities have been made more transparent and uniform.

As mentioned previously, ERG Power does not possess its own workforce but through ERG Power Generation, another Group company, the management and maintenance of the plants is guaranteed in accordance with a specific Operation and Maintenance Contract.

ERG Power Generation possesses an integrated Environment and Safety Management System. In June 2018 ERG Power Generation completed the switch to the 2015 version of the ISO 14001 standard. In addition, the transition process from OHSAS 18001 to ISO 45001:2018 was launched and is expected to be completed in 2020.

Since December 2012 ERG Power Generation has possessed ISO 14001 certification for the ERG Power site with the following scope of application: *"Design, Operational Management and Maintenance of the following plants: Production of electricity and steam via a combined cycle gas/steam and thermal boiler power station, electricity distribution. Production of demineralised water"*.

The following figures illustrate ERG Power Generation's certificates of conformity to the ISO 14001:2015 and OHSAS 18001:2007 standards.



CERTIFICATO N.
CERTIFICATE No. EMS-7193/S

SI CERTIFICA CHE IL SISTEMA DI GESTIONE AMBIENTALE DI
IT IS HEREBY CERTIFIED THAT THE ENVIRONMENTAL MANAGEMENT SYSTEM OF

ERG POWER GENERATION S.P.A.

VIA DE MARINI, 1 16149 GENOVA (GE) ITALIA

NELLE SEGUENTI UNITÀ OPERATIVE / IN THE FOLLOWING OPERATIONAL UNITS

VIA DE MARINI, 1 16149 GENOVA (GE) ITALIA
SP EX S.S. 114, KM 9,5 96010 PRIOLO GARGALLO (SR) ITALIA
ERG Power S.r.l. SP EX S.S. 114, KM 9,5 96010 PRIOLO GARGALLO (SR) ITALIA

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD
ISO 14001:2015
E AL REGOLAMENTO TECNICO ACCREDIA RT-09
PER I SEGUENTI CAMPI DI ATTIVITÀ / FOR THE FOLLOWING FIELD(S) OF ACTIVITIES

IAF:25
IAF:27

PROGETTAZIONE, GESTIONE OPERATIVA E MANUTENZIONE DEI SEGUENTI IMPIANTI: PRODUZIONE DI ENERGIA ELETTRICA E VAPORE MEDIANTE CENTRALE ELETTRICA A CICLO COMBINATO GAS/VAPORE E CALDAIA TERMICA, DISTRIBUZIONE DI ENERGIA ELETTRICA, PRODUZIONE DI ACQUA DEMINERALIZZATA.

DESIGN, OPERATION AND MAINTENANCE OF THE FOLLOWING PLANTS:POWER AND STEAM PRODUCTION PLANT, BY MEANS OF COMBINED CYCLE GAS/STEAM AND THERMAL BOILER, ELECTRICITY DISTRIBUTION, PRODUCTION OF DEMINERALIZED WATER.

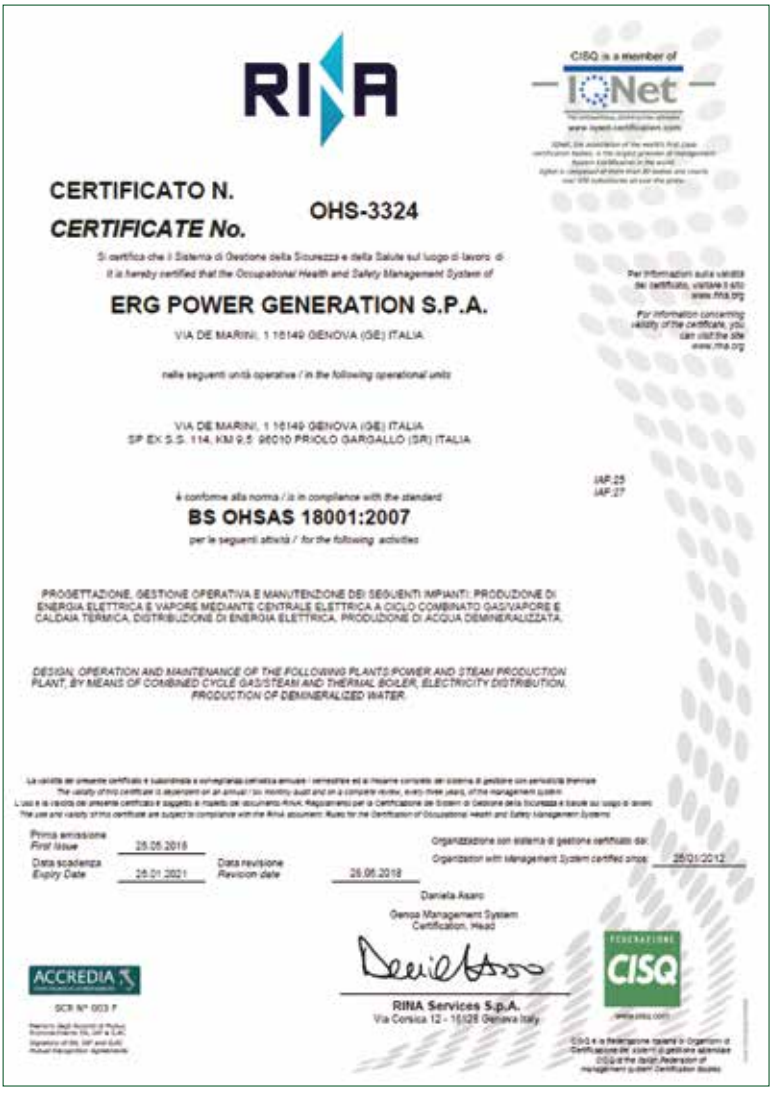
Prima emissione / First issue: 20.06.2016
Data decisione di rinnovo / Renewal decision date: 21.06.2018
Organizzazione con sistema di gestione certificato dal / Organization with management system certified since: 05/07/2012
Data scadenza / Expiry Date: 05.07.2021
Data revisione / Revision date: 21.06.2016

Daniela Asaro
Genoa Management System Certification, Head

RINA Services S.p.A.
Via Corsica 12 - 16128 Genova Italy

ACCREDIA
SGA N° 002 D

Fig. 4 - ERG Power Generation's certificate of conformity to the ISO 14001:2015 standard



CISQ is a member of IQNet

CERTIFICATO N. OHS-3324

CERTIFICATE No.

Si certifica che il Sistema di Gestione della Sicurezza e della Salute sul luogo di lavoro di
It is hereby certified that the Occupational Health and Safety Management System of

ERG POWER GENERATION S.P.A.

VIA DE MARINI, 1 16149 GENOVA (GE) ITALIA

nelle seguenti unità operative / in the following operational units

VIA DE MARINI, 1 16149 GENOVA (GE) ITALIA
SP EX S.S. 114, KM 9,5 96010 PRIOLO GARGALLO (SR) ITALIA

IAF:25
IAF:27

è conforme alla norma / is in compliance with the standard

BS OHSAS 18001:2007

per le seguenti attività / for the following activities

PROGETTAZIONE, GESTIONE OPERATIVA E MANUTENZIONE DEI SEGUENTI IMPIANTI: PRODUZIONE DI ENERGIA ELETTRICA E VAPORE MEDIANTE CENTRALE ELETTRICA A CICLO COMBINATO GAS/VAPORE E CALDAIA TERMICA, DISTRIBUZIONE DI ENERGIA ELETTRICA, PRODUZIONE DI ACQUA DEMINERALIZZATA.

DESIGN, OPERATION AND MAINTENANCE OF THE FOLLOWING PLANTS:POWER AND STEAM PRODUCTION PLANT, BY MEANS OF COMBINED CYCLE GAS/STEAM AND THERMAL BOILER, ELECTRICITY DISTRIBUTION, PRODUCTION OF DEMINERALIZED WATER.

Prima emissione / First issue 25.05.2010
Data scadenza / Expiry Date 24.01.2021
Data revisione / Revision date 26.06.2018
Organizzazione con sistema di gestione certificato dal: / Organization with management System certified since: 25/01/2012

Daniela Asaro
Genoa Management System Certification, Head

RINA Services S.p.A.
Via Corsica 12 - 16128 Genova Italy

ACCREDIA
SCR N° 003 F

CISQ

Fig. 5 - ERG Power Generation's certificate of conformity to the OHSAS 18001:2007 standard

Another example of ERG Power's voluntary commitment to the environment is its adoption of the European Union Eco-Management and Audit Scheme, which in 2012 led to the attainment of EMAS registration from the Ecolabel and Ecoaudit Committee, EMAS in Italy section. The maintenance of EMAS requisites is fundamental and perfectly consistent with the important issue of Group sustainability, and makes one of our CSR goals - open dialogue with the public - even more effective.

Certificato di Registrazione

Registration Certificate

EMAS

ERG Power s.r.l.

Centrale Termoelettrica di Priolo Gargallo
Strada Provinciale ex S.S. 114
Litoranea Priolese km 9,5
96010 Priolo G. (SR)

N. Registrazione: *Registration Number* **IT–001713**

Data di registrazione: *Registration date* 03 luglio 2015

PRODUZIONE DI ENERGIA ELETTRICA
PRODUCTION OF ELECTRICITY NACE: 35.11

PRODUZIONE DI VAPORE E ARIA CONDIZIONATA
STEAM AND AIR CONDITIONING SUPPLY NACE: 35.30

Questa Organizzazione ha adottato un sistema di gestione ambientale conforme al Regolamento EMAS allo scopo di attuare il miglioramento continuo delle proprie prestazioni ambientali e di pubblicare una dichiarazione ambientale. Il sistema di gestione ambientale è stato verificato e la dichiarazione ambientale è stata convalidata da un verificatore ambientale accreditato. L'organizzazione è stata registrata secondo lo schema EMAS e pertanto è autorizzata a utilizzare il relativo logo. Il presente certificato ha validità soltanto se l'organizzazione risulta inserita nell'elenco nazionale delle organizzazioni registrate EMAS.

This Organization has established an environmental management system according to EMAS Regulation in order to promote the continuous improvement of its environmental performance and to publish an environmental statement. The environmental management system has been verified and the environmental statement has been validated by a accredited environmental verifier. The Organization is registered under EMAS and therefore is entitled to use the EMAS Logo. This certificate is valid only if the Organization is listed into the national EMAS Register.

Roma, *Rome* 14 dicembre 2017

Certificato valido fino al: *Expiry date* 17 giugno 2020

Comitato Ecolabel - Ecoaudit
Sezione EMAS Italia
Il Presidente
Paolo Bonaiuti

Fig. 6 - ERG Power EMAS Registration Certificate

A project for the integration and unification of the existing management systems was launched in 2018 in order to create a single integrated and centrally-managed environmental-safety system that respects the features of the various different technologies.

The ultimate goal of the project is to create a transversal and integrated environmental-safety system that covers the various areas of operation (Hydro, Wind&Solar, Thermo).

The general structure of the procedures will be simplified and streamlined following the issue of a

series of documents that will be valid for the entire organisation and guarantee the harmonisation of principles and guidelines at Group level. The operating part, typical of each electricity production technology, will maintain its specific nature.

3.3. MANAGEMENT OF LEGAL PROVISIONS AND COMPLIANCE OBLIGATIONS

The management of legal obligations at ERG Power is entrusted to the Group HSE department which undertakes to guarantee respect for applicable regulations in the area of health, safety and the environment through the development of an integrated HSE management system at Group level and the coordination of the HSE Operating Units dedicated to the different operating areas (Hydro, Wind, Thermo and Solar).

The main regulatory provision management activities regard the management of obligations deriving from the Integrated Environmental Authorisation (IEA) and other approvals issued by local Authorities, particularly with regard to the management of waste, conveyed and diffused atmospheric emissions, wastewater and noise.

In the event that changes to existing plants, new developments or updates to operating methods are proposed, special attention is focused on the prior examination of the regulatory context in which they operate. In fact, proposals for modifications and/or new investments follow a process which as well as entailing an approval cycle that involves all interested Business Units and an Executive Technical Committee, also identifies the regulatory context in which the operation must be managed, therefore indicating all the steps that need to be taken.

The evolution of the regulatory context is monitored at all times and the periodical meetings with the Management represent important opportunities for analysis, for examining the ways of fulfilling the provisions deriving from applicable regulations, and for ensuring the continuous sharing of experience between the various company areas.

