

IMPACT ASSESSMENT OF THE CYPRUS INTEGRATED NATIONAL ENERGY AND CLIMATE PLAN

**Project funded by the European Commission's
Structural Reform Support Service**

Service Contract No. SRSS/C2018/070

Deliverable 3:

**Policies and measures (and relevant data) to be taken
into consideration in the Impact Assessment**

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CONTENTS

| | Page |
|--|------|
| Abbreviations | 3 |
| 1. Introduction | 4 |
| 2. List of Policies and Measures | 4 |
| 3. Data for the Policies and Measures | 10 |
| APPENDIX: Detailed Information about Policies and Measures | 11 |
| A.1. Dimension Decarbonisation | 11 |
| A.1.1. Greenhouse Gas Emissions and Removals | 11 |
| A.1.2. Renewable Energy | 12 |
| A.1.3. Other elements of decarbonisation dimension | 18 |
| A.2. Dimension Energy Efficiency | 19 |
| A.3. Dimension Energy Security | 35 |
| A.4. Dimension Internal Energy Market | 38 |

Abbreviations

| | |
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| CUT | Cyprus University of Technology |
| CyI | The Cyprus Institute |
| ETS | EU Emissions Trading System |
| GHG | Greenhouse gases |
| MARDE | Ministry of Agriculture, Rural Development and Environment of Cyprus |
| MECI | Ministry of Energy, Commerce and Industry of Cyprus |
| MOF | Ministry of Finance of Cyprus |
| MTCW | Ministry of Transport, Communications and Works of Cyprus |
| NECP | National Energy and Climate Plan |
| PWD | Public Works Department of the Ministry of Transport, Communications and Works |
| SRSS | European Commission's Structural Reform Support Service |
| UCy | University of Cyprus |

1. Introduction

According to the Tender Specifications of the Service Contract on the “Impact assessment of the Cyprus Integrated National Energy and Climate Plan”, after completion of the Inception Report (included in Deliverable 1), Task 2 should focus on the Policies and Measures to be assessed in the study. In this Task, the project team will (a) identify planned and proposed policies and measures (Sub-Task 2.1) and (b) suggest the methodological approach for the impact assessment (Sub-Task 2.2).

This report (Deliverable 3) summarizes the work performed under Sub-Task 2.1 (Planned and proposed policies and measures to be taken into consideration). Along with Deliverable 4, it was presented – in its draft version – to national authorities at a special workshop on 9 July 2019 which was held at MECI with the aim to finalize both deliverables. The minutes of this workshop are provided in Deliverable 4.

According to the Tender Specifications, policies and measures to be considered for the impact assessment focus on the following dimensions:

1. Dimension Decarbonisation:

- GHG emissions and removals (for the plan covering the period from 2021 to 2050, including the 2030 target)
- Renewable energy (2030 target)
- Other elements

2. Dimension Energy Efficiency (2030 Framework target)

3. Dimension Energy Security

4. Dimension Internal energy market:

- Energy transmission infrastructure
- Market integration
- Energy Poverty

5. Dimension Research, innovation and competitiveness

2. List of policies and measures

The project team has analysed the energy scenarios for the period 2019-2050 that have been considered in previous studies carried out for national authorities. Most importantly, the project team reviewed the list of policies and measures which were adopted in the two scenarios that were included in the draft NECP submitted by Cypriot authorities to the European Commission in January 2019.

This list was confirmed and slightly updated after communication of the project team with national authorities (MARDE and MECI) in April and May 2019. The following sections provide a list of these measures for each one of the dimensions of the energy Union mentioned above.

Following the workshop on 9 July, MARDE collected a final list of all policies and measures as they were submitted to MARDE by national authorities by 29 July 2019. This Deliverable contains this final list of policies and measures, which is the list that was agreed upon by the competent national authorities (MARDE, MECI, MTCW, MOF).

A concise list of these measures is provided in the following pages. For policies and measures whose ‘status of implementation’ is declared as ‘adopted’ or ‘implemented’, this means that they are included in the scenario ‘With Existing Measures’ of the NECP and will therefore be considered in the impact assessment of this scenario.

Policies and measures whose ‘status of implementation’ is declared as ‘planned’ have been included, as a rule, in the scenario ‘With Planned Policies and Measures’. Finally, policies declared as ‘provisional’ or without a declared ‘status of implementation’ will be considered as ‘Planned Policies and Measures’ only if agreed with national authorities; this is expected to be decided after the completion of the public consultation on the Impact Assessment, which is expected to take place throughout October 2019.

