



REPORT

Financing options to support GHG reductions in Cypriot and Greek hotels

Experiences from focal countries and the EU

Hotels4Climate

On behalf of:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety



European
Climate Initiative
EUKI

of the Federal Republic of Germany

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Authors: Madeline Schneider (adelphi), Jessica Weir (adelphi), Anton Barckhausen (adelphi), Anthi Charalambous (OEB), Panayiotis Kastanias (OEB), Markella Papanicolaou (OEB), Aris Ikkos (INSETTE), Michalis Kyriakides (INSETTE), Soteris Mylonas (INSETTE).

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OEB

The Cyprus Employers and Industrialists Federation (OEB) was founded in 1960 by 19 pioneering entrepreneurs. Today, its members are active in all sectors of the economy and employ more than 60% of the private sector's workforce. OEB is a Pancyprian, independent non-profit organization comprising of 60 of the main professional/sectoral Associations as well as hundreds of companies from the Manufacturing, Services, Commercial, Construction and Agricultural Sectors. In total, OEB has more than 15.000 Member/Enterprises.

In particular, the Energy & Environment Department of OEB was founded in 2016 and its goals are to be pioneer on the topics of energy, environment and sustainability, through actions that can improve the competitiveness of renewable energy technologies, to remove administrative or other barriers for the promotion of energy efficiency, to support Cypriot manufacturers to maintain their global position in the installation of domestic solar thermal systems, to promote clean technologies for environmental protection and the 2030 targets for circular economy and climate change, to provide education and training, to promote efficient use of energy, to provide technical advisory support on sector related issues, to promote cooperation between academia and industry in the fields of energy and environment and in the development of research and innovation.

There are many projects have been developed by the Energy & Environment Department that aim for the promotion of eco-innovation, blue energy, GHG emission reduction, etc.

OEB operates in environmentally friendly manner. Since 2017 OEB is EMAS certified as well as produces on site renewable electricity through PV net metering system.

Anthi Charalambous

Director of Energy & Environment Department

acharalambous@oeb.org.cy

www.oeb.org.cy

INSETE

INSETE is a non-profit organisation founded in early 2013, on the initiative of the Greek Tourism Confederation (SETE), by four partners with intense activity in critical areas of the Greek tourism market: SETE (principal partner), the Hellenic Hoteliers Federation (HHF), the Hellenic Association of Travel & Tourist Agencies (HATTA) and the Confederation of Entrepreneurs of Rented Rooms and Apartments (SETKE).

The mission of INSETE is to contribute with well-substantiated ideas to promoting both public and private policies that will support, modernise and improve the Greek tourism sector and any other service sector which is directly or indirectly associated with it.

Specifically, INSETE supports the Greek Tourism Confederation with:

- documented and thought out interventions in social and public dialogue (positions, proposals, etc.) aimed at promoting policies to support, modernise and improve Greek tourism.
- implementing actions to research, inform and disseminate knowledge, to develop human resources and improve and certify quality of enterprises and the skills of professionals and workers in Greek tourism.

Furthermore, the main activities of INSETE are:

- To research, safeguard and promote the position and contribution of tourism to sustainable economic, social and cultural growth and development at both a national and European level.
- To support and promote entrepreneurship (both conventional and social) in the tourism sector, and in any other service sector which is directly or indirectly associated with it.
- To enhance Human Resources development policies and tools for the tourism sector and any other service sector which is directly or indirectly associated with it.
- To provide scientific, technical or other form of documentation and support to SETE on issues relevant to its activities and operations, and to help it achieve its objectives.

Aris Ikkos

Research Director

ikkos@insete.gr

<https://sete.gr/el/poioi-eimaste/insete/>

adelphi

adelphi is a leading independent think tank and public policy consultancy on climate, environment and development. Our mission is to improve global governance through research, dialogue and consultation. We offer demand-driven, tailor-made services for sustainable development, helping governments, international organizations, businesses and non-profits design strategies for addressing global challenges.

Our staff of more than 200 provides high-quality interdisciplinary research, strategic policy analysis and advice, and corporate consulting. We facilitate policy dialogue and provide training for public institutions and businesses worldwide, helping to build capacity for transformative change. Since 2001 we have successfully completed over 800 projects worldwide. Our work covers the following key areas: Climate, Energy, Resources, Green Economy, Sustainable Business, Green Finance, Peace and Security, International Cooperation and Urban Transformation.

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Madeline Schneider

Project Manager

schneider@adelphi.de

www.adelphi.de

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List of abbreviations

APEE	Anreizprogramm Energieeffizienz – Energy Efficiency Incentive Programme
AUD	Australian dollar
B	Billion
BAFA	Bundesamt für Wirtschaft und Ausfuhrkontrolle – German Federal Office of Economics and Export Control
BMWi	Bundesministerium für Wirtschaft und Energie – German Federal Ministry for Economic Affairs and Energy
BMU	Bundesministeriums für Umwelt, Naturschutz und nukleare Sicherheit – German Federal Ministry for Environment, Nature Conservation and Nuclear Safety
CIIM	Cyprus International Institute of Management
CIST	Centre for Innovation & Sustainability in Tourism
CYPEF	Cyprus Entrepreneurship Fund
DEH	Greek Public Power Corporation
DEHOGA	Deutsche Hotel- und Gaststättenverband e.V. Der Branchenverband des Gastgewerbes – German Hotel and Restaurant Association
DENA	Deutsche Energie-Agentur – German Energy Agency
DG EPCD	Directorate General for European Programmes, Cooperation and Development of Cyprus
DGNB	Deutsche Gesellschaft für Nachhaltiges Bauen – German Sustainable Building Council
DIHK	Deutscher Industrie- und Handelskammertag – German Association of Chambers of Commerce and Industry
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EDL-G	Energiedienstleistungsgesetz – Act on energy services and other energy efficiency measures
EE	Energy efficiency
EEA	European Environment Agency
EED	Energy Efficiency Directive
EEG	German Renewable Energy Sources Act
EIB	European Investment Bank
EIF	European Investment Fund
EMAS	EU Eco-Management and Audit Scheme
EnEV	Energieeinsparverordnung – German ordinance on energy-saving thermal insulation and energy-saving system technology for buildings
ESA	Energy services agreements

ESIF	European Structural and Investment Funds
ETIS	European Tourism Indicator System
EU	European Union
EUR	Euro
EPBD	Energy Performance of Buildings Directive
EPC	Energy performance contract
EPCs	Energy performance certificates
FAR	Floor area ratio
FI	Financial institution
FoF	Fund-of-Funds
GDP	Gross Domestic Product
GHG	Greenhouse gas
GW	Gigawatt
GWh	Gigawatt hour
GSTC	Global Sustainable Tourism Council
HES	Hotel Energy Solutions
HVAC	Heating, ventilation, and air conditioning
IDEA	Innovate, Develop, Excel, Accomplish programme
IEA	International Energy Agency
INSETTE	Hellenic Tourism Business Association
KENAK	Greek Regulation for the Energy Efficiency of Buildings
KfW	Kreditanstalt für Wiederaufbau – German state-owned development bank
kW	Kilowatt
kWh	Kilowatt hour
kto	Kilotonnes of oil equivalent
LEED	Leadership in Energy and Environmental Design
M	Million
MECI	Ministry of Energy, Commerce & Industry, Cyprus
Mtoe	Millions of tonnes of oil equivalent
MW	Megawatt
MWh	Megawatt hour
NECAP	National Energy & Climate Action Plan
NEEAP	National Energy Efficiency Action Plan
neZEH	Nearly zero energy hotels
NGB	National Bank of Greece
nZEB	Nearly zero energy buildings

OEB	Cyprus Employers and Industrialists Federation
PF4EE	Private Financing for Energy Efficiency
PPAs	Power purchasing agreements
PV	Photovoltaic system
RES	Renewable energy sources
RES-e	Renewable energy source electricity
ROI	Return on Investment
SEEF	SUSI Energy Efficient Fund
SETTE	Greek Tourism Confederation
SME	Small & medium-sized enterprises
UNWTO	United Nations World Trade Organisation
USD	United States dollar
USGBC	United States Global Building Council
ZDF	Zentralverband des Deutschen Handwerks – German Confederation of Skilled Crafts

1 Introduction

The European Union (EU) 2020 climate & energy package is a set of binding legislation to ensure that the EU meets its climate and energy targets for the year 2020 and it includes three main targets that were enacted in the EU legislation in 2009: 20% reduction of greenhouse gas (GHG) emissions (in comparison with 1990 levels); 20% share of renewables of the EU final energy consumption; and 20% improvement in energy efficiency.

The EU has further adopted new targets and measures to make the EU's economy and energy system more competitive, secure and sustainable. These include objectives for reducing GHG emissions and increasing use of renewable energies and propose a new governance system and performance indicators. A binding target was set to cut emissions in the EU by at least 40% below 1990 levels by 2030. This will enable the EU to move towards a climate-neutral economy and implement its commitments under the Paris Agreement (European Commission [EC] 2020a).

The EU has set the following key targets for 2030:

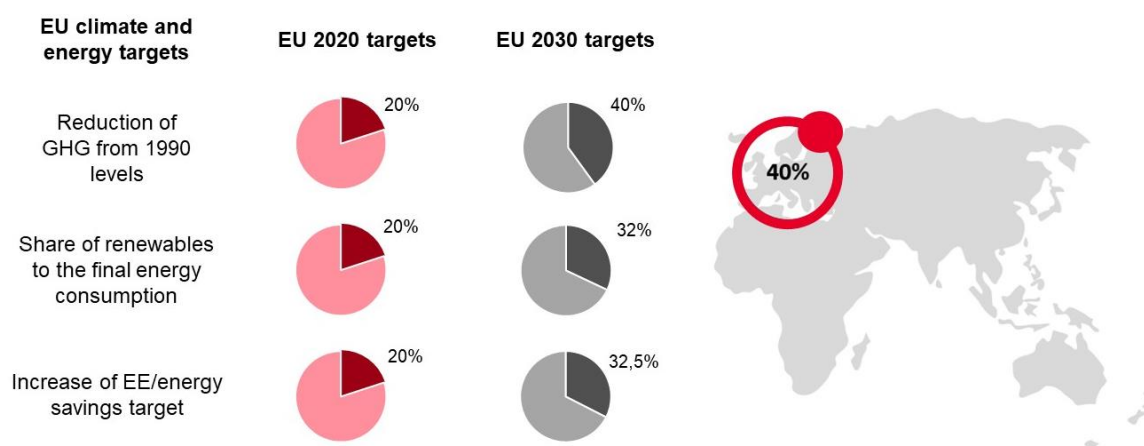
- At least 40% cuts in **greenhouse gas emissions** (from 1990 levels);
- At least 32% share for **renewable energy**; and
- At least 32.5% improvement in **energy efficiency**.

To achieve the targets, the following measures are necessary:

- EU emissions trading system (ETS) sectors will have to cut emissions by 43% (compared to 2005) – to this end, the ETS has been revised for the period after 2020;
- Non-ETS sectors will need to cut emissions by 30% (compared to 2005) – this has been translated into individual binding targets for Member States.

As part of the European Green Deal, the EC aims to propose raising the EU target to at least 50% and towards 55% in a responsible way.

Figure 1: EU climate and energy targets for 2020 and 2030



The EU is currently **on track to meet its 20% energy efficiency target for 2020**. Recent statistics show, however, that energy consumption levels are increasing slightly. In December 2018, the revised Energy Efficiency Directive (EED) entered into force (amending Directive EU [2018/2002]), updating some specific provisions and introducing new elements (European Energy Agency [EEA] 2019). Above all, it establishes a headline EU energy efficiency target for 2030 of at least 32,5% (compared to projections), with a clause for a possible upwards revision by 2023. The revised directive will encourage using energy more efficiently and lead to:

- Reduced energy consumption for households and businesses – thereby lowering energy bills;
- Lower consumption, making Europe less reliant on energy imports;
- Incentives for producers/manufacturers to use new technologies and innovate;

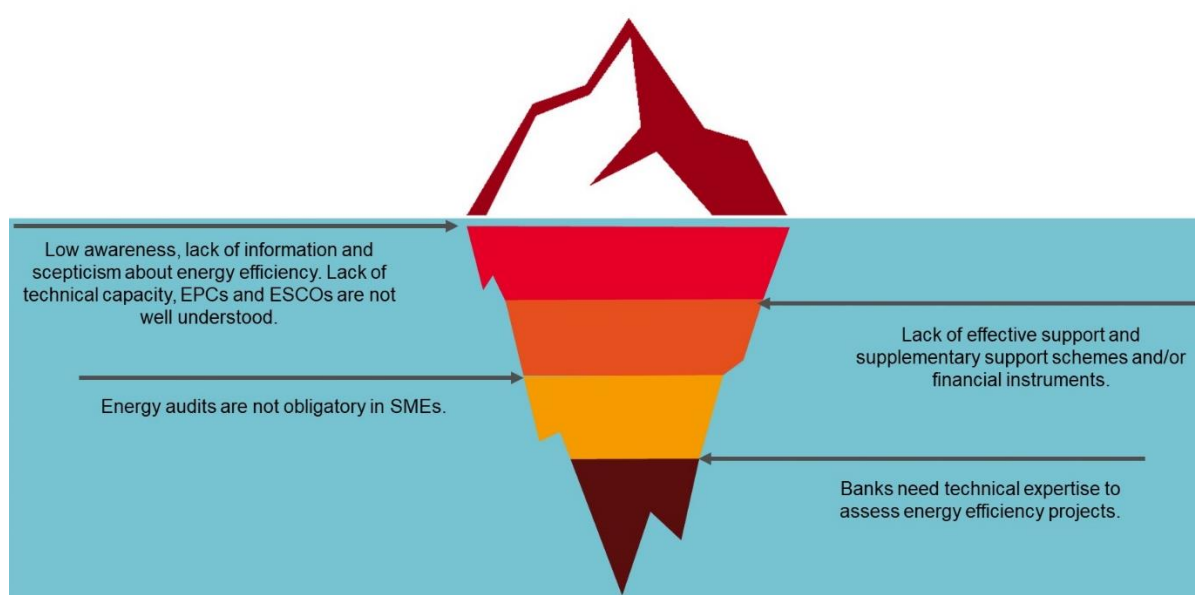
- More investment, for example in the building sector, thereby creating jobs; and
- Clearer information in household bill.

In November 2016, the EC published its “Clean Energy for all Europeans” initiative. As part of this package, the Commission adopted a legislative proposal for a recast of the Renewable Energy Directive; in December 2018, the Revised Renewable Energy Directive (RED II) 2018/2001/EU entered into force. Under the RED II, the EU has adopted very ambitious renewable energy policies. A new renewable energy binding target for the EU for 2030 of 32% was set, including a review clause by 2023 for an upward revision of the EU level target. The new policy framework for renewables includes, amongst others:

- Providing long-term certainty for investors and speeding up procedures to receive permits for projects
- Facilitating (jointly acting) renewables self-consumers, putting the consumer at the centre of the energy transition with a clear right to produce their own renewable energy
- Facilitating renewable energy communities
- Increasing competition and market integration of renewable electricity
- Accelerating the uptake of renewables in the heating/cooling and transport sectors
- Strengthening the sustainability of bio-energy and promoting innovative technologies

Despite the fact that most of the EU member states are on track to achieve the 2020 targets, more efforts should be made in order to achieve the 2030 targets, as energy efficiency is the centre of new policies. The projections show that the energy consumption in the EU will increase. The main barriers identified through the Hotels4Climate project, for the further promotion of energy efficiency in SMEs, are shown below in Figure 2.

Figure 2: Barriers to energy efficiency in SMEs

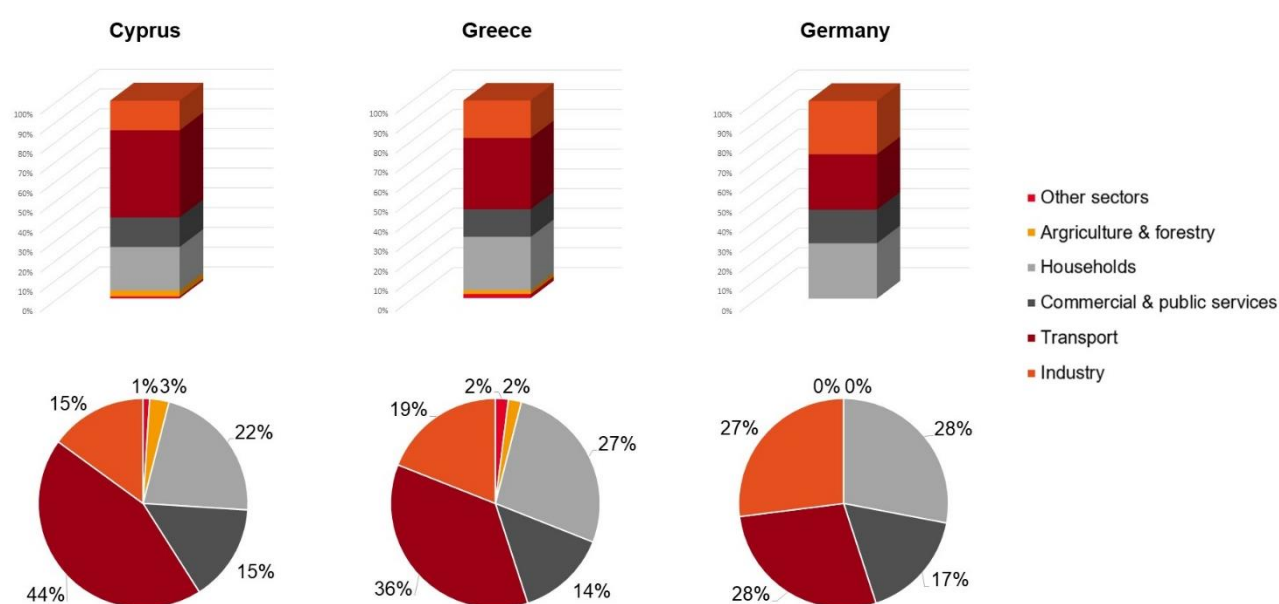


These are just a few key examples of barriers to finance climate, energy efficiency and/or renewable energy source (RES) projects. Many additional underlying issues come into play. For example, the lack of attractive financing structures is still one of the biggest hurdles for upscaling energy efficiency projects and therefore, GHG emissions reduction projects. Banks are not encouraging energy efficiency and renewable energy projects, for instance, by offering low-cost, readily accessible loans. The governmental support schemes need to be reshaped in order to meet the current market needs, to be supportive and supplementary, to be sector specific and address the specific problems.

Based on Eurostat data (2017) the three countries participating in the Hotels4Climate project (i.e. Cyprus, Germany and Greece), show almost the same share of energy consumption in the tertiary sector in the final energy consumption.

Tourism represents one of the most important economic sectors both for Greece and for Cyprus, with a gross domestic product (GDP) direct contribution amounting to 10.3% and 22.3% in 2017, respectively. For Greece the total (direct and indirect) contribution of tourism to GDP ranges between 22.6% and 27.3% and for 2018 the direct contribution is estimated to be closer to 11% and the total likely to exceed 25%. Touristic activities have increased in the previous years, with Greece having welcomed about 30 million tourists in 2017. This development results in higher energy demand and consequently, in growing GHG emissions generated by the hotel industry. Many accommodation providers, mainly hotels, have turned their attention towards GHG emission reduction and sustainability in both countries, with enhanced investments in accreditation awards and certification schemes. Despite this progress, tourism accommodations, especially small and medium, remain with high potential for GHG emissions reduction in Greece and Cyprus. For instance, an estimated 80% of Greek hotels have a maximum of 50 rooms, leaving them outside the regulation of policies for large open areas, for example regarding the requirement of solar fields. In Cyprus, the Accommodation and Food Services sector accounts for the highest total energy consumption in 2017 of all categories in the tertiary sector.

Figure 3: Sectoral share of energy consumption in Cyprus, Greece and Germany



This report aims to present the main financial instruments in Europe and participating countries targeted to SMEs and in particular to hotel sector. Some countries, recognizing the importance to increase energy efficiency in the tourist sector have started implementing focused instruments. In Europe, some reward and advisory instruments have been implemented. Some good examples are ClimaHost, Excellence in Energy for the Tourism Industry: Hotel Energy Solutions (HES), Nearly Zero Energy Hotels (neZEH), and the Energy Globe Award. However, very few European financed projects have been implemented to target specifically the tourist sector i.e. neZEH (neZEH 2016).

Furthermore, the historic agreement among world leaders at the United Nations in 2015 on a universal 2030 Agenda for sustainable development committed all countries to pursue a set of 17 Sustainable Development Goals (SDGs) that would lead to a better future for all. As the 17 SDGs and the corresponding 169 SDG targets offer the world a new direction, tourism can and must play a significant role in delivering sustainable solutions. Tourism as an economic powerhouse is the third highest world category in export earnings in 2015, representing 10% of world GDP, 30% of services exports and 1 out of every 10 jobs in the world. Tourism has the potential to contribute, directly or indirectly to all of the goals. In particular, it has been included as targets in Goals 8, 12 and 14 on inclusive and sustainable economic growth, sustainable consumption and production (SCP) and the sustainable use of oceans and marine resources, respectively. Thus, the United Nations World Trade Organization (UNWTO) has developed tourism4sdgs, a specific platform to support and increase visibility of sustainable tourist sector among all countries around the world (UNWTO 2020).

2 Current situation in Cyprus and Greece

2.1 National contexts

The implementation of the energy policy in **Cyprus** while attaining the climate and environmental targets requires a radical transformation of the energy system over the next decade and, therefore, the implementation of significant investments in energy infrastructure as well as in energy efficiency. Major investments have been planned and scheduled in renewable energy, transformation of networks and the introduction of smart meters in power distribution, power transmission networks, importing and using natural gas for increasing energy efficiency in power generation, energy efficiency in households, businesses, public sector and water sector, transport infrastructures and sustainable mobility, as well as in technological research.

The progress of Cyprus in relation to the RES 2020 targets is presented in the table below (according to recent data from the Energy Service of the Ministry of Energy, Commerce & Industry [MECI]). Cyprus has already achieved its Sectoral RES Heating/Cooling target. However, based on current data it seems reaching the target of the RES share in transport and electricity produced from RES will not be possible. At the same time, if the larger renewable energy sources for electricity (RES-E) projects are implemented in time, the RES-e sectoral target might be achievable by 2020.

Table 1: Progress of the Republic of Cyprus in relation to the RES 2020 targets (MECI)

Sectoral RES Target	Year 2016	Target by 2020	
Heating/Cooling	23,72%	23,5%	indicative
Electricity production	8,64%	16%	indicative
Road Transport	2,63%	10%*	binding
Total share of RES (%)	9,27%	13%	binding

**10% share in the total energy consumption in road transport*

The Cyprus government has adopted a number of legal acts to regulate the establishment and work of Energy Service Companies (ESCOs) with the main legislative measures being the law on Energy Efficiency in End Use and Energy Services Law and subsequent amendments (N53 (I) / 2012, RRA 210/2014 and N56 (I) / 2014). Cyprus also complies with article 18 and other relevant articles of the EED and has created the necessary regulatory framework conditions for ESCOs operating in Cyprus.

Complementing the Law on Energy Efficiency of Buildings (No. 210(I)/2012) a series of decrees have been passed 2011 - 2019 on:

- Mandatory inspections of heating (>20 kW) and air conditioning (>12 kW) systems
- Efficiency and size of heating, cooling, hot water and large air conditioning systems
- Requirements for installing certified heat pumps and solar thermal equipment as well as performance requirements for biomass heaters and boilers

Over the last years, the Ministry of Energy, Commerce and Industry of Cyprus (MECI), in order to achieve the national binding targets of 2020, started providing various support/grant schemes for investments in energy efficiency (EE) and RES to households, tertiary and industrial sectors. A Special Fund was created in 2003, which aims to support RES and Energy Savings/Energy Efficiency investments in Cyprus. The revenues of this fund are coming from consumers, who pay a “levy” on electricity consumption.

The practice of charging electricity consumption is one of the practices applied in several EU countries. It has been shown that the imposition of a socially acceptable charge, which accrues to a Special Fund that is reinforced by the income from the levy, acts as a catalyst and enhances the potential for incentives

to support RES and EE. A RES fee of € 0.01 per unit of energy consumed (per kWh) is applicable in Cyprus since 1 January 2017 (KDP 375/2010).

The Government of Cyprus has developed various schemes and incentives to further support energy efficiency and RES. The majority of these instruments are intended to be financed by the national budget, some with assistance from EU funds. The national support schemes that use the available funds from the Special Fund for RES & EE can be divided into three main categories: Support Schemes for RES, Grant Schemes for RES, and Grant Schemes for Energy Efficiency.

Most of the **Support Schemes for RES** are related to Net Metering and Net Billing and target residential, tertiary & industrial sectors. The future of those schemes, i.e. after the start of the liberalised electricity market in 2021, is currently unknown. The Net Metering support scheme is open to household owners and SMEs from all sectors of economic activity. The size of the system should not exceed 10 kW. The Net Billing scheme is open to all enterprises from all the sectors of the economy. The size of the systems should be between 10kW up to 10 MW.

The **Grant Scheme for RES** targets the residential sector. Grants are available for the installation of domestic PV systems and replacement of domestic solar water heaters. The grants for the replacement of domestic solar water heaters might continue over the coming years, however the future of grants for the installation of domestic PVs is uncertain.

The **Grant Schemes for EE** mainly concerns grants provided to homeowners for roof top insulation. The only grant available for EE in **SMEs** is a subsidy for the cost of an energy audit. The **Energy Audit support scheme** will help the investors to identify the optimum measures and projects to be taken to achieve the highest economic benefit from such investments. Only SMEs are eligible for the above scheme, with a total budget available of 200 000 euro in 2020. The SMEs that will participate in this scheme are eligible for up to a 2 000 euro grant with a 30% funding rate.

Considering the national 2030 targets for climate & energy, the estimated expenditures for implementing the policies are approximately € 4,2 billion, with a public contribution of € 2.4 billion (of which € 2 billion out of the € 2.4 billion is for transport). These values indicate that there is a growing market for companies with an expertise in renewables and energy efficiency measures (i.e. ESCOs). However, with the long investment cycles and large scale of investments required to reach the National Energy & Climate Action Plan (NECAP) targets, investments in the energy sector will still require strong political action.

Table 2: Cyprus 2030 Energy & Climate targets

Cyprus
Greenhouse gas emissions <ul style="list-style-type: none"> Emissions in the non-ETS sectors to be reduced by 20.9% compared to 2005. Emissions in ETS sectors to be reduced by 24.9% compared to 2005
RES in the final energy consumption <ul style="list-style-type: none"> Share of RES in gross final energy consumption to reach 23% Share of RES in gross final electricity consumption can reach at least 26% Share of RES in heating and cooling to reach 39% Share of RES in the transport sector to reach 14%
Improving energy efficiency <ul style="list-style-type: none"> Final Energy Consumption of 2.0 Mtoe in 2030, representing 13% reduction in final energy consumption* Primary Energy Consumption of 2.4 Mtoe in 2030, representing 17% reduction in primary energy consumption* Achieving cumulative energy saving of 243.04 ktoe during 2021-2030

* compared to the respective projection for Cyprus in the 2007 in the EU PRIMES 2007 Reference Scenario

Building on the suggestions of the relevant Ex Ante Assessment for the use of financial instruments in Cyprus, in the context of European Structural and Investment Funds (ESIF), Directorate General for European Programmes, Cooperation and Development of Cyprus (DG EPCD), and the European Investment Bank (EIB) have entered into a Funding Agreement on 18 December 2018, whereby the Republic of Cyprus appointed the EIB to manage and operate an instrument in the fields of energy efficiency and RES. The Energy Fund-of-Funds (FoF) is co-financed by the ESIF, national funds as a national loan from EIB, and the participating financial intermediaries (total €120 million).

The Cyprus Energy Fund targets accelerating clean energy investments, including energy efficiency improvements, renewable energy and sustainable urban development projects. Investment to improve energy efficiency in public and private buildings, including SMEs.

Greece has adopted a new **National Energy and Climate Action Plan (NECAP)** (EC, 2020d,e) that was presented in December 2019 following a public consultation and a debate in the Greek Parliament. The NECAP is the Greek Government's strategic plan for climate and energy which sets out a detailed roadmap regarding the achievement of specific energy and climate objectives by 2030. Greece's NECAP is an ambitious plan in accordance with the UN Agenda 2030 and its 17 global SDGs as well as with the recently adopted European Green Deal, setting, in some cases, even higher goals at national level. The Greek NECAP comprises, among others, into the following axes:

- Decarbonisation (i.e. the ending of Greece's reliance on lignite) is scheduled to be achieved by 2028, as a top priority. A detailed schedule on the withdrawal of lignite-fired power stations of the Greek Public Power Corporation (DEH) will be presented in 2020.
- RES are projected to reach the 65% of electricity production in 2030, becoming the main national energy source in Greece. The natural gas share in the national energy mix will thus decrease in 2030 in comparison to 2020. Wind and PV power stations will mostly contribute to the electricity production, while other types of RES such as geothermal, offshore wind farms or wave energy will be gradually developed.
- Concerning climate change issues, a higher GHG emission reduction target has been set, with a reduction of more than 42% compared to 1990 emissions and more than 56% compared to 2005 emissions. These targets are necessary in order to enable the transition to a climate-neutral economy by 2050 in accordance with EU targets.
- Concerning energy-saving initiatives, a program for the energy renovation of public buildings, industrial facilities and residences will be announced for 2020 and 2021, mobilizing public and private financing.

In addition to the Greece's NECAP, a **National Strategy for Circular Economy** has been developed as a horizontal action aiming at the optimal use of resources (i.e. energy, water, raw materials) in every economic sector. Under a Green Financing Scheme, a series of financing incentives is foreseen for companies investing in circular economy and industrial symbioses, for example, in water reuse after biological treatment, etc. Green innovation concerning sustainable green investments will also be supported. A National Strategy for Adaptation to Climate Change is also being developed, incorporating actions aiming at biodiversity conservation, more effective water resources management, or forest management, to name a few.

The Greek government's **Strategic Plan for Climate and Energy** is setting out a detailed roadmap regarding the attainment of specific energy and climate objectives by 2030. The NECAP sets out and describes priorities and policy measures in respect of a wide range of development and economic activities intended to benefit Greek society, and therefore it is a reference text for the forthcoming decade. This approach requires a coordination of purpose across all government departments and it provides a level of planning that will ease public and private investment.

In Greece the specific policies and measures targeting the tourist sector, are the following:

- **Sustainable tourism development and destination management plans** – Sustainable tourism development is a key priority for the tourism sector. The development and implementation of an integrated Sustainable Tourism Development Strategy will be the key tool for achieving this goal.
- **Promoting the use of RES and EE performance actions in tourist complexes** – Financing programmes will be designed and implemented to promote the use of RES for heating, cooling

and hot water use, as well as to improve energy efficiency in hotels, tourist accommodation and establishments serving food. Moreover, measures will be designed to install mainly photovoltaic systems through the energy offsetting and virtual energy offsetting scheme.

The Partnership Agreement (PA) for the Development Framework 2014-2020 constitutes the main strategic plan for financing growth in Greece with the contribution of significant resources originating from the ESIF of the European Union. In this Partnership Agreement, two Thematic Objectives are supported with grants for the reduction of GHG in Greek hotels:

1. **Thematic Objective 3:** Enhancing the competitiveness of SMEs through the following *Investment Priority*: Supporting the creation and the extension of advanced capacities for product and service development; and

2. **Thematic Objective 4:** Supporting the shift towards a low-carbon economy in all sectors through the following *Investment Priorities*:

- Promoting the production and distribution of energy derived from renewable sources
- Promoting energy efficiency and renewable energy use in enterprises
- (Promoting research and innovation in, and adoption of, low-carbon technologies
- Promoting the use of high-efficiency co-generation of heat and power based on useful heat demand

In addition, the **Greek Development Law 4399 /2016** (i.e. the institutional framework for establishing Private Investment Aid schemes for the country's regional and economic development) also supports the reduction of GHG in Greek hotels through tax exemptions (mainly), grants and leasing subsidies schemes, regarding costs related with the purchase and installation of new machinery and other equipment with the view to protect environment and energy & water saving, as well as the development, implementation and certification of respective quality management systems.

2.2 The role of key actors

For **Cyprus** the key actors, regarding the **Government (State)**, are several departments that are involved either in the policymaking of climate and energy or in the financing as described in Table 3 below. The key state actors regarding the implementation of National Energy & Climate Action Plan are the Ministry of Energy and Ministry of Environment. Regarding the primary actors, the Deputy Ministry of Tourism, which constitutes a transformation of the Cyprus Tourism Organisation (CTO), plays a clear role, having recently undertaken the promotion of renovations in the hotel sector and tourism policy. State universities also play a significant role, but only as secondary actors.

Regarding the **private sector**, key actors include hotels, hotels associations such as the Cyprus Hotels Associations or Association of Cyprus Tourist Enterprises (ACTE), and the Cyprus Federation of Employers & Industrialists (OEB). Banks and bank associations can be considered as primary actors. Private universities and other research institutes play a minor role as secondary actors.

When it comes to **Civil Society**, a limited role emerges through the environmental NGOs, hence being classified as primary actors and not as key actors.

Table 3: Key stakeholders in Cyprus

	State	Private sector	Civil society
Key stakeholder	Ministry of Energy, Commerce, Industry & Tourism (MECIT); Ministry of Agriculture, Rural development & the Environment (MARDE);	Hotels; Associations of Hotels; Association of Cyprus Tourist Enterprises (ACTE);	

	Directorate General of European Programmes, Cooperation (DG EPCD) and Development (EIB).	Cyprus Federation of Employers & Industrialists (OEB)	
Primary	Deputy Ministry of Tourism constitutes a transformation of the Cyprus Tourism Organisation (CTO)	Banks (all private banks e.g.. Bank of Cyprus, Hellenic Bank, Ancoria, Eurobank, Astrobank, National Bank of Greece etc.)	NGOs mainly environmental (Federation of Environmental Organisations)
Secondary	State Universities (University of Cyprus, Cyprus University of Technology)	Private Universities (University of Nicosia, European University, Frederick University); Other research institutes (Cyprus Institute).	

For **Greece**, the key actors, regarding the **Government (State)**, include several departments that are involved in the policymaking for climate and energy topics, as described in Table 4 below. The four key state actors are the Ministry of Energy and Environment, the Ministry of Development and Investments, Ministry of Tourism and the Regional Authorities. Regarding the primary actors, the Greek National Tourism Organization plays a clear role; State universities with tourism studies and engineering are also relevant, but only as secondary actors.

Regarding the **private sector**, key actors include hotels and the Institute of the Hellenic Tourism Business Association (INSETE). The hotels chamber, banks and bank associations can be considered as primary actors. Private universities and other research institutes play a minor role as secondary actors. INSETE has obtained the support from the Greek Tourism Confederation but also from the Centre for Innovation & Sustainability in Tourism (CIST).

When it comes to **Civil Society**, a limited role emerges through the environmental NGOs, hence being classified as primary actors and not as key actors.

Table 4: Key stakeholders in Greece

	State	Private sector	Civil society
Key stakeholder	Ministry of Energy and Environment Ministry of Development and Investments Ministry of Tourism Regional Authorities	INSETE Hellenic Chamber of Hotels Greek Hotel Association Hotels	Hotel employees and hotels guests
Primary	Greek National Tourism Organization (GNTO) Centre of Renewable Energy Resources	Banks (all private banks e.g. Piraeus Bank, Eurobank, National Bank of Greece etc.)	NGOs mainly environmental (e.g. WWF, Greenpeace etc.)
Secondary	State Universities (University of Western Attiki, International Hellenic University)	Private Universities (e.g. Metropolitan College), Colleges and other research institutes	

3 Existing incentives/policy instruments and financial mechanisms to promote GHG reduction measures in the hotel sector in Cyprus, Greece, Germany and at EU level

3.1 Regulatory instruments

Regulatory instruments are policy measures where public authorities mandate environmental performance or technology to be used (e.g. the mandatory use of photovoltaics) (EEA 2020). They reach beyond financial or advisory incentives and seek to change behaviours, due to their top-down approach. They can be implemented at any level of governance to solve economic discords and are classified as “hard” legally binding legislation, directives or decisions that specify behaviour and are backed by legal sanctions, or “soft” regulation, which are more flexible, such as recommendations, technical standards, labelling schemes (European Commission [EC] 2012).

Table 5: Overview of existing regulatory instruments

Policy / Programme	Type of instrument	Target group	Description
EU level			
Energy Performance of Buildings Directive (EPBD)	Directive	Developers Hotel/Building owners	This directive is relevant to hotel development projects as it outlines that by 31 December 2020 all new buildings should be nearly Zero Energy Buildings (nZEB) (EC 2020b).
Energy Efficiency Directive (EED)	Directive	Developers Hotel/Building owners	Member states should establish a long-term strategy to trigger investment in renovation of existing building stock. Hotels undergoing such renovations should be prepared to meet more strict energy efficiency standards for the building envelope or equipment such as boilers, lighting or televisions (EC 2019).
Cyprus			
Implementation of EPBD/ Minimum energy efficiency requirements	Legislative	Hotel owners	Regulatory Act 121/2020 that will be in force 01.07.2020 the Minimum Energy Efficiency Requirements for New Hotel Buildings the maximum primary energy consumption should be 220 kWh/m ² /yr and minimum RES contribution to the primary energy consumption 9%. For Hotel Buildings undergo major renovation

Policy / Programme	Type of instrument	Target group	Description
			the energy performance certificates (EPCs) should be at least B+.
Implementation of EED, Energy Audits non-SMEs	Legislative	Hotel sector among other sectors	The National Law 142(I)/2006 and related regulations and amendments oblige all non-SME companies, including hotels, must perform an energy audit once every 4 years. To ensure compliance, companies (including hotels) who do not perform the audit and are non-SMEs could be subject to a fine of up to 30.000€.
Order 1/2014 issued by the Minister of Interior under the Law on Planning	Legislative	Hotel sector among other sectors	All new buildings as well as buildings undergo major renovation the building's floor area ratio (FAR) can be increased by 5% if the EPCs Class is A and at least the 25% of the total energy needs are covered by renewable energy sources.
Law on Energy Efficiency of Buildings (No. 210(I)/2012) a series of decrees have been passed 2011 - 2019	Legislative	Hotel sector among other sectors	Mandatory inspections of heating (>20 kW) and air conditioning (>12 kW) systems. Efficiency and size of heating, cooling, hot water and large air conditioning systems. Requirements for installing certified heat pumps and solar thermal equipment as well as performance requirements for biomass heaters and boilers.
Germany			
Energieeinsparverordnung (EnEV) / Energy Saving Ordinance	Legislative	Developers Hotel/Building owners	In Germany, the EPBD has been transposed into the EnEV. Any hotel being built, renovated, converted or operated must comply with limits for primary energy requirements for heating, ventilation, water heating, cooling and lighting and display an energy certificate. Fines of up to € 50 000 may apply if requirements of the EnEV are not met (Tuschinski 2020).
Energiedienstleistungsgesetz (EDL-G) / Energy Services Act	Legislative	Hotel/Building owners	The section of the EED outlining that all non-SME companies, including hotels, must perform an energy audit once every 4 years has been transposed into the EDL-

Policy / Programme	Type of instrument	Target group	Description
			G. To ensure compliance, companies (including hotels) who do not perform the audit could be subject to a fine of up to € 50 000 (German Federal Ministry for Economic Affairs and Energy [BMW] 2012).
National Action Plan on Energy Efficiency (NAPEE)	Recommendation	Hotel/ Building owners	The national plan outlines the need for continuation of the German Hotel and Restaurant Association's (DEHOGA) energy and climate mitigation awareness raising activities, which focus on energy efficiency, regional procurement and sustainable mobility (BMW 2014). This can assist hoteliers with finding information, tools and financing options to improve energy efficiency and reduce GHG emissions more easily.
National Programme for Sustainable Consumption	Standard/ Labelling	Hotel/ Building owners Travel agents	This programme is the first step towards implementing the 2030 Agenda and outlines specific action for making sustainable tourism transparent, such as communicating existing information tools more clearly and encouraging new approaches with a view to increase transparency and demand for sustainable holiday alternatives (German Federal Ministry for Environment, Nature Conservation and Nuclear Safety [BMU] 2018). This supports hotels with green certifications to be recognised more easily by potential guests on booking platforms.
Greece			
PA 2014-2020, Financial support for SMEs Operational Programme for Competitiveness, Entrepreneurship and Innovation	Legislative	SME Hotels	Promotion of energy efficiency and renewable energy use
PA 2014-2020, Financial support for SMEs	Legislative / financial support instruments	SME Hotels	Promotion of energy efficiency and renewable energy use

Policy / Programme	Type of instrument	Target group	Description
Operational Programme for Competitiveness, Entrepreneurship and Innovation			
PA 2014-2020, Financial support for SMEs OP Competitiveness, Entrepreneurship and Innovation	Legislative / financial support instruments	SME Hotels	Promotion of energy efficiency and renewable energy use
Development Law 4399 /2016 - Financial support for companies	Legislative / financial support instruments	Hotels	Promotion of energy efficiency and renewable energy use
Law 4342/2015	Legislative / financial support instruments	Hotels	Non-SME hotels is mandatory to conduct for energy audit every 4 years
Building code	Legislative	Hotels	For new tertiary sector buildings, a maximum of 85 kWh / m ² of primary energy use, with a minimum share of 20% renewable energy. For existing tertiary sector buildings, a maximum of 90 kWh / m ² of a primary energy use, with a minimum share of 15% renewable energy.
Law 3851/2010	Legislative		The law is setting out measures for the use of RES in buildings and compensatory contributions at local level for the establishment of RES plants was published to foster the use of renewable energy sources.
Joint Ministerial Decision No 5825/2010, as revised by Joint Ministerial Decision No 178581/2017, ratified the Regulation on the Energy Performance of Buildings (KENAK)	Legislative	All buildings	The law requires an integrated energy design for buildings to improve their energy performance, ensuring energy savings and protecting the environment, through specific actions relating primarily to: <ul style="list-style-type: none"> • Prepare an energy performance design for buildings; • Classify buildings in terms of energy (energy performance certificate); and • Carry out energy inspections of buildings, boilers, and

Policy / Programme	Type of instrument	Target group	Description
			heating and air-conditioning installations.
Financial and other incentives: Revision of Law 4067/2012 - Article 25 'Incentives for constructing nearly zero-energy buildings'	Legislative	All buildings	<p>1. Where a building is classified, according to its energy design, in the KENAK's highest energy category A+, an incentive is given by increasing the building's FAR by 5%.</p> <p>2. A specific increase of the building's FAR by 10 % is offered for minimum energy consumption buildings that also have excellent environmental performance. These buildings must have an annual primary energy consumption for heating, air conditioning, lighting, ventilation and domestic hot water of less than 10 kWh/m² /year.</p>
Institutional framework - regulations: Revision of Law 4122/2013, Article 21 'Building permits'	Legislative		Where work is carried out for which a small-scale work permit is required under Laws 4030/2011 and 4067/2012, EPCs must be issued. Where a building or building unit is classified category D or lower, at least one of the recommendations should apply, to meet the minimum energy performance requirements.
General Building Rules	Urban incentives		In accordance with the General Building Rules, for buildings with a maximum height of 8,50 metres and for bio-climate buildings regardless of height, an additional increase in the authorised volume coefficient is given, if an energy study provides for such need.

3.2 Reward & advisory instruments

Reward and advisory instruments are often used to incentivise the implementation of GHG reduction measures, aligned with international and regional targets. These types of incentives can range from monetary awards or exposure and marketing to free or discounted services, training and provision of capacity building materials and bonuses. Rewards and advisory services can build capacities of and support developers and hoteliers with a wide range of services that can be applied during either the construction or renovation of a hotel, or during its management, while at the same time providing GHG emissions savings benefits, e.g. trainings or energy consulting. The granting of awards for best practices and innovation in hotels can similarly incentivise energy savings and contributes to awareness raising among stakeholders through press releases and various events.

Table 6: Overview of existing reward and advisory instruments

Policy / Programme	Type of instrument	Target group	Description
EU level			
ClimaHost	Reward	Alpine Convention area hotels	In 2018, establishments in gastronomy and accommodation were adjudicated by an international jury based on their climate protection and energy efficiency measures. The winners were announced at the Alpine Convention and had the chance to shoot a video outlining their business and climate protection measures (ClimaHost 2018). This type of award can be easily scaled and replicated to other regions.
Excellence in Energy for the Tourism Industry: Hotel Energy Solutions (HES)	Advisory	Hotel management	The HES toolkit enables hoteliers to measure and understand their energy consumption and where energy and GHG emissions as well as cost savings can be made (EC 2020c).
Nearly Zero Energy Hotels (neZEH)	Advisory	Hotel/ building owners Hotel management	Co-funded by the Intelligent Energy Europe Programme of the European Union, this initiative aims to accelerate the rate of refurbishment of existing hotels into Nearly Zero Energy Buildings (NZEB) by offering training material, toolkits, and other resources (neZEH 2016).
Energy Globe Award	Reward	Hotel management	This international competition is free to participate in and focuses on innovations in conservation of resources such as energy, improving air, soil or water quality, or use of renewables and other emission free sources of energy. At the prestigious ceremony, € 10 000 is divided equally among the five category winners, recognising excellence in sustainability. National competitions are also presented and many past winners of both the national and international awards have been hoteliers (Energy Globe Foundation 2020).
Cyprus			
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Policy / Programme	Type of instrument	Target group	Description
Germany			
Check-in Energy Efficiency	Advisory	Hotel management	In collaboration with the BMWi, the German Energy Agency (dena) created an online platform and toolkit used to identify and develop energy-saving potential in the accommodation sector. With assistance from dena, about 30 hoteliers were enabled to systematically measure their energy use, decide on applicable measure and reduce energy costs, creating a roadmap for their renovations (dena 2018).
SME Initiative for Energy Transition and Climate Protection (Mittelstandsinitiative Energiewende und Klimaschutz)	Advisory	SME hotels	Within this collaboration between German Association of Chambers of Commerce and Industry (DIHK), German Confederation of Skilled Crafts (ZDF), German Federal Office of Economics and Export Control (BAFA) and the BMU, small and medium enterprises (SMEs), including SME hotels, gain knowledge about energy saving measures through training and concrete assistance with local contacts. Some of the activities of the programme include exchange of experiences, awareness raising, dissemination of successful approaches and models, webinars, and guidebooks (Mittelstandsinitiative 2020).
Greece			
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3.3 Concessional finance

Lending and grant schemes are the most common type of financial incentive available for the hotel sector. They can include concessional loans with preferred interest rates or tenor compared to market rates or grants with or without repayment contingency that subsidise the costs of energy efficiency renovations. There are several types of financial instruments, which can be used for investing in energy efficiency as well as function as leverage for existing private and business capital. The most common and frequently used are outlined in Figure 4.

Figure 4: Commonly used financial instruments

Internal Financing: Many companies prefer to finance their climate-related sustainability projects internally, using available cash or infusions of capital from the parent company. When possible, internal financing is relatively cheap - with no interest payments and few restrictive covenants – however, the company must weigh potential returns from a project against other investment opportunities, such as debt money (World Business Council for Sustainable Development [WBCSD], 2017).

Loans are a classic form of financing that is used, for instance, for the purpose of investing in the improvement of the energy performance of buildings. On the market, there is a wide range of specific banking products offered by commercial and development banks. The financing conditions are often stipulated by financial institutions by achieving predefined energy savings. It is important to note that interest rates on loans that are significantly below market conditions, are also considered a form of state aid, and are subject to restrictions governed by the EC.

Subsidized loans are forms of lending capital under conditions that are more favourable than the standard market conditions. This can apply not only to lower interest rates but also to longer repayment periods than those on the market. However, these loan types tend to be limited to specific innovation types or geographies, or both. The interest rates, payback periods, and other conditions of such loans are less rigid than those of market loans. In energy renovation projects, they are often referred to as specialized renovation loans. In addition to traditional loans, they may appear in the form of leasing services, factoring and services or hybrid products such as energy savings.

Guarantees are collateral for the loan repayment. They are based on the control (impairment) of market risks that are common obstacles in energy-efficiency related project implementation (Maras 2015). They can be used in the framework of public-private partnerships in which public institutions provide guarantees to private investors/participants of the projects in form of an incentive.

Insurance policies are also instruments of risk controlling for project financing. They are either associated with the property (insurance matters and property interests, liability insurance), loans (insurance funds or billing) or legal persons involved in the project (accident insurance, life insurance) (Maras 2015).

Green Bonds are bonds issued by both public and private institutions. Green bonds are very similar to conventional bonds, but their proceeds are reserved for funding green projects. Green bonds are priced very tightly, with comparable coupons to ordinary bonds (WBCSD 2017). Supranational agencies dominated the green bond scene in its early days, later joined by municipalities. Over the past three years, numerous companies have joined the green bond issuing community from utilities to renewable

energy companies to brands such as Apple and Starbucks. The global green bond universe is estimated at almost USD 700 billion, of which USD 118 billion qualifies as labelled green bonds (WBCSD 2017). Given each green bond's inherent mitigative or adaptive climate risk aspect, and the issuing entity's usually very strong credit rating, green bonds have become popular in the investor community.

Energy Service Companies (ESCOs) are service providers that guarantee future savings made on energy bills and can fund projects upfront that are refinanced through the savings achieved. In an ESCO financing model the service provider usually charges the building owner a fee to deliver energy savings on the owner's utility payments. In addition, savings are often guaranteed over a set period of time (see Figure 5). An ESCO will assess the efficiency opportunity, purchase equipment necessary to improve performance, and install the equipment. Most ESCOs will provide a financing option for these services as well, but depending on the ESCO, the building owner may be required to seek outside financing.

The development of ESCOs in Europe is expected to help implement the EU's Energy Services Directive, which obliges public authorities to improve energy efficiency and encourages the use of financial instruments for energy savings, such as third-party financing contracts and energy performance contracts. As the Commission's Energy Efficiency Plan underlines, ESCOs can help public authorities to upgrade buildings by grouping them into scalable projects under energy performance contracts (EIB 2012). This is supported by an initiative to make the use of Energy Performance Contracting (EPC) more accessible to the public sector.

Energy Services Agreements (ESA) build on the historical use of power purchase agreements (PPAs) in power plant project finance and, more recently, in renewable energy project finance. Third party entities negotiate ESAs, arrange/provide capital, develop projects and manage installed equipment for large industrial and commercial projects. The SPE is capitalised by third party investors and finances the costs of the efficiency improvement. The host signs an ESA with a project developer and agrees to pay either a fixed or floating rate for the energy savings received. A floating rate is equal to a percentage (e.g. 80%) of their actual utility rate. A fixed payment is based on a cost per avoided energy basis (e.g. EUR per kWh avoided or EUR per therm of natural gas avoided). The host agrees to make payments for contractual terms of their agreement (e.g. 5-15 years). This structure enables energy efficiency to be treated as a service and an off-balance sheet transaction.

Tailored financing strategies for different project stages matches FIs with maturity stages of investment projects, which also acts an important criterion to consider when selecting the appropriating financing strategy (WBCSD, 2017). Financing vehicles and green projects tend to vary depending on their stage of maturity and investor requirements (see figure 5). Players in the early stage rarely have access to bank loans or the equity market, so they typically rely on grants, government or public loans, private sector loans, and venture capital for financing. Established companies may be able to finance all or part of their projects internally, with available cash flow. Companies in the middle stage may not be eligible for government support, and most grants are too small to supply the scale of financing needed. These companies cannot generate enough attention to produce a stable and supportive regulatory environment, which would increase investor confidence. Instead, they may self-fund with internal cash flow, use internal or external loans, or attract private equity from investors (WBCSD, 2017).

Figure 5: Financing vehicles for different maturity stages; Source: (WBCSD, 2017, p. 25)

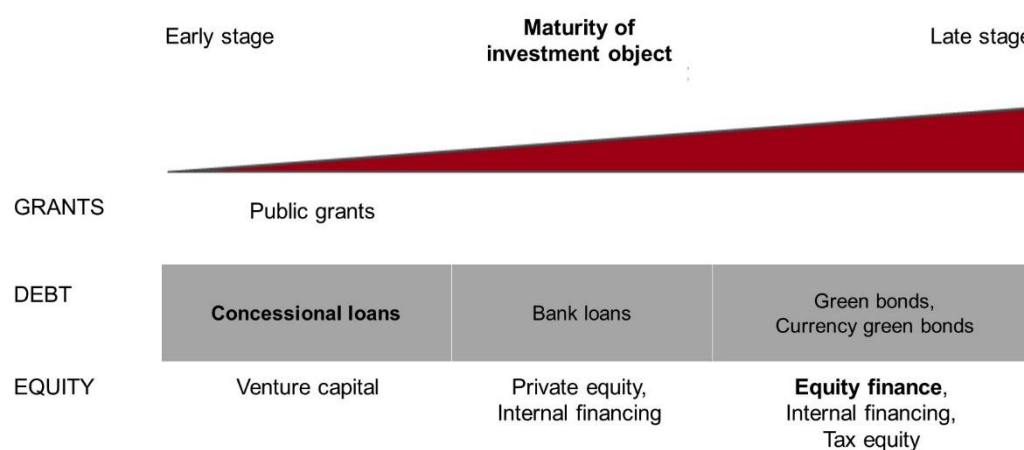


Table 7: Overview of existing financial instruments and support schemes

Policy / Programme	Type of instrument	Target group	Description
EU level			
EuroPACE	Loan	Hotel/ Building owners	With a European pilot project in Spain starting in 2020, this new property attached financing fund allows investors to lend money for up-front costs for extensive retrofits (i.e. new heating and cooling systems) with costs repaid through a special charge added to a property tax bill over a term of up to 20 years (Climate-KIC 2020). Although this fund is aimed at the residential sector, hotels are eligible to participate.
SUSI Energy Efficient Fund (SEEF)	Loan	Hotel/ Building owners	SEEF is Europe's largest fund dedicated to energy efficiency with over € 200 M committed. Hotel projects with a quantifiable CO ₂ impact can be funded where proven EE retrofit solutions are used, including HVAC, building management systems, PV for self-consumption, waste heat recovery, plants and processes/pumps. The programme finances redesign projects, upgrading equipment, or optimising energy supply. Funds can cover up to 100% of costs associated with EE, are deployed with a very fast turnaround of 6-10 weeks and have a long maturity (tenor can be up to June 2027) (Rothlin 2017).
Private Financing for Energy Efficiency (PF4EE)	Loan	Hotel/ Building owners	Participating banks on-lend money for hotel EE improvement projects from the EIB and EC. 100% of the funds must be for EE measures. Tools are available online to help banks facilitate lending, such as workshops and trainings for bank staff, portfolio screening, identification of sectors and clients, examples and showcases of financed projects (PF4EE 2020).
Cyprus			
Energy Fund-of-Funds (FoF) – EIB	Loan	SMEs Public entities Household owners	The Energy FoF is co-financed by European Structural and Investment Funds (ESIF) (€40 M), national funds as a national loan from EIB (€40 M) and the participated financial intermediaries (€40 M).

Policy / Programme	Type of instrument	Target group	Description
			<p>The Cyprus Energy Fund targets in accelerating clean energy investments, including energy efficiency improvements, renewable energy and sustainable urban development projects. Investment to improve energy efficiency in public and private buildings, including SMEs.</p> <p>The funding will be allocated to the following Special/Thematic Objectives:</p> <ul style="list-style-type: none"> • Promotion of entrepreneurship in specific population groups enhancing access to finance. (€10 M) • Increase energy savings in SMEs. (€14.2 M) • Increase energy savings in public buildings (€ 7.9 M) • Increase energy savings in households (€7.9 M)
Subsidy Scheme for Upgrading Projects Regarding Leisure Centres - Deputy Ministry of Tourism	Grant	<p>SMEs</p> <p>All licensed leisure centres operating over 3 years</p>	<p>The aim of the subsidy scheme is to encourage the improvement and upgrading of existing approved cooking areas, catering and sanitation facilities of Leisure Centres. Specifically, it aims to:</p> <ul style="list-style-type: none"> • Complete renovation of existing sanitary warehouses • Replace lightweight furniture (chairs and tables) in approved indoor and outdoor dining areas. New furniture should not be plastic and should be approved in advance by the Ministry of Tourism • Replace heavy professional equipment of the kitchen area, such as: ovens, refrigerators, dishwashers, glasses and utensils and mechanical ventilation hoods • Purchase of isothermal wine cellar <p>The amount of the grant is 50% of the total cost of eligible interventions, before VAT, with a maximum grant of € 10.000 and a minimum investment cost of at least € 10 000.</p> <p>Call Total Budget: € 250 000.</p>

Policy / Programme	Type of instrument	Target group	Description
Support scheme for energy audits	Grant	SMEs /Hotel sector included	It was announced in June 2019 to provide financial support SMEs to carry out energy audit. The scheme is eligible only for SME companies, with a total budget available of € 200 000. The SMEs that will participate in the above scheme, are eligible up to € 2 000 grant with 30% funding rate.
Support instrument	Instrument	All economic activity sectors	<p>PV Net-metering - This is a support scheme for the production of electricity from renewable energy sources for own use up to 10 kW.</p> <p>Net-billing for PV and Biomass - This scheme is related to the installation of PV systems or Biomass Electricity Systems (BES) which are implemented only in the premises of SMEs (under commercial or industrial pricing) for the purpose of generating electricity for their own use with the methodology of net-billing. The installed capacity of each installed RES system ranges from 10kW to 10MW per installation.</p>
Support Scheme for implementing EMAS in Public and Private Businesses/Organizations – Department of Environment, Ministry of Agriculture, Rural Development and Environment	Grant	Private/Public Businesses/Organizations of all economic activities	<p>The support scheme aims to increase the environmental performance of organizations through the establishment of an Environmental Management System in accordance with the provisions of Regulation 1221/2009 / EC, and is intended to provide governmental sponsorship to businesses and organizations of all economic activities that intend to install an Environmental Management System in accordance with EMAS which aims at addressing the environmental aspects of businesses / organizations, reducing the use of natural resources and continually improving the environmental performance.</p> <p>The grant sponsorship is at 70% of the total eligible cost with a maximum amount of € 2 000, and for the verification and validation of the system, for a maximum of € 500. For the same amount of € 500, the transfer expenses from ISO 14001 to EMAS, are also funded.</p>

Policy / Programme	Type of instrument	Target group	Description
The Cyprus Entrepreneurship Fund (CYPEF) – EIB	Grant	SMEs	<p>CYPEF is a fund established by the Republic of Cyprus to support and strengthen entrepreneurship in the country by enhancing access to finance to SMEs. Amounts dedicated from the Cypriot government to CYPEF are made available through financing from the EIB. CYPEF is managed by the European Investment Fund (EIF). Specifically, € 100 M of initial capital pulled together under CYPEF by the Cypriot Government will be matched by equal contributions from EIF's selected financial intermediaries, translating into € 200 M of finance to the benefit of Cypriot SMEs.</p>
EIF InnovFin SME Guarantee (EFSI) – EIB		SMEs Small MidCaps	<p>InnovFin SME Guarantee Facility is an unfunded instrument. Meaning that EIF shares / guarantees 50% of all losses of an investment. Bank of Cyprus and RCB Bank are the two participating banks with € 10 M each. The Innovation Eligibility Criteria are:</p> <ol style="list-style-type: none"> 1. Investing in the production or development of innovative products, processes and/or services that present a risk of technological or industrial failure; 2. "fast growing enterprises" i.e. their workforce or turnover has increased by at least 20% p.a. over the last three years <p>Amount of investment: at least € 25 000 and up to a max of €7.5 M.</p> <p>Maturity: at least 1 year and up to a max of 10 years</p>
Innovate, Develop, Excel, Accomplish (IDEA) Programme – Bank of Cyprus & Cyprus International Institute of Management (CIIM)		Startup companies	<p>The IDEA is a new office area that offers support to start-ups with free accommodation, support, training and advice in order to become self-sustainable in the market.</p> <p>The aims of the IDEA are:</p> <ul style="list-style-type: none"> • To help young businesses and entrepreneurs flourish and thrive • To enhance and support the entrepreneurial spirit and culture of innovation in Cyprus, and • To help grow the eco-system of innovation in Cyprus.

Policy / Programme	Type of instrument	Target group	Description
Germany			
KfW Energy Efficiency Programme – Energy Efficient Construction and Renovation	Loan	Hotel/Building owners	Hotels are eligible for loans at favourable interest rates with terms of up to 20 years and up to a 17.5% repayment subsidy for refurbishment if, after the refurbishment, they do not exceed a specific energy requirement for a comparable new building. National banks serve as an intermediary for this loan (KfW 2020a).
KfW Energy Efficiency Programme - Energy Efficient and Process Heat from Renewable Energies	Loan	Hotel/Building owners	Loans of up to € 25 M with a repayment subsidy of up to 55% are issued for significant improvements in energy efficiency using cross-sectional technologies; process heat supply from renewable energies; measurement and control technology, sensor technology and energy management software; and energy-related optimisation of plants and processes. National banks serve as an intermediary for this loan (KfW 2020b).
Deutsche Bank's low-interest loans	Loan	Hotel/ Building owners	Retail branches offer their own low-interest energy efficiency loans to businesses, including hotels (in addition to giving customers access to KfW financing) (Deutsche Bank 2014).
Energy consulting for SMEs	Grant	SME hotels	The BAFA grants 80% of energy audit costs for SMEs (including SME hotels) to a maximum of € 6 000, promoting quality energy advice and quantification of possible EE improvements (BMWi 2020a).
Heating with Renewable energies Programme (Market Incentive Programme [MAP])	Grant	Hotel/Building owners	Simultaneously promoting innovation and climate protection, funds are granted for energy efficiency and renewable energy projects that primarily serve to provide heating or cooling. For each type of renewable heating source, there are different eligibility criteria, but all must be submitted to the BAFA within 9 months of the commissioning or completion of the optimisation measure (BAFA 2019). Hotel projects are eligible and have already been funded by this grant.

Policy / Programme	Type of instrument	Target group	Description
Energy Efficiency Incentive Programme (APEE)	Grant	Hotel/Building owners	The BAFA grants additional incentives for the optimisation of an entire heating system that replaces a particularly inefficient system based on fossil heat production, without the use of condensing boiler technology or fuel cells. An additional amount of 20% of the total funding granted under the MAP may be awarded. Additionally, a one-time grant of € 600 for the implementation of measures to improve EE may also be granted (BMW 2020b). Hotel projects are eligible and have already been funded by this grant.
Energy Savings Metre Programme	Grant	Hotel/Building owners	For hotel projects demonstrating the ability to record the actual consumption and energy base as well as to ensure robust measurement, funds are available from the BMW. 25% of the funding is based on proven costs, while the remaining 75% is paid according to a fixed remuneration key based on the proven savings from the accepted digitally enabled energy efficiency solutions (IEA 2019).
Triodos Bank's financing for tourism	Loan	Developers Hotel/Building owners	As a member of the United Nations Environment Programme Finance Initiative (UNEP FI), Triodos Bank offers loans for tourism businesses, including hotels, to invest in development or purchase of property, on-site renewables, energy management, or green tourism accreditation. In order to apply for the loan, hotels must be green-tourism certified or working towards it. Preferred interest rates as low as 1% are available for businesses working towards gold level certification (Triodos Bank 2020).
Greece			
PA 2014-2020, Operational Programme for Competitiveness, Entrepreneurship and Innovation	Grant	SME Hotels	Promotion of energy efficiency and renewable energy use
PA 2014-2020,	Grant	SME Hotels	Promotion of energy efficiency and renewable energy use

Policy / Programme	Type of instrument	Target group	Description
Operational Programme for Transport Infrastructure, Environment and Sustainable Development			
PA 2014-2020, Multi-sectoral Regional Operational Programmes	Grant	SME Hotels	Promotion of energy efficiency and renewable energy use
Development Law 4399 /2016	Tax exemption (mainly), Grant and Leasing Subsidy Schemes	Hotels	Promotion of energy efficiency and renewable energy use
National Bank of Greece (NBG) bank loans	Loan	Hotels	As part of its Green Growth policy to save energy in all possible ways, the National Bank promotes and supports green energy investment in various products for business and equipment or in RES (NGB 2020).
PF4EE Financial Instrument Piraeus Bank	Loan	Hotels	Piraeus Bank participates in the European Investment Bank's (EIB) and European Commission's (EC) joint instrument Private Finance for Energy Efficiency (PF4EE) with the aim of providing debt financing with favourable terms to businesses wishing to invest in improving their energy efficiency. PF4EE is an innovative financing tool that combines liquidity in the form of an EIB Loan and loan guarantees funded through the LIFE Programme of the European Commission (PF4EE 2020).
Alpha Bank and Eurobank	Loan	Hotels	Alpha Bank and Eurobank finance energy investments as part of their general business financing.

3.4 Voluntary certification schemes

The following table outlines a selection of certification schemes and labels that are relevant to the hotel sector. While they do not directly provide (financial) incentives, they can be easily bundled with such instruments. For example, in some regions, tax incentives, soft loans, grants, bonuses or expedited permits are available to developers or building owners implementing green certifications.

Table 8: Overview of existing voluntary certification schemes

Policy / Programme	Region	Target group	Description	Cost ¹
Audubon International Green Lodging Programme	Global	Accommodations	Hotels are awarded an eco-rating and provided with a report, which outlines further steps that can be taken to improve their eco-rating in the future based on a survey reviewing all areas of operation, assessment, and third-party verification. Criteria include water quality, water conservation, waste minimisation, resource conservation and energy efficiency (Audubon 2020).	Costs range from Tier I (1-50 rooms) costing \$350 USD in the first year and \$175 USD year 2-3; to Tier V (501+ rooms) costing \$1500 USD in the first year and \$750 USD in years 2-3). Special discounts and multi-facility rates may apply (Audubon 2020).
Biosphere Certificate	Global	Hotels	Designed to help hotels comply with international sustainability requirements, this programme covers climate change, environment, social, economic and cultural aspects. Hotels register online, implement requirements and sustainability criteria, and pass an external audit to receive their certificate (Biosphere Responsible Tourism Inc. 2020).	Annual certification price ranges from € 200 for 1-10 accommodation units to € 1 200 for more than 300 accommodation units (Biosphere Responsible Tourism Inc. 2020).
Blaue Schwalbe (Blue Swallow)	Europe	Accommodations	Since 1989, ecologically oriented hotels have been certified, making the Blaue Schwalbe the “first” eco-label for touristic accommodations worldwide. After a self-assessment, verification, and a site visit, the hotels receive the label and	No costs publicly available.

¹ Costs only refer to registration/certification/membership fees and do not include the costs of implementing measures or additional auditing required for achieving the certification/label.

Policy / Programme	Region	Target group	Description	Cost ¹
			are featured in the Anderswo travel magazine and website (Ecotrans 2020).	
Certified B Corporation	Global	Businesses	Focusing on five impact areas of governance, workers, community, environment and customers, the criteria cover topics such as social and environmental performance, transparency and legal accountability. Starting with a free pre-assessment, scores are verified and if the company meets the 80-point bar, a certificate is awarded. Certificates are maintained through score verification every three years. Many support tools are available for users (B Lab 2020).	Annual certification fees are based on annual sales. These costs range from € 500 for sales between € 0 and € 149 999 up to 50.000 € for sales over € 1 B (B Lab 2020).
DEHOGA Umweltcheck	Germany	Accommodations	This certification is based on Travelife criteria and indicators and combines ecology and economy to offer mid-sized hoteliers an affordable solution to present their environmental commitment. After filling in a form and paying fees, the documents are checked and evaluated, with the participant receiving a detailed evaluation of the results and a corresponding award (DEHOGA 2020).	Basic fee of € 250 for DEHOGA members (€ 450 for non-members) with a surcharge of € 4 per room (max. 100) and 50 cents per restaurant seating (max. 150). If criteria for bronze are not met, participant is refunded up to a cost contribution of € 50 (DEHOGA 2020).
German Sustainable Building Council (DGNB)	Germany	Buildings	The system for sustainable hotel interiors acts as a planning and optimisation tool for consideration of sustainable construction and operation. The key features include healthy atmosphere, high comfort, low CO ₂ footprint, use of EE technology and dismantling-friendly construction. Certification is achieved through the support of an auditor who carries out the evaluations (DGNB 2020).	For DGNB members, this ranges from up to 2500sqm at € 3.900 for pre-certification and certificate, and up to € 73 500 for non-member certification of buildings up to 30 000 sqm. These fees do not include auditing costs, which vary from project to project depending on criteria being evaluated (DGNB 2020).
EarthCheck	Global	Tourism activities, services and facilities	Benchmarks are outlined for energy consumption (such as grid electricity, stationary fuels and mobile fuels), on-site wastewater treatment, waste production, CO ₂ emissions, and energy consumption per source, to name a few. After collection and submission of data, a self-assessment is	Benchmarking costs can be up to \$ 2.800 AUD (€ 1 750) with additional fees of up to \$ 4.900 AUD (€ 3 075) to become certified level bronze, silver and gold. Audits themselves are not included and

Policy / Programme	Region	Target group	Description	Cost ¹
			completed and verified by a third party who approves the certification level. Businesses must update the checklist and submit an audit at least every two years (Earthcheck 2018).	can cost upwards of \$ 2.000 AUD (€ 1 250) (Earthcheck 2018).
EU Eco-Management and Audit Scheme (EMAS) for Accommodations	Europe	Accommodations	Continuous monitoring and performance improvements with a focus on climate, air quality, water quality, natural resources and biodiversity make up the core of this system. After an initial environmental review, a programme is set up in order to implement the environmental management measures. When environmental reports are verified by an external process, credentials are awarded (EMAS 2017).	Fixed costs are not listed publicly, but are known to include verification fees, registration fees and fees for incorporating the EMAS logo into corporate design. The EC strongly supports EMAS and helps to co-fund innovative EMAS projects through the LIFE Programme (EMAS 2017).
Energy Star for Accommodations	USA	Accommodations	Energy consumption is at the forefront of this certification, allowing management to identify aspects of business activity that are significant drivers of energy use. In order to adopt specifically to hotels, adjustments for weather and business activity are calculated for hotels, as they change seasonally. Eligible properties who use the benchmarking system to achieve a score of 75 or higher are able to apply online, and after a site visit and uploading of documents, the status of their application is confirmed (Energy Star 2020).	No costs available publicly. However, in some places, the costs can be covered by [US] state or local incentive programmes (Energy Star 2020).
European Ecolabel for Tourism	Europe	Accommodations	While the criteria are based on energy and water consumption, waste production, general management, use of renewables and promotion of environmental education – every four years they are made publicly available for comments and updates. Obtaining this certification requires contacting the local competent body, registering, testing, payment of fees alongside the submission of the application, assessment and finally approval and awarding of the licence (EC 2017).	Individual Member States have different procedures and fees for applications. <i>Discounts are available for SMEs within the EU</i> (EC 2017).

Policy / Programme	Region	Target group	Description	Cost ¹
Green Engage™	Global	InterContinental Hotels Group (IHG) properties	Within the IGH properties, over 200 green solutions are proposed that are designed to help hotels reduce their energy and water consumption, decrease waste, and improve their impact on the environment. All hotels under the management group are required to achieve at least level 1 by implementing a minimum of ten solutions (IHG 2020).	No costs for hotels to participate (IHG 2020).
Green Globe	Global	Tourism businesses	The 44 core criteria and 30 indicators that make up this certification are classified around areas such as sustainable management, social/economic, cultural heritage and environmental concerns. Energy and water consumption as well as GHG emissions are measured, and processes to reduce and offset them are implemented. As a member, access to the Green Globe Solution Centre and other resources allows tourism businesses to further plan their Sustainability Management Plan/System. Once compliance is verified via an on-site audit, the certification is awarded based on their report (Green Globe 2020).	No certification costs available publicly. For consulting services offered from Berlin or Paris: The two day Sustainability Training costs € 1 450, one day of assistance with the audit costs € 750, and training on the standards or green meetings costs € 750 per day. The services are offered in German, English, French, and Romanian (Green Globe 2020).
Green Growth 2050	Global	Tourism businesses	This standard utilises over 400 indicators to meet the needs of tourism and travel, covering topics from environmental change and sustainability management to human rights and energy – making it one of the most comprehensive standards available. After registering, members can engage with other users for advice, upload documentation, are verified by a third party and receive their certification, while continuous improvement is achieved through monitoring and analysis (Green Growth 2050 2016).	The annual registration fee depends on size of business, ranging from € 875 for small hotels with up to 50 rooms to € 4 350 for large hotels and resorts with over 200 rooms. Additional fees include auditing fees, which can cost up to € 2 875, a minimum € 3 300 fee for software and a daily consulting rate of € 1 100 (Green Growth 2050 2016).
Green Key	Global, focused on N. America	Hotels	Over 3.100 establishments in 60 countries have been assessed under the five major operational areas of corporate management, housekeeping, food/beverage, conference/meetings and engineering and nine areas of sustainable practices such as energy conservation, building	Costs for 2018-2020 include a € 1 000 annual payment plus auditing costs of € 500 plus travel payable in years 1, 2, 5

Policy / Programme	Region	Target group	Description	Cost ¹
			infrastructure or community outreach. After sending application documents, an on-site visit will confirm the decision by third party verification (Foundation for Environmental Education 2020).	and then every three years (Foundation for Environmental Education 2020).
Green Pearls®	Global	Hotels	Requirements and criteria include management, architecture, water and energy consumption, environmental protection, waste management, social projects, employees and cultural commitment. After applying, a Green Pearls® representative will contact the hotel to arrange the contract and site visit. Once the site visit is complete, the hotel can seek the benefits of exposure through the Green Pearls® platform and PR services (Green Pearls® 2020).	No costs publicly available.
Green Seal	Global	Accommodations	This certification is based on criteria in the categories of waste minimisation, energy conservation, management of resources and water, pollution prevention and environmentally sensitive purchasing. After completing the online application and submitting payment, a contract is signed and a manager is assigned to facilitate the submission of all necessary documents. Once data is evaluated, an on-site audit is conducted and double-checked by a senior project manager to resolve outstanding issues. Once requirements are met, a certificate is issued and periodic compliance monitoring takes place (Green Seal 2017).	Evaluation fees range from \$ 1 080 USD to \$ 3 200 USD, depending on certification level and size of hotel property. <i>In Los Angeles, USA, under the Green4Green incentive programme 50% of costs are covered for the application fee and 25% of the first year monitoring fee (Green Seal 2017).</i>
GreenSign	Europe	Accommodations	Transparency is at the centre of this multi-level system. By using 85 criteria based on seven core areas including environment, procurement, economy and communication, among others, hotels can achieve classification from level 1 to 5, which is valid for three years. InfraCert provides coaching for the application process and assistance with filling in the criteria catalogue. After completing an audit,	No costs publicly available.

Policy / Programme	Region	Target group	Description	Cost ¹
			hotels receive a certification and continually supervised in the following years (InfraCert 2020).	
Leadership in Energy and Environmental Design (LEED)	Global	All buildings	Hotels can earn points in seven main categories, such as energy & atmosphere or materials & resources. A minimum of 40 points are required to obtain the lowest level of certification. After the application fee is paid, the hotel must assemble a project team and document their sustainability. Forms are provided to enter information about the measures in the hotel. Once the documentation is complete, a second fee that reflects the scope of the project is submitted and certification is verified and awarded. More than 400 hotels have been certified by LEED, globally (USGBC 2020).	Typically, LEED for new construction costs about \$ 3 USD more per square foot to build. However, the same building saves about \$ 73 USD per square foot in energy savings annually. The registration fee for a building is \$ 1 000 USD, and the second fee can range from \$ 2 000 - \$ 30 000 USD (USGBC 2020).
Travelife	Global	Accommodations	Recognised by the Global Sustainable Tourism Council (GSTC), this certification contains 163 criteria and provides users with a suite of tools and resources to help them with compliance. In order to obtain the certification, first, an assessment helps hoteliers understand their status; next, they schedule an audit and receive an audit report, which helps them to make further improvements. Once a certain level of criteria is satisfied, the Gold Certification is awarded, which is valid for two years. The process is repeated every two years to ensure criteria are still being met (Travelife 2020a).	Individual 2-year membership for properties starts at € 640 for micro up to € 2 150 for mega hotels with occupancies of more than 1000 guests (Travelife 2020b).
Viabono	Europe	Accommodations	Company information and key figures on the four environmental categories of energy and climate (such as energy consumption per tourist night, CO ₂ offsetting, or use low energy systems), water, waste and procurement of foods need to be provided, in order for Viabono to award certification. Additional certifications, such as for CO ₂ footprint or climate neutrality can be applied for simultaneously for a small fee (Viabono 2018).	The baseline application fee is € 250 with additional costs of € 4/room and 50 cents/restaurant seat, paid annually. Additional features such as the CO ₂ certificate cost about € 300-350 each (Viabono 2018).

4 Barriers to the widespread uptake of GHG reduction in the hotel sector

4.1 Common barriers across Europe

There is a high or reasonably high potential for climate and energy efficiency investments across Europe. However, this potential remains largely untapped in many countries. There is a significant gap between investment opportunities for energy efficiency and the level of investments in energy efficiency in most of the countries.

In general, **there is a good correlation between the existence of the regulatory framework** (i.e. EU Directives) and how well it supports and enables investments in energy efficiency. For example, Germany possesses strong regulatory framework that ensures strong support for investments.

Institutions at the national level responsible for developing and implementing policies that support investments in energy efficiency projects exist in member states. However, assessment of their effectiveness differs among individual countries. Among the various levels of government, national authorities are generally considered to be providing the highest level of support for developing and implementing GHG reduction projects compared to regional (provincial) and local (municipal) governments.

The **price of energy** provides some but often insufficient incentive for improving energy efficiency. When the energy prices are low, there is no energy efficiency investment interest. Self-financing remains the most widely used type of financing of energy efficiency projects followed by direct financing from public budgets and debt financing.

Low awareness about the multiple benefits of GHG reduction measures is viewed as the main barrier to increasing investment and financing flows to corresponding projects. Next important factors are lack of understanding of climate and energy efficiency financing by banks and other financial institutions; administrative barriers and bureaucracy; and low energy prices.

Tax incentives and low-interest loans for GHG reduction projects are viewed as the most important factors that can lead to increasing investments in this field. They are followed by stricter standards; training and awareness programmes; improved legislation; and de-risking of investments through Government support programmes.

Table 9: Common barriers across EU

	Description of barrier
Financial instruments and support schemes	<p>Lack of commercial bank experience in financing energy efficiency and renewable energy projects, with lack of awareness of their possible economic benefits, resulting in limited or absent demand for energy efficiency and renewable energy audits by Energy Service Companies (ESCOs). Consequently, hotels are often not able to access funding for GHG reduction measures.</p> <p>Design of appropriate support schemes need to be made more sector specific by authorities. State subsidies and activities should be aimed at enhancing market-based measures.</p>
Technical capacity/awareness	Lack of professional training and awareness raising for assessing energy consumption and conducting energy audits, identifying attractive project opportunities, and preparing bankable project proposals in the hotel sector.
Legislative	Governments should pursue higher effectiveness of the existing regulatory framework, with an emphasis on further developing, improving, implementing

	and enforcing secondary legislation, norms and standards, and targeted programmes and policies for GHG reduction.
Institutional	Governments should provide necessary resources to specialised institutions responsible for developing and implementing policies that support investments in GHG reduction projects.

4.2 Specific barriers in Cyprus and Greece

In **Cyprus**, the typical **barriers** in the promotion of climate and energy efficiency projects are summarised below:

- Low awareness, lack of information and scepticism;
- Misunderstanding the concept of an energy efficiency/greenhouse gas emission reduction projects;
- Balance-sheet problems, accounting rules;
- Rules for public procurement are non-supportive;
- Lack of effective support and supplementary support schemes;
- Legal and regulatory frameworks (e.g. in public sector, planning and building permits);
- Lack of motivation and commitment;
- Lack of any tax incentives (e.g. enterprises which take a loan for a GHG reduction project to be excluded from any imposed bank tax obligations, reduction of real estate tax); and
- Capacity building, personal development of bankers; banks need technical expertise to assess energy projects

These are just a few key examples of barriers to finance climate, energy efficiency and/or RES projects. Many additional underlying issues come into play. For example, the lack of attractive financing structures is still one of the biggest hurdles for upscaling energy efficiency projects and therefore, GHG emissions reduction projects. Banks are not encouraging energy efficiency/ greenhouse gas emission reduction and renewable energy projects, for instance, by offering low-cost, readily accessible loans. The governmental support schemes need to be reshaped in order to meet the current market needs, to be supportive and supplementary, to be sector specific and address the problems.

Further, established commercial banks usually assess energy efficiency projects as traditional asset-backed loans. This results in prohibitive collateral requirements and unaffordable loan terms for energy-saving schemes.

Cyprus has a number of registered ESCOs, however, its banks are reluctant to finance efficiency projects using their own resources. National authorities, through the Ministries have constantly emphasised the need to find alternative solutions to spread efficiency in energy-intensive sectors and to achieve national emission targets.

The revenues from the EU-ETS trading system amount to approximately € 30-40 million so far. However, because of the slow and bureaucratic public procedures (e.g. budget ceilings of the Ministries), it is extremely difficult to efficiently use these resources in climate projects or any other financing. The bureaucratic procedures of the Ministries are an important obstacle in taking quick and efficient decisions, especially when it comes to the development and implementation of support schemes.

In addition, the lack of data availability, electronic databases and weak cooperation between governmental departments make the process of examining applications to provide grants, is often too time consuming.

In Cyprus, tax incentives could be introduced, e.g. the exclusion of land tax for those build or renovate buildings beyond the EPBD. However, as this tax is very low in Cyprus it would not act as a true incentive and the effectiveness could be a failure.

When it comes to the banking sector, the interested SMEs seeking investments in such projects come across several problems. The GHG emissions reduction projects, RES and energy efficiency do not receive any specific treatment by the banks, as banks do not develop specific financing models for

energy projects or climate projects and operate on a project basis. These projects are normally examined through the standard procedure of the bank of any loan. If an enterprise is capable to pay off a loan, then they will proceed with financing. Banks lack of technical knowledge and expertise, in order to properly assess ESCO projects and other energy saving projects in SMEs. There are some low interest loans but target the private individuals mainly for domestic PV installation and residential housing renovation.

To determine the feasibility and effectiveness of the implementation of the policies and measures proposed for increasing the number incentives and energy improvements for hotels, it is important to debate certain barriers, which are due to the characteristic of **Greece** and its economic situation. Some of the **barriers** that are identified in **Greece** are:

- The high investment costs for energy improvements/greenhouse gas emissions reduction especially when they refer to full-scale energy renovation; many hoteliers are implementing small-scale energy renovations, usually affordable by their own funds;
- Hospitality is a seasonal sector in for Greece and return on investment (ROI) is not very attractive for energy renovation and greenhouse gas emissions reduction projects. Payback period is a major barrier for such investments, in particular when hoteliers using own funding or not attractive financing options;
- nZEB regulation is not yet completed and there are many (still) technical aspects that need to be regulated;
- Limited energy measurement;
- Limited financial programs specifically for hotels, focusing on GHG reductions and energy management;
- Limited knowledge on energy assessment of hotels and solutions for energy improvements;
- Lack of knowledge for hotel owners – EE investment in building and hotels are not well promoted;
- Limited financial possibilities in line with energy management for the hotel sector from bank institutes; and
- Energy investments are not promoted.

Implementing the **Greece's NECAP** may face challenges. Focusing on technical measures, those usually affect the implementation of technological interventions, which are inevitably accompanied by the mobilisation of investment costs, regardless of who takes up this burden. Therefore, for each policy measure, different combinations of instruments may apply regarding the undertaking of the financial burden (and risk) of investments.

The selection of the most suitable financial mechanisms and instruments, as well as the distribution of the financial burden of each policy measure is directly linked to the success of the implementation of measures in the hotel industry. Therefore, the key planning principles regarding the taking up the financial burden of the various stakeholders is a process still not placed in the centre of energy planning in Greece.

4.3 Opportunities

EU Member states should pursue **higher effectiveness** of the existing **regulatory framework**, with an emphasis on further developing, improving, implementing and enforcing secondary legislation, norms and standards, and targeted programmes and policies for energy efficiency.

Governments should provide necessary resources to specialised institutions responsible for developing and implementing policies that support investments in energy efficiency projects.

Significant efforts are required to **make financial institutions** more aware of energy efficiency/green financing and reduce perception of their high risk. Specific national policies are desirable for this to happen.

As there are no one-size-fits-all solutions, governments should consider their specific circumstances when implementing policies and measures to increase investment in GHG reduction. However, using existing successful experience from other countries can be beneficial by applying best practices and avoiding mistakes.

Price of energy can become an important driver for climate and energy efficiency investment. EU Member states where energy prices do not provide enough incentives for energy efficiency should take this into consideration.

Raising awareness about the multiple benefits of GHG reduction projects can be recommended as one of the most effective measures to increase investment and financing flows in corresponding projects. This may require developing a system of assigning value to non-economic benefits, so that it can be properly considered when making investment decisions.

In the short and medium term, particularly in the countries with economies in **transition, tax incentives and low-interest loans** for GHG reduction projects should be considered as the most appropriate ways to increasing climate and energy efficiency project investment viability.

Governments should consider creating incentives for companies for improving GHG reduction through **appropriate policies**. The hotel sector should consider the implementation of GHG reduction measures as they are able to improve production efficiency and quality, lower cost of production, help demonstrate corporate social responsibility and comply with legislation, and thus ultimately have a positive impact on the core business.

The effective and efficient use of the resources originating from the European Structural and Investment Funds (ESIF) of the European Union is also critical. The effective and efficient use of the resources originating from ESIF is important. Proper use of financial tools will create several good practices in the hotel industry that can easily be extended to many hotel units. Other important factors such as technological know-how, raising awareness are vital to be developed through the appropriate financial instruments to support GHG emissions reduction in the hotel industry.

Another great opportunity is the 2021-2017 Partnership Agreement which is under configuration. SETE's positions for the new programming period on energy efficiency and management, the promotion of renewable energy technologies, improving the use of natural resources with aiming at transitioning to a circular economy are the following:

- Promotion of energy upgrading activities and Tourism Units and the use of alternative forms of energy

Expected Results: Improving energy efficiency and energy footprint (reducing greenhouse gas emissions) of hosting infrastructures, promoting alternative forms of energy, upgrading hospitality infrastructure and increasing their competitiveness.

- Promoting actions to promote the use of renewables in tourist destinations and the development of smart energy systems, networks and equipment.

Expected Results: Improving energy management and self-sufficiency of tourist destinations and exploiting environmentally friendly forms of energy, considering the impact of visual nuisance on natural beauty areas. Upgrading and modernizing outdated distribution networks.

- Promotion of sustainable management of natural resources, solid and liquid wastes (eg small-scale water projects in areas with structural or seasonal shortages, eg Crete, South Aegean islands, incentives to businesses to adopt modern management systems) water and waste, promoting good practices such as sorting solid waste at source).

Expected Results: Improved water resources management and meeting the increased needs of increased traffic destinations, strengthening the circular economy and protecting the environment

- Promoting actions to evaluate, monitor and implement sustainable management of tourism destinations (adoption of quantitative indicator systems e.g. European Tourism Indicator System (ETIS), development of Regional / Local Sustainable Tourism Observatories)

Expected Results: Promote sustainable management of tourism destinations and tourist flows by improving monitoring and control mechanisms, strengthening Regional tourism markets and balanced tourism development.

- Promotion of actions for certification schemes of natural resources management and implementation of sustainability practices by Tourism Enterprises and Tourism Destinations

Expected Results: Upgrading tourism businesses, enhancing the value added of the tourism product offered, promoting sustainable tourism and environmentally friendly business practices.

5 Recommendations for financing models and instruments for the Cypriot and Greek context

- Raising awareness campaigns targeted to the hotel industry. The campaigns should be strategically planned to reach a target audience and to communicate the specific issues tailored to hoteliers' group.
- Capacity building e.g. through trainings, toolkits, knowledge-hubs for hoteliers to learn how to assess energy consumption and identify appropriate GHG reduction measures.
- Reduced interest rates through well designed financial instruments and/or targeted grant schemes for energy efficiency investments and GHG reduction projects. Financing models should be complemented by technical assistance components. to not only provide the funds but also ensure that capacities are built in the hotels,
- Generous incentives for the promotion of energy audits directly linked with materialisation of investments.
- Tax incentives e.g. reduced occupancy tax to hotels that implement GHG reduction measures.
- Promotion/subsidisation of certificates that verify the green policies of hotels and other award schemes. This can also provide an additional incentive, especially important for marketing activities of hotels.
- Design of instruments targeted to small hotels. Aggregation of SMEs can reduce risk for investors for renovation financing; possibility for small hotels to pool savings to achieve critical mass and standardise portfolio risk.

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