The absence of environmental non-compliance penalties received by our companies during the year is indirect proof of our correct management of legal obligations.

3.4. SAFETY AND ENVIRONMENT COMPETITION

For any organisation, the awareness and active participation of staff in day-to-day management activities is one of the key conditions for meeting the goals of an HSE Policy. This can be achieved through constant information, training and engagement activities and by introducing incentives for those who effectively implement measures to reduce the environmental impact of risks to worker health and safety or who promote ideas for further improvement actions. The idea of promoting the "Safety and Environment Competition", designed to foster more informed and responsible behaviours and skills, was born from this context.
2019 saw the relaunch of the award-based "Safety and Environment Competition" at the ERG Power site, mirroring those held at the other Hydro and Wind&Solar operating sites. The various criteria were harmonised at the same time and a single Competition valid for all operating companies, including the international Wind sites, was created. The competition is valid for all of 2019 and the winners will be announced by February 2020.

The three competition areas are:

1. Safety is...
   All staff are asked to reply to the question "for you, Safety is...". All documentation will be gathered together in a brochure which will be distributed to all staff at the end of the competition.
2. Environment and Safety Reports
   Involves reports of directly experienced unsafe conditions, unsafe behaviours or near-misses, and the presentation of an improvement proposal designed to prevent these incidents from recurring.
3. Improvement
   Participants are asked to present a project designed to improve workplace health and safety or environmental protection standards in general. The project must involve the development of an improvement proposal in all its phases, with an assessment of the current situation, the identification of the risk present, the proposal of a solution, the definition of the timeframes, costs and responsibilities connected with the measure, and the expected improvement with the proven reduction of the health and safety or environmental risk.

Another step in the awareness project on environmental and safety issues is that of relaunching a prize competition also for contractors.

3.5. INVESTMENTS IN THE ENVIRONMENT

ERG Power's pledge to maintain high standards of environmental protection in the management of its activities, like its pledge to develop and spread the best available technologies, can also be assessed through the financial commitments it has made in the shape of its investment activities.

The main investments made in 2018, with the relative sums of money involved, are summarised in the table below:

Investment	Amount (€)
Repair of Paved Area, osmosis zone	63,749
Upgrade Internal cover neutralisation tank D-130	179,701
Upgrade Internal cover Tank sump D130	34,244
Total	**277,694**

3.6. TRAINING AT ERG POWER

People are ERG's most important asset. Personal and professional growth and the constant updating of skills represent an investment for the future of the Group.
Training is organised in such a way as to maintain the high level of technical expertise among staff, guarantee compliance with the law in the health, safety and environment area (HSE), and help people learn techniques and behaviours to improve their performances and those of the team in which they work.

The macro categories of training are:

- technical-specialist training;
- mandatory HSE training;
- institutional, management and behavioural training.

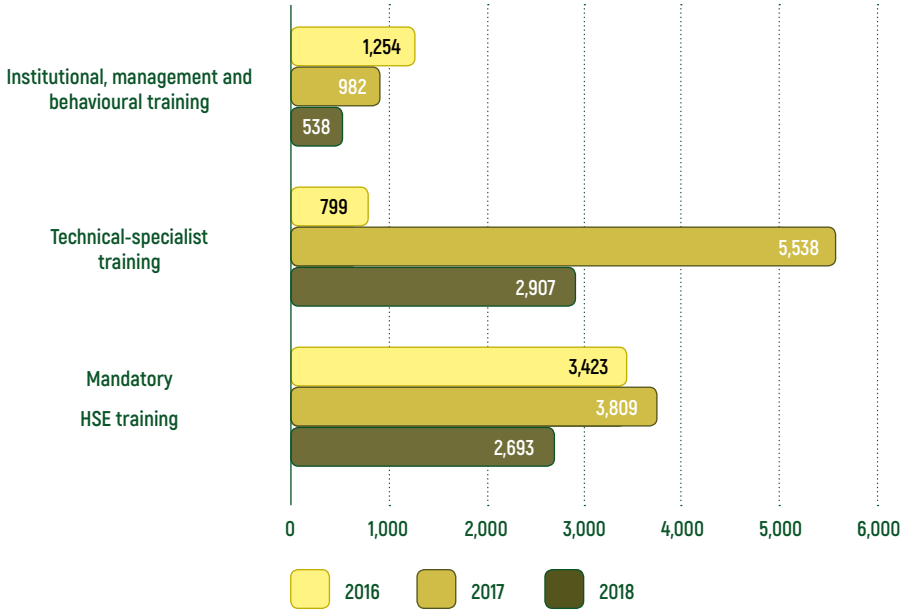


Fig. 7 - Hours of training provided

3.7. COMMUNICATION WITH STAKEHOLDERS

In accordance with the Group guidelines, ERG Power maintains active external communications with both environmental protection agencies and bodies responsible for supervising the company's activities, with respect for current regulations, as well as with the local community and other stakeholders.

In parallel to this, with the employee being the first stakeholder with whom the company interacts, suitable internal communications on the various environmental protection issues that involve the entire organisation are guaranteed at all times.

SCHOOL PROJECT

Since 2010 ERG has promoted "Progetto Scuola" (School Project) with the aim of supporting activities at schools of all levels and types in the province of Syracuse. In 2018 we once again supported the "Progetto Legalità" (Legality Project) run by the Provincial headquarters of the Carabinieri of Syracuse through the organisation of the "Un casco vale una vita" (Helmets save Lives) competition for third-year secondary school pupils. We also supported the "Icaro 2018" road safety education project organised by the Provincial headquarters of the Traffic Police of Syracuse, which involves around 2,000 secondary school students.

ELECTRICITY DAY

As part of the "School Project" we organised "Electricity Day", an event dedicated to final-year students from technical schools in Augusta (SR), Palazzolo (SR) and Carlentini (SR) who were given the opportunity to visit the CCGT plant.

Managers and engineers explained the technical characteristics of the plant to the students, highlighting the energy efficiency and sustainability of ERG's production process.

INDA FOUNDATION

We support the National Institute of Ancient Drama (INDA) Foundation, an association which has organised and staged festivals of classical works at the Teatro Greco in Syracuse since 1914, promoting the classical culture in Italy and the world.

ARCHIMEDES AND ELECTRA TROPHY

2018 saw the 27th edition of the "Archimedes and Electra Trophy", the traditional school sports competition held in the Province of Syracuse. The venue for the event was the "Riccardo Garrone" ERG Sports Centre in Syracuse and 1,000 students from different schools in Syracuse and its province were involved.

ERG SPORTS CENTRE IN SYRACUSE

Renovation work at the "Riccardo Garrone" ERG Sports Centre in Syracuse started in 2007. It is now become an important sports centre that supports the community and the region, placing strong emphasis on young people.

FAMILY DAY

An annual event that ERG organises to bring together the company and the families of its employees. The absolute stars are the children who, through games and "workshops", learn how their parents contribute every day to creating value for the ERG family. A family with almost 80 years of history behind it, which believes in people and the need to work "sustainably", creating value for the future generations.

4. DIRECT ENVIRONMENTAL ASPECTS

4. DIRECT ENVIRONMENTAL ASPECTS

In accordance with the new ISO 14001:2015 standard, an environmental analysis has been planned which takes account of:

- the knowledge and understanding of the context (internal and external factors that can positively or negatively impact on the company) and relevant stakeholders;
- the requests/expectations of stakeholders, to be regarded as "compliance obligations";
- the identification and evaluation of risks and opportunities, correlated with contextual factors and the identified compliance obligations, not just for the environment (an issue already addressed with the evaluation of environmental aspects) but also for society.

The identification and assessment of environmental aspects at ERG Power is managed via a suitable procedure developed according to the following phases:

1. identification of all possible environmental aspects that can have an impact on the surrounding environment;
2. assessment of significance;
3. determination of measures to be taken to manage direct or indirect environmental aspects deemed to be significant.

As part of the project to unify the Group's procedural framework, with the aim of defining common principles at company level while respecting the specific characteristics of the four different technologies (wind, hydroelectric, solar and thermoelectric) a set of Guidelines on general criteria for the Environmental Aspect Assessment was recently issued for the entire ERG Group. To ensure that its assessments of the significance of the environmental aspects connected with the various technologies are comparable, Erg Power will also refer to these Guidelines when reviewing its Environmental Aspect Assessment procedure.

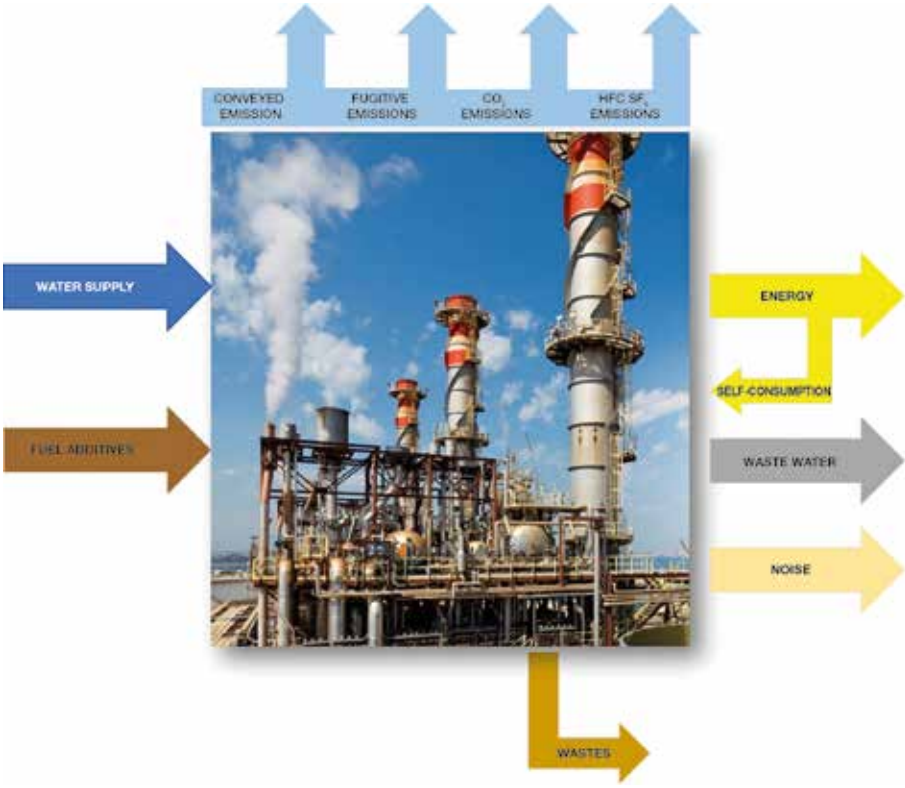


Fig. 8 - Environmental aspects

4.1. ATMOSPHERIC EMISSIONS

4.1.1. CONVEYED EMISSIONS

Assessment result	SIGNIFICANT
Regulatory framework	Italian Leg. Decree 152/2006 as amended Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010 Exclusion from the EIA procedure - decree Prot. DVA-2012- 0029636 of 05.12.2012 (limits for SA1/N1 after 18 months of regular operations) **Prescribed limits - CCGT** SO_2 10 mg/Nm^3 Average on the basis of periodic controls NO_X 30 mg/Nm^3 Daily average CO 30 mg/Nm^3 Hourly average Dust 5 mg/Nm^3 Average on the basis of periodic controls **Prescribed limits - SA1/N1** SO_2 20 mg/Nm^3 Hourly average NO_X 50 mg/Nm^3 Hourly average CO 50 mg/Nm^3 Hourly average Dust 5 mg/Nm^3 Hourly average
Actions	Continuous and periodic monitoring of some parameters Analysis of specific KPIs

The emissions deriving from the plants are conveyed to appropriate chimneys equipped with continuous monitoring systems (EMS), certified according to the European UNI EN 14181:2015 standard. These systems guarantee the constant and effective monitoring of compliance with the limit values established by the competent authorities. More specifically, the EMS of the 4 chimneys of the CCGT plant continuously measure NO_X and CO, and the SA1/N1 plant EMS continuously measures all macro pollutants (NO_X, SO_2, CO and dust).

In the current asset base, atmospheric emissions derive only from the CCGT plant as the SA1/N1 is currently inactive as a result of site production choices. On the basis of this asset base, which involves the exclusive use of methane gas (CCGT plant), emissions are for the most part made up of nitrogen oxides and carbon monoxide; as a result, sulphur dioxide and dust emissions are practically absent.

The concentrations of micro pollutants present in combustion smoke are periodically measured via analytical monitoring campaigns. The concentrations are always negligible compared with the legal limits.

Figure 9 illustrates the trends in the emissions conveyed into the atmosphere by the ERG Power plants. The quantities of pollutants emitted reflect the downwards trend in the production of energy.

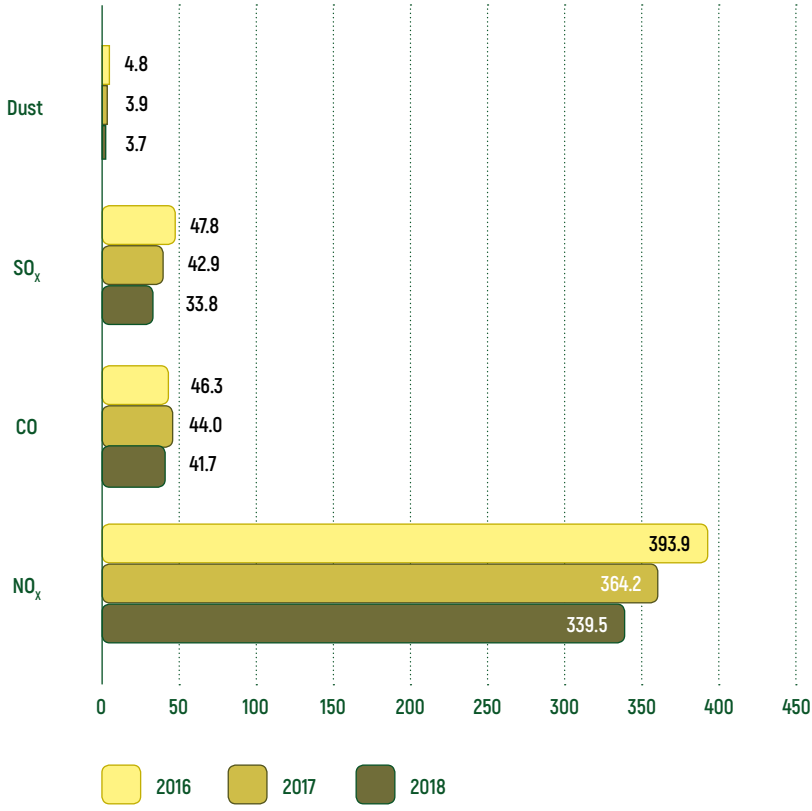


Fig. 9 - ERG Power conveyed emissions[1] (t)

1 Emissions conveyed into the atmosphere during the regular operation of the plant and transitory periods.

4.1.2. NON-CONVEYED EMISSIONS

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Annual monitoring

Non-conveyed emissions are all sources of emissions present at the site different from those regarding the main chimneys (conveying points) and that come under the definition of fugitive and/or diffuse emissions. Potential emission sources include, for example, valves, flanges, seals of pumps or compressors, etc.
As required by the Integrated Environmental Authorisation (IEA), since 2011 ERG Power has adopted a specific Leak Detection and Repair (LDAR) programme, directly measuring fugitive leaks of volatile organic compounds (VOCs) from the plant's flanges, valves and pumps.

Table 1 - ERG Power fugitive emissions

Parameter	U.M.	2016	2017	2018
VCO	tonnes/year	2.6	1.6	2.7

Following the suspension of activity at the SA1/N1 plant there are no emissions of non-methane VOC, only VOC containing methane. Compared with the quantities of methane in question, the quantity of VOC fugitive emissions once again remained modest in 2018.

4.1.3. CO_2 EMISSIONS

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Plant authorisation no. 826 pursuant to the Emission Trading regulation Monitoring Plan 2013 – 2020
Actions	Monthly and annual monitoring of consolidated emissions

The monitoring, communication to the relevant Authority and verification of the atmospheric emissions of climate-changing gases (especially carbon dioxide, CO_2) have an important role for ERG Power, which is part of the EU "emissions trading" scheme.

Once again, the annual verification and certification of the data pursuant to the EU-ETS Directive was performed by the certifying body in 2018. The audit did not produce any significant findings. The quantity of CO_2 emitted reflected the production trend.

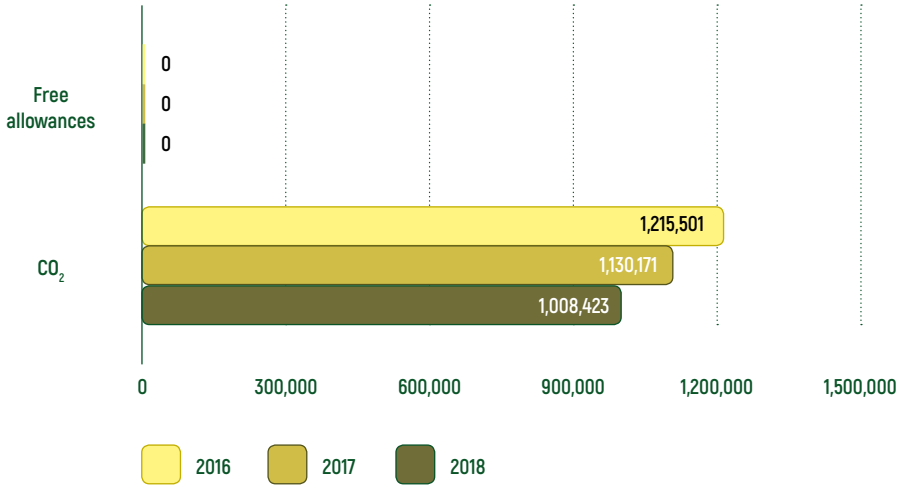


Fig. 10 - CO_2 emissions and comparison with free allowances (t)

Below is a summary of the emission coefficients obtained from the relationship between carbon dioxide emissions and the equivalent electrical energy produced (equivalent because the energy that can be produced from the steam introduced into the steam network of the CCGT plant is also considered).

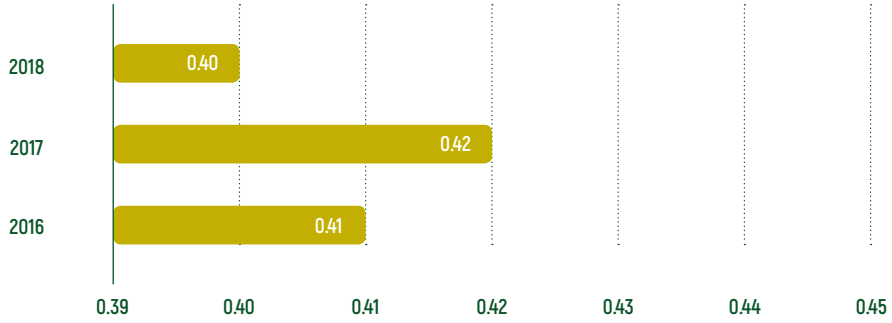


Fig. 11 - ERG Power emission coefficient (t/MWheq)

The emission coefficient trend remained largely stable over the 3-year period, slightly improving. Table 2 shows the quantities of CO_2 emitted by each plant.

Table 2 - Tonnes of CO_2 emitted by plant

Plant	U. M.	2016	2017	2018
CCGT	t	1,215,501	1,130,171	1,008,423
SA1/N1	t	–*	–*	–*

* Value not present as the SA1/N1 plant has been inactive since September 2015.

4.1.4. PRESENCE AND USE OF GREENHOUSE GASES AND HARMFUL SUBSTANCES FOR THE OZONE LAYER

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Presidential Decree no. 43 of 27 January 2013
Actions	Inspection substances/plants Annual Declaration F-Gas Periodic controls

Fluorinated gases (HFCs and SF_6) which contribute to the greenhouse effect are present at ERG Power.
The HFCs present are the refrigerating gases used in air conditioning units.

Below is a summary of the types of fluorinated gases found in the air conditioning units and the corresponding quantities stocked and replenished in the 3-year period in question. In 2018 the quantity of stored R410A rose from 225.8 kg (installations with quantities of gas above 3 kg) to 381.7 kg (installations with quantities of gas above 5 tCO_2) as a result of the new installations.

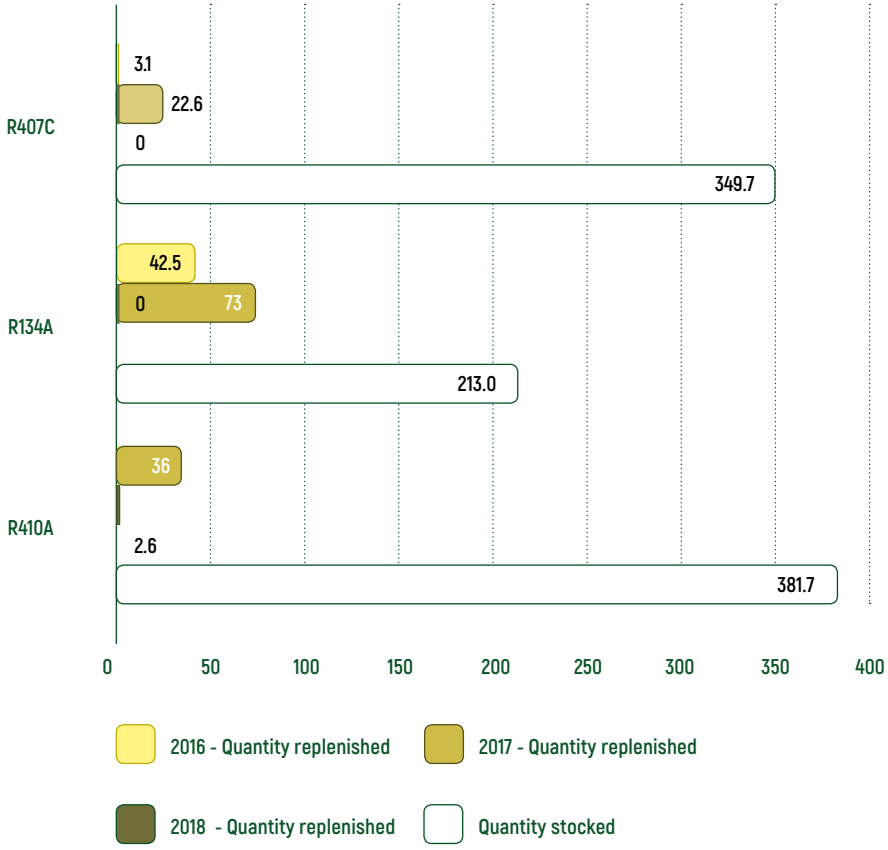


Fig. 12 - Quantity of fluorinated gases stocked and replenished

Sulphur hexafluoride (SF_6) is an insulation gas used in some kinds of electric switchgear to guarantee their safe functioning. There is currently no reasonable alternative as a replacement.
The quantity currently installed is 13,077 kg. Any fugitive gas emissions from this apparatus or leaks are kept under close control by the periodic maintenance plan. 11 kg of SF_6 leaks were recorded in 2018.

4.2. WATER DISCHARGES

Assessment result	NOT SIGNIFICANT
Regulatory framework	Italian Leg. Decree 152/2006 as amended Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010 Sewage regulations of the Priolo Servizi consortium for water discharges sent for treatment (S1 and S2)
Actions	Periodic monitoring campaigns

The waters produced by the plants owned by ERG Power are sent to different drainage points and depending on their type sent for treatment or discharged at sea.
Contaminated or potentially contaminated waste is sent to the plant sewage network via two drainage points, S1 and S2, and from here to the external treatment plant; S1 collects waters from the CCGT plant, S2 those of the SA1/N1 and SA9 plant.

The following types of water are sent to the S1 and S2 drains:

- potentially contaminated rainwater;
- domestic water, from bathrooms;
- potentially oily water collected from the plant areas (sumps and tanks that collect oily runoff, process condensation).

Uncontaminated waste is sent to sea via the Vallone della Neve (natural canal that flows into the sea via drain 20, managed by Priolo Servizi) or drain 24, owned by ERG Power. The following types of water are conveyed to these points:

- cooling water, consisting of discharges of seawater used for cooling in the condensers downstream from the steam turbines (drains 353, 24, 327, 328, 403, 405, 406, 407);
- second flush runoff (drains 325A, 329, 404);
- discharges and washwater from the ultrafiltration and reverse osmosis plants and waste deriving from the regeneration of ion exchange or mixed bed resins at the SA9 plant (drains 328A, 329).

Drains 327 and 328 are not currently in use as they belong to the SA1/N1 plant, inactive since 30 September 2015.

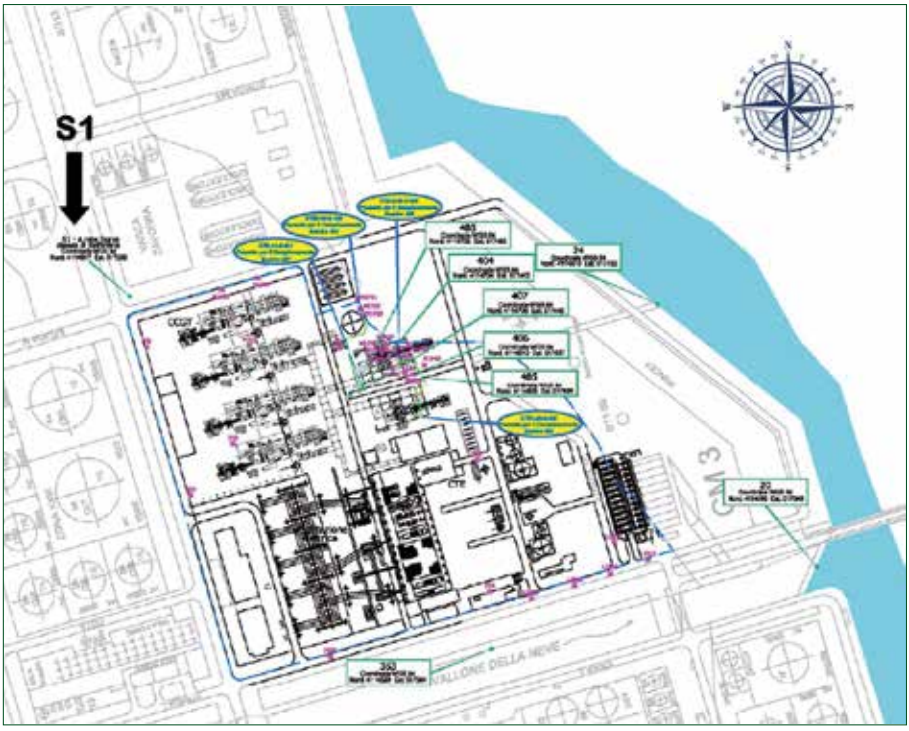


Fig. 13 - CCGT water discharges

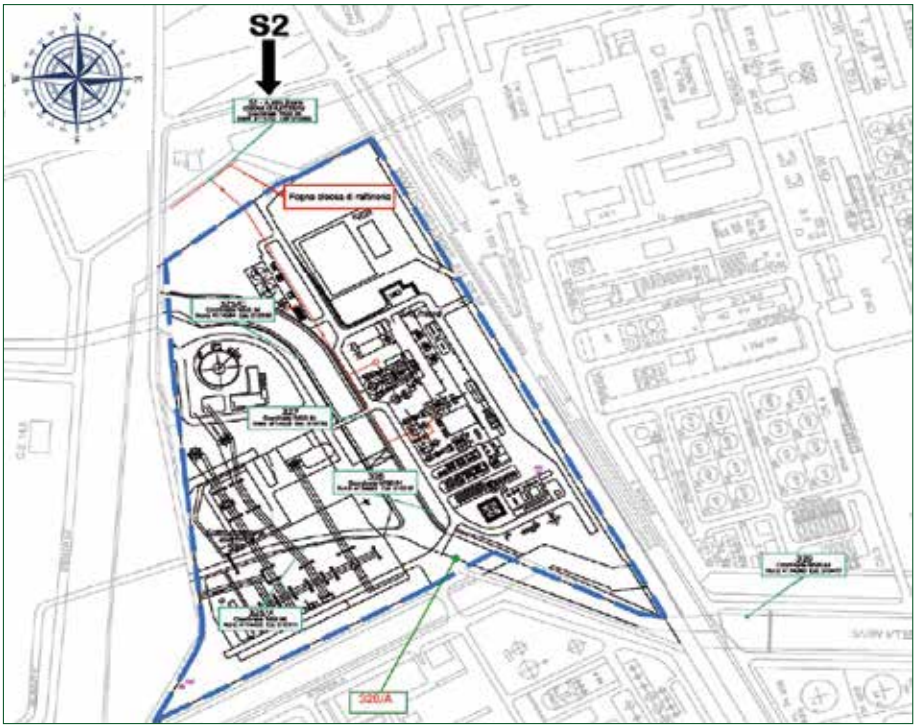


Fig. 14 - SA1/N1 and SA9 water discharges

Uncontaminated waste is channelled into the sea in the quantities indicated in the table below:

Table 3 - Quantity of wastewater discharged at sea

Type of discharge	U. M.	2016	2017	2018
Sea	m^3	216,929,902	199,977,494	197,513,574

Contaminated or potentially contaminated waste is transported to the treatment plant belonging to Priolo Servizi, a consortium which provides general services to the multi-company site. This quantity amounts to 657,000 m^3/year.

The following tables indicate the average annual concentrations of the main analytes monitored for the most representative water discharges in terms of flow.

Table 4 - Average annual concentrations of wastewater discharged at sea by the main drainage points – 2018

		Discharges - 2018 [2]				
		327 [3]	353	24	328A	329
		mg/l	mg/l	mg/l	mg/l	mg/l
Pollutant	COD	-	59.00	43.50	39.35	46.75
	Total Suspended Solids	-	15.30	19.50	19.50	7.04
	Sulphides	-	0.05	0.05	0.05	0.05
	Ni	-	0.01	0.01	0.02	0.01
	pH	-	8.10	8.15	8.23	7.70
	BOD5	-	6.65	5.25	5.30	6.53
	Barium	-	0.01	0.01	0.02	0.05
	Fluorides	-	2.50	3.75	0.77	1.64
	Total phosphorus (as P)	-	0.05	0.05	0.05	0.36
	Ammonia nitrogen (as NH_4)	-	0.20	0.20	0.20	0.20
	Nitrate nitrogen (as N)	-	3.75	3.75	2.14	3.51
	Animal/vegetable fats and oils	-	0.70	0.43	0.90	0.70
	Total hydrocarbons	-	0.05	0.05	0.15	0.31
	Total surfactants	-	0.30	0.30	0.38	0.30
	Chlorinated solvents	-	0.01	0.11	0.01	0.05
	Total Nitrogen	-	0.80	0.80	1.45	1.55

2 The established limits are reported in table 3 of attachment 5 in part III of Leg. Decree 152/06 and in the IEA.
3 Drain owned by the SA1/N1 plant, inactive since 30 September 2015.

Table 5 - Average annual concentrations of wastewater discharged at sea by the main drainage points – 2017

		Discharges - 2017 [4]				
		327 [5]	353	24	328A	329
		mg/l	mg/l	mg/l	mg/l	mg/l
Pollutant	COD	-	56.50	41.00	6.68	17.50
	Total Suspended Solids	-	14.25	22.00	7.58	11.20
	Sulphides	-	0.05	0.05	0.05	0.05
	Ni	-	0.01	0.01	0.01	0.01
	pH	-	8.15	8.10	8.10	7.73
	BOD5	-	2.95	2.00	1.50	1.75
	Barium	-	0.01	0.01	0.02	0.04
	Fluorides	-	0.05	0.05	0.16	0.05
	Total phosphorus (as P)	-	0.05	0.05	0.05	0.24
	Ammonia nitrogen (as NH_4)	-	0.20	0.20	0.20	0.20
	Nitrate nitrogen (as N)	-	0.05	0.05	1.62	2.23
	Animal/vegetable fats and oils	-	0.88	0.25	0.96	0.39
	Total hydrocarbons	-	0.28	0.02	0.18	0.12
	Total surfactants	-	0.30	0.30	0.40	0.62
	Chlorinated solvents	-	0.01	0.01	0.01	0.01
	Total Nitrogen	-	1	0.80	1.68	0.98

4 The established limits are reported in table 3 of attachment 5 in part III of Leg. Decree 152/06 and in the IEA.
5 Drain owned by the SA1/N1 plant, inactive since 30 September 2015.

Table 6 - Average annual concentrations of wastewater discharged at sea by the main drainage points – 2016

		Discharges - 2016 [6]				
		327 [7]	353	24	328A	329
		mg/l	mg/l	mg/l	mg/l	mg/l
Pollutant	COD	-	23.50	12.00	23.58	33.25
	Total Suspended Solids	-	19.55	20.25	12.93	12.63
	Sulphides	-	0.18	0.18	0.18	0.18
	Ni	-	0.00	0.00	0.01	0.01
	pH	-	8.15	8.20	7.95	6.45
	BOD5	-	5.25	0.50	6.00	10.03
	Barium	-	0.01	0.01	0.04	0.05
	Fluorides	-	0.32	0.19	0.35	0.37
	Total phosphorus (as P)	-	0.08	0.11	0.05	0.19
	Ammonia nitrogen (as NH_4)	-	0.23	0.23	0.23	0.23
	Nitrate nitrogen (as N)	-	0.28	1.08	1.21	3.51
	Animal/vegetable fats and oils	-	0.33	0.15	0.39	0.39
	Total hydrocarbons	-	0.03	0.03	0.03	0.08
	Total surfactants	-	0.28	0.46	0.58	0.50
	Chlorinated solvents	-	0.03	0.03	0.03	0.03
	Total Nitrogen	-	1.82	2.50	1.66	2.76

6 The established limits are reported in table 3 of attachment 5 in part III of Leg. Decree 152/06 and in the IEA.
7 Drain owned by the SA1/N1 plant, inactive since 30 September 2015.

4.3. WASTE

Assessment result	**SIGNIFICANT**
Regulatory framework	Italian Leg. Decree 152/2006 as amended Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Qualification of service suppliers Technical inspections at waste destination plants Monitoring of waste produced and disposed

ERG Power waste, mainly generated by maintenance and investment activities, can be classified according to the provisions of Leg. Decree 152/06 as amended; all waste management phases,

from sorting through to disposal, are carried out in accordance with current regulations and specific procedures have been adopted both for waste management and the identification of the stakeholders involved in the disposal process (intermediaries and disposal/treatment/recovery plants).

The waste produced is stored in a temporary deposit that has been suitably fenced off and paved. ERG Power guarantees the correct management of the temporary deposit, taking the necessary time to eliminate the waste at disposal/recovery plants. Below is a summary of the tonnes of waste produced in the last 3-year period during routine activities (regular plant operations) and investment activities, divided into hazardous waste and non-hazardous waste.

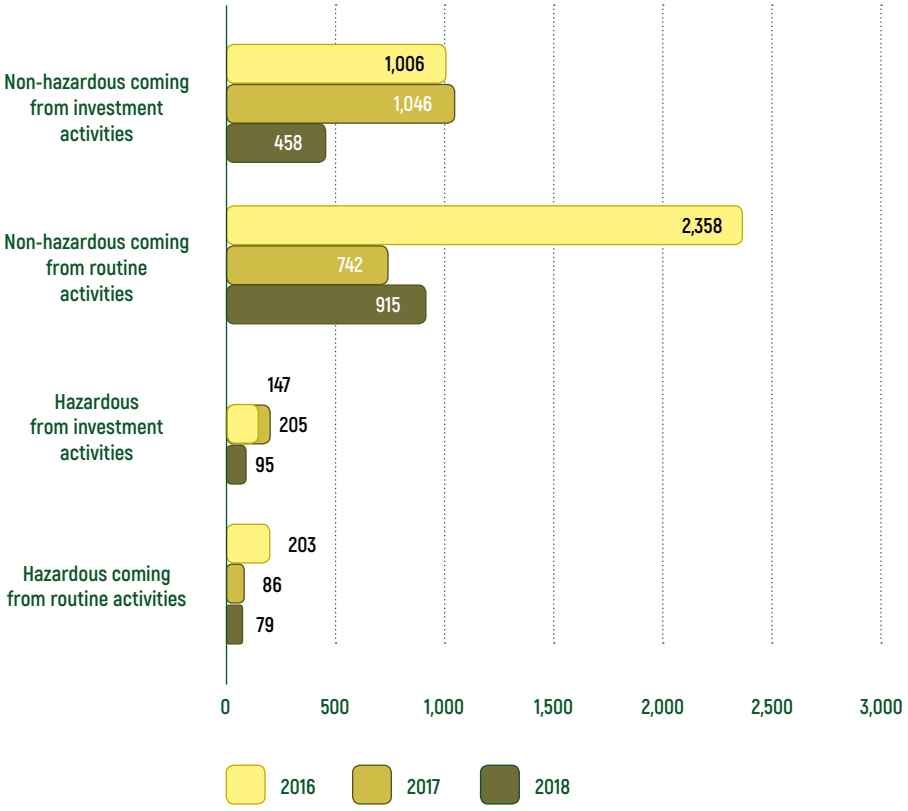


Fig. 15 - Hazardous waste and non-hazardous waste (t)

Although 2018 was characterised by plant shutdown activities, it also saw more modest quantities of process waste produced than in previous years; this is because the above activities were concentrated in the last part of the year and the resulting waste was eliminated at the start of 2019.

Figure 19 illustrates the trend in the overall quantities of waste recovered and disposed for the ERG Power plants; in figure 20 the disposed and recovered waste is broken down according to the origin of the waste, i.e. whether it derived from routine or investment activities.

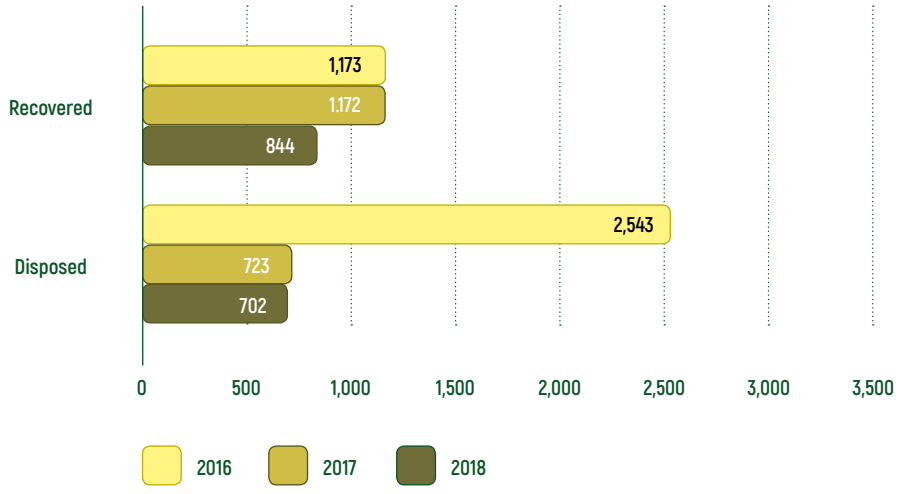


Fig. 16 - Total process waste produced by ERG Power (t)

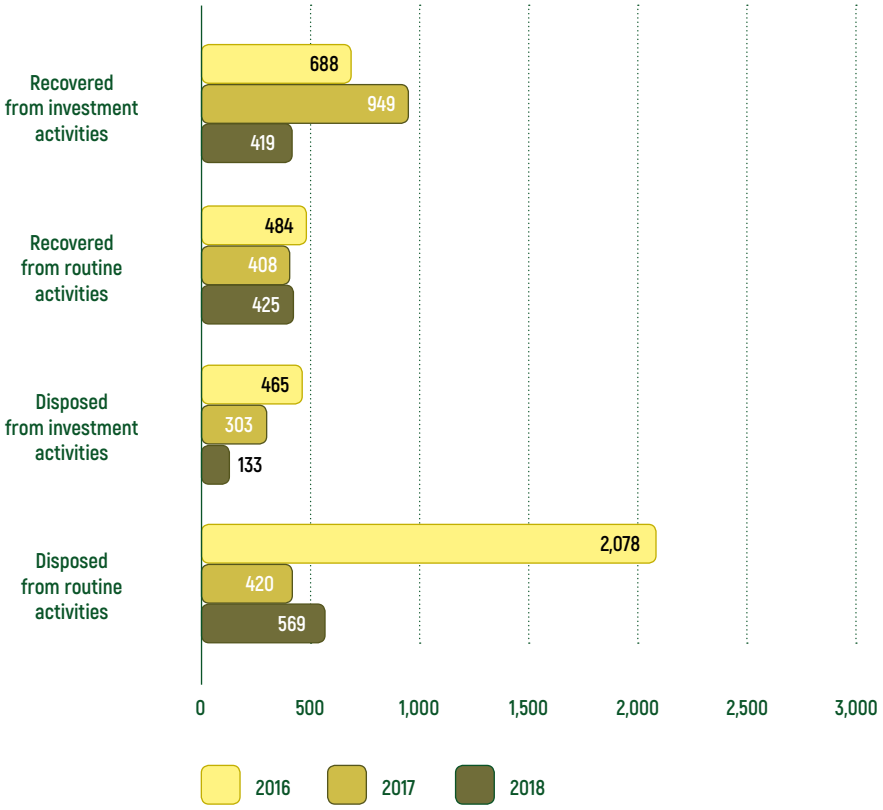


Fig. 17 - Waste recovered and disposed of (t)

4.4. USE OF NATURAL RESOURCES: WATER PROCUREMENT

Assessment result	NOT SIGNIFICANT
Regulatory framework	Authorisation for the withdrawal of seawater possessed by the Priolo Servizi consortium Authorisation for the draining off of well water and drinking water possessed by the Priolo Servizi consortium
Actions	Monthly consumption monitoring

Below is a summary of water consumption in the 3-year period in question:

Table 7 - Water procurement

Source	U. M.	2016	2017	2018
Seawater	m^3	216,929,902	199,977,494	197,513,574
Drinking water	m^3	29,961	16,853	12,468
Well water	m^3	5,758,136	5,246,207	5,500,779

Even though the 2018 data shown an increase in the consumption of well water, it remains beneficial to reuse the water leaving the TAF Syndial plant and recover the backwash water leaving the ultrafiltration section, which on a like-for-like basis in terms of demineralised water produced involve fewer withdrawals from the wells. Meanwhile, the increase compared with the previous year is due to the increase in steam and demi water consumption by the site.

4.5. USE OF FUELS AND ADDITIVES

The production processes of the ERG Power plants involve the use of fuels and numerous other key substances for the correct functioning of the processes.

4.5.1. FUEL CONSUMPTION

Assessment result	SIGNIFICANT
Regulatory framework	Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Daily monitoring of fuel consumption

As well as keeping significant company data under constant control, the monitoring of consumption using suitable dedicated tools also makes it possible to acquire useful information for the management process and give the right energy profile to the specific product developed. A detailed energy report is drafted every month to monitor the specific consumption of the plants and their efficiency.

Table 8 - Annual consumption

Fuel	Plant	Year			U. M.
		2016	2017	2018	
Gas Fuel	SA1N/1	0	0	0	tonnes/year
Methane	CCGT	592,764,561	550,876,183	493,556,385	Sm^3/year
	SA1N/1	0	0	0	Sm^3/year
Self-consumption of electricity	Total	68,830,556	65,693,471	64,200,406	kWh

On the basis of the current asset base which sees the SA1/N1 plant out of service, table 9 highlights how there is zero fuel consumption at this plant.

4.5.2. CONSUMPTION OF ADDITIVES

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Annual consumption monitoring

In general, the substances used at the plant are additives, chemicals and lubricating oils, which are normally employed to treat the water of the heat cycle or to maintain the machinery.

For the current asset base (changes to SA9 plant) and on the basis of new contractual agreements with the companies that manage the supply of additives (monthly service and procurement fee), it is only possible to report the consumption of the SA9 plant as shown in the following figure.

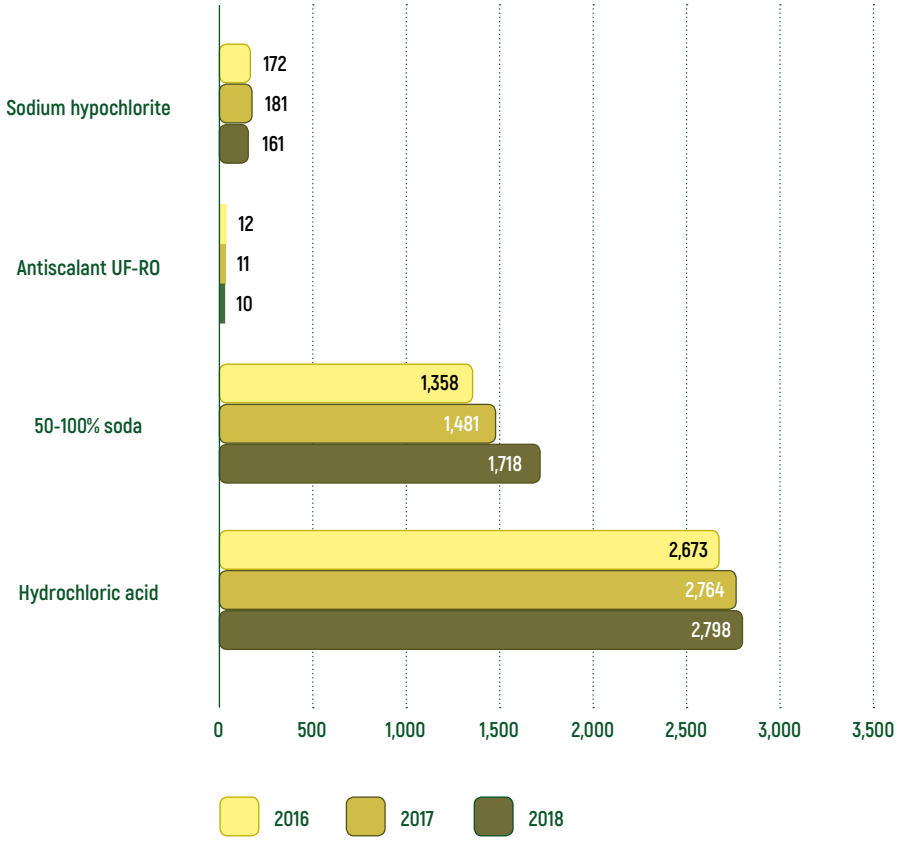


Fig. 18 - SA9 plant additive consumption (t)

4.6. NOISE GENERATION

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Law no. 447 of 26 October 1995 and relative implementing decrees Ministerial Decree 16/03/98 Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Biennial monitoring campaigns

As established by the Integrated Environmental Authorisation decree, in 2018 the measurement campaign designed to assess the acoustic impact of the noise emissions produced by the ERG

Power plants was updated. This involved the monitoring of noise immission levels at the receptors identified in external areas and close to the boundaries of the Priolo Gargallo multi-company site. The measures were performed by an acoustics specialist and in compliance with the applicable reference technical regulations.

To this end, the following noise measurements were taken:

- monitoring along the boundaries of the plants/areas owned by ERG Power and located in the multi-company site of Priolo Gargallo (CCGT, SA9, SA2 and temporary waste deposit) to determine the levels of noise at the sources of the noise;
- monitoring at the receptors identified in the external areas close to the boundaries of the site, regarded as most significant for checking immission levels, established pursuant to Law no. 447 of 26 October 1995 and relative implementing decrees.

The monitoring was carried out according to the methods indicated in Ministerial Decree 16/03/98.

The following tables show the results of the monitoring at the receptors regarded as most significant for checking immission levels; on the basis of the results of the monitoring carried out on sensitive receptors (known as R1 and R2), the levels of noise measured are fully within the limits established by current legislation.

Table 9 - Daytime measurements

DAYTIME MEASUREMENTS									
Station number	UTM Coordinates	Detection date	Wind speed (m/sec)	LAeq schedule (approximate to 0,5 dBA)	Instrumental uncertainty in dBA	Presence of impulsive components (KI)	Presence of tonal components (KI)	Correct noise level (LC)	Reference limit value (art. 6 D.P.C.M. 1/03/98)
R1	N: 4112865 E: 516583	13/07/2018	< 5	55.0 dBA	± 0.2	NO	NO	55.2 dBA	70 dBA
R2	N: 4112993 E: 515439	13/07/2018	< 5	49.0 dBA	± 0.2	SI	NO	52.2 dBA	70 dBA

Table 10 - Night-time measurements

NIGHT-TIME MEASUREMENTS									
Station number	UTM Coordinates	Detection date	Wind speed (m/sec)	LAeq schedule (approximate to 0.5 dBA)	Instrumental uncertainty in dBA	Presence of impulsive components (KI)	Presence of tonal components (KI)	Correct noise level (LC)	Reference limit value (art. 6 D.P.C.M. 1/03/98)
R1	N: 4112865 E: 516583	16/07/2018	< 5	53.5 dBA	± 0.2	SI	NO	56.7 dBA	60 dBA
R2	N: 4112993 E: 515439	16/07/2018	< 5	48.5 dBA	± 0.2	SI	NO	51.7 dBA	60 dBA

Fig. 19 - Location Receptor R1

Fig. 20 - Location Receptor R2

4.7. ELECTROMAGNETIC FIELDS

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Italian Leg. Decree 81/08 as amended Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Monitoring

The presence of medium and high-voltage stations and lines generates electric and magnetic fields at the industrial frequency of 50 Hz (significant aspect). The area affected by these fields is limited to the immediate vicinity of station equipment, well away from residential areas, and electricity lines connected to the national grid.

The power stations managed convey electricity into the national transmission grid owned by Terna S.p.A., which is responsible for aspects pertaining to the electromagnetic fields created by the lines leaving the stations.

The monitored areas were the SA2 plant and the CCGT plant, which were surveyed in terms of both low-frequency magnetic fields (50 Hz) and the eventual presence of high-frequency electric fields (300 kHz – 3 GHz).

The results of the final campaign, carried out during 2017, confirmed compliance with current legislation. More specifically, it is possible to conclude that:

- in all areas monitored the values measured are below the action values established by Leg. Decree 81/08 as amended (Annex XXXVI as per art. 208, paragraph 2) and the new Directive 2013/35/EU;
- on the basis of the reference regulation, compliance with the action values, as above, guarantees compliance with the relevant exposure limit values;
- considering that the action values have not been exceeded, as mentioned above, the hypothetical exposure times of site personnel do not present any particularly criticalities.

4.8. VISUAL IMPACT

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	ASI Planning Regulations
Actions	Procedure for the authorisation of new plants

As described, the ERG Power plants are located in the Priolo Gargallo multi-company site in the Province of Syracuse.

The zone is classified by the ASI Planning Regulations as a "G1 agglomerate", an area occupied by major businesses.
Around the plant there is more industrial fabric, as well as high-density urbanised zones, spaces reserved for trees and plants, and areas of arable land.
The ERG Power plants are therefore perfectly integrated in a developed and consolidated industrial area and do not represent anomalies on the landscape.

4.9. BIODIVERSITY

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	ASI Planning Regulations
Actions	-

The zone in which the ERG Power plants are located is classified by the ASI Planning Regulations as a "G1 agglomerate", an area occupied by major businesses.
It is a developed and consolidated industrial area that does not present any particular signs of biodiversity.

4.10. ASBESTOS

Assessment result	**NOT SIGNIFICANT**
Regulatory framework	Italian Leg. Decree 81/08 as amended Health Ministry Decree 6 September 1994 Law no. 257 of 27/03/1992 Integrated Environmental Authorisation DVA – DEC-2010-0000493 of 05.08.2010
Actions	Control programme Maintenance and containment activities Safety labelling

There are materials containing asbestos at the ERG Power plants whose condition is monitored each year by the Asbestos Manager with the help of a specialist company; the aim of this is to glean useful information regarding the eventual need to implement removal or encapsulation measures. In fact, the results of these monitoring activities, like those of the plans to rejuvenate some areas

of the plant that contain asbestos, can lead to investment activities for the removal of materials containing asbestos, actions which are included in the investment plan. Pursuant to Ministerial Decree 06/09/1994, the asbestos manager supervises and coordinates all maintenance on the products containing asbestos and, at the end of 2018, updated the map of materials containing asbestos, indicating which periodic surveillance methods are utilised.

The update to the survey confirmed the presence of the specific materials containing asbestos listed in the table below and made it possible to record the removal of some items (since the previous survey the switches containing asbestos present in the SSI 10kV and SSII 10 kV substations have been removed).

Table 11 -State of materials containing asbestos

Type of material	State
Arc chutes in electric switches	Material confined and equipment in good condition
Insulating tapes on ovens and heat exchangers	Material confined and equipment in good condition
Seals	Material confined and equipment in good condition
Panels containing asbestos	Good condition; unlikely to be damaged because of the conditions of the material

4.11. EVENTS IN THE ENVIRONMENT

When developing the facilities that make up the ERG Power plant, all necessary technical, organisation and management measures to reduce accidental events were adopted.

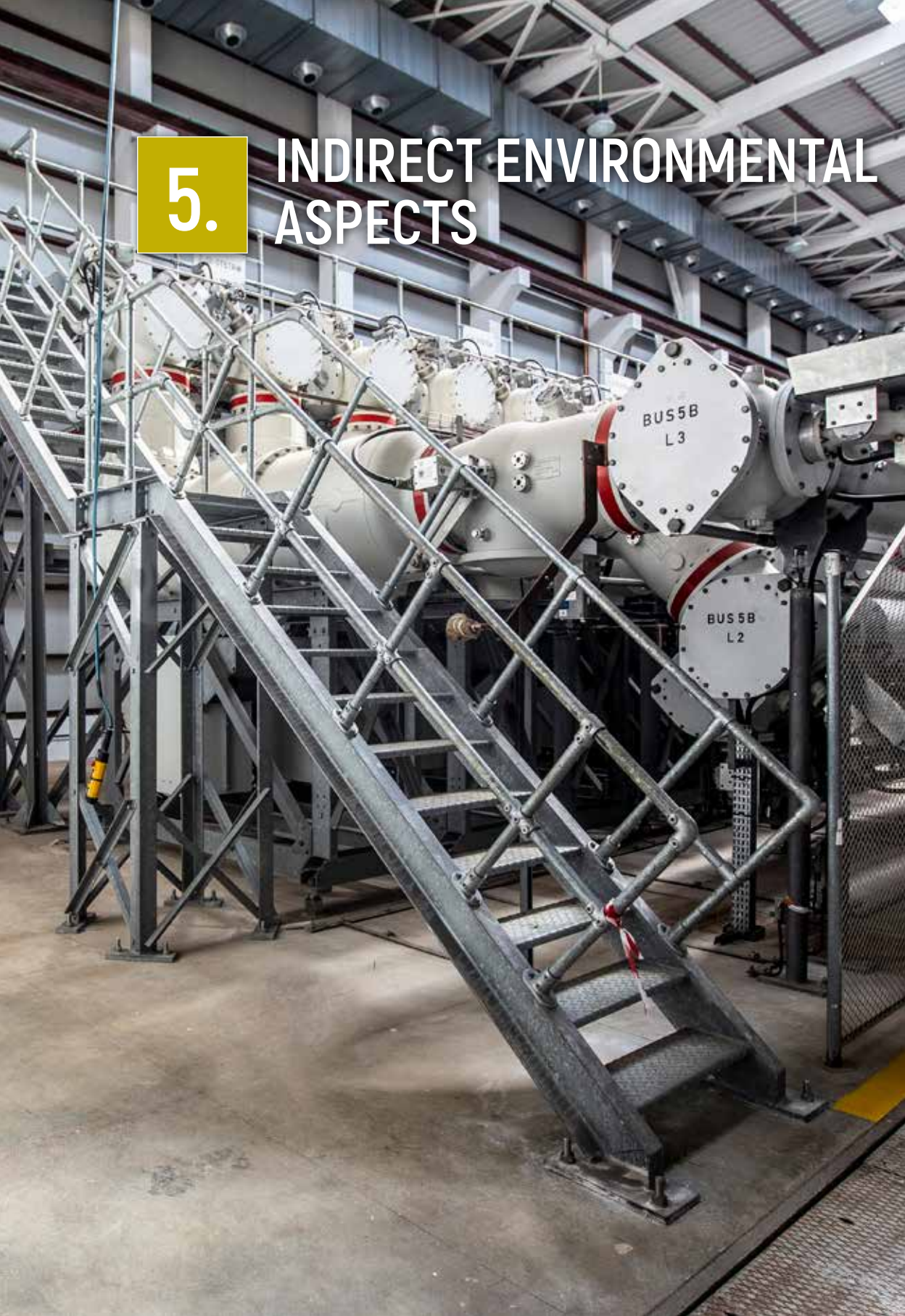
However, when assessing significant environmental aspects all potential accidental and emergency situations were considered such as, for example, fires, the spilling of waste and/or other chemical substances in the soil or subsoil, the exceeding of the established limits for water discharges and/or atmospheric emissions.

The operating procedures adopted by ERG Power, as part of the Management System certified according to the ISO 14001:2015 standard, indicate the operating and management measures to adopt to address such emergencies.

In addition, in the multi-company site, given the activities entrusted to the Priolo Servizi consortium (fire prevention service and emergency teams, management of common areas and service networks), the "Unified Internal Emergency Plan for the Multi-Company Site North", which establishes the methods for managing accidental events, particularly fires and spills, was recently updated.

The current structure of the ERG Power plant has not determined any accidental event with consequences on the environment.

5. INDIRECT ENVIRONMENTAL ASPECTS



5. INDIRECT ENVIRONMENTAL ASPECTS

Assessment result	NOT SIGNIFICANT
Regulatory framework	Group HSE Guidelines Operating procedures for third parties Health, Safety and Environment specifications (for third parties)
Actions	Supplier qualification Operational audits in the field

Indirect environmental aspects are those aspects over which the organisation does not have direct management control, but which it can influence. In other words, an aspect can be defined as indirect when at least one other external party is involved in the management of an activity and plays an active role in the interaction process between the organisation and the environment.

Indirect environmental aspects of key importance are those connected with:

- goods and services provided by contractors selected by ERG Power;
- goods and services supplied by third parties with utility contracts made necessary by the strategic and territorial requirements of the multi-company site.

ERG Power undertakes to ensure that its contractors comply with the company environmental policy when providing the services outlined in the contract, with respect for the environment in accordance with current legislation and the regulations indicated. The selection, monitoring and management of the relationship with suppliers, in all its aspects, is becoming more and more important within the ERG Group, which regards it as a key success factor. These processes, in line with the evolution of the business and industry best practices, are updated in order to reflect the Group's set of values as well as the most recent regulations, especially those regarding the implementation of ERG's Model 231.

The selection of suppliers is based on an accurate assessment, classification and monitoring process, according to objective criteria with regard to their technical abilities and reliability. This activity is regulated by a procedure that uses online supplier management portals, allowing a complete analysis of the technical, economic-financial, legal and qualitative profile of the potential partner. In 2018, a work group was set up to review the qualification questionnaire, diversified according to individual product category, and to introduce a new IT tool which improves the integration of the information in the company's processes.

In order to keep safety standards high at the ERG Power plant, it is essential to raise awareness around the fact that safety mainly depends on the behaviour of internal staff and personnel belonging to the contractors that work at the site. Of fundamental importance are the information and coordination activities - held before authorising access to the plant - used to inform third-party companies of all the procedures they must adopt.

To check that the activities of third parties comply with current regulations and internal procedures, periodic audits are carried out on the performances of the contractors that work at the site identifying, where necessary, the most suitable corrective actions to improve their performances. On a monthly basis, the internal HSE department monitors the suppliers present and carries out operational audits based on a check-list of around 40 items regarding the key aspects to ensure that activities are carried out safely. If any non-compliant behaviours are identified with regard to best practices, immediate action is taken to correct them and to prevent such events from recurring.

The audits therefore help us assess our contractors: if they repeat their negative performances, penalties may be applied in cooperation with the Group Procurement department.

ERG Power sources out some activities to third parties with utility contracts made necessary by the strategic and territorial requirements of the multi-company site. These services include:

- the management of water discharges;
- procurement of utilities;
- fuel procurement.

The *management of water discharges* includes the waste sent to the plant sewage network via the two drainage points, S1 and S2, and from here to the external treatment plant. The authorisation for the external drainage of these waters is held by the company Priolo Servizi, also present at the multi-company site, which is appointed to manage the site sewage system. The wastewater discharged by ERG Power into the sewage network is managed via an admissibility protocol stipulated between the two companies. According to precise monitoring schedules, these waters are surveyed to verify their compliance with the reference values at the entry point into the sewage network.

The procurement of utilities is connected with the supply of seawater, untreated water or osmotised water supplied respectively by Priolo Servizi and Syndial.

As regards *fuel procurement*, indirect environmental impacts are minimised thanks to the network of gas pipelines present in the site and through the exclusive use of gas and commercial fuels with well-documented characteristics that fully comply with the reference technical specifications.

6. THE ENVIRONMENTAL PROGRAMME

6. THE ENVIRONMENTAL PROGRAMME

6.1. ENVIRONMENTAL OBJECTIVES AND GOALS 2017 - 2020

Environmental aspect	Goal	Goal/Activity	Responsibility	KPI	Resources (k€)	Deadline	2017 Update	2018 Update
Use of natural resources	Reduction of water consumption	5% reduction in the groundwater consumption indicator compared with 2015	Operation & Maintenance Performance	Groundwater consumption indicator	150	December 2017 (see note 1)	ACHIEVED IN DECEMBER 2017 (see paragraph 6.1.1)	
		Maintain the groundwater consumption indicator at a value of no higher than 2,400 m^3/GWh (see note 2)			100	December 2018 December 2019	Ongoing	Value equal to 2,488.53 m3/GWh for 2018; the target limit was slightly exceeded due to the different levels of electricity, steam and demineralised water production and consumption compared with the budget values.
		Recovery of 16,000 m^3 of water: - Development of recovery system for tank condensation water (TG3-TG4) - Reporting of quantity of recovered water	Engineering & Construction	m^3 of water recovered	158	December 2017 December 2018	WATER RECOVERY SYSTEM DEVELOPED (see paragraph 6.1.1) Ongoing	The measuring system adopted is not yet fully operational
		Recovery of 16,000 m^3 of water: - Development of recovery system for tank condensation water (TG1-TG2) - Reporting of quantity of recovered water			158	December 2018 December 2019	Ongoing	WATER RECOVERY SYSTEM DEVELOPED (see paragraph 6.1.1)
Energy consumption	Energy efficiency	5% reduction in energy efficiency indicator compared with 2015 through: - Analysis of overall and specific energy and fuel consumption - High-Yield Cogeneration	Performance	Energy efficiency indicator	100	December 2017 (see note 3)	ACHIEVED IN DECEMBER 2017 (see paragraph 6.1.2)	
		Replacement of traditional lights with LED lights at SA9 Plant and adjacent areas Replacement of traditional lights with LED lights at the CCGT plant	Engineering & Construction	60% of all lights replaced 100% of lights replaced	300	December 2017 December 2018	60% OF LIGHTS AT THE SA9 PLANT AND ADJACENT AREAS REPLACED WITH LED LIGHTS. LIGHTS AT THE CCGT PLANT CURRENTLY BEING REPLACED (see paragraph 6.1.2)	REPLACEMENT OF TRADITIONAL LIGHTS WITH LED LIGHTS AT SA9 COMPLETED. LED INTRODUCTION AT CCGT COMPLETE.
Fuel consumption	Reduction in fuel consumption	25% reduction in car fuel consumption compared with previous year	HR OFFICER & GENERAL SERVICES UP THERMO	Car fuel consumption	25	December 2017	CONSUMPTION REDUCED BY APPROX. 20% REMAINING 5% REDUCTION REPLANNED IN DEC 2018 (see paragraph 6.1.3)	ADDITIONAL 5% ACHIEVED IN 2018

(follows)

(keep on)

Environmental aspect	Goal	Goal/Activity	Responsibility	KPI	Resources (k€)	Deadline	2017 Update	2018 Update
Communication	Raise awareness around adopting more responsible conduct to protect the environment	Drafting of 2 half-yearly "green" newsletters to circulate among the entire company population via the company intranet, team erg, email, company notice board Organisation of 1 awareness campaign per year aimed at company staff and their families, also involving the issuing of information materials (leaflets, gadgets, etc.)	HSE	–	10	December 2019 December 2020	–	–
Communication	Disclosure of EMAS registration	Carry out 2 EMAS information campaigns aimed at staff to highlight the advantages of EMAS registration in terms of competitiveness, stakeholder dialogue and environmental performances Communicate EMAS registration by using the logo: - Create at least 2 types of objects or media with the logo	HSE	–	20	December 2019 December 2020	– –	– –
Green Procurement	Foster the development and awareness of environmental issue management in procurement	Analysis of services and products procured and evaluation of their replacement with "green" equivalents: - Drafting of analysis report Definition of minimum environmental criteria to apply in contractor agreements (drafting of guidelines): - Drafting of guidelines Training and raising awareness among the Business Units responsible for managing procurement: - Training campaigns of at least 10 hours for all employees	HSE Procurement	–	20	June 2018 December 2019 June 2020	ANALYSIS OF SERVICES AND PRODUCTS ONGOING (see paragraph 6.1.4)	Study to classify and analyse variations carried out, adoption of Minimum Environmental Criteria valid for public authorities evaluated; issue given prominence in the more general Sustainable Procurement project carried out with Procurement (see paragraph 6.1.4)

Note 1
At 31/12/2017 the groundwater consumption indicator is 2,079.73 m^3/GWh.

Note 2
2,400 m^3/GWh is the value of the groundwater consumption indicator (the ratio between well water and drinking water consumption and gross electricity generated) which guarantees, downstream from the investment, the rational use of water resources on the basis of the characteristics of the plants.

Note 3
At 31/12/2017 the reduction of the energy efficiency indicator is equal to 7.273 TJ/GWh.

In 2018 ERG Power pursued the achieving of its environmental performance improvement targets by continuing to adopt the "best available techniques" in the industry, as prescribed by the Integrated Environmental Authorisation, issued in accordance with the IPCC EC Directive (Integrated Prevention Pollution and Control).

Below are a few notes on the targets achieved in 2018.

6.1.1. REDUCTION OF WATER CONSUMPTION

The goal of reducing water consumption, defined in the last 3-year period, was achieved in December 2017. It involved the development of measures to recover backwash water with the aim of increasing the overall efficiency of the system in terms of the water consumption of Unit SA9, dedicated to the production of demineralised water (Demi plant). Downstream from the development of these measures, the goal was to reduce the water consumption indicator (the ratio between well water and drinking water consumption and gross electricity generated) by 3% compared with 2015 and then by 5% compared with 2015 in December 2017.

As outlined in table 15, this reduction target was achieved.
With regard to the goal of maintaining the groundwater consumption indicator at a value of no higher than 2,400 m^3/GWh, in 2018 this value came to 2,488.53 m3/GWh; the target limit (3.6%) was slightly exceeded due to the different levels of electricity, steam and demineralised water production and consumption compared with the budget values, and not process inefficiencies.

Still with regard to the water consumption reduction project, another goal for the current 3-year period is that of making a new investment for the recovery of continuous boiler discharges using tanks specifically installed at every boiler in the CCGT plant. This investment, completed in two steps in December 2017 and December 2018, makes it possible to reduce the consumption of incoming untreated water by recovering the equivalent quantity of demineralised water.
With regard to the reporting of the quantity of water recovered, activities to bring the measuring tools fully on-stream are ongoing.

6.1.2. ENERGY EFFICIENCY

Over the years the improvement of energy efficiency has been one of ERG Power's key goals and one that has translated into investments that have proved very farsighted.
The Combined Cycle Gas Turbine (CCGT) plant is a prime example of efficiency, accountability and sustainability in the management of our assets. The ERG Group's specific aim was to develop an electricity and process steam production unit that makes maximum use of the primary energy source to reduce the complex's consumption and emissions levels.

The CCGT was the first large-scale plant in Italy to be awarded High-Yield Cogeneration plant status (HYC) by the Energy Services Manager (GSE – Gestore dei Servizi Energetici).

In December 2017 the company achieved its goal, launched in the previous 3-year period, of reducing the energy efficiency indicator by 3% compared with 2015 and then by 5% compared with 2015 through:

- The analysis of overall and specific energy and fuel consumption;
- High-Yield Cogeneration.

The goal for December 2017 was to reduce the energy efficiency indicator (relationship between fuel energy consumed and gross electricity produced) by 5% compared with 2015. As outlined in table 15, this target was achieved.

A new energy efficiency objective for the 2017-2020 3-year period is that of making investments to replace traditional lights with LED lights. All lights in the SA9 facility and adjacent areas were replaced in 2018 and the first step of replacing them in the CCGT area was completed.

6.1.3. REDUCTION IN FUEL CONSUMPTION

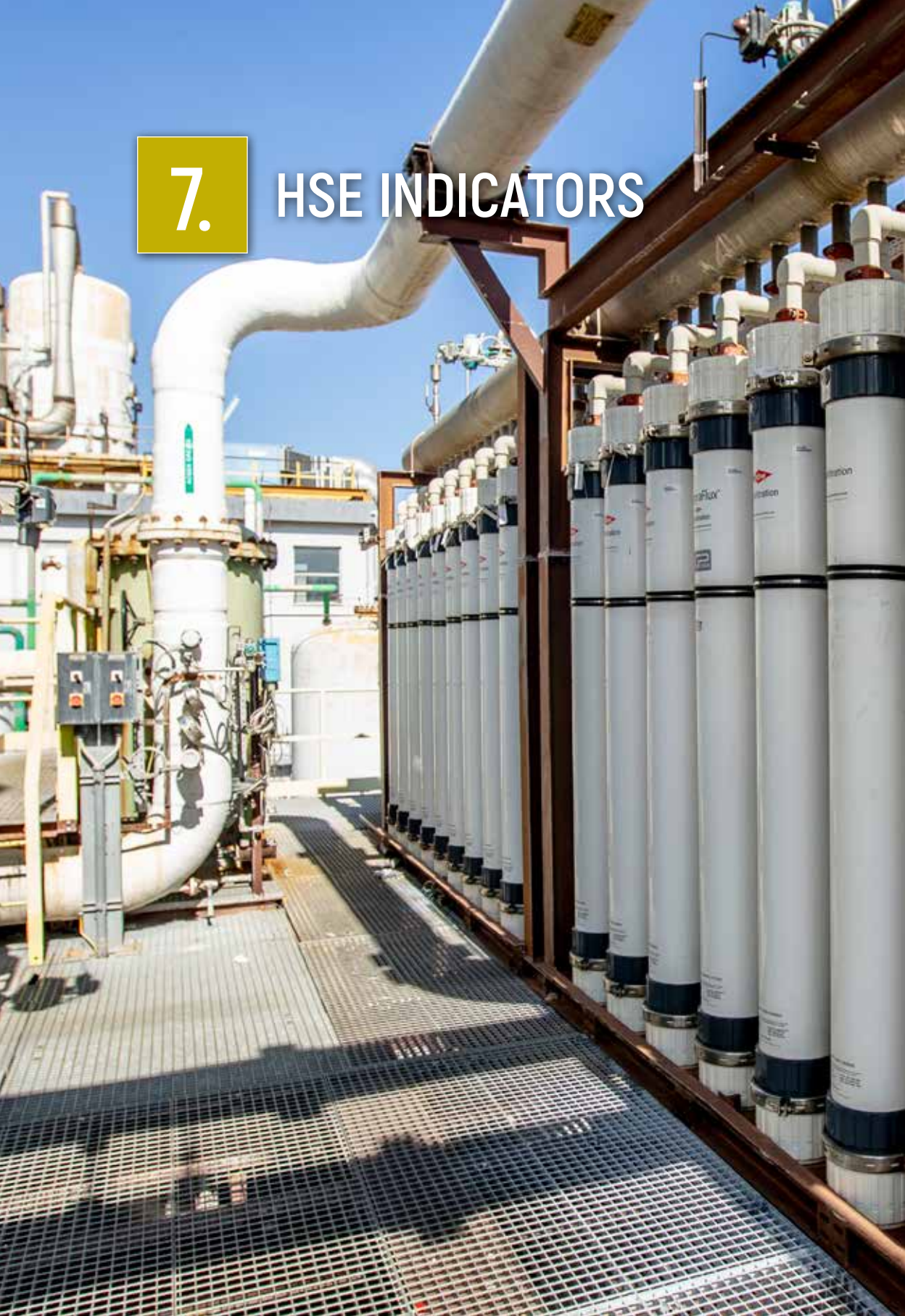
With the aim of managing company cars more efficiently and focusing closer attention on the reduction of fuel consumption, a plan was developed for the optimisation of the employee car fleet which seeks to reduce car fuel consumption by 25% compared with 2016.
This target was met in 2018.

6.1.4. GREEN PROCUREMENT

With the goal of further developing the culture of environmental awareness, ERG Power has launched a process focused on the "green" management of purchases in order to create a more sustainable approach for its network of suppliers. The aim is to promote and raise awareness around the correct environmental management of purchases. For this reason, the 3-year environmental programme for 2017-2019 included a specific objective.
The issue of "Green Procurement" was given central importance in the more general "Sustainable Procurement" project that involves the entire ERG Group.
Sustainable procurement is a springboard for beginning the transition towards an economy that

seeks to reduce the environmental impacts of production and consumption, and promotes and protects decent work and human rights.

In 2018 a study was carried out to classify and analyse current contracts in relation to the Minimum Environmental Criteria - MEC - valid for public authorities. In 2019 a "Sustainable Procurement" project will be launched to thoroughly analyse certain categories of suppliers, creating ratings and sustainability indicators, and identifying criteria and areas of application in their processes (such as, for example, the MEC categories of the Ministry of the Environment).



7. HSE INDICATORS

7. HSE INDICATORS

Below is a summary of the main environmental data relating to ERG Power reported in the previous paragraphs and the main environmental indicators; this is followed by a summary of ERG Power's main performance indicators (KPIs).

Table 12 - Data summary

Data summary	Unit of measurement	2016	2017	2018
Electricity Produced (gross)	GWh	2,780	2,531	2,215
Total steam production in different conditions	tonnes/year	1,108,473	1,158,303	1,204,185
Demineralised water	m^3	4,336,215	4,342,539	4,503,753
SO_2	tonnes/year	47.8	42.9	33.8
CO	tonnes/year	46.3	44.0	41.7
NO_x	tonnes/year	393.9	364.2	339.5
Dust	tonnes/year	4.8	3.9	3.7
CO_2	tonnes/year	1,215,501	1,130,171	1,008,423
EE equivalent	MWheq	2,958,474	2,719,682	2,525,145
CO_2/EEeq	t/MWheq	0.41	0.42	0.40
Biodiversity	Evidence occupied surface area m^2	250,000	250,000	250,000
Seawater	m^3	216,929,902	199,977,494	197,513,574
Drinking water	m^3	29,961	16,853	12,468
Well water	m^3	5,758,136	5,246,207	5,500,779
Hazardous Waste	tonnes/year	351	291	174
NON-Hazardous Waste	tonnes/year	3,364	1,788	1,373

Table 13 - Performance indicators (KPIs)

Indicator	Unit of measurement	2016	2017	2018
Energy Efficiency indicator (fuel energy consumed/gross electricity generated)	TJ/GWh	7,644	7,273[8]	7,001[8]
Atmospheric emission indicators:				
for SO_2	t/GWh	0.02	0.02	0.02
for CO	t/GWh	0.02	0.02	0.02
for NO_x	t/GWh	0.14	0.14	0.15
for Dust	t/GWh	0.002	0.002	0.002
for CO_2	t/GWh	437.10	486.28	455.17
Groundwater consumption indicators (consumption of well and drinking water/gross electricity generated)	m^3/GWh	2,081.43	2,079.73	2,488.53
Waste indicators – Hazardous Waste/ gross electricity generated	t/MWh	0.00013	0.00012	0.00008
Waste indicators – Non-Hazardous Waste/gross electricity generated	t/MWh	0.0012	0.0007	0.0006
No. accidents	men/year	0	2	0
Fr	no. of accidents per million hours worked	0	11	0
Sr	total days lost per thousand hours worked	0	1	0
Material consumption indicator	t/MWh	0.0015	0.0018	0.0021
Chemicals/demi water indicator	t/m^3	0.0010	0.0010	0.0010

[8] To highlight the definition of High-Yield Cogeneration at the CCGT combined cycle plant, which produces both electricity and steam at the same time, the energy efficiency indicator was calculated also considering the electricity equivalent of the steam in the network (2,719,682 MWheq in 2017 and 2,525,145 MWheq in 2018) as a common denominator.

8. ACCREDITATION

This Environmental Declaration was certified by:
RINA SERVICES S.p.A.
Accreditation no. IT-V-0002
On 17 June 2019

The site is registered with EMAS with number IT-001713.
ERG Power undertakes to publish this Declaration at www.erg.eu
The Management also undertakes to update the information in this Environmental Declaration every year, to certify every change with an environmental inspector, to present the changes to the competent authority and to make them public.

9. CONTACTS

Head of ERG Power Production Unit	Fabio Caudullo tel. +39 0931 1938535 fax +39 0931 1938271 e-mail: fcaudullo@erg.eu
Head of HSE Thermo & Hydro	Giuseppe Bruno Polizzi tel. +39 0931 1938447 Fax +39 0931 1938271 e-mail: gpolizzi@erg.eu

10. APPENDIX

Below is a summary of the sources and responsible business units and the methods used to calculate every piece of data reported:

DATA	SOURCE	RESPONSIBLE BUSINESS UNITS	CALCULATION METHOD
SO_2	E-PRTR Declaration	HSE	Estimate from periodic chimney monitoring campaigns
CO	E-PRTR Declaration/Annual report pursuant to the IEA	HSE	Continuously monitored by EMS
NO_x	E-PRTR Declaration	HSE	Continuously monitored by EMS
Dust	E-PRTR Declaration/Annual report pursuant to the IEA	HSE	Estimate from periodic chimney monitoring campaigns
VOC	E-PRTR Declaration	HSE	Emission forecast on the basis of measurements taken in the field ("2018 Fugitive emissions forecast" report of 29/06/2018)
CO_2	ETS Communication	Performance	Calculated according to EU-ETS procedure (ETS verification of 11 and 12/2/2019)
Fluorinated gases	Fluorinated gases declaration	HSE	Replenishments
SF_6	Maintenance activities	Maintenance	Replenishments
Water discharges	E-PRTR Declaration/Annual report pursuant to the IEA	HSE	Estimate from periodic monitoring campaigns
Waste	Environmental Declaration Form (MUD)	HSE	Weight
Seawater	Financial statement; contract with Priolo Servizi	Performance	Meters - Financial statement
Drinking water	Financial statement; contract with Priolo Servizi	Performance	Meters - Financial statement
Well water	Financial statement; contract with Priolo Servizi	Performance	Meters - Financial statement
Fuel consumption	Financial statements	Performance	Supplier invoices
Consumption of additives	Financial statements	Performance	Supplier invoices
Noise	Annual report pursuant to the IEA	HSE	Measurements in the field ("Assessment of the acoustic impact of the noise emissions produced by the ERG Power plants" report of July 2018)
Electromagnetic fields	Risk Assessment Document	HSE	Measurements in the field ("Assessment of the risks connected with the exposure of workers to electromagnetic fields pursuant to chapter VIII paragraph IV of Leg. Decree 81/08 as amended" report of March 2017)
Biodiversity	Integrated Environmental Authorisation	HSE	-
Asbestos	Mapping and assessment of asbestos risk	Asbeshos Manager	Measurements of fibres in the air ("Mapping and assessment of asbestos risk ERG Power-owned plants – ISAB Refinery North Plants" report of 22/02/2019)
Electricity produced	Financial statements	Performance	Meters - Financial statement
Total steam production in different conditions	Financial statements	Performance	Meters - Financial statement
Demineralised water	Financial statements	Performance	Meters - Financial statement

11. GLOSSARY

The main acronyms and technical terms used are explained below:

Accident frequency rate: a rate defined by considering the number of accidents reported by the company to INAIL (national insurance institute) against the number of workplace accidents per number of hours worked (No. accidents INAIL x 1,000,000/no. hours worked).

Accident severity rate: a rate based on the ratio between the number of days of short-term disability associated with accidents and the number of hours worked (calculated using the formula no. days lost x 1,000/no. hours worked).

CCGT: Combined Cycle Gas Turbine.

CO (carbon monoxide): gas produced by the incomplete combustion of fuel and fossil fuels.

CO_2 (carbon dioxide): odourless, colourless, flavourless gas produced as a result of combustion processes, respiration and the decomposition of organic material. One of its characteristics is that it absorbs infrared radiation from the Earth's surface thus contributing to the "greenhouse effect".

DAM: Day Ahead Market, where most electricity trading takes place. On the DAM blocks of hours of energy for the following day are traded. Operators present offers in which they indicate the quantity and maximum/minimum price at which they are willing to buy/sell.

DSM: Dispatching Services Market, the instrument used by Terna S.p.A. to procure the resources required to manage and monitor the system (resolution of inter-zone congestion, creation of power reserve, real-time balancing). Terna acts as a central counterparty on the DSM and accepted offers are remunerated at the presented price.

Dust: Consists of very small solid particles suspended in the air. It is mostly made up of unburned carbonaceous materials, the surfaces of which can absorb various types of compounds. The fraction of particulate matter with diameter of less than 10 μ (1 μ = 1 millionth of a metre) can pass through the airways and into the lungs, potentially becoming dangerous for human health depending on the substances from which it is formed.

Emission Trading: European Union Emissions Trading Scheme (EU ETS). The main instrument adopted by the EU, in compliance with the Kyoto Protocol, to reduce greenhouse gas emissions in energy-intensive sectors, i.e. industrial sectors with heavy emissions.

EMS: System for monitoring chimney stack emissions.

Environmental aspect: aspect of an activity, product or service of an organisation that has, or can have, an impact on the environment; a significant environmental aspect is an environmental aspect that has, or can have a significant environmental impact.

Environmental impact: any change to the environment, negative or positive, deriving in full or in part from the activities, products or services of an organisation.

GME: the energy markets operator, which in Italy is responsible for the organisation and management of the electricity market.

Greenhouse effect: gradual increase in the average temperature of the atmosphere as a result of an increase in the concentration of gases in the atmosphere. The substances that contribute most heavily to the greenhouse effect (greenhouse gases) include chlorofluorocarbons (CFCs), carbon dioxide (CO_2), methane (CH_4), nitrogen oxides (NO_X) and sulphur hexafluoride (SF_6).

HYC: High-Yield Cogeneration is the production of electrical/mechanical and thermal energy that respects specific energy saving constraints. These constraints are established by Legislative Decree no. 20 of 8 February 2007, as integrated by Ministerial Decree of 4 August 2011.

ICT: Information & Communication Technologies.

ICT/TLC SYSTEMS: Information & Communication Technologies/Telecommunication.

IDM: Intra-Day Market, enables operators to make changes to the programmes defined in the DAM through additional purchase or sale offers. The IDM is made up of seven sessions.

IEA: Integrated Environmental Authorisation is the provision that authorises the operations of a plant, imposing measures for the elimination or reduction of emissions in the air, water and soil in order to guarantee high levels of environmental protection. The integrated environmental

authorisation takes the place of all other authorisations, approvals permissions or opinions in the environmental sphere established by the law and related enacting provisions.

Impulsive and tonal components: noise components forming part of specific bands of the frequency spectrum or connected with the impulsiveness and repetitiveness of an event that produces noise.

KPI: Key Performance Indicators, the series of indicators that makes it possible to measure the performance level of a specific activity or process.

LAeq: equivalent continuous sound level.

NO_x (nitrogen oxides): gaseous compounds consisting of nitrogen and oxygen (NO, NO_2, etc.), normally released during the combustion of fossil fuels in which dinitrogen (N_2) is oxidised. In the atmosphere they are the biggest cause of photochemical smog and, after SO_2, the biggest cause of acid rain.

Polishing: final treatment of purified water with the goal of producing demineralised water.

Reverse osmosis: technology used to purify water with the goal of producing demineralised water.

SO_2 (sulphur dioxide): colourless gas with a pungent odour that is released during the burning of fossil fuels containing sulphur. High concentrations of SO_2 in the atmosphere are the main cause of acid rain.

Terna: National Electricity Grid, operates networks for the transmission of electricity.

Ultrafiltration: form of water treatment which consists of separating out certain materials of small particle size.

ERG Power S.r.l.
Torre WTC
via De Marini, 1 - 16149 Genoa
tel +39 010 24011
PEC ergpower@legalmail.it

SP ex SS 114 Litoranea Priolese km 9,5 96010 Priolo G. (SR)
Tel +39 0931 1938006 Fax +39 0931 1938271

www.erg.eu

Share Capital EUR 5,000,000.00 fully paid
R.E.A. Genoa 472516
Company Register Genoa, Fiscal Code and VAT 01669090894