RES: Renewable Energy Sources; EE: Energy Efficiency; WST: Waste management; AGR: Agriculture; IEM: Internal energy market; SEC: Energy Security; TRA: Transport; R&I: research, innovation and competitiveness

| WITH EXISTING MEASURES | | | | WITH PLANNED POLICIES AND MEASURES | | | |
|------------------------|--|-------------|--|------------------------------------|--|-------------|---|
| ADOPTED | | IMPLEMENTED | | PLANNED | | PROVISIONAL | |
| RES | Support scheme for the production of electricity from renewable energy sources for own use Category A:Net-metering | RES | Support scheme for the production of electricity from RES-Feed-in Tariffs for RES installations | RES | Support scheme for the installation of net-metering photovoltaic systems with capacity up to 20KW, in public schools buildings. | RES | Framework for Repowering of existing RES systems |
| RES | Support scheme for the production of electricity from renewable energy sources for own use Category A:Net-billing | RES | Support scheme for the promotion of renewable energy sources and energy saving | RES | Support scheme for storage units | RES | Support Scheme for RES in order to promote innovation and reduce CO2 |
| RES | Self-consumption of electricity from renewable energy sources | RES | Thermal Conductivity MAP and Ground Temperatures up to 100m depths using neural networks | RES | District heating and cooling based on RDF fired cogeneration technologies in tourist areas and rural areas | RES | Statistical Transfer Study and taking advantage of Union Development Platform (Article 8.2) |
| RES | Stand alone RES systems | RES | Map for Water Depth around the island for offshore wind parks. Preliminary study contacted for wind speeds around the island | RES | Subject to Electricity Interconnection open support schemes for other MS | RES | Energy Storage, Further analysis for both behind the meter and central storage for further Penetration of RES (Vehicle to Grid option and smart charging) |
| RES | Installation of net-metering PV systems in houses of vulnerable consumers | EE | Support Scheme for promoting energy audits in SMEs | RES | Develop a political and technical framework for one stop shop procedure for RES projects | RES | Contact Surveys to measure the existing heat pumps Performance and provide incentives for reporting the replacement of old heat-pumps |
| RES | Support scheme for the installation or replacement of solar water heaters in households | EE | Grant Scheme for promoting roof thermal insulation and encouraging the use of RES (end use) in the residential sector | RES | Create a financing mechanism in the sense of soft green loans to support further the RES developments in household section | RES | 70% RES on all new buildings from on net annual consumption |
| RES | Rural development programme 2014-2020 of the Ministry of Agriculture, Rural Development and Environment. | EE | Minimum energy performance requirements for new and existing buildings, requirements for technical building systems installed in existing buildings, inspections for heating systems and a/c systems | RES | Renewable Energy Communities, develop framework and incentive mechanisms | RES | Incentive Scheme for process heat RES Systems (CSP) to heavy industrial process |
| RES | Support scheme for the installation of RES systems that will operate in the competitive electricity market | EE | Support scheme encouraging the use of RES (end use) in the residential, tertiary, industry and agriculture sector (primary consumption energy savings) | RES | Improve forecasting modelling tool for Weather to Energy production using Real Time Satellite measurements and Real time output measurements from the RES plants. Correlation between PV and Wind on forecasting errors | RES | Conduct studies by Wind Association for offshore floating Wind Parks in Cyprus Exclusive economic zone |
| RES | Incentives for encouraging the use of RES in different types of developments. | EE | Energy efficiency obligations in public purchases and national green public procurement action plan. | RES | Virtual netmetering for multiapartment buildings and for Buildings that they do not have enough space for installing on premises the required PV System | RES | Hybrid GAS turbine with CSP and natural GAS or diesel with storage option |
| RES | Certification of small-scale RES system installers | EE | Implementation of measures aimed at attaining energy savings in existing public buildings (annual obligation) | RES | Renewable Cooling Measures - Vapour compression cooling systems, Single Split Devices, Multi Split Devices, Reversible heat Pumps, Photovoltaic Cooling, etc based on minimum requirements on efficiency of the cooling system (By 31 December 2021, the Commission shall adopt delegated acts in accordance with Article 35 to supplement this Directive by establishing a methodology for calculating the quantity of renewable energy used for cooling and district cooling and to amend Annex VII.) | EE | Efficient district heating and cooling based upon RDF fired cogeneration technologies in tourist areas (primary energy savings) |

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|-----|---|----|--|-----|--|-----|---|--|--|
| RES | Research and innovation programs in the sector of RES | EE | RES& EE fee applied on electricity consumption. | RES | Create a framework for water to air and ground to air open loop geothermal systems based on technical potential available | EE | Introduction of enviromental fees for the use of the road network | | |
| RES | Renewable Energy Communities | EE | Motor vehicle taxes based on CO2 emmissions. | EE | Uptake of energy performance procurement in public sector by removing procurement hurdles | R&I | European Structural and Investment Funds in the new Programming Period 2021 – 2027 | | |
| RES | 25% RES in new Buildings | EE | Integrated Fleet Management System (Central Government vehicles) | EE | Removing barriers that impede the uptake of energy performance contracting and the implementation of energy efficiency investments in general | R&I | Increase of the annual spending in research and innovation related to energy and climate in order to reach an average of 15m Euros per year | | |
| RES | Create localised tools for selecting the appropriate PV size and scheme | EE | Technical guidance promotion of NZEB and electronic tool kit for consumers | EE | Energy efficiency in defence and water sector | R&I | Contact surveys and methodology (or simple onlinde software tools) for tracking down the various white appliances that are directly related with the RES technologies | | |
| EE | Energy efficiency Obligation scheme | EE | Energy taxes in road trasport fuels | EE | Fiscally neutral green tax reform by increasing environmental taxes while reducing labor taxation | TRA | Increase the use of cars that have low or no GHG emissions | | |
| EE | Financing tool providing soft loans for energy efficiency investments | EE | Financing measures for energy efficiency in existing hotels and agricultural sector | EE | Scheme to subsidize realised CO2 emission reductions for companies that participate to the Energy efficiency network | | | | |
| EE | Solar water heater replacement scheme | EE | Energy efficiency network with voluntary agreements of businesses to reduce their energy consumption | EE | Preparation of the corridor and future development of a tram infrastructure | | | | |
| EE | Increase of energy efficiency in electricity generation due to the increase of efficiency and the switching of the fuel to natural gas (primary consumption energy savings) | EE | Applying a lower VAT rate for the renovation and repair of private dwellings. | EE | Additional floor space "allowance" for new and rennovated buildings with higher energy efficiency than minimun energy performance requirements -Revision | | | | |
| EE | Financing tools for energy efficiency investment using European Structural and Investment Funds in the new Programming Period 2021 – 2027 | EE | Net billing Scheme for high efficiency cogeneration (HECHP) | IND | Preparation of the proper recovery system for F-gases in equipment | | | | |
| EE | Individual energy efficiency interventions and energy efficiency retrofits in selected governmental and municipal buildings | EE | Pilot projects for installing high efficiency cogeneration in public buildings | WST | Reduction of waste to solid waste disposal sites from sorting at production level | | | | |
| EE | Energy efficient street lighting | EE | Energy efficiency in electricity infrastructure by upgrading the medium nominal voltage of 11kV to 22kV in selected areas. | WST | Reduction of organics to landfills | | | | |
| EE | Sustainable Urban Mobility Plans (Increasing the share of cycle, pedestrian and PT trips, increase use of busses) | EE | "Park and drive stations" for the use of public busses instead of private cars | WST | Promotion of anaerobic digestion for the treatment of the organic fraction of the municipal solid waste | | | | |
| EE | Targeted awareness raising actions for energy efficiency | EE | Grant schemes for promoting deep renovation in residential and commercial buildings | WST | Biogas recovery from old sold waste disposal sites (deep unmanaged) | | | | |
| EE | Smart meters roll out | EE | Obligatory energy audits in non-SMEs | IEM | Regulatory Decision on Storage Systems that are installed before the metering point. | | | | |

| | | | | | | | | | |
|-----|---|-----|---|-----|--|--|--|--|--|
| EE | Use of buses that have low or no GHG emissions | EE | Effective market surveillance for energy labeling of energy related products, tyres and eco design. | IEM | Amend the national law to enable operation of the electricity market and make the Market Operator/TSO independent from the vertically integrated electricity company | | | | |
| EE | Installation of public electric car charging stations | EE | Capacity building, targeted trainings, information workshops and events, promotion of energy managers in public buildings and enterprises | IEM | Amend Trade and Settlement Rules and Transmission and Distribution Rules to allow for Demand Response in the market according to Art. 15(8) Directive 2012/27/EU | | | | |
| EE | Minimum energy performance requirements for new and existing buildings, requirements for technical building systems installed in existing buildings, inspections for heating systems and a/c systems-revised | EE | Use of telematic system for public busses | TRA | Increase the use of buses that have low or no GHG emissions | | | | |
| SEC | Ministerial Decision 77.286 on 16/11/2014 for the establishment of the New Energy and Industrial Area of Vasilikos | EE | Additional floor space "allowance" for new and renovated buildings with higher energy efficiency than minimum energy performance requirements | TRA | Increasing the share of cycle, pedestrian and PT trips | | | | |
| SEC | Ministerial Decision 77.286 on 16/11/2014 for concession to the KODAP suitable land in the Vasilikos area for the construction of privately owned oil terminal storage | EE | | TRA | Enhance planting of trees | | | | |
| IEM | Electricity Interconnectivity of Cyprus | EE | | R&I | Financing tool for energy efficiency investment | | | | |
| IEM | Cyprus TSO Ten Year Network Development Plan 2019-2028 according to Article 63 of the Laws for the Regulation of the Electricity Market from 2003 to 2017. | SEC | Tender announcement for the LNG Import Terminal. | R&I | Support schemes to promote energy efficiency investments in agricultural sector | | | | |
| IEM | Regulatory Decision 05/2017 on the Implementation of a Binding Schedule for the Full Implementation and Operation by the DSO of the Meter Data Management System (MDMS). | SEC | Ministerial Decision ΚΔΠ 212/2014 for holding of emergency oil stocks equivalent to 90 days of net imports of petroleum products. | R&I | Fiscally neutral green tax reform by increasing environmental taxes while reducing labor taxation | | | | |
| IEM | Regulatory Decision 02/2018 on the Implementation of a Binding Schedule for the Mass Installation and Operation by the DSO of Advanced Metering Infrastructure (AMI). | SEC | Ministerial Decision 84.952 on 14/5/2018 for the Signing of a Memorandum of Understanding and Agreement between the Government of the Republic of Cyprus and the Companies Marketing Petroleum Products, namely BP Eastern Mediterranean Ltd, ExxonMobil Cyprus Ltd, Hellenic Petroleum Cyprus Ltd, Intergaz Ltd, Petrolina (Holdings) Public Ltd and Synergaz Ltd for the relocation of petroleum and liquefied petroleum gas installations from the Larnaca coastline to the Vasilikos area | AGR | Further promotion of anaerobic digestion for the treatment of animal waste | | | | |
| IEM | Ministerial decision that dedicates MECI as National Competent Authority (NCA). One of NCAs' obligations according to EU Regulation 347/2013/EC is to achieve real priority status for PCIs in public sector. | SEC | 1. Single Action Plan for the restoration of the electrical system after power blackout, 2. Setting certain Quality of Electricity Supply Indicators | | | | | | |

| | | | | | | | | | |
|-----|--|-----|---|--|--|--|--|--|--|
| IEM | Ministerial decision that dedicates MECI as NCA. Transparency and public participation is an obligation for NCA according to EU Regulation 347/2013/EC. | IEM | MoU between the countries of Cyprus, Greece, Israel and Italy (05/12/2017, Nicosia). | | | | | | |
| IEM | Ministerial decision that dedicates MECI as NCA. The development of the One-Stop Shop 4Energy PCIs is an obligation for NCA according to EU Regulation 347/2013/EC. | IEM | Ministerial Order (no. K.D.P. 289/2015) regarding the energy poverty, the categories of vulnerable customers of electricity and the measures to be taken to protect such customers. | | | | | | |
| IEM | Ministerial decision that dedicates MECI as NCA. According to EU Regulation 347/2013/EC the NCA shall publish a manual of procedures for the permit granting process applicable to projects of Common Interest | TRA | Increasing the share of cycle, pedestrian and PT trips | | | | | | |
| IEM | Ministerial decision that dedicates MECI as NCA. Cross Border collaboration with other EU Member States and Third Countries is an obligation for NCA according to EU Regulation 347/2013/EC. | TRA | