ipto

Sustainability Report **2019**


ARIADNE


ipto
interconnecting tomorrow

Contents

Message from the Chairman and CEO

Dear stakeholders,

We are pleased to welcome you to the first Sustainable Development Report of the IPTO Group. The aim of the report is to present to you, our sustainability performance in a comprehensive manner and in accordance with international standards, as well as our contribution to the new energy landscape of the country.

Over the last years, IPTO has been developing and modernizing, accelerating its projects and consolidating itself in the national and regional map of electrical interconnections. As the Operator of the Electricity Transmission System of the country, we are at the forefront of the energy transformation that is taking place both in Greece and in Europe, at a rapid pace. We are able to achieve this through our vision and hard work.

Our mission is to ensure the uninterrupted operation, maintenance and development of the electricity transmission system. Our goal is to ensure the country's supply in the most secure, efficient and reliable way, always guided by the principles of sustainable development.

One of our main tasks is the development of the Hellenic Electricity Transmission System (HETS). With the main goal being to develop the electrical interconnection of almost all the Aegean islands with the mainland system by 2030, IPTO is proceeding with speed and consistency in the implementation of the Ten-Year Development Plan which is amounting to 5 billion euros.

The benefits from the ambitious island interconnections project are evident both to the areas to be interconnected and to the whole country. The High Voltage System's development is the vehicle for changing the country's energy mixture through delignitisation and the penetration of a higher percentage of RES in electricity generation. Meantime, the energy upgrade of the islands is achieved, while several millions of euros are saved from the Services of General Interest that are charged to the electricity bills. In addition, new jobs are being created, while the islands are being upgraded environmentally thanks to the drastic reduction of greenhouse gases since the polluting power plants are "closing".

However, maintaining the leadership position in the electrical interconnections and the consequent benefits for all electricity consumers, is not the only reason why IPTO acts as a catalyst for the transition to sustainable development. Equally important is our contribution to shaping a new electricity market, as IPTO is a critical factor in the implementation of the Target Model, which will lead to the liberalization and consolidation of the energy market. Simultaneously, in 2019, Grid Telecom, the group's new subsidiary, started operating. Through the expansion of the fibre optic network, the new subsidiary is expected to contribute to the digital transformation of the country and IPTO to make Greece an important telecommunications hub in the wider Mediterranean region, claiming a significant share of international data traffic. Grid Telecom, together with Ariadne Interconnection, which implements the largest interconnection project, Crete-Attica, form a modern group that operates according to the development standards of European Operators.

At financial level, IPTO's performance is also extremely satisfactory. Last year we achieved our financial goals, including significant reduction of borrowing cost. In 2019, IPTO recorded a net profit of 103 million euros thanks to the optimization of procedures and the further streamlining of its

operating expenses. At the beginning of 2020 and as the society was faced with the unprecedented crisis of Covid-19, the Company shared part of these profits with all the citizens of the country through significant donations to the National Health System, totalling 1 million euros.

Along with the financial figures and the timely completion for its projects, IPTO also improves its processes by accelerating its radical transformation. The change achieved at work culture in recent years is impressive, while the way of responding to modern challenges is constantly improving. For all this, the employees who are the soul of the Company deserve hearty congratulations. All of the above, mark a radical change in the philosophy and the way of corporate operation by strengthening the extroversion and taking initiatives with emphasis on sustainable development.

This year, and for the years to come, our objective is to work even harder in this direction: acting responsibly and respectfully towards our fellow human beings and the natural environment, taking care of the health and safety of our employees and operating in cooperation with the local communities where we operate. Our operation is based on the principles of sustainable development for the whole country.

Our vision is for IPTO to signal with its work the modernization of both the country's energy landscape and the companies that are under state control. We connect our islands in a safe and clean way, we also connect the whole country with electricity and telecommunications. We connect Greece's present with its future.

MANOS MANOUSAKIS
Chairman and CEO/

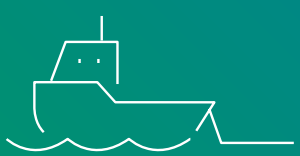
> "Our vision is for IPTO to signal with its work the modernization of both the country's energy landscape, and the interaction with our customers and end users."

IPTO at a glance

Map of the Hellenic Electricity Transmission System

11,972 Km total line length

11,093 km
of overhead lines



580 km
of submarine lines

299 km
of underground lines

2,737 km
fibre optic network

The shareholder composition

1,590
employees

1,251
men

339
women

€ 40,8 mil.
total line length

2 subsidiaries:
Ariadne Interconnection
Grid Telecom

€ 5 billion
investments
by 2030

€ 300 mil.
total for salaries and benefits in 2019 (Group)

52 TWh of transmitted electricity

An additional **905** MW RES joined the system in 2019

21 High Voltage Stations (HVC) (400/150/30kV)

356 substations
150kV -20kV

About the Report

This Report is the first Sustainability Report of the IPTO Group and covers the Group's activities, for the period 1/1/2019-31/12/2019. Through this Report, IPTO seeks to publicize both the company's performance in terms of sustainable development and the way in which it effectively contributes to the implementation of the national policy for the transition to a low carbon economy.

The Report complies with the highest standards of disclosure for sustainable development data, as it has been developed in accordance with the GRI Standards.

The Report has 2019 as its reference year, however, since it is IPTO's first sustainability report, both quantitative and qualitative data of the last three years (2017-2019) have been included, so that the company's long-term approach to these issues is better reflected.

Contact point

We will be happy to talk with you about any sustainable development issues related to our operation.
If you have any questions, do not hesitate to contact us.

Address:
Konstantinoupoleos 1 St., GR 12132, Peristeri, Attica
Tel.: 210-9466974
Email: sustainability@admie.gr, www.admie.gr

STRATEGY

At IPTO we take care of the operation, maintenance and development of the Greek Electricity Transmission System in order to ensure the country's supply with electricity in a safe, efficient and reliable manner, based on the principles of sustainable development.

We constantly transmit energy

The Independent Power Transmission Operator (IPTO) is the Operator of the Hellenic Electricity Transmission System (HETS).

The purpose of the Company is the operation, control, maintenance and development of HETS, in order to ensure the country's electricity supply in an adequate, safe, efficient and reliable way, including the electricity market's operation related to Daily Energy Planning (DEP) transactions in accordance with the principles of transparency, equality and free competition.

At the end of 2019, the Hellenic Electricity Transmission System included 11,972 kilometres of transmission lines and 356 substations with a total installed capacity of 17,799 MVA:

- 2,788 km of 400 kV lines (overhead and underground)
- 107 km of 400 kV D.C. Lines. (overhead)
- 8,962 km of 150 kV lines (overhead, submarine and underground)
- 114 km of 66 kV lines (overhead, submarine and underground)

The Hellenic Electricity Transmission System

The purpose of the Hellenic Electricity Transmission System (HETS) is the smooth, safe and uninterrupted transmission of electricity from Power Plants (Conventional or RES) to consumption points (Urban Centres, Industries).
As large-scale power stations are usually located far from urban centers and in order for electricity to be transmitted in the best and most efficient way, the voltage rises in the substations of the Power Plants to 400kV and 150kV levels, so that the energy is transmitted by high and ultra-high voltage transmission lines either:

- **at the High Voltage Substations of the selected Customers, or**
- **in the Substations connected to the Hellenic Electricity Distribution Network (HEDNO) where the voltage is reduced to the average level (20kV). From these substations start the distribution lines, which end at the distribution substations where the average voltage is further downgraded to the low one (220/380V), which is used by most consumers.**

The basic elements of HETS are:

- **Overhead Transmission Lines of 400kV and 150kV**
- **Underground and underwater cable lines of 400kV and 150kV**
- **Substations 150 / 20kV**
- **Ultra High Voltage Centres (HVC) 400 / 150kV**

The Hellenic System operates simultaneously also in parallel with the interconnected European System under the general coordination of ENTSO-E. The parallel operation of the Hellenic and European Systems is achieved through interconnection transmission lines (mainly 400 kV) with the Systems of Albania, Bulgaria, Northern Macedonia and Turkey. In addition, the Hellenic System is connected asynchronously (via a 400 kV DC submarine connection) to Italy.

IPTO Milestones

2012

- Establishment, organization & operation of IPTO based on Law 4001/2011.
- Certification by RAE of IPTO compliance with the requirements governing the model of the Independent Electricity Transmission Operator.

2017

- Listing of IPTO HOLDING on the Athens Stock Exchange.
- IPTO HOLDING holds 51% of the share capital of IPTO S.A.
- Acquisition of a 24% share from State Grid Corporation of China.

2018

- IPTO participation in the share capital of the Hellenic Energy Exchange (EXE) with a percentage of 20%.
- Establishment of the special purpose company Ariadne Interconnection.

2019

- Establishment of the subsidiary Grid Telecom.

Shareholder composition and registered office

From July 24, 2017, the shareholding structure of IPTO SA is as follows:

The headquarters of the company "INDEPENDENT ELECTRICITY TRANSMISSION MANAGER SOCIETE ANONYME" ("IPTO S.A.") are located at Dyrrachiou 89 Street in Athens.

IPTO Holding is a holding company that owns 51% of IPTO S.A. and is listed on the Athens Stock Exchange. The goals and strategy of IPTO Holding are the effective and efficient implementation of IPTO's purpose. IPTO S.A. is the sole asset of IPTO Holding and IPTO Holding exercises control over it.

Connected companies

IPTO Group, apart from the parent company, includes the affiliated companies "ARIADNE INTERCONNECTION S.P.L.C." and "GRID TELECOM SINGLE MEMBER S.A. which are 100% subsidiaries. GRID TELECOM expands the scope of the Group's activity in the operation, exploitation, management and development of fibre optic networks, providing integrated electronic communications services.

ARIADNE INTERCONNECTION S.P.L.C

The special purpose company with the name "ELECTRIC INTERCONNECTION OF CRETE-ATTICA ARIADNI SOCIETE ANONYME SPECIAL PURPOSE" and the distinctive title "ARIADNE INTERCONNECTION S.P.L.C." was established in September 2018, as a subsidiary of IPTO S.A. and has as exclusive purpose and objective the financing and construction of the project of wider importance for the economy of Greece:

"Transmission line between Korakia in Crete and the Perfecture of Attica".

The Interconnection of Crete with Attica is the largest project in the history of the National Transmission System and, by extension, in the history of IPTO.

The total budget of this emblematic project amounts to 1 billion euros. At technical specifications level, the project is a challenge, as few such projects are carried out worldwide. With the implementation of this project, IPTO, through Ariadne Interconnection, paves the way for future utilization of the know-how developed at business level.

The company's headquarters are located in Athens, Dyrrachiou 89 and Kifissou.

More information about ARIADNE INTERCONNECTION SA are provided on the company's website (www.ariadne-interconnection.gr) as well as in the Annual Financial Report 2019.

Attracting talent

IPTO is credited with the fact that it managed to set up and staff in record time a special purpose company as a subsidiary, Ariadne Interconnection, attracting specialized staff with scientific background. This success confirms the well-established position and strong reputation of the Operator in the market and proves its ability to attract talent, both from the potential within the country and from the Greeks who have sought work abroad during the economic crisis years (brain regain).

GRID TELECOM S.A.

GRID TELECOM S.A. which was founded in 2019, is a 100% subsidiary of IPTO and operates the fibre optic network included in the existing and planned infrastructure of IPTO, providing telecommunications services in the domestic and international market.

More specifically, the network managed nationwide by GRID TELECOM, currently has about 2,737 km of OPGW fibre optic cable and is constantly expanding. This optical network has a large number of alternative routes, which ensure high availability of services to customers. The services available from GRID-TELECOM in the initial phase, mainly concern the provision of dark fibre (Dark Fibre) to telecommunications providers, as well as large companies and organizations with requirements for high-speed broadband services.

The company's net income for 2019 amounted to 150,000 euros. The company's headquarters are located in Athens, Dyrrachiou 89 and Kifissou.

More information about GRID TELECOM S.A. provided on the company's website (www.grid-telecom.com) as well as in the Annual Financial Report 2019.

Fibre optic infrastructure map


ΑΔΜΗΕ
ΤΟΜΕΑΣ ΔΙΑΤ. ΓΡ. ΜΕΤΑΦΟΡΑΣ

Values and Vision for sustainable development

The values that guide our daily steps are the following:

We focus on the material issues for sustainable development

Our role as Administrator of the Hellenic Electricity Transmission System carries an increased weight for the sustainable development of the entire country. As the energy mix in Greece is changing rapidly, IPTO, like other European Operators, seeks to facilitate and accelerate this transition, exploring more and more new possibilities and opportunities in the new conditions being formed both at national and European level.

Communication with our stakeholders

Our role, as Administrator of the Greek Electricity Transmission System, requires to be in constant contact, cooperation and consultation with our stakeholders. We define as stakeholders the social

groups that are influenced and/or influence the company's operation and decisions. The main groups of our stakeholders, as recognized by the company based on our activities to date, are the following: The nature of our role requires us to be in constant and two-way communication with our stakeholders, both at institutional level and locally, but also with our stakeholders in the market. The company through its executives as well as the CEO himself, participate actively in the communication and consultation

processes with the stakeholders. In addition to the statutory consultation process with the stakeholders that takes place as part of the development of the Ten-Year Development Plan, the company, prior to starting on a project, proceeds with both informative actions and direct communication with representatives from the local communities of each project.

It is clear that both our company's strategy and our priorities are shaped on the basis of our stakeholders views, expectations, concerns and priorities.

Moreover, as the views of our stakeholders are taken into account for formulating important/material issues of sustainable development, the contents of this report correspond to both the main issues on which we discuss and consult with our stakeholders including our responses, as well as the most important issues of sustainable development for us.

Consulting with stakeholders and managing our activities impacts

The development and maintenance of the electricity transmission network covers the whole territory and benefits the whole society, by reducing the electricity bills for all and contributing to the transmission of clean energy and permanently shutting down the polluting power plants.

However, at IPTO we recognize that during the network's development and maintenance we may cause inconvenience to local communities. For this reason, we meet the expectations and concerns of our stakeholders and take specific actions aimed at ensuring a sustainable future for local communities.

More specifically:

- **We have a systematic dialogue with the local communities in which we operate, so that there is mutual understanding and effective communication about the benefit resulting from our projects.**
- **We work out alternatives for the routing of transmission lines in each of our projects, aiming at achieving consensual solutions and creating the least possible inconvenience during their construction.**
- **We inform the owners regarding the process of collecting their compensations, where expropriation of private land is required.**
- **We take continuous action and initiatives to support local communities following an open dialogue with them and we sometimes implement projects for the public's benefit.**
- **We adhere strictly to the limits set by the Greek legislation regarding electromagnetic fields, both for the general public and for our employees.**
- **We study and evaluate in detail the potential impact of our projects on protected species and habitats.**
- **We take mitigation measures that eliminate, prevent or reduce to a negligible level the potential impact of a project. Mitigation measures include changes in the size, location and design of parts of our projects (e.g. use of low noise transformers to reduce noise pollution) or may take the form of temporary adjustments during the construction and operation phases (e.g. avoidance of construction work during the migratory bird season).**
- **We consider alternatives when the effects of the planned project continue to be significant, even after mitigation measures (e.g. different location or undergrounding of the project, change of scale or development plans).**
- **We implement projects for the restoration and protection of the natural environment following completion of our projects.**

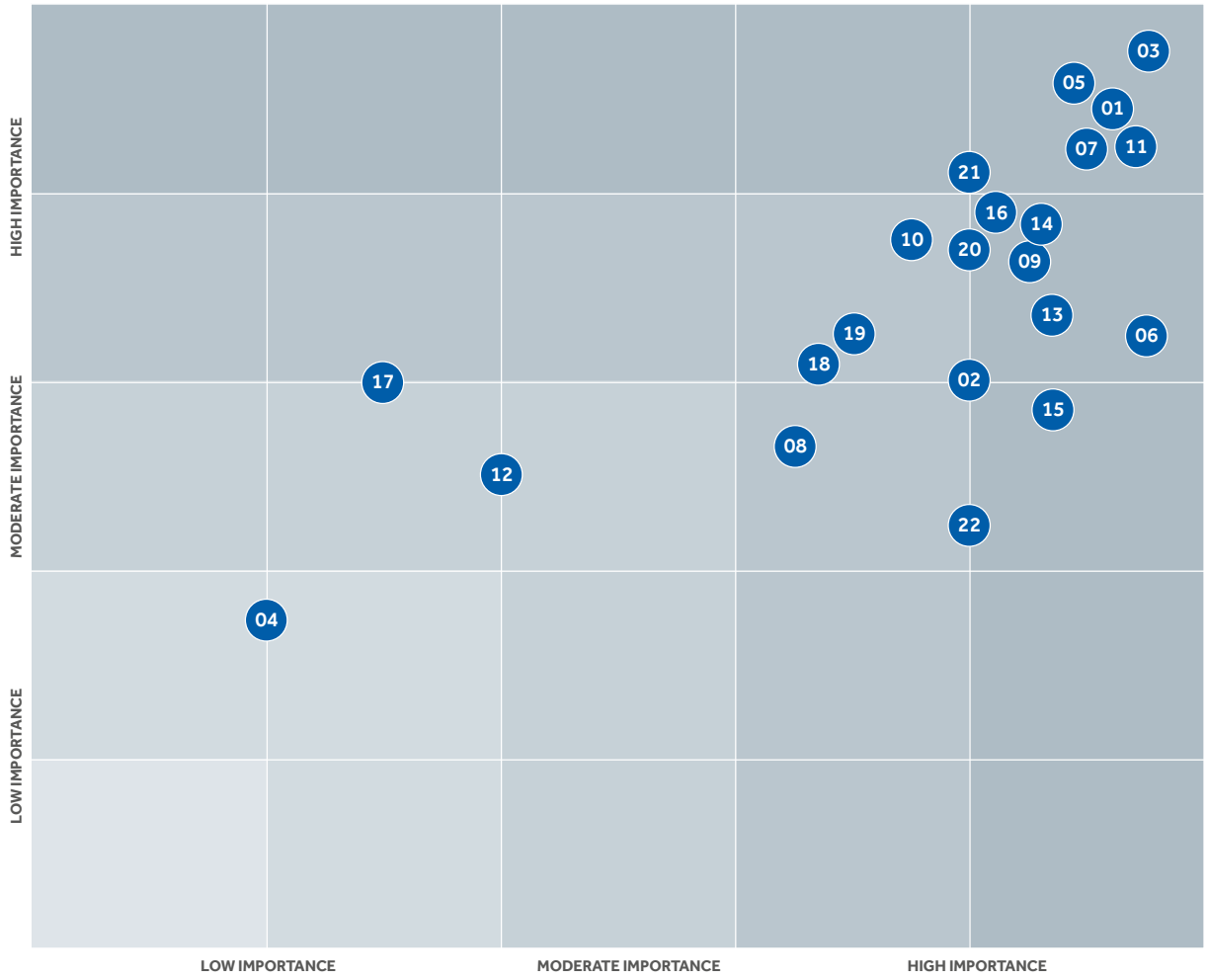
Material issues of sustainable development

In order to capture the material issues of sustainable development related to our activity, we proceeded for the first time with the materiality a efining the content of the Report (Shareholder Inclusiveness, Sustainability Context, Materiality and Completeness), a structured procedure/ methodology was pursued with the following steps: Initially, the sector's material issues were identified, then these issues were prioritized and consequently the result was verified and validated to ensure completeness. The final result was reviewed and approved by the top management of the company.

For the effective recognition and prioritization of material issues, a special workshop was held with the participation of executives from all company Departments. During the workshop, issues related to the company's sustainable development were discussed extensively, evaluated and received a score, taking into account both the degree of each issue's impact and the relative interest of our stakeholders. Issues with low score both regarding their impact assessment and the relevant stakeholders' interest were assessed as not material. Throughout this process we made sure that both the principles of the GRI Standards for defining Report's content, alongside our stakeholders views and concerns, were properly incorporated. The results of this process are presented in the materiality matrix. In order to capture these issues, both the significance of each issue's impact is assessed and the relevant interest of IPTO stakeholders.

IPTO's approach regarding the material sustainability issues, as well as the company's performance in each of them, are presented in detail within the relevant sections of this Sustainability Report.

Materiality matrix IPTO



01 Network development (domestic & interconnections)
02 Network losses
03 Network security, stability and reliability
04 Waste management
05 Energy transition, increased RES integration
06 Energy transition, market control by consumers
07 Energy transition, affordable energy for all (cost reduction)
08 Professional development and equal opportunities
09 Network capacity
10 Communication with stakeholders on critical issues
11 Corporate Governance
12 Electromagnetic radiation
13 Innovation and development
14 Climate change (carbon footprint reduction)
15 Regulatory framework reform
16 Financial strength
17 Impacts at local level and visual disturbance from network lines
18 Environmental compliance
19 Project's environmental footprint
20 Project quality and on time delivery
21 Occupational health and safety
22 Digital transformation

Boundaries of material issues

The presentation of the performance of the material issues concerns all the activities of the IPTO Group in Greece. The companies under IPTO Group SA included in the annual consolidated financial statements are stated in the Annual Financial Report 2019 (Annual Financial and Consolidated Financial Statements of December 31, 2019, pp. 120-121, Company website, Section Our Company, Financial Results). The scope and boundaries of the material issues are defined within the IPTO Group.

Our contribution to the Sustainable Development Goals

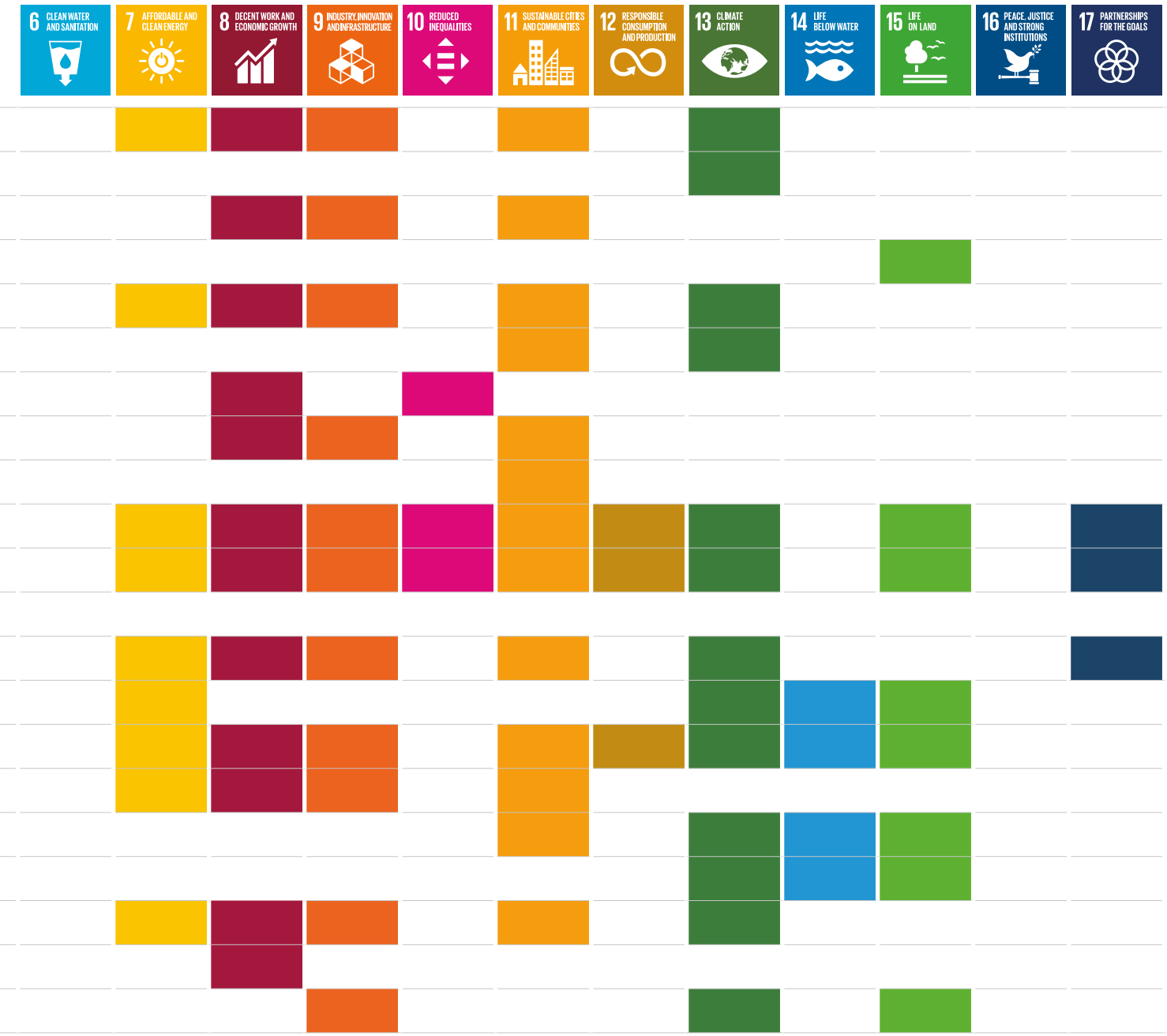
The following table shows how we contribute to the achievement of the United Nations Sustainable Development Goals at national level, through our operation.

Our role as Operator of the Hellenic Electricity Transmission System, clearly and significantly influences the course of achieving the Sustainable Development Goals for the country.

Material sustainability issues of IPTO	
Network development (domestic & interconnections)	
Network losses	
Network security, stability and reliability	
Waste management	
Energy transition, increased RES integration	
Energy transition, affordable energy for all (cost reduction)	
Professional development and equal opportunities	
Network capacity	
Impacts at local level and visual disturbance from network lines	
Communication with stakeholders on critical issues	
Corporate governance	
Electromagnetic radiation	
Innovation and development	
Climate change: carbon footprint reduction	
Regulatory framework reform	
Financial strength	
Environmental compliance	
Projects' environmental footprint	
Project quality and on time delivery	
Occupational Health and Safety	
Digital transformation	

The United Nations Sustainable Development Goals (SDGs), aim to address the major challenges faced by humanity worldwide, such as poverty, climate change, environmental protection, gender equality, hunger, provision of education etc.

Sustainable Development Goals (SDGs)



Strategic priorities and sustainable development goals

IPTO develops reliable, sustainable and resilient electrical infrastructure of electricity transmission systems, with focus in electrical interconnections, in order to support economic growth and human well-being with emphasis on equal access for all.

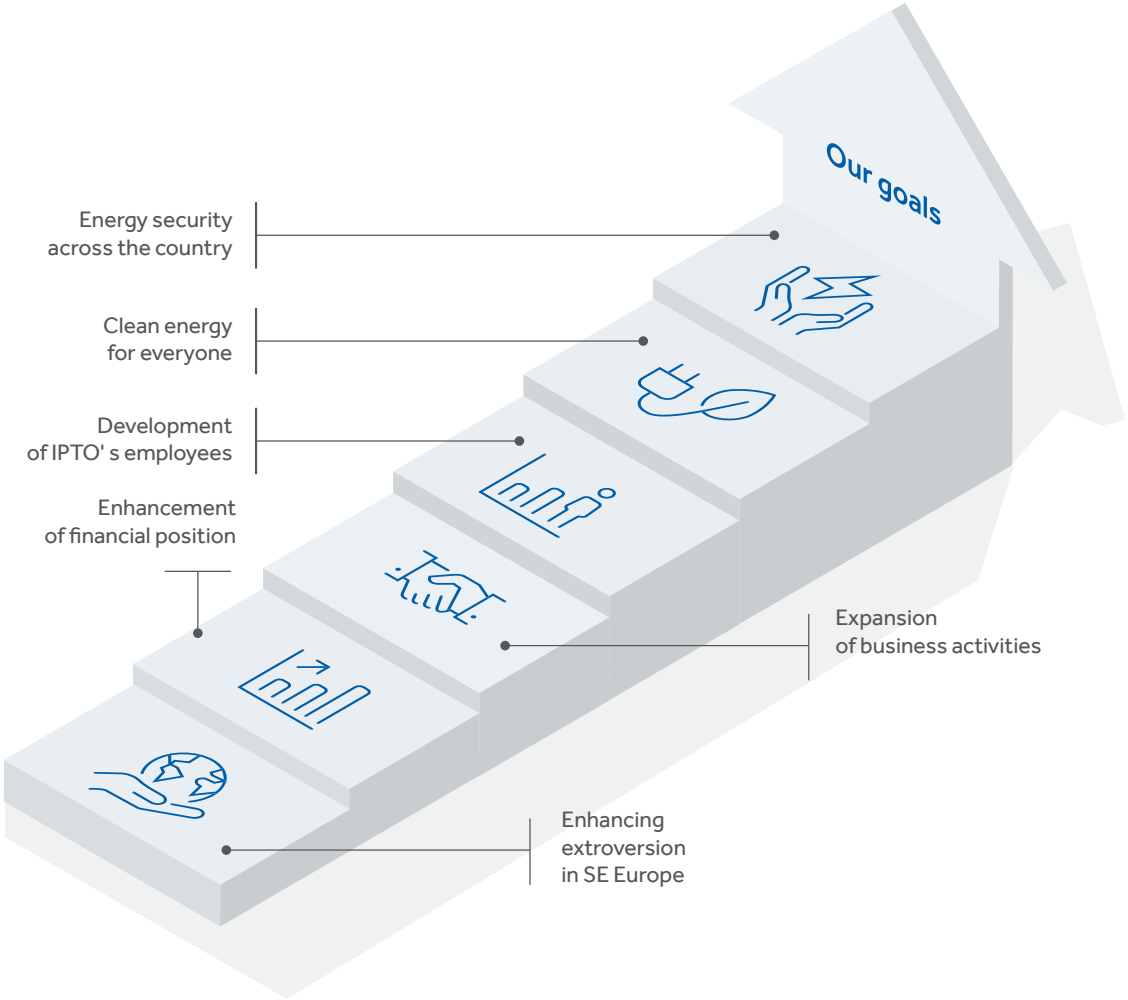
Aiming at our continuous improvement and value creation for all our stakeholders in the context of our role as Operator of the Greek Electricity Transmission System, thus contributing to the sustainable development of the entire country.

In order to further integrate the principles of sustainable development in the way we operate as well as the optimal management of sustainable development issues related to our operation, we decided to proceed in the near future with the mapping of our strategy's main elements regarding sustainable development, as well as our priorities and goals.

To achieve this task, we will take into account both the opinion of our stakeholders and the United Nations Sustainable Development Goals, as well as the results of our analysis on the material issues regarding sustainable development that we have carried out.

Simultaneously, we have already set some specific goals for the next period, aiming at improving our performance in relation to the issues of sustainable development. Our goals are the following:

- **Implementation of new interconnections, thus contributing to the reduction of CO_2**



emissions from energy production at national level

- Reduction of greenhouse gas emissions due to increased penetration of RES in electricity generation, de-lignification and use of natural gas (as a transitional fuel)
- Long term reduction of nuisance to local communities during the construction of a project, always in balance with the increase in construction costs, so that consumers are not disproportionately burdened by increasing the cost of utilities
- Consultation with local communities before starting new projects
- Reduction of electricity costs to consumers (long-term) through the implementation of the single European electricity market model ("target model")
- Optimal waste management from operations
- Introduction of social and environmental criteria in procurement procedures ("green procurement")
- Carbon footprint calculation and improvement of energy performance and carbon footprint of the two central buildings
- Employee health protection and development of an Occupational Health and Safety Management System according to international standards and certification by an independent body
- Examination of the possibility of listing the company in an international stock index of sustainable development
- Replacement of 17 cars with new zero-emission electric vehicles and expansion of the network of electric car charging stations by 14, at the company's facilities
- Expanding the digitalization of internal communication, with the aim of more direct communication between employees and the reduction of paper consumption
- Training of employees on issues of sustainable development.

GOVERNANCE

In order to achieve long-term and sustainable development for IPTO and its affiliated companies and in order to fully comply with the requirements of national law, we are in line with the current corporate governance framework, incorporating parameters of sustainable development issues.

Governance structure

Board of Directors

According to the company's articles of association, the governing bodies are the Board of Directors, the Chief Executive Officer and the General Financial Director.

The company is governed by a Board of Directors (BoD) consisting of nine members and elected by the General Meeting of Shareholders. A member of the Board of Directors represents the employees of the company. The composition of the Board of Directors on 31/12/2019 was as follows:

Name	Position	Capacity	Gender
Manousakis Manousos	Chairman & CEO	Executive	Male
Shi Xinghua	Deputy CEO	Executive	Male
Margaris Ioannis	Vice Chairman	Executive	Male
Hong Li	Member	Non-Executive	Male
Yunpeng He	Member	Non-Executive	Male
Rousopoulos Iason	Member	Executive	Male
Nikolopoulos Fotios	Member	Non-Executive	Male
Kambouris Ioannis	Member	Executive	Male
Papastamopoulos Dimosthenis	Member	Executive	Male

The Board of Directors is the company's administrative body, responsible for formulating its development strategy and policy, supervises and controls the management of its assets, especially regarding the maintenance and management of the Transmission System and the preparation of the Ten-Year Development Plan for the Hellenic Electricity Transmission System.

Committees of the Board of Directors

The Board of Directors of the Company is supported within the framework of its responsibilities by the following three advisory Committees:

- **Financial Audit Committee**
- **Strategic Planning Committee**
- **Remuneration and Appointments' Committee.**

Financial Audit Committee

The Audit Committee consists of four members and its responsibilities, among others, include the supervision of the relevant information's collection and the preparation of the company's financial statements, monitoring the accounting practices and rules applied by the company, company business plan monitoring together with the Strategic Planning Committee, the briefing from the external or any internal auditors of the company and the submission of proposals to the Board of Directors regarding the appointment, the renewal of the office term and the remuneration of the Company's external auditors.

Strategic Planning Committee

The Strategic Planning Committee consists of four members and its responsibilities, among others, include monitoring of the Company's business plan jointly with the Financial Control Committee together with the submission of strategic planning proposals to the Board of Directors.

Remuneration and Appointments Committee

The Remuneration and Appointments Committee consists of four members and its responsibilities, among others, include monitoring the appointment of employees by the Company and determining the relevant remuneration.

Administrative structure for the management of sustainable development issues

Special emphasis is given to the issues of sustainable development and for this reason an appropriate administrative structure is applied through which the management of these issues is achieved. The heads of the General Divisions of the Company report to the Chairman and Chief Executive Officer, who approves the actions and programs for the management of the various issues. The Chairman and Chief Executive Officer, then, as a member of the Board of Directors, regularly informs the IPTO's Board of Directors about the actions taken.

Evaluation of the performance of the highest governing body

The General Meeting of Shareholders is the supreme governing body of the Company. The Board of Directors is supervised in the execution of its duties by the General Meeting of Shareholders, which elects its members.

General Divisions

The main General Divisions of the Company are the following:

- **General Division of Financial Services**
- **General Division of Technology, System Planning and Strategy**
- **General Division of Operation, Infrastructure and Market**
- **General Division of Human Resources, Legal and Regulatory Issues**

Contributing to economic **GROWTH**

We contribute to the sustainable economic development of the country through the smooth, safe and uninterrupted transmission of electricity from the points of production to the points of consumption.

ENSURING TRANSMISSION OF ELECTRICITY IN THE COUNTRY

365 days
24 hours

EXPANSION OF THE FIBRE OPTIC NETWORK BY

3.500 km until **2025**

DIGITIZATION OF ENERGY CONTROL CENTERS

"SOCIAL PRODUCT" IN 2019

€ 232 thous.

Capacity adequacy - powering the economy

The electricity transmission system's operation has the mission of suppling the Hellenic Electricity Transmission System (HETS) safely and uninterruptedly 24 hours a day, 365 days a year. According to the laws of physics, the production and consumption of electricity in electricity systems must be balanced at all times.

Employees in the Operation Department are responsible precisely for this balance, by increasing production when more power is needed or by decreasing it when there is more power available than what can be absorbed or transmitted.

Balancing is a highly challenging task, with the constantly growing penetration of Renewable Energy Sources in the HETS which have a volatile and stochastic nature, therefore their injection may change over very short time periods, depending on the time of day and weather conditions.

The system's operation is designed and scheduled, taking into consideration all those factors that affect it (weather conditions, particular constraints, availability of elements, etc.) and is then supervised in real time by the Energy Control Center at Kryoneri in Attica and supplementary by the other Control Centers. The main factors influencing the country's electricity demand in the medium-long term are the following:

- **The country's economic conditions, with GDP being the key indicator**
- **Changes in consumer habits (air conditioning, use of electricity in**

transportation, use of computers, use of LED lamps, etc.) due to improved living standards, notwithstanding the improvement of living conditions for certain population groups (e.g. economic migrants)

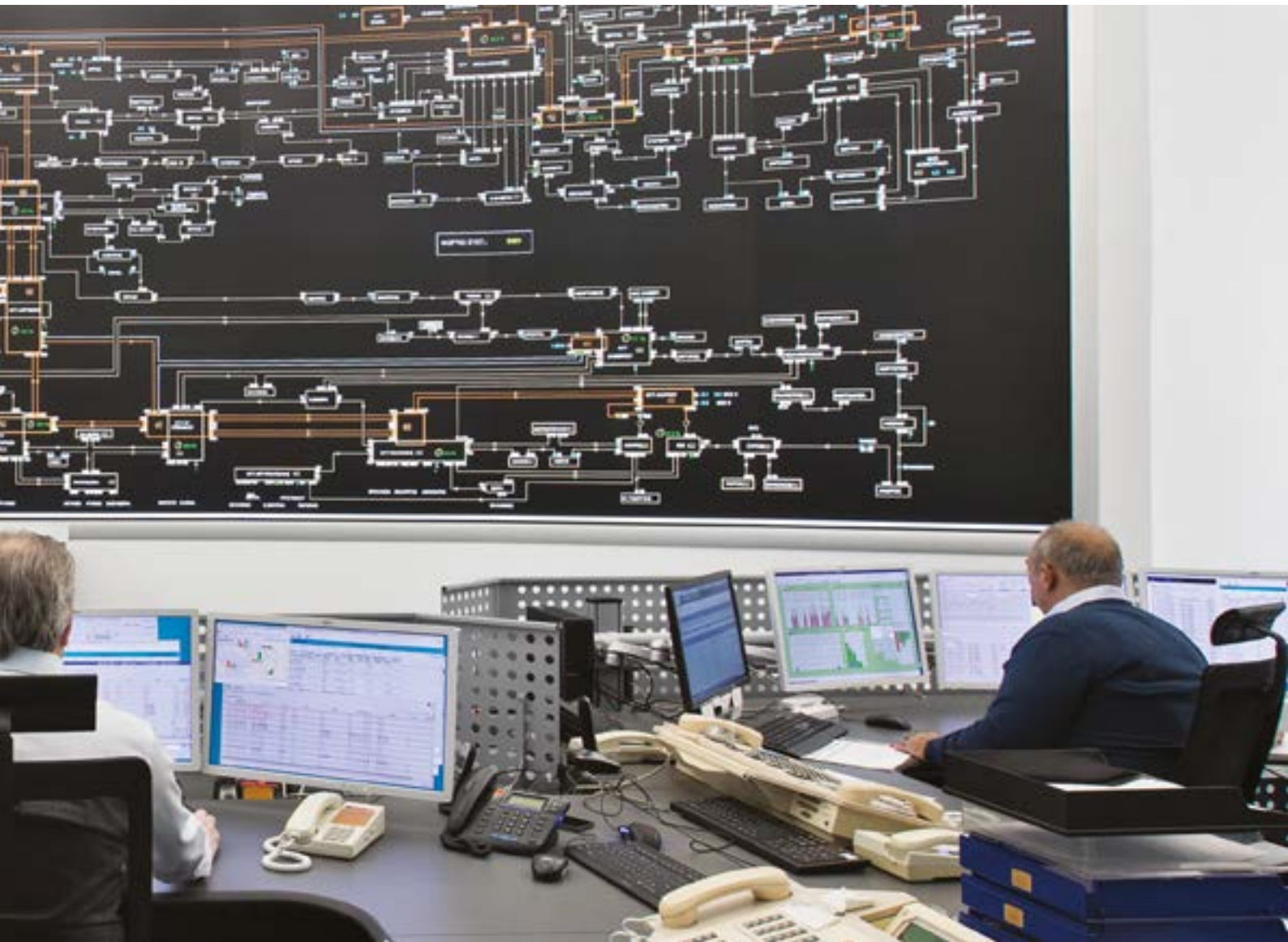
- The general situation of the energy sector and the electricity market (level of electricity prices, competition with Natural Gas, etc.)
- Special conditions (e.g. development and implementation of financial mechanisms)
- Population development
- Implementation of governmental policies, such as energy saving, buildings' energy efficiency upgrading, etc.

The main factors that determine the Transmission System's adequacy for reliable service of demand (energy and peak) are:

- Load variation (capacity and energy demand)
- The availability of production units
- Hydraulic conditions
- The availability of power for net imports from international interconnections
- The penetration level of RES units.

In order for IPTO to ensure the country's electricity generation system's adequacy a detailed Electricity Generation Adequacy Study is conducted on an annual basis, the purpose of which is to identify a possible future risk in the electricity generation system's ability to adequately respond to electricity supply over the years to come.

Additionally, this Study allows to determine the requirements in newly installed production capacity, so that the energy demand is safely met during the period considered.



Network security, stability and reliability

IPTO's contribution to the country's energy security is crucial. Its primary goal and mission is the smooth, safe and uninterrupted transmission of electricity from the production points to the consumption ones.

In particular, the country's energy security depends on four elements directly related to it:

- **Availability:** We are in charge of serving the country's demand and supply ofelectricity uninterruptedly and under any conditions. We meet the demand for electricity in all parts of the country that are connected to the Transmission System, regardless of whether it is limited or extremely high.
- **Reliability:** Our responsibility is to ensure that the country's electricity supply is conducted in a safe, efficient and reliable way, anticipating the needs that will be created, taking care to implement maintenance and expansion projects of HETS and responding immediately, with our staff, in case of failure.
- **Affordability:** The development of the Hellenic electricity transmission system is guided by ensuring the long-term capacity of the System to meet the reasonable needs for electricity transmission, under economically viable conditions, helping to reduce the cost of Utilities for all.
- **Sustainability:** An important parameter in the System's development is the need to serve the large penetration of RES so that the National and European policy is implemented, which are ultimately aiming to reverse climate change with the electricity sector's contribution. In this context, the development of HETS is oriented towards its gradual transformation, which will allow the increase of energy transferred from RES, by 35% until 2030.

Joint declaration of the European Transmission System Operators

IPTO has co-signed the Joint Declaration of the European Transmission System Operators (ENTSO-E members), according to which the Operators:

- **recognize the central role they play in the success of Europe's energy transition,**
- **are committed to cooperating initiatives in order to ensure the stability and adequacy of the System in the new electricity transmission environment, which is characterized, among other things, by the increase of variable and decentralized production alongside the increased number of operators.**

At the same time, IPTO, as well as the other European Transmission System Operators (members of ENTSO-E), are committed to:

- **strengthen their cooperation,**
- **invest in innovative solutions such as demand response, digital tools and storage systems,**
- **accelerate the investments required for the energy transition,**
- **develop the flexibility of the System in coordination with the Operators of the Electricity Distribution Networks.**

Immediate response to damages in high voltage masts due to extreme weather events

Our people operate with an increased sense of responsibility. This was proved once again, when an unprecedented natural disaster caused the fall of two high voltage masts in Moudania (Halkidiki) during July 2019. Our technical teams immediately rushed to the affected area which resulted in the damages being repaired much earlier than expected.

The operation was successful and the Minister of Environment and Energy praised the employees of IPTO for the intense efforts they made in order to quickly restore electricity in the area. Our technical teams, our airmen, show zeal and self-sacrifice when our System is faced with extraordinary and extreme phenomena and the Administrator is called to respond immediately and effectively performing his work of national importance.

Establishment of a Cyber Security Operation Center (SOC)

The digital transformation of IPTO, as well as the recent legal regulations for the cyber security in the case of Operators of Essential Services (OES), oblige the company to ensure the protection of its digital infrastructure from cyberattacks. In the past, such events were rare, but in the modern, digital environment of OES, the risks even for blackout are increasing, as recent cases have shown (Ukraine 2015). In addition to designing and integrating additional malware protection systems, it is also extremely important to have continuous monitoring, correlation and evaluation of events generated by digital infrastructure. Therefore, it is deemed possible to identify cyberattacks in a timely manner and take immediate action to combat them.

For this reason, the Cyber Security Operation Center (SOC) performs a vital function within an organization that employs people, processes and technology, to continuously monitor and improve IPTO's cyber security, while preventing, detecting, analyzing and responding to incidents in cyberspace. The main advantage of SOC's existence is the improvement of security incident detection through continuous monitoring and analysis of data activity. By analyzing this activity in networks, endpoints, servers, and databases around the clock, the SOC team is critical to ensuring timely detection and response to security incidents. 24/7 surveillance provided by SOC gives IPTO the advantage to defend against incidents and intrusions, regardless of the source, time of day or type of attack. In this way, SOC ensures the prevention of malicious actions by groups that may try to harm the company and the country, creating problems in the uninterrupted electricity supply of businesses and households.

Digital transformation

The digitalization of both our own operation and our contribution to the digital transformation of the country is a key pillar of our strategy.

IPTO is currently in the process of transforming it into a Digital Electricity Transmission Operator (Digital TSO). In this course it focuses on the following main business areas based on innovation and the desired "digitalization".

Establish a Network Operations Control Center (NOC)

The power system's operation depends heavily on the reliability of communications, without which it could not operate. A Network Operations Center is the backbone of any digital company that relies on telecommunications services. As part of the System's operational upgrade, the IPTO started to design its own new Network and Communications Control Center.

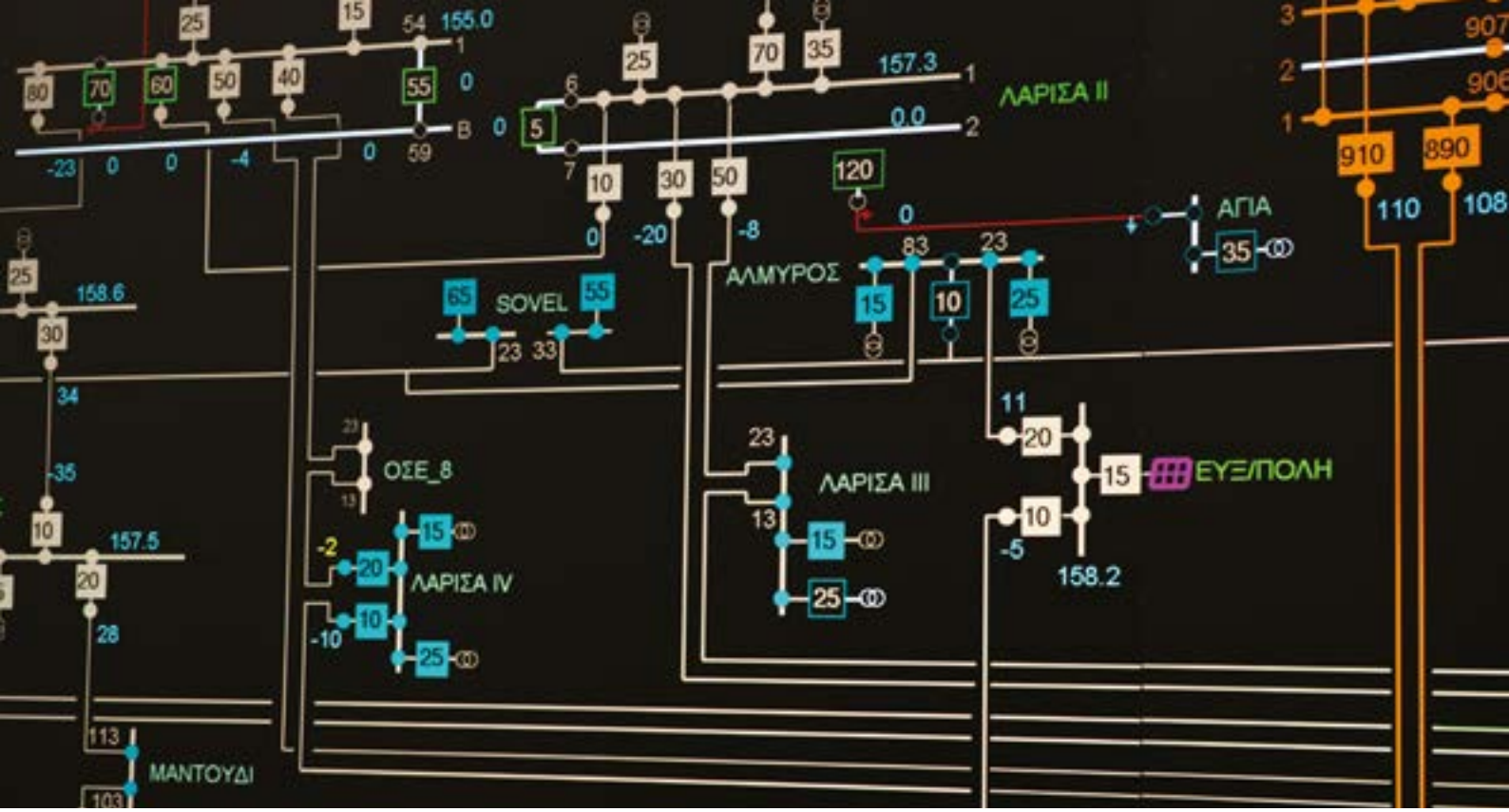
The Network Control Center (NOC) the essential role of is to monitor 24/7, control and manage the company's telecommunications networks, ensuring a high level of availability. Therefore, a NOC forms the basis of a company's nervous system. In terms of security, the NOC is the first line of defence against any attacks or external threats that the company may face in its telecommunications networks. It is noted that the new Network Control Center will also provide services to the telecommunications subsidiary Grid Telecom.

New software systems

The company is in the process of acquiring and installing 3 new, modern and advanced systems: a) Enterprise Resource Planning Software (ERP), b) Enterprise Asset Management (EAM) and c) Workforce Management (WFM). The successful installation and operation of the systems will contribute to the achievement of the strategic goal of the administration regarding the digital transformation of IPTO.

More specifically, some of the benefits that the company is going obtain from the new software systems are summarized below:

- 1. Modernization of its operating procedures, with the introduction of information technologies to meet existing, short-term and medium-term needs



- 2. Simplification/optimization of the company's business processes
- 3. Creation of a single database (single source of truth) to support the main operations of the company, avoiding the dysfunctional, unsafe and costly phenomenon of "Shadow IT"
- 4. Improving the accuracy and completeness of information for managerial and strategic decision-making
- 5. Guarantee the confidentiality, integrity and availability of data (security) for authorized users and business owners.

The installation works of the systems will start from 1/1/2021 (onwards).

Energy Control Centers become digital

Over the last few years, significant efforts have been made by IPTO's management and employees towards changing the mode of operation and the face of the company, together with the National Energy System in order to become digital.

The digitalization of our operation is a key axis of our strategy. At Energy Control Centers across the country, projection systems have been replaced by digital ones after more than 20 years of operation.

More specifically, the centers in Kryoneri, Ptolemaida and Thessaloniki have been technologically upgraded by modernizing both the software and the technological equipment, alongside the control rooms.

Additionally, the preparation of a new Energy Control Center in Crete has begun, which is expected to be completed within 2020.

Contributing to the digital transformation of the country: Expansion of the fibre optic network

IPTO, through its subsidiary Grid Telecom, has dynamically entered the telecommunications market, following on the standards set by the major European Energy Transmission Operators. Utilizing IPTO's land and submarine fibre optic network, Grid Telecom offers dark fibre in telecommunications providers at this stage whilst developing a network of high speeds. IPTO has already an extensive network of optical fibres with a length of 2,737 km, which is expanding rapidly, both in mainland and Greek islands.

The network is developed through high voltage pylons crossing our country from end to end and provides alternative routes, ensuring high availability of services.

Grid Telecom's goal is to expand the optical network by an additional 3,500 km in the next five years, meaning it will have a total of 6,237 km in fibre optic network by 2025.

Driven by Grid Telecom, IPTO contributes to the digital transformation of Greece, which is one of the State's primary goals. The company's vision is to make Greece an important telecommunications hub in the wider Mediterranean region so that the country can claim a significant share of international data traffic.

Our social product

IPTO's operation is particularly important for the country, not only because of its role as Operator of the Hellenic Electricity Transmission System, but also because of the important "social product" produced as a result of its operation.

In particular, our operation generates significant benefits for all our stakeholders, either directly or indirectly, such as through wages and benefits to employees, insurance contributions we pay to the relevant bodies, taxes to the state, the costs to our suppliers and the donations and sponsorships towards the organizations we support. These amounts also work in a positive way and often as a multiplier, for the country's GDP.

Specifically, in 2019, our "social product" amounted to a total of 232 mil. euros. In particular, IPTO spent on salaries and benefits to its staff 176 million euros in the three years 2017 - 2019, a significant economic size which operates as a multiplier in the Greek economy and contributes to growth.

Moreover, payments to government agencies (taxes, VAT, employer contributions, etc.) in 2019 amounted to 28 million euros, while for a total of 3 years (2017 - 2019) this amount sums up to 114 million euros.

	2017	2018		2019	
Social product (thous. euros)	**Company**	**Company**	**Group**	**Company**	**Group**
Economic value generated					
Total revenues	263,815	266,490	267,074	296,013	300,239
Economic value distributed					
Operating costs	88,390	72,514	72,717	108,581	109,181
Employee wages and benefits	64,967	69,981	69,981	40,771	40,859
Payments to providers of capital	127,697	41,114	41,114	55,151	55,152
Payments to government (taxes paid)	57,140	29,046	29,046	27,886	27,909
Community investments (donations - sponsorships)	68	425	425	24	24
«Social Product» Total	**338,262**	**213,080**	**213,283**	**232,413**	**233,125**
Economic value retained	-74,447	53,410	53,791	63,600	67,114

Research & Development and entry into new energy fields

With an investment plan of 5 billion euros over a decade and aiming at the electrical interconnection of almost all the Aegean islands with the mainland system by 2030, the Independent Electricity Operator proceeds with speed and consistency in the implementation of the Ten-Year Development Plan. Simultaneously, however, it is looking for new areas of business activity within the Energy sector, which can enhance its profitability by utilizing the valuable know-how it has recently acquired in new technologies and specialized areas.

Participation in international consortia

IPTO is already preparing studies on the role it can undertake with respect to the country's energy transition, while at the same time it has started discussions with Greek and foreign companies, such as suppliers, technology providers and building contractors operating in foreign countries, like the Balkans, Middle East, Africa and elsewhere.

The aim of the Company is to participate in research projects, development or construction of similar projects, meaning medium and high voltage interconnections.

Its plans involve participation in all possible ways: either by providing know-how as a member of international consortia, or by overseeing construction work related to the subject matter, such as overhead power lines, underground and submarine cable projects, High Voltage Centers (HVC), as well as electrical interconnection projects.

Energy storage

Another dynamic sector being mobilised in our country, is energy storage. IPTO plans to take an active role in the development of storage systems, not only as an Operator but also as a development company (developer). As the regulatory framework has not yet been formed in Greece, the Operator has already submitted proposals to the Ministry of Environment and Energy, regarding the role it can - and should - play.

Concurrently, IPTO is in contact with companies that provide equipment, technology providers and developers, in order to collaborate on large storage projects in Greece, taking advantage of the current situation, in order to develop storage projects in the country, in a quick and reliable manner.

Innovation competition for IPTO employees

Innovation has a special place in IPTO, who is rushing to seize the opportunities and respond to the developments of the new digital age emerging in the energy sector and the global economy.

For this reason, in 2019, the design of an intra-entrepreneurship program called "IPTO Innovation Challenge" began, with the aim of giving all employees of the company the opportunity to develop innovative ideas that aim to "transform" the company itself.

Through this initiative, stakeholders are invited to:

- **either improve an existing one or create a new process**
- **develop a new product / service or improve an existing one**
- **develop a new business model.**

The first step towards participation is to fill out a form in which those interested will indicate:

(a) the problem which their proposal seeks to solve or the need which it seeks to meet

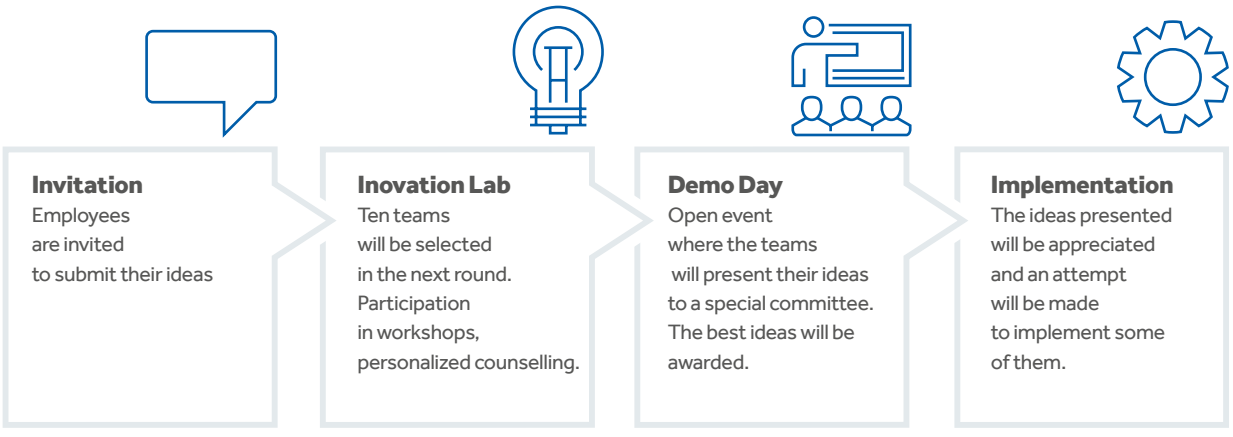
b) the solution they propose and

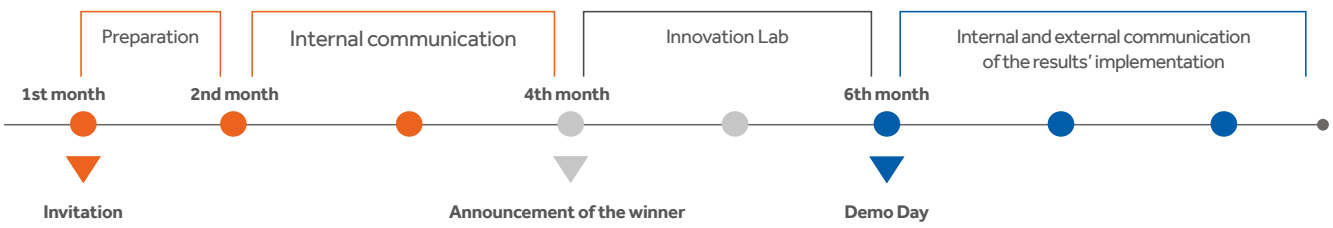
(c) the composition of the group submitting the proposal.

Apart from the underlying benefit for the employees, the company itself also reaps benefits, achieving a faster approach to its digital transformation, also through further developing the skills that the employees already have.

Indicative plan of the "IPTO Challenge"

The "IPTO Innovation Challenge" has the potential to develop into a permanent motivation mechanism for IPTO employees but also to be the first step in the development of open innovation actions. IPTO's ultimate goal is to combine the knowledge of the internal environment with the knowledge of start-ups, researchers, but also of all innovative individuals that can lead to the participatory development of new processes, products, services and business models to meet its needs.





Supporting organizations and institutions

In order to actively participate in developments related to the country's energy issues as well as issues of sustainable development, we take part in a number of organizations supporting initiatives related to sustainable development.

- G.E.MI. – General Electronic Commercial Registry
- EASE – Association of Chief Executive Officers
- ACCI - Athens Chamber of Commerce & Industry
- HAEE - Hellenic Association for Energy Economics
- HIIA – Hellenic Institute of Internal Auditors
- IENE - Institute of Energy for South-East Europe
- UHCC - Union of Hellenic Chamber of Commerce
- SEV – Hellenic Federation of Enterprises
- TEE - Technical Chamber of Greece
- ACC - Association of Corporate Counsel
- CIGRE - International Council on Large Electric Systems (Greek & International)
- CSR HELLAS - Hellenic Network for Corporate Social Responsibility
- EACD - European Association of Communication Directors
- IAM - The Institute of Asset Management

IPTO participation in the European Network of Transmission System Operators (ENTSO-E)

ENTSO-E (European Network of Transmission System Operators for Electricity), is the European Network of Transmission System Operators for Electricity Transmission Systems, and consists of 43 Transmission System Operators (TSOs) - including IPTO - representing 36 European countries.

Launched in 2009, ENTSO-e's mission is to complete Europe's internal energy market optimising its work. The Network communicates with European institutions such as the European Commission, ACER (Association of European Energy Regulators) and implements actions such as the issuance of policy positions, the design and implementation of Codes, the implementation of pan-European Network development plans, the preparation of studies on the adequacy of the System and the coordination of research programs for the promotion of Research and Innovation (R&D).

It is worth noting that in June 2019, the Chairman and CEO of IPTO, Mr. Manos Manousakis, became the first Greek to be elected in the European Network's Board of Directors. Therefore, he is actively involved in ENTSO-E actions and especially

in decision-making processes on a pan-European scale, with the strategic focus being on the implementation of the Clean Energy Package's objectives, emphasizing on regional cooperation, completion of the Common Grid Model and the digital transformation of Operators.

Sustainable procurement

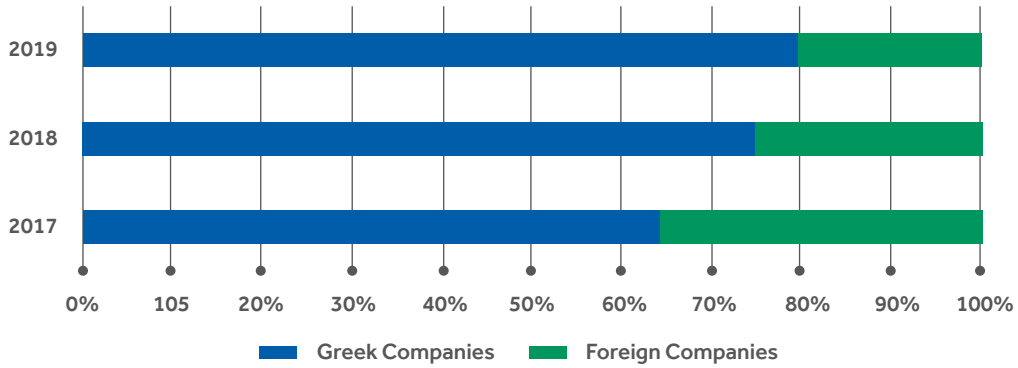
The supplies of the appropriate goods (e.g. works, materials, services) in the relevant quantity and quality, at the best possible price and at the desired time based on specific specifications are the necessary raw material for our operations.

The main categories of IPTO's contractors/suppliers are:

- **Contractors/manufacturers**
- **Civil Engineering contractors**
- **Material suppliers**
- **Service providers**
- **Hardware/equipment manufacturers**
- **Carriers**

In the three years period 2017-2019, the total number of suppliers/contractors amounted to 360, with the total supply costs amounting at 630 million euros and the ratio of domestic to foreign suppliers being approximately 70%/30%.

Percentage of suppliers



The goals set for 2020 concern the Creation of a Suppliers' Register, taking into account that the cooperation of our company with the best suppliers is not only necessary but also essential, since the projects, materials and services are critical and directly intertwined with its operation.

Operating with respect to local communities and the environment

IPTO ensures that it performs both the maintenance work and the development activities of the energy transmission system with the maximum possible respect for the natural environment and the local communities in the areas where it operates.

Benefits to local communities

IPTO is in constant consultation with local communities, taking into account the nuisance that may be caused locally during the implementation of a project as well as the concerns that may arise at a local level. In this context, meetings or information events are held with the competent institutions of the local communities. Our goal for all new projects from 2020 onwards is, following completion of the licensing process, to plan an open information event in the local communities before the projects start in the area.

Also, in the context of the policy pursued by the company for the wider acceptance of its projects, it may:

- **make technical improvements to the project in order to minimize any visual disturbance**
- **implement public benefit projects, based on the size of the project in each area, in consultation with local authorities and the Ministry of Environment.**

Good practice of public benefit project - Street lighting project in Ano Kastritsi

Under the context of the Western Corridor for the Peloponnese (Megalopolis - Patras), the Local Community of Ano Kastritsi provided IPTO with energy saving lamps and street lights, as the existing network was outdated and non-functional. In this way Ano Kastritsi was upgraded in terms of energy efficiency, and became the first village in the Peloponnese with energy saving lighting for its entire area.

Measures to reduce visual disturbance and electromagnetic radiation

IPTO's established policy is to reduce as much as possible the nuisance and any negative effects in general, caused by the projects or the operation of the infrastructure it manages.

In particular, with regard to electromagnetic (E/M) radiation, IPTO strictly adheres to the limits set by the international non-profit scientific organization for the protection of humans against non-ionizing radiation (ICNIRP), which operates under the World Health Organization (WHO) auspices. In fact, the usual measurements related to our activities prove that the observed electric fields are well below the limit set by the relevant Joint Ministerial Decision of 2002, (Electric field strength E ≤ 5,000 V / m), and the magnetic fields are often 50 to 100 times below the specified limit (Magnetic induction B ≤ 100 μT).

Respectively, in the case of visual disturbance, its reduction is always sought in the direction of the optimal cost-benefit balance for both the local communities and for the wider society as a whole. The undergrounding of transmission lines entails increased costs compared to overhead lines, which in turn translates into increased costs for citizens through electricity bills costs. It is therefore important to choose the appropriate mode of transmission for electricity based not only on the reduction of visual disturbance, but in a balanced way, taking into account the corresponding increase of the electricity bills.

In particular, with regard to visual disturbance, the following practices are applied in order to achieve its reduction to the lowest possible levels:

- The route for all new overhead lines, is far from residential areas, including individual farmhouses or warehouses.
- Transmission lines near or within residential areas pass underground and not overhead.
- When the transmission lines are close to settlements, tubular poles (masts) are used instead of lattice towers (pillars). The area and volume occupied by a mast is much smaller than the area occupied by a pillar.
- The construction of a substation and a high voltage center within the cities or areas with special physical characteristics, such as the Cycladic islands, is a closed type GIS (Gas-Insulated Switchgear).

Respecting antiquities found

Greece is one of the richest places in the world in terms of antiquities and archaeological sites, which are often discovered by chance during work. When such cases occur, IPTO ensures strict obeyance to all applicable legislation.

Additionally, in some of these cases it also contributes to the promotion of antiquities, contributing thus to the promotion of culture at national level as well as supporting local communities.

When IPTO discovered antiquities in Mykonos

During works on the plot where the Mykonos substation was built, a lot of antiquities were discovered. IPTO, seeking to contribute in the promotion of the antiquities found, proceeded with signing a Memorandum of Cooperation with the Ephorate of Antiquities of the Cyclades so as to support the rescue excavation.

The archaeological research, in fact, continued at the Archaeological Museum of Mykonos, where the summer of 2018 was completed the maintenance, classification and documentation of the material found during the excavation.

The findings of the excavation were presented to IPTO's Management and the leadership of the Ministry of Energy in a special event that took place at the Archaeological Museum of Mykonos on July 5, 2018.

The antiquities found on the plot include -among other things- carvings, pieces of amphorae and utensils, ceramics and coins. The findings date from the ancient to the modern era (Hellenistic period, Byzantine and post-Byzantine period, modern era) and the discovery is considered very important both for the history of Mykonos and for the interaction with the sanctuary of Delos.

Clean and affordable **ENERGY**

With our activity, we enable the provision of clean and affordable energy for all

INVESTMENT PROGRAM WITH A 10 YEARS HORIZON

€ 5 billion

ANNUAL SAVINGS FOR HOUSEHOLDS AND BUSINESSES DUE TO THE NEW INTERCONNECTIONS

€ 800 million

CONTRIBUTION TO THE COUNTRY'S ENERGY INDEPENDENCE FROM OIL, IN ELECTRICITY GENERATION

CATALYTIC CONTRIBUTION TOWARDS ACHIEVING THE COUNTRY'S TARGETS FOR CLIMATE CHANGE

Development of the energy transmission system

With an investment plan of 5 billion euros over a decade and aiming at the electrical interconnection of almost all Aegean islands with the mainland system by 2030, the Independent Electricity Transmission Operator proceeds with speed and consistency in the implementation of the Ten-Year Development Plan.

The development of the Hellenic Electricity Transmission System (HETS) is one of the main duties of IPTO in the context of its role as Operator of the HETS. The development of the system includes the planning and implementation of significant investments, in order to ensure on one hand the supply of electricity to the country in an adequate, safe, efficient and reliable way, and on the other, the long-term capacity of the System to meet electricity transmission needs on economically viable terms, to the benefit of society and the environment.

The Ten-Year Development Plan

The main vehicle for planning and scheduling of these investments is the Ten-Year Development Plan (TYNDP). IPTO prepares and issues the Ten-Year Development Plan for the country's Transmission System, which has a rolling nature and is issued on an annual basis.

The Ten-Year Development Plan includes the System development projects for each reference period, including the necessary infrastructures for the penetration of RES, as well as the time frames and estimated cash flows for their implementation.

More specifically, according to the approved most recent ten-year program for the period 2019-2028, the development projects include the following:

- **Upgrades/underground routing of circuits and loops**
- **Reinforcement of existing HVCs and modernization of Energy Control Centers**
- **Interconnections of Cyclades/Crete with the Mainland System**
- **Network service projects**
- **Other extension projects for the connection of users**
- **Development of the ability to transmit power from renewable energy sources into the System.**

The development of the country's energy transmission System is one of the most important infrastructures with multiple benefits for the national economy, the environment and society. The role of IPTO in the implementation of this program is crucial.

Consultation with our stakeholders

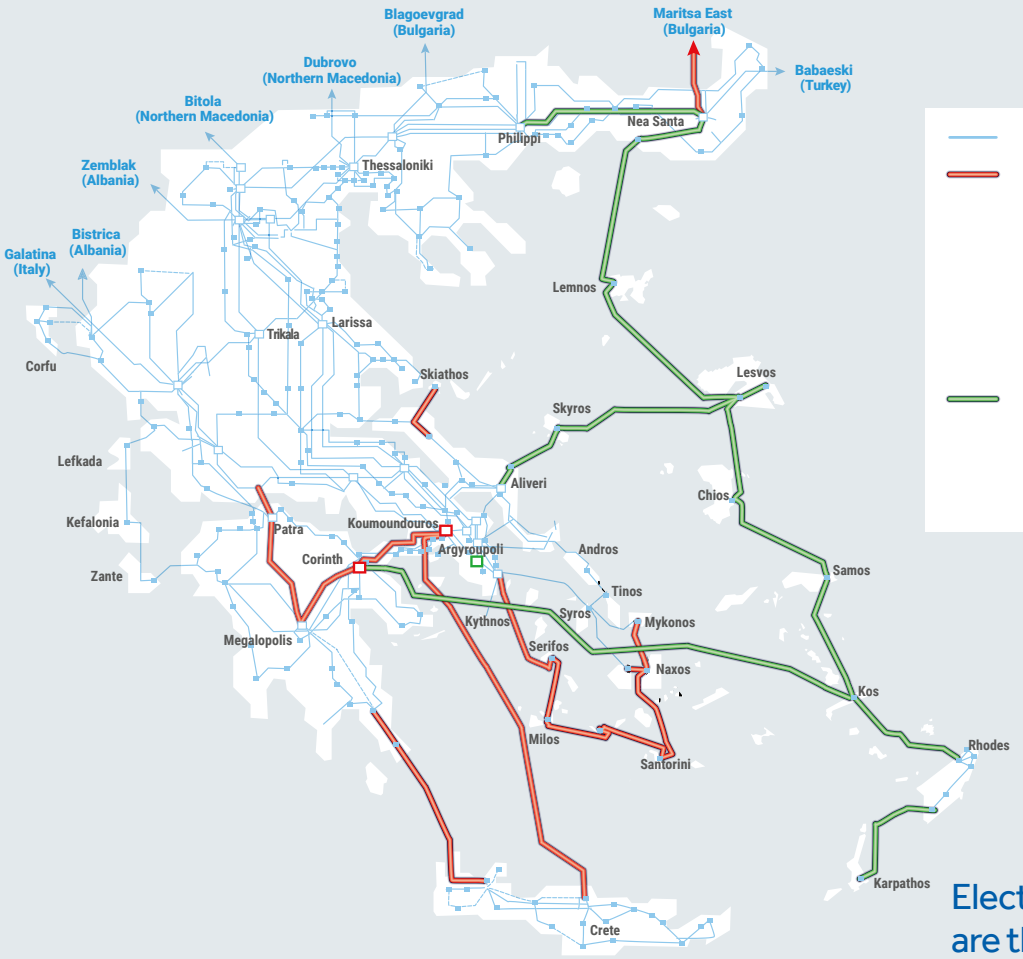
IPTO prepares the Ten-Year Development Plan and then makes it available for public consultation at the end of December each year. All IPTO's interested parties and stakeholders have the opportunity to take part in the consultation, which lasts one month, submitting their comments. Following that, IPTO takes these comments into account when drafting the revised Ten-Year Development Plan and submits it to the Energy Regulatory Authority for approval. The Energy Regulatory Authority then makes it again available for public consultation.

Stakeholders may be producers from conventional power plants, renewable energy or hydroelectric power plants, potential investors, environmental organizations, government agencies, local bodies and local communities, HEDNO, etc.

Interconnection implementation plan until 2030

Category	Interconnection area	Phase	Delivery and operation
Internal interconnections	Cyclades	Phase A: Lavrio - Syros and Syros - Tinos - Mykonos - Paros	Completed in 2018
		Phase B: Paros - Naxos, Naxos - Mykonos	2020
		Phase C: Second connection of Lavrio - Syros	2020
		Phase D: Western and Southern Cyclades (Santorini, Milos, Folegandros and Serifos)	2024
	Crete	Phase A: Crete - Peloponnese	2020
		Phase B: Crete - Attica	2023
	Skiathos	Mantoudi - Skiathos	2022
	Peloponnese	Megalopolis - Corinth Attica (Eastern corridor)	2021
		Megalopolis - Patras - Western Mainland (Western Corridor)	95% completed
	Dodecanese		2027: Interconnection 2028: Year of full operation
	N. Aegean Islands		2028: Interconnection 2029: Year of full operation
International interconnections	Bulgaria	2nd interconnection with Bulgaria	2023

IPTO interconnected electricity system by 2030



Electricity interconnections are the core of our activity

We are accelerating the implementation of the country's new electrical interconnections

Since June 2017, decisive steps have been taken to implement an ambitious investment program above 5 bn euros over a decade. At the "heart" of this program lie the long island interconnections, which activate multiple benefits.

The interconnection projects of the non-interconnected islands with the Greek Electricity Transmission System, are a strategic goal of IPTO and correspond to more than 80% of the total investment program of the company. The projects of these interconnections contribute the most to the achievement of national energy and environmental objectives, for the following reasons:

- **The energy isolation of the islands is lifted and their energy supply is secured, finally solving their energy problem. This problem is gradually magnified from 2020 onwards, due to the environmental constraints imposed by European law on conventional power plants (air emissions limit).**
- **The consumer is exempted from the excessive price of oil produced electricity on the islands, which ranges for households and businesses between the amount of € 500 million to more than € 800 million per year for all islands, depending on the oil prices worldwide.**
- **The islands are being environmentally upgraded, improving their environmental footprint with the closure of the operation of the oil stations, which operate on the border or within the residential areas, even in touristic areas.**
- **A substantial contribution is achieved in the country's energy independence from electricity generation using oil.**
- **The possibility of energy autonomy for the islands themselves is provided in the most economical way and with mild utilization of renewable energy resources.**

› **Electricity of increased quality is provided which is a significant boost for the islands' economy as well as the quality of life for residents and visitors.**

Within this frame of reference, Crete's and Cyclades interconnections are in full swing, while in July 2019 the tender for the Skiathos' interconnection with Evia was announced, strengthening adequacy of supply for the Sporades. The interconnection of the Dodecanese and the Northeast Aegean islands has been included in IPTO's updated Ten-Year Development Plan for the period 2020-2029.

Interconnection of Crete

After almost half a century of discussions and studies, the project of the electrical interconnection of Crete with Mainland Greece, is well on the way of being implemented. This is an emblematic infrastructure project, of great importance not only for Crete, but also for the national economy as a whole.

Following completion of the two phases for the Crete interconnection the demand for electricity in Crete will be reliably covered in the foreseeable future. It will also lead to a drastic reduction in Services of General Interest charges (of the order of € 300-400 million per year) for all households. This amount corresponds to the cost of Crete's electrification from the three old technology Steam Power Plants at Chania (Chania), Linoperamata (Heraklion) and Atherinolakko (Lassithi), which use oil as fuel.

The interconnection project of Crete is implemented in two phases:

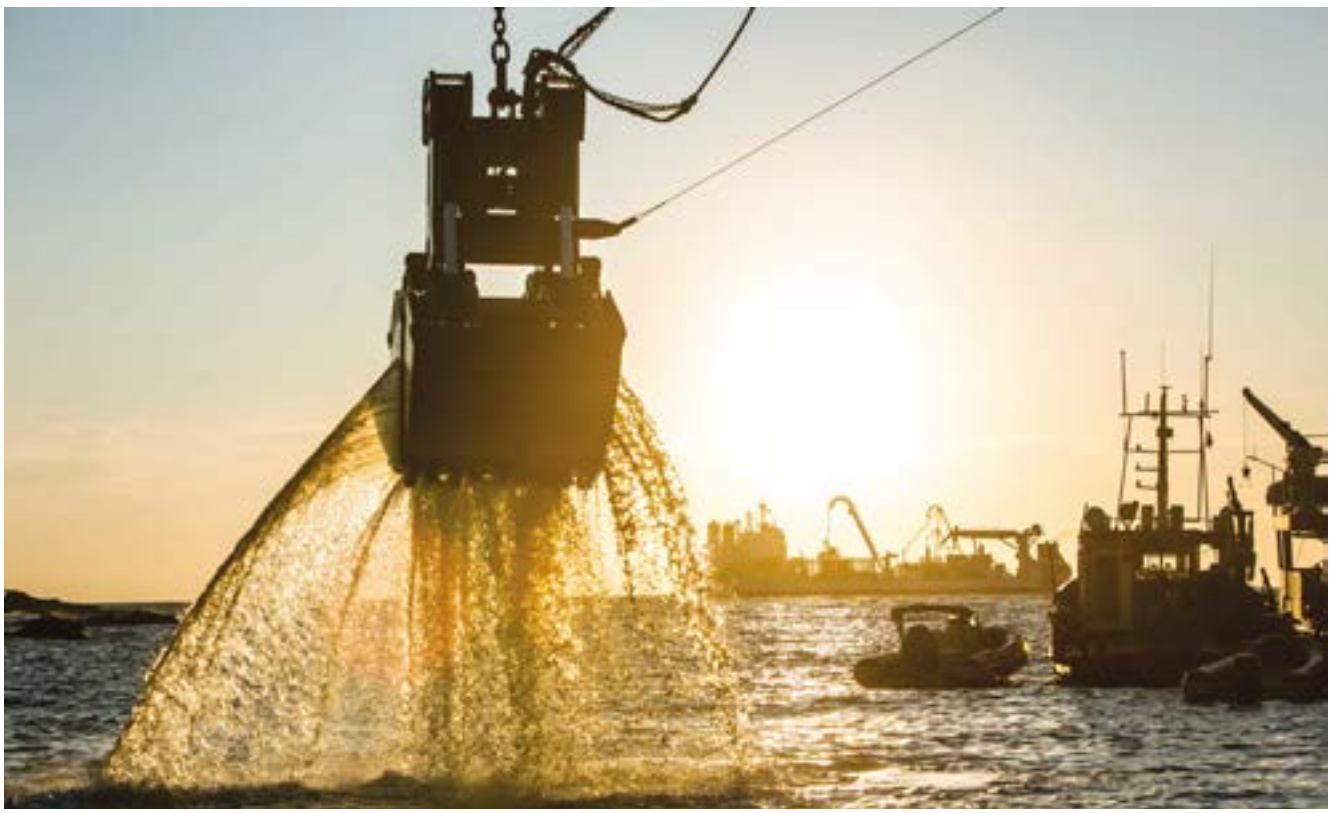
› **the Crete-Peloponnese interconnection**

› **the Crete-Attica interconnection.**

The implementation of these two emblematic interconnections, brings the largest island of the country close to its electricity supply from the Greek Electricity Transmission System, through two submarine AC and DC cables, which incorporate "state-of-the-art" technology at international level.

The first cable, which will connect Crete with the Peloponnese, has entered the implementation phase since October 2019 with the ground transmission lines' construction progressing in Crete and the Peloponnese. It is the longest AC cable connection in the world and involves laying a 134 km submarine cable at a depth of up to 1,000 meters.

We pay special attention in delivering the projects on time, therefore our technical teams supported the contractors in the projects they



have undertaken, so that to accelerate progress, ensuring in this way projects will be delivered on time.

At the other end of the cable, in the Peloponnese, the construction of the overhead sections that will reach Neapolis is in progress. Completion of the project is anticipated by the end of 2020 and, once finalised, is expected to fully cover the energy needs of the island during winter months.

The electrical interconnection of Crete is also in line with the Greek Energy Planning which aims to withdraw all polluting production units by 2028 and significantly increase the share of RES in the country's energy mix.

In 2019, the implementation of the "big interconnection" project was finally assigned to Ariadne, a subsidiary of IPTO. Two tenders were announced, one for the cable sections and the Converter Stations, which are almost completed.

Now, the way is open for commencing the largest infrastructure project in the history of IPTO and the country as a whole.

Interconnection of Crete: A project of major importance for the sustainable development of the country

The benefits from the two new interconnections of Crete with the National Electricity Transmission System, are of major importance for the sustainable development of the country, since the project is characterized by significant benefits both locally and nationally.

Indicatively, the two new interconnections after their electrification will:

- **cover most part of the demand for electricity in Crete**
- **allow Cretan consumers access to renewable energy produced in other parts of Greece**
- **minimize the risk of power outages during peak and high seasonal demand**
- **induce a positive environmental footprint by reducing CO_2 emissions by 60%**
- **encourage the development of wind energy and hybrid renewable energy sectors in Crete, allowing the utilization of the island's rich wind potential in the production of clean energy for the whole country**
- **lead to a reduction in the utilities cost that are imposed to consumers due to the high variable production costs of the island's oil power plants. Typically, the benefit from only one interconnection (Crete - Attica) is estimated at € 326 million in the first year and € 400 million per year, for the next 25 years.**

Interconnection of Cyclades

In March 2018, the inauguration of the first phase of the Cyclades Interconnection project with the Continental Electricity Transmission System took place, enabling Syros and Paros to become interconnected with a high voltage submarine cable with the mainland system through Lavrio.

The Cycladic islands that have benefited from Phase A of the project are 11 and the permanent residents who benefit from it 87,000. The maximum power that can be handled by the System is estimated at 170 MW. This power fully covers the interconnected islands needs, not only those of their permanent residents, but also their visitors as in the summer months the demand for electricity increases sharply due to the peak in tourist traffic and population increase.

The Interconnection of the Cyclades is an extremely important project for the economy of Greece, as it offers a reliable and adequate supply of islands with high voltage electricity. At the same time, the cost of utilities is lowered, as electricity consumers across the country are subsidizing the generation of electricity through oil on the unconnected islands. The benefit is approaching 80 million euros per year, while in the course of twenty years it is expected to reach 2.7 billion euros.

Following completion of the Cyclades interconnection's first phase, IPTO immediately proceeded with implementing the second phase, alongside launching the new interconnection Evia - Andros and Andros - Tinos.

Upon completion of these projects, a double supply is provided to Paros, Naxos and Mykonos.

In addition, the strengthening of the existing interconnection with Evia ensures power transmission of 170 MW to the interconnected Cyclades, a capacity that is generally sufficient to meet their power demand, further limiting the need to use the local Autonomous Power Stations even in the case of an emergency failure where cable loss occurs.

Dependence on the autonomous production stations is expected to be minimized with the completion of the Cyclades interconnection project's third phase by the end of 2020, which includes a second submarine cable being laid between Lavrio and Syros. The main goal of this project is to guarantee the required reliability criteria and provision of electricity for a large part of Cyclades in the coming decades.

The interconnection works of the Cyclades continue with the fourth phase, where the islands of Serifos, Milos, Folegandros and Thira take their turn with the construction of the respective GIS substations (Gas Insulated Substation) and their interconnection with submarine cables 150 kV in loop (Lavrio - Seri - Milos - Folegandros - Thira - Naxos).

The project is scheduled to be completed by the end of 2024, while IPTO plans to accelerate this project too, in relation to the initial schedule.

Skiathos Interconnection

The electrical connection of Skiathos with Mantoudi, Evia, started during July 2019. The project is scheduled to be put into operation in early 2022 and strengthens the security of supply of the Sporades archipelago. The interconnection includes the installation of a high voltage 150 kV AC cable which will connect Skiathos with mainland Greece via Mantoudi (Evia) as well as the construction of a new GIS 150/20 kV substation in Skiathos.

Dodecanese Interconnection

The Dodecanese interconnection is the new large island interconnection included in IPTO's preliminary Ten-Year Development Plan for the period 2020-2029. This particular interconnection has a budget of 1.5 billion euro and horizon of completion in 2027. In this context the interconnection of Kos with the Mainland Transmission System is foreseen via the new High Voltage Center in Corinth, through a submarine direct current cable with a length of 380 km and a carrying capacity of 900 MW.

Subsequently, the connection of Kos with Rhodes and Rhodes with Karpathos will follow. By these means an additional island "power corridor" will be created and allowing the Dodecanese to be reliably electrified by the Hellenic Electricity Transmission System (HETS), exploiting the RES potential, with significant environmental and socio-economic benefits

Interconnection of the Northeast Aegean Islands

Completion of the project is placed in the three-year period 2027-2030. Although the list of islands to be interconnected will depend on the route chosen in the final plan, it is reasonable to expect that the larger islands such as Lemnos, Mytilene and Chios will be included. In addition to the route and the islands that it will include, the scenarios prepared by IPTO also concern the technical parameters of the project, such as the optimal technology and the interconnections voltage.

All these projects best reflect the Operator's transformation from a company that operated a land-based Transmission Line network, to a company with island interconnections at the core of its business.

New projects that were electrified in the period 2017 - 2019

After construction, comes the electrification. It is the culmination of the persistent efforts made by the designers, the project managers, the construction crews and all contributors in the interconnection projects.

In the period 2017-2019, four new submarine lines were electrified:

- **The first 400kV high voltage cable in the Rio-Antirrio section, which connects Megalopolis with the Acheloos-Distomos transmission line via Patras**
- **The new 150kV cable in the Evia-Andros section**
- **The first circuit of Salamina**
- **Phase A of the Cyclades interconnection.**

Planning of new projects for the next period

Our aim is to implement our projects quickly and efficiently, according to schedule, so that we maintain our leading position in energy transmission.

This would not have been possible without the speedy completion of the relevant studies, which is the first step on the long road to contracting. Hence, during 2018, the phase A study of the Cyclades interconnection was completed: Lavrio - Syros and Syros - Tinos - Mykonos - Paros. Respectively in 2019 the studies for three great projects were completed:

- **400kV Eastern Corridor of Peloponnese: Includes the construction of the transmission line Megalopolis-Corinth and the high voltage center of Corinth.**
- **Crete-Peloponnese interconnection: These include STATCOM's studies for the construction of the 150kV line Molai-Termatiko.**
- **Interconnection of Skiathos: The Sporades islands will be interconnected for the first time in the 150kV system via the submarine interconnection between Evia and Skiathos with the Substation in Skiathos.**

Western Corridor (Megalopolis - Patras - Western Sterea)

The construction of a new High Voltage Center in Megalopolis is important for the Peloponnese region. The Megalopolis High Voltage Center, which was fully operational in 2014, was necessary for the connection of the new production unit in Megalopolis (unit "Megalopolis V"), to increase the penetration of renewable energy sources in the Peloponnese and to support voltages at heavy load hours.

The interconnection of the High Voltage Center of Megalopolis with the 400 kV circuits on the Antirrio side is carried out with a new transmission line of 400 kV double circuit, consisting of overhead, underground and submarine sections, as well as the respective compensating inductor. At the end of 2019 the project was 95% complete..

Expansion of the Energy Transmission System in the Peloponnese, through the «Eastern Corridor»

We laid the foundations for the start of the emblematic project "Eastern Corridor" concering the Expansion of the 400kV System in the Peloponnese. Together with the "Western Corridor", which is very close to its completion, these two projects mark the lifting of the energy blockade of the Peloponnese and the Southern System's stabilization.

Energy transition

According to the National Plan for Energy and Climate, the country aims to drastically reduce greenhouse gas emissions in order to achieve transition to a climate-neutral economy at national level by 2050.

Regarding renewable energy sources in particular, according to the National Energy and Climate Plan, the target is now set for a contribution of at least 35% in the gross final energy consumption, instead of the 31% set in the original plan, which is significantly higher than the central European target for renewable energy which is 32%. At the same time, the energy transition that will be achieved in the field of electricity generation is fundamental, as the contribution of renewable energy sources in the consumption of electricity is going to exceed 60%.

It is clear that IPTO's role is presently crucial for the implementation of these plans and the goals' achievement, something that will continue to apply in the future to an even greater degree.

IPTO is already preparing studies on the role it can play in the country's energy transition, while at the same time it has started discussions with companies in Greece and abroad, such as suppliers, technology providers and project builders operating abroad, in the Balkans, the Middle East, Africa and elsewhere.

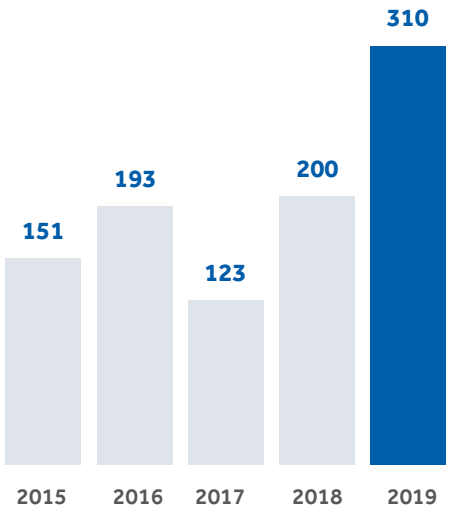
Increased penetration of RES

As the body implementing the country's large interconnections, we are the ones who pave the way for green investments through Renewable Energy Sources. Through the islands interconnection projects with the Greek Electricity Transmission System, the possibility of increasing the integration of Renewable Energy Sources is achieved, with many and important benefits for the society, the environment and the economy. In particular, a reduction in the cost of energy production, a reduction in carbon intensity (decarbonization), alongside a reduction in atmospheric pollution, locally and broadly, is achieved through the reduction of air emissions due fossil fuel combustion.

This trend is reflected in the chart below, showing a clear increase for the last three years, prompted by the operation of new renewable energy projects corresponding to a capacity of up to 310MW for 2019. The long-term goals (next decade) according to the NECP (National Energy and Climate Plan) are as follows:

- Minimal consumption of solid fuels/lignite plants in electricity generation (de-lignitization) and use of natural gas as a transitional fuel

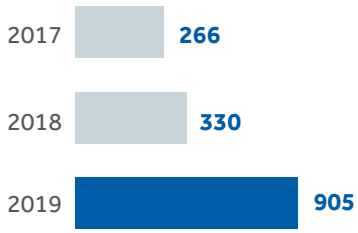
Commencement of commercial RES* operation (MW)



*wind, photovoltaic and hydroelectric up to 15MW

Total installed RES capacity (MW) in the connected system

New installed RES capacity (MW) in the connected system



Newly installed RES capacity (MW) in the Interconnected System

Year	2017	2018	2019
Wind	255	253	746
Photovoltaic	1	46	149
Small Hydroelectric Stations	7	9	1
Biomass	3	21	5
Cogeneration	0	1	4
Total	**266**	**330**	**905**

Evolution of installed RES capacity for electricity generation, until 2030, according to the National Plan for Energy and Climate

Power Generation-Installed capacity (GW)	2020	2022	2025	2027	2030
Biomass & Biogas	0,1	0,1	0,1	0,2	0,3
Hydroelectric (incl. mixed pumped)	3,4	3,7	3,8	3,9	3,9
Wind	3,6	4,2	5,2	6,0	7,0
Photovoltaic	3,0	3,9	5,3	6,3	7,7
Solar thermal stations	0,0	0,0	0,1	0,1	0,1
Geothermal	0,0	0,0	0,0	0,0	0,1
Total	**10,1**	**11,9**	**14,6**	**16,4**	**19,0**

- Configuration of the share of renewable energy sources in the gross electricity consumption at 61%
- 18.91GW installed capacity of renewable energy sources in the production of electricity, of which 7.05GW wind, and 7.66GW photovoltaic.

Affordable energy for everyone

IPTO aims to provide reliable, efficient and green electricity to the country, promoting the development of free competition in the Greek electricity market. Through IPTO's activity and the new interconnection projects, as well as through the development of free competition, a reduction of energy costs is achieved, among other things, making it apart from being clean and affordable.

Target model: Single European Electricity Market Model

On the occasion of our country's compliance with the obligations for the coupling of the European electricity markets and the creation of a common market model, planning of the electricity markets' future operation has started according to the European Target Model.

The Target Model's implementation consists a major structural reform, expected to bring increased benefits to the competition, with incentives for new market participants as well as attracting new investment, security of energy supply and more efficient integration of renewable energy sources in the electricity market.

IPTO's role is central to this new model of operation for the country's wholesale electricity market, as it is responsible for five distinct processes of the electricity market: the calculation of the interconnections' long-term capacity, the long-term distribution of capacity using common methodology, capacity allocation in the day ahead and intraday markets together with balancing of electricity. IPTO manages and operates the Balancing Market which ensures the balance of supply and demand and in effect the System's security. The Balancing Market consists of three stages: The Balancing Capacity Market, the Balancing Energy Market and the Imbalance Settlement.

The information systems which support the Balancing Market's operation are in the final phase of implementation, with a horizon of completion in the first half of 2020 and concern the market management system (MMS platform), the collection and certification of measurements (MODESTO system), the management of interfaces (XBMS system) and the clearing of the Balancing Market (MSS system). In addition, all suitable preparation for the staff that will operate the new systems within the target model is performed daily.

First stop on the way is the successful completion of IPTO and EEG systems' parallel testing, within the first half of 2020, in order to make the transition to the new electricity market model.

Creating a common European electricity market brings increased benefits from cross-border competition, leads to fair and competitive wholesale market prices, enhances Europe's security of energy supply and contributes to the international goal of reducing greenhouse gas emissions and European greenhouse gas emissions, benefits which are reaped not only by market participants, but also by all European citizens.

Integrating the Greek energy market with neighbouring markets

Ultimate goal of the transition to the new market model is the Greek market's integration with the neighbouring markets, so that integration of markets at European level is accomplised. The coupling of markets achieves the optimal use of capacity in interconnections, the convergence of energy prices between neighboring countries and the promotion of adequate cross-border capacity.

IPTO plays a key role in both day-to-day market coupling and the day-to-day markets, as it manages the critical interconnection capacity of electricity transmission.

IPTO, by contributing in the RSC (Regional Security Coordinator) at Thessaloniki, will bear the responsibility for calculating the capacity for the Greece-Italy, Greece-Bulgaria interconnections, but also the interconnections with non-member states, for its long-term availability via transmission rights.

The estimated quantity is distributed by auction of these rights and is carried out through Auction Houses, in which IPTO is a shareholder, together with other Operators: the Joint Auction Office (JAO) for the European borders, and the South East Europe Common Auction Office (SEE). CAO) for the connections of Greece with Albania, Northern Macedonia and Turkey.

At the end of 2020, the Greek energy market's coupling with the Italian one is planned, and in 2021 an equivalent with the corresponding Bulgarian one.

Establishment of a new Regional Security Coordination Center in Thessaloniki

2019 was another great success for IPTO: In close cooperation with the Ministry of Energy, RAE and the European Network of Administrators (ENTSO-E), an agreement was reached with the Administrators of Bulgaria (ESO-EAD), Romania (Transelectrica) and Italy (Terna), in order for the Regional Security Coordination Center (RSC) of Southeastern Europe - Southeast Electricity Network Coordination Center (SEleNe CC) to be established in Greece and specifically in Thessaloniki.

RSCs play a key role in the operation of the electricity market and systems. On the one hand, they aim to maximize the capacity available in the market for energy exchanges, thus ensuring optimal use of infrastructure and increasing competition in the wholesale market, ultimately reducing the cost of electricity. On the other hand, they ensure the safety and short-term adequacy of electricity systems, proposing the best actions at a level that exceeds the national borders of each Operator, with a view to reducing the cost of operations, and minimizing the likelihood of occurrence in large geographical areas.

At the same time, RSCs are promoting regional co-operation between Operators, which is now more imperative than ever, as Challenges for the balancing of the Systems, due to the increased penetration of the Renewable Energy Sources, the increase of the volume but also the variability of the cross-border flows, including the gradual integration of the demand response and the storage.

Promoting the country as a regional energy hub

Further than the new RSC's at Thessaloniki contribution in strengthening and utilization of the geopolitical role of Greece is a goal at national level, the country's international connections are also deemed considerably important (integration of existing and planning of new ones). Regarding the electricity market, the implementation of the following interconnection projects will be promoted in the next decade:

- **Second interconnection between Greece and Bulgaria**
- **Support of the Greece - Cyprus - Israel interconnection project through the implementation of Crete's interconnection**
- **Upgrading the interconnection of Greece - Republic of North Macedonia**

Reducing our environmental **FOOTPRINT**

We cater for having nothing lesser than the minimum possible impact on the environment, taking all the necessary measures both in the context of our operation and our new projects.

ENERGY SAVINGS OF **70.782 kWh** FROM INTERVENTIONS IN ADMINISTRATION BUILDINGS IN 2018-2019

ELECTRIC VEHICLE CHARGING STATIONS

3

REPLACEMENT OF VEHICLES WITH NEW OF LOW EMISSIONS AND FUEL CONSUMPTION

123 vehicles

USE OF DRONES FOR MAINTENANCE OF OVERHEAD LINES

Our approach

Environmental protection is one of our first priorities at IPTO. We implement practices that ensure the best environmental protection and management of the environmental impacts resulting from our operation and projects.

We are committed to fully comply with all environmental laws and prerequisite licensing regulations while improving our environmental performance on an annual basis.

Meantime, we make provisions for the appropriate management of the waste resulting from our operation, the protection of biodiversity in the areas where we carry out projects, together with the reduction of our energy and carbon footprint, always focusing on prevention.

IPTO has prepared a Strategic Environmental Assessment (SEA) for the Ten-Year Development Plan (TYDP) of HETS for the period 2017-2026. This SEA deals with the identification, description and evaluation of the potential effects that the implementation of the development program's proposals can induce to the natural environment and proposes measures for tackling them.

Within the framework of the existing legislation and regulations application, a Strategic Environmental Assessment (SEA) is implemented in order to integrate the environmental dimension before the acceptance of plans and programs, by adopting the necessary measures, conditions and conditions, guided by a balanced and sustainable development. As a result, the potential impact on the environment is assessed and estimated, thus promoting sustainable development and a high level of environmental protection.

The following schematic summarizes how the company designs and manages a project:

1. Need to design a new project
Occurs when presented with:

- **increased electricity consumption in an area**
- **a need to connect renewable energy**

projectsa need to connect HETS with island groups for the utilization of renewable energy sources and reduction of SGI costs

- a need to increase interconnecting lines with foreign countries.

2. Project design

It is done at IPTO, alongside the study for the project and forms part of the Ten-Year Development Plan. The project can involve:

- Strengthening HETS or
- Expanding HETS

3. Consultation and maturation

When a project is thoroughly studied and included in the Ten-Year Development Plan, it proceeds to consultation phase and final approval by RAE. In order for the project to be approved it should be accompanied by a cost estimation, cash flow and implementation schedule. Projects of national importance are accompanied by cost-benefit studies.

4. Project licensing

All necessary steps are followed for obtaining the necessary permits and environmental studies in order to implement the project (receiving information for studies, assignment of works, obtaining all necessary permits, elaboration of Environmental Impact Studies, submitting all relevant documentation, obtaining an Approval Decision).

5. Project implementation

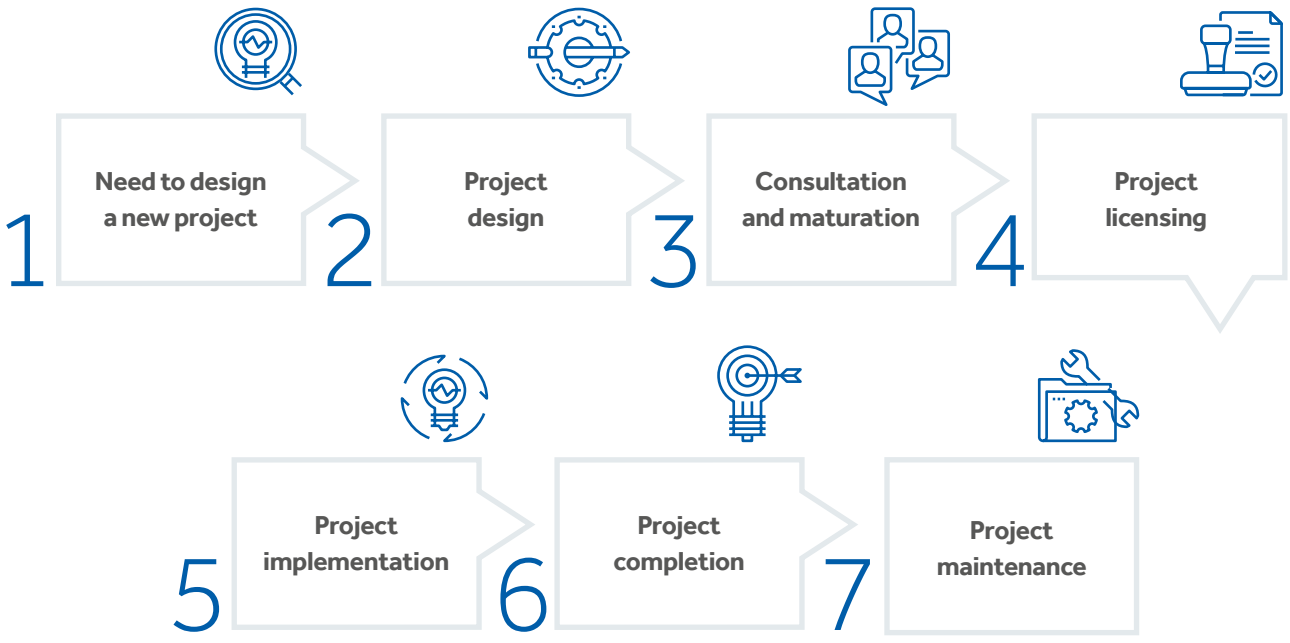
The implementation of the project is undertaken by IPTO, using own resources (self-supervision) or by assignment to third parties (turn key projects). Accordingly, the management is supervised by IPTO, a third party, or a special purpose company (see Ariadne Interconnection).

6. Project completion

Upon completion, the project is electrified.

7. Project maintenance

The project is then maintained; repairs and necessary upgrades are performed until its life has come full circle, whereby it is withdrawn and dismantled.



Biodiversity conservation and environmental restoration

As expected, the projects generally carried out for the needs of the country's energy transmission network, have as a result smaller or greater impacts on the natural environment of the project areas. Our constant concern at IPTO is to design, locate and build our projects with the greatest possible environmental sensitivity, always taking into account the concerns of local communities.

For this reason, we make sure to:

- **Study and evaluate in detail the possible impact of our projects on protected species and habitats, in collaboration with specialized scientists and researchers.**
- **Take mitigation measures that eliminate, prevent or reduce to a negligible level the negative potential impact of a project. Mitigation measures include changes in the size, location and design of parts of our projects (e.g. use of low noise transformers to reduce noise pollution) and/or may take the form of temporary adjustments during the construction and operation phases (e.g. avoidance of construction work during bird migration).**
- **Consider alternatives when the planned project's effects continue to be significant, even after mitigation measures (e.g. different location or undergrounding of the project, change of scale or development plans).**
- **Implement projects for the restoration and protection of the natural environment after the completion of our projects.**

Natural environment restoration: N. Makri-Polypotamos interconnection

In the context of the N. Makri - Polypotamos interconnection project and in order to reduce possible effects on the environment, IPTO proceeded with the replacement of 23 km of overhead lines which passed through Mount Pentelis. Respectively, part of the underground and submarine cable line was increased, shifting the respective landing point from Ramnounta to N. Makri. At the cable's beaching point, the natural environment was restored, as shown in the photos below.

Due to the nature of the company's projects, the area occupied by the network is extensive, with transmission lines passing through several protected areas. Specifically, they pass through 325 of the 446 protected areas comprising the Natura 2000 network in Greece. We monitor the European legal and institutional framework for the protection of biodiversity and ensure that the relevant environmental studies prepared for the company's projects are fully harmonized, always in compliance with Greek legislation. In the meantime, special studies are prepared (Special Ecological Assessment Studies, Ornithological Studies) where required, and in cooperation with the competent authorities (Ministries, Regions, Forestry Offices, Archaeologies, etc.) all protocols required for the protection of biodiversity are followed.

Nea Makri Beach: Landscaping works at the landing point

Nea Makri Beach: Environmental restoration

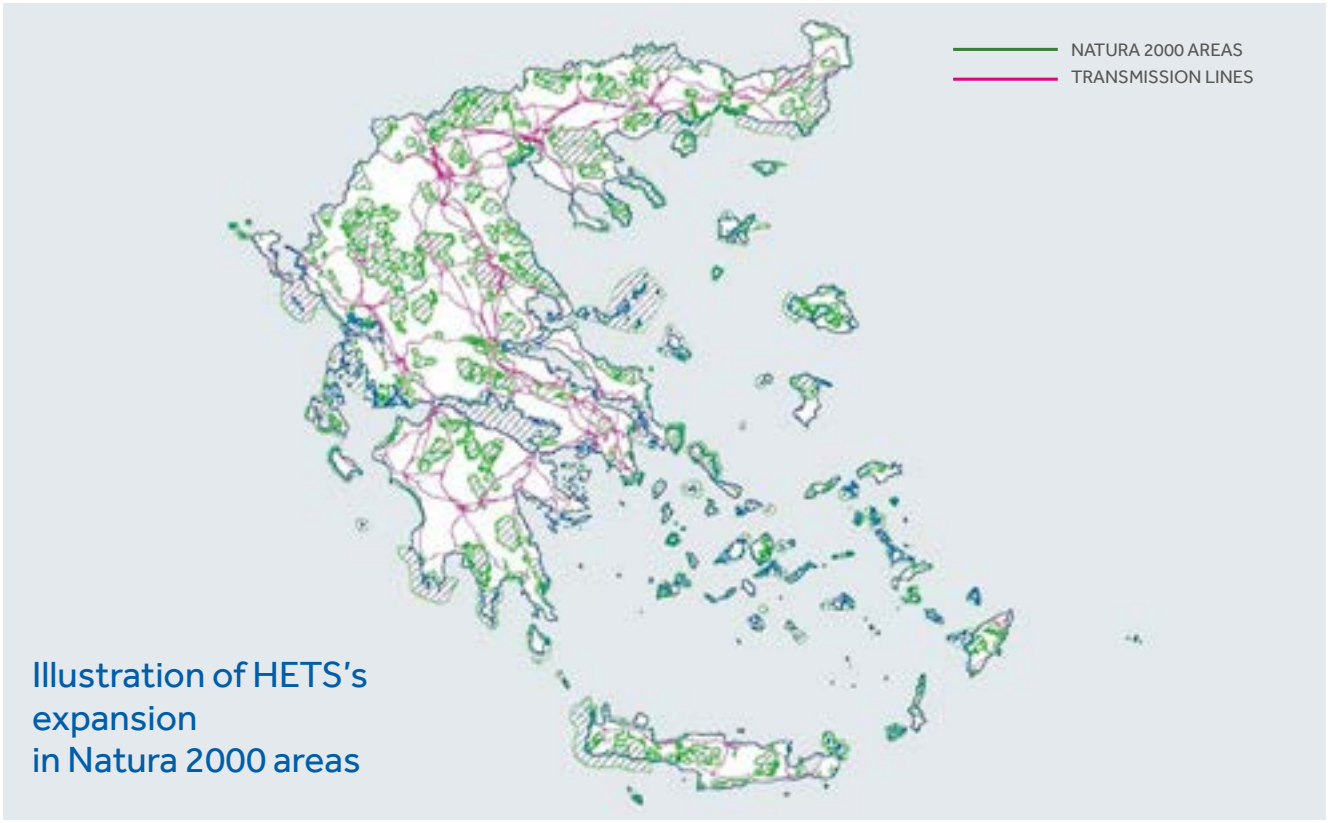


Illustration of HETS's expansion in Natura 2000 areas

Reduction of visual disturbance with phytotechnical configuration: Arachthos High Voltage Center

Our constant concern is to reduce nuisance to the minimum levels possible. An illustrative example is the area near the High Voltage Center of Arachthos, where in order to reduce visual disturbance, fencing and tree planting along its perimeter was carried out, so that people and animals cannot access the Center. Additionally, in the southern part of the field, an embankment was created which was shaped phytotechnically, in order to reduce visual disturbance, as shown in the picture below.

Measures to protect the environment

The most common measures we take to protect the environment during the implementation of our projects, are summarized as follows:

› **The width of the project's occupancy zone is limited to**

Close up of plantings and dense vegetation developed on the embankment.

what is absolutely necessary for the construction of the project.

- During the earthworks, methods are used to reduce the dispersion of dust, by wetting the soil, especially during dry season.
- Uncontrolled debris, lubricants and other waste or rubbish are not disposed of at any site.
- Any vegetation damage is kept to a minimum.
- Deforestation of any vegetation near the streets, is treated by planting similar plants.

Finally, where necessary, appropriate compensatory measures are applied, while a monitoring program is proposed so that all important environmental parameters related to the project's impacts are monitored.

Reforestation of forest areas after the implementation of projects

In the context of upgrading an existing overhead line in Ioannina and projects in Thrace, the company proceeded with the reforestation of areas in which it had intervened to implement its project. Subsequently the company took care of the three-year maintenance of the seedlings planted.

Reforestation area at Ioannina

Adoption of stray dogs and their utilization for guarding facilities

During 2019, IPTO started a pioneering program for the adoption of stray dogs living outside substations and High Voltage Centers. As a result of this program, a total of 35 dogs at 15 IPTO facilities in various parts of the country were neutered, vaccinated and acquired an electronic identity.

The company covered all the logistical needs of this effort by providing housing, food, vaccinations and medicines for all dogs, while members of the company's human resources in the specific facilities where the program was implemented, took on the most essential role which is the daily care of dogs.

Now, dogs are considered part of IPTO's human resources and in addition to being a good companion for the handlers - supervisors, they are also excellent guardians of our equipment. They are not allowed to move outside the premises and their presence has helped to eliminate theft, sabotage and reduce damage caused by other animals (e.g. birds, small mammals).

Acharnes High Voltage Center (HVC)

IPTO in 2020 intends to expand this action by adopting stray dogs and animal welfare organizations and manning more High Voltage Centers and substations.

Environmental compliance

At IPTO, we make sure that in any case the projects that are designed, located and constructed, are in full compliance with existing environmental legislation and regulations, preparing the required assessments and complying with the environmental terms approved on a case-by-case basis. In 2019, there were no confirmed cases of non-compliance with

environmental laws and regulations. However, the issuance of the decision on an objection by IPTO against a decision of the Peloponnese Region for the imposition of an administrative fine of € 1,000 due to violation of environmental legislation is pending.

Additionally, during 2019, an application was submitted for the cancellation of the environmental terms of the Patras-Megalopolis project, which, however, has not yet been adjudicated. Similarly, in 2019, lawsuits were filed against the High Voltage Center of Argyroupolis, for which no decision has been issued yet.

In 2018, IPTO imposed an administrative fine of 42,000 euros by the Region of Central Greece, due to violation of environmental legislation and in particular due to lack of environmental licensing and illegal management of hazardous liquid waste from underground leakage. An objection has been filed against this decision by IPTO before the Administrative Court of First Instance of Lamia, which has not yet been discussed.

Waste management & circular economy

Our constant concern is to minimize our waste, always in compliance with the provisions of laws and regulations, including the promotion of circular economy's principles, where possible.

Furthermore, we take care of the digitalization of internal communication, with the aim of reducing or even eliminating paper consumption. Some of the Company's Divisions, are already issuing only digital information notes, while this practice will be extended in the near future to other addresses of the company.

Recycling in the central buildings

In the company's headquarters (Dyrrachiou 89 & Kifisou Ave., in Athens) recycling takes place since 2017, for plastic, aluminum, paper, inks, lamps, electrical appliances, batteries and metal (scrap). The same materials are also being recycled since 2019 and in the building that houses the Management offices on Konstantinoupoleos Ave. 1.

Reduction of our carbon footprint

Our constant goal is to reduce our energy consumption and improve our carbon footprint, both in our operations and in the company buildings, as well as in the context of the transports that take place for our operational needs.

Management of energy consumption in buildings

IPTO's goal is to reduce energy consumption as much as possible in the context of its functions and buildings with a corresponding increase in energy efficiency.

Specifically, in the context of the energy upgrade and energy saving of the main building of the company, two important actions that were implemented were the replacement of fluorescent lamps with led luminaires and the supply and installation of two new refrigeration units to replace the existing ones

Energy savings from replacing light bulbs was so great that led to the depreciation of investment capital in less than two years. Specifically, the energy savings achieved in 2018 amount to 23,657 kWh.

Respectively, the cooling systems that were installed in 2019, led to energy savings of 47,125 kWh.

In 2019, the consumption of electricity in the two central buildings amounted to 2,343 MWh. The increase in energy consumption in 2019 is due to the start of operation and metering of the second building (on Konstantinoupoleos Street).

In the context of reducing its emissions, IPTO will proceed within 2020 to count the energy and carbon footprint of its facilities, starting from the two main buildings, while it intends to proceed with energy upgrade projects in the shell of these two buildings for 2021.

Energy consumption from vehicle fleet and promotion of electric cars: 15% of the fleet is «plugged in»

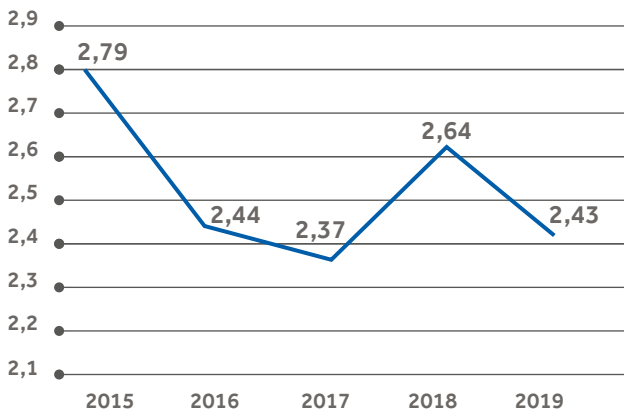
The company in 2017 took the initiative to promote sustainable mobility, and replaced its corporate fleet with 123 new low-emission vehicles and fuel consumption. Of these vehicles, 17 will be replaced again in 2020 with zero CO2 electric vehicles. Consequently, three charging stations have already been installed on the company's premises and another 14 will be installed within 2020.

In this way, IPTO is one of the first bodies in the wider public sector that harmonizes with the new legislative framework of the Greek Government, which sets a mandatory quota on the supply of clean vehicles from August 2021, together with the mandatory provision of infrastructure for charging electric vehicles, from January 2022.

Transmission system losses

Transmission of electricity from production to consumption points, together with rising and lowering the voltage where needed, has as a natural result energy losses on the System's net load. Although it is a constant pursuit to reduce losses as much as possible, in reality, the measures that can be taken in this direction are limited.

Percentage of losses on the net* load (%)

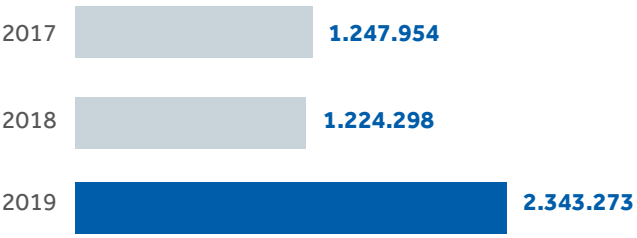


* where net load means the load transmitted within the System, excluding the load from the hydroelectric plants.

Total direct energy consumption in administration building (kWh)

Year	2017	2018	2019
Natural gas (KWh) (Dyracchiou building)	613.011	561.333	584.253
Diesel consumption (lt) (Kostantinoupoleos building)	-	-	5.000

Total energy consumption in administration buildings (kWh)



Energy consumption by fleet vehicles

Fuel type	2017	2018	2019
Petrol (unleaded) (lt)	171.392	127.200	143.355
Diesel (lt)	659.542	609.975	658.239
LPG (lt)	3.597	57	170

Energy consumption from electric vehicles (2019)

Total km	Average kW/km	Total kW
45.461	0,141	6.410

The percentage of losses on the net load of the system in the last five years ranges from 2.37% (2017) to 2.79 (2015).

Despite the fact that according to the current regulatory framework (System Management Code) the costs arising from HETS losses do not concern the Operator but are borne by the producers and distributed according to the parties, IPTO has installed since 2011 an automation system (iReact) which operates continuously and efficiently having benefited from the reduction of energy losses due to the optimization of the compensation of inductive loads, which is estimated at 1 million € / 10 TWh of electricity circulated by the transmission system (for an average system limit value of 50 € / MWh).

Use of innovative technologies to reduce consumption of resources

Use of drones for maintenance of overhead networks

With the aim of visually inspecting the Overhead and High Voltage Overhead Transmission Lines of the Interconnected Transmission System, the efficient use of resources and the reduction of both costs and environmental impacts, we proceeded to acquire two drones.

Our company has already started the training of personnel in the handling of the mentioned means and we are in the final phase for the acquisition of "professional UAV (Unmanned Aerial Vehicle) pilot diploma", by 15 of our technicians.

The use of drones has to do exclusively with the ability to quickly inspect and record findings through cameras in elements of the Transmission Lines (GM), but also the vegetation that grows under them. Then, through appropriate software, the findings are evaluated and any intervention actions of our technicians are planned (fault restorations, vegetation pruning, etc.). There is also the possibility of thermovision, through special cameras mounted on the drones, thus preventing possible future damage.

Use of ERS systems

IPTO proceeded with the supply and installation of ERS (Emergency Recovery Systems) systems in order to deal with catastrophic events on pillars - lines and / or alternative ways of rapid recovery in case of failure or disaster. This technology can also be used in the context of upgrades of old transmission lines.

New method «SkyWrap» for installing fibre optic cable

The installation of a fibre optic pipeline results in some environmental impact and nuisance to the surrounding area. At IPTO we proceeded with the pilot application of the installation method "SkyWrap" through which less disturbance is caused in the surrounding area compared to the conventional way of installing a protection duct with integrated fibre optics OPGW (Optical Ground Wire). It is a test technique for installing fibre optic conductor, which is suitable mainly for small projects that have at the same time the character of urgency.

DECENT and SAFE work

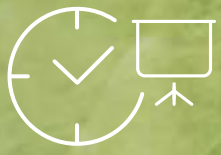
We aim at creating a safe working environment of equal opportunities and with respect for every employee. We invest in our people by offering training and development opportunities.

TRAINING HOURS IN TOTAL

9,444

NUMBER OF SERIOUS INJURIES

0

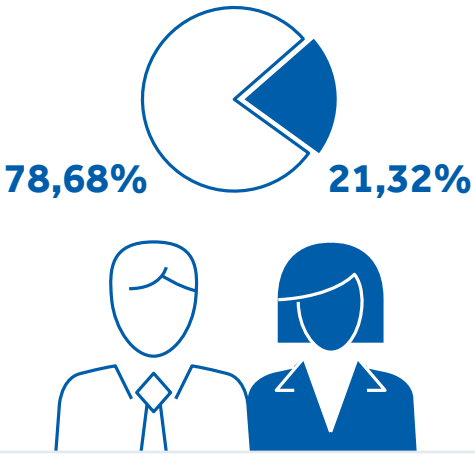


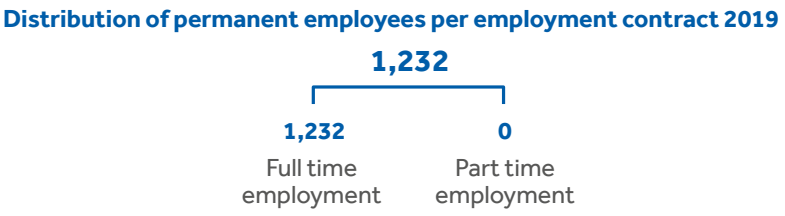
H&S TRAINING HOURS

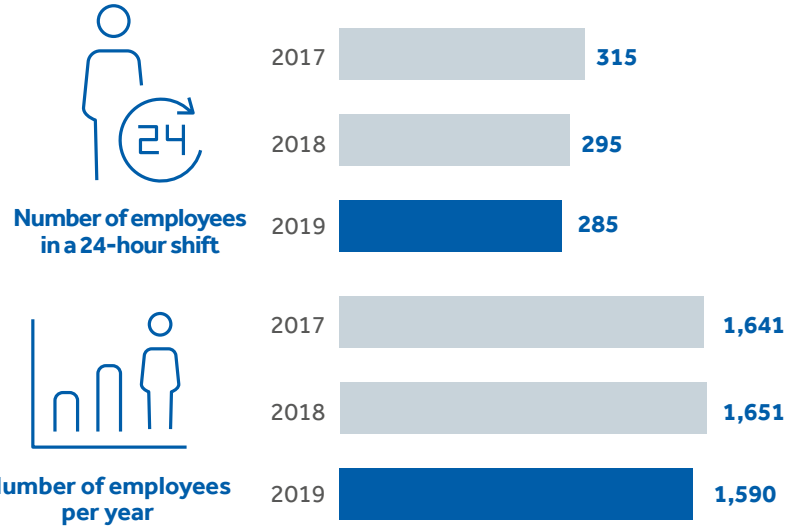
2,292

Employment

At the end of 2019 the total number of employees employed by IPTO amounted to 1,590 all of whom were full-time employed and covered by collective bargaining agreements.







Signing of a new collective agreement

During 2018 the company's Management in collaboration with the unions of employees co-signed a new collective labor agreement, which covers all the permanent employees of the company. Collective employment contracts cover those temporary employees who have an employment relationship with the company.

Additionally, during 2019 the new Staff Regulations came into force, based on which the provisions governing the relationship between the Management and the employees of the Company are modernized and updated.

The new Staff Regulations meet the requirements and perceptions of a modern working environment and safeguard the rights of employees that have been established over the years through collective bargaining.

Among other things, it provides:

- **Securing staff jobs**
- **The disconnection of salary maturity scales from evaluation**
- **The granting of paid leave for employees - bone marrow donors, for employees with children suffering from serious mental illnesses**
- **The increase of parental leave days by two days**
- **The modernization of the provisions on disciplinary control**
- **The inclusion of new recruits in the regular staff after the seven months have elapsed, compared to two years that was valid until recently.**

Provision of group insurance for employees

In 2019, a group insurance program for all permanent IPTO staff came into force, which, among other things, includes:

- **Life insurance**
- **Sickness/accident insurance**
- **Extensive inpatient and outpatient care.**

The program can be extended to the dependent family members of IPTO employees.

Staff regulations

The program can be extended to the dependent family members of IPTO employees.

In order to regulate a series of work issues at IPTO, Staff Regulations are used, which are applicable to all employees. These Regulations deal with a number of issues, such as the rights and obligations of employees, issues of recruitment, remuneration, hours and more.

Occupational health and safety

Our approach

Protecting Health and Safety at work is a top priority for us. We implement a Health and Safety Policy, the purpose of which is to establish a strong corporate culture, in order to identify occupational hazards, besides preventing and minimizing accidents at work and occupational diseases.

The Occupational Health and Safety Policy binds all Company staff at all levels of the hierarchy as well as third parties who have an employment relationship with us.

The organizational responsibility for the monitoring and implementation of the Policy for Health and Safety at Work belongs to the Health and Safety Branch of the Human Resources Department, which develops and submits for approval to the CEO the Annual Action Plan.

To identify health and safety hazards, workplace visits are performed by safety personnel and occupational physicians, while written occupational risk assessment studies are developed.

Moreover, all our employees have access to health care workers that is spread across nine workplaces across the country.

In addition, a mandatory periodic occupational health check is performed every year for permanent employees engaged in high-risk jobs, and every two years for the other staff members. Certificates of suitability are then issued to all employees who are regular staff, always assuring medical confidentiality and protection of employees' personal data.

Basic principles of Health and Safety

The basic principles that govern all the procedures and practices that we apply regarding occupational Health and Safety are the following requirements:

- **Compliance with national and european legislation.**
- **Recognition of employer responsibility for effective implementation of the Health and Safety Policy.**

- The observance of the existing institutional framework for Health and Safety is a right and obligation of employees.
- The adoption of a precautionary approach to addressing occupational hazards at their source.
- The cultivation and development of responsibility through the consultation and participation of employees, in accordance with the provisions of current legislation (Employee Health & Safety Committees), as a fundamental condition for the effectiveness of Health and Safety Policy.
- The compliance of the contractors with the set contractual terms, prepared by the Procurement & Supply Chain Management in collaboration with the Health and Safety Sector, for the observance of the Health and Safety rules and all those who have access to the company's facilities with the current Legislative framework for Health and Safety.

Health and Safety training

In order to protect the Health and Safety of employees, a Health and Safety training program is implemented on an annual basis. The training program covers both general Health and Safety training provided to employees, as well as special training in specific occupational hazards, hazardous work or hazardous situations.

Training in the use of personal protective equipment

In order to prevent and manage the negative effects on the health and safety of employees, the Health and Safety Department implements seminars and experiential workshops, which aim to help employees develop skills related to personal protective equipment, as well as occupational hazards. that

face. These seminars last one day and the number of participants varies. Employees are asked to identify the personal protective equipment they use, depending on their job, to share their experiences related to it, whilst sharing situations and accidents in which they were either present or happened to them.

	2017		2018		2019
Seminar Title	**Occupational Health & Safety**	**Protective equipment**	**Occupational Health & Safety**	**Protective equipment**	**Occupational Health & Safety**
Seminar Series	1	3	5	1	33
Trainees	6	47	56	17	391
Training hours	30	551	336	214	2.592
Total of training hours	**581**		**550**		**2.592**

Seminar in Athens

Health and Safety performance

Our ultimate goal is zero accidents. The following is our Health and Safety performance over the last three years.

Health and Safety performance indicators	2017			2018			2019		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Number of deaths due to injury	0	0	**0**	0	0	**0**	0	0	**0**
Percentage (*1) of deaths due to injury	0	0	**0**	0	0	**0**	0	0	**0**
Number of deaths due to injury - contractors	0	0	**0**	0	0	**0**	0	0	**0**
Percentage (*1) of deaths due to injury - contractors	0	0	**0**	0	0	**0**	0	0	**0**
Number of serious injuries (excluding deaths)	1	0	**1**	0	0	**0**	0	0	**0**
Number of serious injuries for contractors (excluding deaths)	0	0	**0**	0	0	**0**	0	0	**0**
Percentage (*2) of serious injuries (excluding deaths)	0	0	**0**	0	0	**0**	0	0	**0**
Percentage (*2) of serious injuries for contractors (excluding deaths)	0	0	**0**	0	0	**0**	0	0	**0**
Number of recordable injuries	5	3	**8**	5	1	**6**	5	1	**6**
Number of recordable injuries for contractors	0	0	**0**	0	0	**0**	0	0	**0**
Percentage of recordable (*3) injuries	-	-	**-**	-	-	**-**	-	-	**0,5**
Number of total working hours	-	-	**-**	-	-	**-**	-	-	**2.390.960**

(* 1): Percentage of deaths due to injury = (Number of deaths due to injury / total working hours) * 200,000

(* 2): Percentage of serious injuries = (Number of serious injuries other than deaths / total working hours) * 200,000

(* 3): Rate of recordable injuries = (Number of injuries / total working hours) * 200,000

Where serious injuries are injuries with a loss of working days of more than 6 months and recordable are injuries of any kind, even if they did not result in lost days, or first aid

Supporting our stuff during the pandemic

From the first moment of the unprecedented pandemic crisis due to COVID-19 that broke out, IPTO took a series of necessary measures aimed at protecting the health and safety of its employees, their families and society at large.

IPTO immediately implemented the telework measure for its staff with emphasis on vulnerable groups ensuring that the company can continue its work smoothly and safely. This was made possible through the provision of laptops and the use of digital communication tools that helped make everyone's communication easy and secure.

Also, the continuous support from medical staff and the provision of psychological support through a mental health center, were some of the actions that helped the employees of the company to feel safe and maintain their composure, in the face of the difficult situations brought by the pandemic.

In addition, the company has observed and continues to observe all precautionary measures by providing the staff at the front of the project with all the necessary tools and precautionary measures, so that the infrastructure projects can proceed smoothly.

Moreover, the company's offices were equipped with the appropriate means such as masks, antiseptics, continuous disinfection and remodeling so that those who attend them do not run any risk to their health.

IPTO will continue to be by the side of its people, maintaining their morale high and taking care of their health, physical and mental.

Supporting the community during the pandemic

IPTO, in addition to protecting its people, also took care of the wider society, providing the country's hospitals with the necessary equipment and personal protective equipment to shield the medical staff and care for our vulnerable fellow citizens.

In particular, he contacted the administrations of the 13 reference hospitals, as well as the EKAB (National Centre of Emergency Care), in order to record their emergencies. Despite the great difficulties caused by the pandemic in the supply of sanitary equipment worldwide, the company located and delivered the necessary material to the National Health System. This included, among others, ICU and transport respirators, radiological machines, volumetric drug injection pumps with their consumables and prefabricated settlements (isobox).

Also, noteworthy was the donation of 500,000 protective masks to the Ministry of Health by the Company's strategic partner, State Grid Corporation of China. In addition, 200,000 N95 masks (type FFP2) were delivered by IPTO to the Ministry of Health, which were transported from China by a special Aegean Airlines flight.

At the beginning of the summer, IPTO, in a gesture of solidarity with the islands, proceeded with another donation, handing over to EKAB three portable negative pressure chambers for the transportation by air or sea of patients with infectious diseases in order to maximally shield the islands throughout the disease. The Company procured the special high-durable "capsules" from a specialized Norwegian company and handed them over to EKAB, while at the same time provided its crews with special training.

Finally, IPTO donated approximately € 20,000 to the microbiological laboratory of the University General Hospital of Thessaloniki AHEPA, which is a reference hospital for COVID-19, delivering essential tools such as a freezer for sample storage, a chamber for the protecting samples and consumables used for samples' classification.

The total amount of IPTO donations to the NHS amounts to 1 million euros to date. IPTO will continue to support with all its powers the public hospitals marathon work and will assist in the national effort to deal with the pandemic until the danger is over.

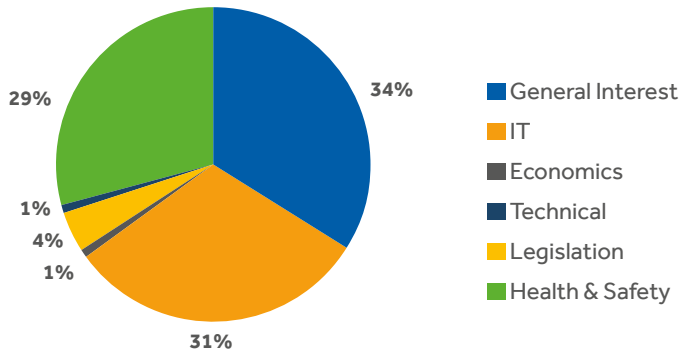
Employee training and development

IPTO is constantly investing in the training and development of its employees, in order to meet the increased challenges it faces at the operational level and in the midst of radical changes in the energy landscape of the country.

Designing training programs for employees is a primary goal for us, in order for the staff to strengthen their technological and organizational knowledge, to develop their creative thinking and to test their skills in innovation programs. IPTO provides priority development of knowledge, skills, creative thinking and innovation that are important factors in achieving the competitiveness and business

strategy that each company seeks. IPTO methodically organizes the training of staff on an annual basis, with the participation of employees in seminars and educational events, in postgraduate and post lyceum programs, while emphasizing new innovative practices (experiential and distance learning), strengthening the quality and quantity of training and development programs. Proper design of training programs is IPTO's primary objective in order for its staff to strengthen its technological and organizational knowledge.

Training hours by thematic unit



Ttraining hours by thematic unit

	Training hours per year	
Thematic unit of training	**2018**	**2019**
General Interest	947	2,998
IT	2,941	2,947
Economics	207	199
Technical	830	368
Legislation	241	340
Health & Safety	550	2,592
Total hours	**5,716**	**9,444**

Total training hours per employee category

	2017			**2018**			**2019**		
Employee category	**Men**	**Women**	**Total**	**Men**	**Women**	**Total**	**Men**	**Women**	**Total**
Directors of Departments & Divisions	30	91	**121**	243	95	**338**	830	287	**1,117**
Heads of Departments, Deputy Heads of Departments	417	265	**682**	924	478	**1,402**	1,997	1,002	**2,999**
Employees	3,444	1,122	**4,566**	2,489	1,487	**3,976**	3,964	1,364	**5,328**
Total	**3,891**	**1,478**	**5,369**	**3.656**	**2,060**	**5,716**	**6,791**	**2,653**	**9,444**

Equal opportunities and performance evaluation

At IPTO we seek to create a working environment of equal opportunities without discrimination while respecting every aspect of diversity.

Although we make sure to provide equal opportunities for men and women, the percentage of working men is significantly higher than that of women. This is mainly due to the nature of the company's object and the relatively smaller interest of women.

However, the representation of women in positions of responsibility is important, as their share has increased significantly in recent years.

Employee evaluation

IPTO, with the new evaluation system, inaugurates in 2020 a new era, a new anthropocentric culture, which goes beyond the limits of sterile grading and looks forward to the development of its human resources, the improvement of its know-how, the consolidation among climate workers. mutual trust, cooperation and noble rivalry, with the ultimate goal of increasing the efficiency of the Company for the benefit of all.

In addition, the system is completely disconnected from salary promotions (salary scales) and acts as a consultant to the company's management, by setting goals and formulating integrated proposals for more effective management, utilizing the results of the evaluation based on quantitative and qualitative criteria approved by the Top Management, for the best managing the Company's human resources.

Male Directors - Female Directors
67% **33%**

Ratio male - female
79% **21%**

Percentage of employees receiving performance appraisal by category and gender

	2018			2019		
Employee position and gender	**Men**	**Women**	**Total**	**Men**	**Women**	**Total**
Directors, Managers	32	11	**43**	32	11	**43**
Heads of Departments, Deputy Heads of Departments	105	57	**162**	103	62	**165**
Employees	926	184	**1,110**	848	176	**1,024**
Total	**1,063**	**252**	**1,315**	**983**	**249**	**1,232**

Report methodology

Reporting standards

This Report has been developed in accordance with the GRI Standards: Core option.

Coordination and project team

For the preparation of the Report, a special group of executives was formed, under the Management's coordination. The primary task of the Corporate Responsibility and Sustainable Development team was to gather the necessary information regarding the Corporate Responsibility and Sustainable Development related areas at IPTO. Special thanks to all the participants in the development process of the first IPTO Sustainable Development Report, which are the following:

Coordination:
Irini Tsevi and Dimitris Venetidis

Contribution of data and content:
Alexopoulou Panagiota, Anagnostou Apostolos, Angeletou Vaso, Aretha Stella, Bada Katerina, Basakarou Antigoni, Bistarakis Stella, Deftos, Kostantinos, Dimitriadi Eva, Eleftheriou Giorgos, Fassianou Vivi, Kalogerogiannis Charis, Karamitsou Maria, Kaskouras Christos, Koukounias Dimitris, Limpertas Vassilis, Makridou Despoina, Maniatis Giannis, Manolarakis Stelios, Margoni Xanthi, Martinou Dimitra, Mesitou Despoina, Mavromatos Kostas, Moustakas Dimitris, Nikolopoulou Efi, Nikolopoulos Giorgos, Ntotas Kostantinos, Raftopoulos Nikos, Roussaki Victoria, Sia Maria, Stefanakou Evgenia, Theopoulou Giannoula, Tsourakis Giorgos, Tzoiti Eleni, Vasiou Katerina, Veneti Chrysoula, Yaxas Yannis, Ziogas Vassilis.

External assurance

We recognize the added value of external assurance of disclosures and performance indicators (KPIs) contained in our reports and believe that this process enhances the quality and accuracy of our company, accountability, transparency and reliability. For this reason, the Report has been audited by an external assurance body.

At the same time, the assurance of the data is provided in additional ways, as independent auditors provide external validation and assurance for the financial data of the company.

Support

The creation of this Report was carried out with the support of AIPHORIA Consulting.

Design

Peak Design

Printing

KETHEA Schema & Chroma

External assurance

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EUROCERT

External Assurance Statement for IPTO
Sustainability Report 2019
(No. KZ/63864)

Information on the Assurance Statement

The Assurance Provider EUROCERT has been engaged to provide external assurance on the disclosures published in the Sustainability Report 2019 ("the Report") of IPTO Group of Companies | Independent Power Transmission Operator Group of Companies ("the Company"). The Company is exclusively responsible for the data and information within the Report. The assurance process was conducted by EUROCERT in terms of sample-based audits of data and information, as well as audits of data collection systems and procedures.

Economic and financial data were not verified. Instead, they were assessed with respect to the information contained in the 2019 annual financial statement which has been verified by other third parties.

The intended users of this Statement are all the stakeholder of the Company.

Scope of Assurance

EUROCERT undertook and implemented the following quality assurance activities during November of 2020:

1. Review of the Report against the requirements of Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, to confirm that the GRI-STANDARDS "Core option" requirements are fulfilled,
2. Verification of the data included in all the chapters of the Report.
3. Use of remote audits technics, including interviews with the Sustainability Team and the main executives of the Company, and sampling inspections of files, in order to evaluate:
   - the reliability and accuracy of performance indicators of the Sustainability Report
   - the processes for generating, gathering, and managing information included in the Report
   - the adherence to the principles of inclusivity, materiality, and responsiveness to stakeholders.

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Limitations

1. The verification of the information took place by using remote auditing techniques, including interviews and documentation examination, due to the COVID-19 pandemic limitations.
2. The conditions of the COVID-19 pandemic did not allow the verification of the personnel number data (e.g. page 69 of the Sustainable Development Report).
3. The objective evidence collected via internal sources of the Company and not via contacting external stakeholders.

Conclusions

During the assurance engagement, it was confirmed that the data and information of all the chapters of the Report are accurate and reliable. The accuracy of the disclosed statements and assertions was found to be within acceptable limits. The Company provided a comprehensive and proper presentation of performance based on reasonably documented information as well as that there is an effective data gathering, management and reporting system in place for issues which pertain to sustainable development.

EUROCERT concurs that the GRI-STANDARDS "Core option" requirements have been met.

Opportunities for Improvement

Based on the observations and concluding remarks derived from the assurance engagement, EUROCERT's recommendations for the improvement of the Company's future Sustainability Reports are as follows:

- Provision of information for additional GRI-STANDARDS performance indicators, in order to fulfill the "Comprehensive option" requirements.

Statement of Independence, Impartiality and Competence

EUROCERT is an independent professional services company that specializes in quality, environmental, health, safety and social accountability. Its assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

EUROCERT is an accredited certification body which operates a Quality Management System which complies with the requirements of several accreditation standards, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

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EUROCERT has implemented a Declaration of Impartiality and Independency and several relevant procedures which ensure that all employees, that work for or on behalf of it, maintain high standards in their day to day business activities. We are particularly cautious in the prevention of conflicts of interest. Our assurance team does not have any involvement in other projects with the Company that would cause a conflict of interest and has never provided any consulting services to the Company.

Note: This Independent Assurance Statement has been prepared as a translation of the original Greek version

On behalf of EUROCERT,
Athens, 25 of November 2020

Managing Director
Georgios Briskolas

Nikolaos Sifakis
Lead Auditor

GRI Standards Table

GRI Standard number	Description	ISO 26000	Page number / reference / note	Reasons for omission / non compliance	External assurance
GRI 102: General Standard Disclosures (2016)					
Organizational Profile					
102-1	Name of the organization	6.3.10, 6.4.1-6.4.2, 6.4.3, 6.4.4, 6.4.5, 6.8.5, 7.8	Independent Power Transmission Operator (IPTO), Page 11	-	√
102-2	Activities, brands, products, and/or services		Pages 10-14	-	√
102-3	Location of headquarters		Page 12	-	√
102-4	Location of operations		Pages 11,19	-	√
102-5	Ownership and legal form		Page 12	-	√
102-6	Markets served		Pages 10-14	-	√
102-7	Scale of the organization		Pages 6-7, 11-14, 35, 68	-	√
102-8	Information on employees and other workers		Pages 7, 68	-	√
102-9	Supply chain		Pages 39-40	-	√
102-10	Significant changes to the organization and its supply chain		Pages 43-44 Annual Financial Report 2019, Annual Management Report of the Board of Directors, pp. 9-14 There were no significant changes in the supply chain and shareholder structure.	-	√
102-11	Precautionary Principle or approach		Pages 40-41, 58-59	-	√
102-12	External initiatives		Pages 20-21, 32	-	√
102-13	Membership of associations		Pages 32, 36, 38	-	√
Strategy					
102-14	Statement from senior decision-maker	4.7, 6.2, 7.4.2	Pages 4-5	-	√
102-15	Key impacts, risks, and opportunities		Pages 4-5, 18-19, 22-23, 30-31, 34-35, 36, 40-41, 44-51, 52-55, 60-65 Annual Financial Report 2019, Annual Management Report of Board of Directors, pp. 15-18	-	√

GRI Standard number	Description	ISO 26000	Page number / reference / note	Reasons for omission / non compliance	External assurance
Ethics and Integrity					
102-16	Values, principles, standards, and norms of behavior	4.4, 6.6.3	Page 16	-	√
Governance					
102-18	Governance structure	6.2, 7.4.3, 7.7.5	Pages 24-26	-	√
102-20	Executive-level responsibility for economic, environmental, and social topics		Page 26	-	√
102-21	Consulting stakeholders on economic, environmental, and social topics		Pages 16-18 Consultation with stakeholders is not outsourced, but is carried out directly between IPTO and its stakeholders with the participation of the Company's Chairman and CEO.	-	√
102-22	Composition of the highest governance body and its committees		Page 22	-	
102-23	Chair of the highest governance body		Page 25	-	√
102-26	Role of highest governance body in setting purpose, values, and strategy		Page 26	-	√
102-29	Identifying and managing economic, environmental, and social impacts		Pages 16-18, 26 The Report and the material issues are reviewed and approved by the Top Management, as well as the Chairman and CEO.	-	√
102-32	Highest governance body's role in sustainability reporting		Page 26, The Report and the material issues are reviewed and approved by the Top Management, the Chairman and the CEO.	-	√
Stakeholder engagement					
102-40	List of stakeholder groups	5.3	Page 17	-	√
102-41	Collective bargaining agreements	6.3.10, 6.4.1-6.4.2, 6.4.3, 6.4.4, 6.4.5, 6.8.5, 7.8	Pages 68-69	-	√

GRI Standard number	Description	ISO 26000	Page number / reference / note	Reasons for omission / non compliance	External assurance
102-42	Identifying and selecting stakeholders	5.3	Pages 16-17	-	√
102-43	Approach to stakeholder engagement		Pages 16-18, 23, 38-39, 40, 44, 58-59	-	√
102-44	Key topics and concerns raised		Pages 18-19, 40-41, 44	-	√
Reporting practice					
102-45	Entities included in the consolidated financial statements	5.2, 7.3.2, 7.3.3, 7.3.4	Pages 12-13, Annual Financial Report 2019 – Annual Management Report of Board of Directors, p.p 5	-	√
102-46	Defining report content and topic Boundaries		Pages 16-19	-	√
102-47	List of material topics		Pages 18-19	-	√
102-48	Restatements of information		There are no restatements as this is the 1st Sustainability Report	-	√
102-49	Changes in reporting		There are no changes as this is the 1st Sustainability Report	-	√
102-50	Reporting period		Page 8	-	√
102-51	Date of most recent report		This is the 1st Sustainable Development Report	-	√
102-52	Reporting cycle		Annual	-	√
102-53	Contact point for questions regarding the report	7.5.3, 7.6.2	Page 9	-	√
102-54	Claims of reporting in accordance with the GRI Standards		Pages 78	-	√
102-55	GRI content index		Pages 82-88	-	√
102-56	External assurance		Pages 79-81	-	√

GRI Standard	Disclosure	Description	ISO 26000	Page number or reference / note	Reasons for omission / non compliance	External assurance
GRI 200: Economic performance disclosures						
GRI 201 – Economic performance (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 4-5, 18-19, 35, 46, 48, 52	-	
	103-2	The management approach and its components		Pages 4-5, 35, 46, 48, 52	-	
	103-3	Evaluation of the management approach		Pages 4-5, 18-19, 35, 46, 48, 52	-	
GRI 201: Economic performance (2016)	201-1	Direct economic value generated and distributed	6.8.1-6.8.2, 6.8.3, 6.8.7, 6.8.9	Page 35	-	√
	201-2	Financial implications and other risks and opportunities due to climate change	6.5.5	Pages 4-5, 36, 44, 46, 48, 52	-	
GRI 203 – Indirect economic impact (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 30-31, 34-35, 39, 40-41, 44-45, 46-51, 52-55	-	
	103-2	The management approach and its components		Pages 18-19, 30-31, 34-35, 39, 40-41, 44-45, 46-51, 52-55	-	
	103-3	Evaluation of the management approach		Pages 4-5, 26, 44	-	
GRI 203: Indirect economic impact (2016)	203-1	Infrastructure investments and services supported	6.3.9, 6.8.1-6.8.2, 6.8.7, 6.8.9	Pages 4-5, 11, 12-13, 14, 33-36, 40-41, 44-55, 62	-	√
	203-2	Significant indirect economic impacts	6.3.9, 6.6.6, 6.6.7, 6.7.8, 6.8.1-6.8.2, 6.8.5, 6.8.7, 6.8.9	Pages 4-5, 13-14, 30-31, 34-36, 39, 40-41, 46-55	-	√
GRI 204 – Procurement practices (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 39	-	
	103-2	The management approach and its components		Pages 39-40	-	
	103-3	Evaluation of the management approach		Pages 26, 39-40	-	

GRI Standard	Disclosure	Description	ISO 26000	Page number or reference / note	Reasons for omission / non compliance	External assurance
GRI 204: Procurement practices (2016)	204-1	Proportion of spending on local suppliers	6.4.3, 6.6.6, 6.8.1-6.8.2, 6.8.7	Pages 39-40	-	√
GRI 300: Environmental disclosures						
GRI 302 – Energy (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 4-5, 18-19, 58, 63-64	-	
	103-2	The management approach and its components		Pages 4-5, 58-59, 63-65	-	
	103-3	Evaluation of the management approach		Pages 4-5, 18-19, 26, 58-59, 63-65	-	
GRI 302: Energy (2016)	302-1	Energy consumption within the organization	6.5.4	Pages 63-64	-	
	302-2	Energy consumed outside of the organization		Pages 63-64	-	
	302-3	Energy intensity	6.5.4, 6.5.5	Pages 64-65	-	√
	302-4	Reduction of energy consumption		Pages 63-65	-	√
	302-5	Reductions in energy requirements of products and services		Pages 64-65	-	√
GRI 304 – Biodiversity (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 60-62	-	
	103-2	The management approach and its components		Pages 58-59, 60-62	-	
	103-3	Evaluation of the management approach		Pages 26, 60-63	-	
GRI 304: Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	6.5.6	Pages 60-62	-	
	(2016)	Significant impacts of activities, products, and services on biodiversity		Pages 60-62	-	
	304-3	Habitats protected or restored		Pages 60-62	-	
GRI 305 - Emissions (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 63-65	-	
	103-2	The management approach and its components		Pages 4-5, 23, 26, 54, 63-65	-	
	103-3	Evaluation of the management approach		Page 26	-	

GRI Standard	Disclosure	Description	ISO 26000	Page number or reference / note	Reasons for omission / non compliance	External assurance
GRI 305: Emissions (2016)	305-1	Direct (Scope 1) GHG emissions	6.5.5	Pages 63-64	-	
	305-2	Energy indirect (Scope 2) GHG emissions		Pages 63-64	-	√
	305-5	Reduction of GHG emissions		Pages 63-65	-	√
GRI 307 – Environmental Compliance (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 58-59, 62-63	-	
	103-2	The management approach and its components		Pages 58-59, 62-63	-	
	103-3	Evaluation of the management approach		Page 26	-	
GRI 307: Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	4.6	Pages 62-63	-	√
GRI 400: Social performance disclosures						
GRI 403 – Health & Safety (2018)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 70-71	-	
	103-2	The management approach and its components		Pages 70-71	-	
	103-3	Evaluation of the management approach		Page 26	-	
GRI 403: Health and Safety (2018)	403-9	Work-related injuries	6.4.6, 6.8.8	Pages 70-74	-	
GRI 404 - Training & education (2016)						
GRI 103: Management approach	103-1	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 74-75	-	
	103-2	The management approach and its components		Pages 74-75	-	
	103-3	Average hours of training per year per employee		Page 26	-	
GRI 404: Training & education (2016)	404-1	Ratio male - female	6.4.7	Page 75	-	√
	404-2	Programs for upgrading employee skills and transition assistance programs	6.4.7, 6.8.5	Pages 74-75	-	√
	404-3	Percentage of employees receiving regular performance and career development reviews	6.4.7	Page 76	-	√

GRI Standard	Disclosure	Description	ISO 26000	Page number or reference / note	Reasons for omission / non compliance	External assurance
GRI 405 – Diversity and equal opportunities (2016)						
GRI 103: Management approach	**103-1**	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 74-76	-	
	103-2	The management approach and its components		Page 76	-	
	103-3	Evaluation of the management approach		Pages 26, 76	-	
GRI 405: Diversity and equal opportunities (2016)	**405-1**	Diversity of governance bodies and employees		Page 76	-	
	405-2	Ratio of basic salary and remuneration of women to men	6.2.3, 6.3.7, 6.3.10, 6.4.3	Page 76, Salaries and other benefits do not differ by gender.	-	√
GRI 413 – Local communities (2016)						
GRI 103: Management approach	**103-1**	Explanation of the material topic and its Boundary	6, 7.3.1, 7.4.3, 7.7.3, 7.7.5	Pages 18-19, 40-41, 44	-	
	103-2	The management approach and its components		Pages 5, 17-18, 23, 40-41, 44	-	
	103-3	Evaluation of the management approach		Page 26	-	
GRI 413: Local communities (2016)	**413-1**	Operations with local community engagement, impact assessments, and development programs	6.3.9, 6.5.1-6.5.3, 6.8	Pages 18-19, 40-41, 44	-	√

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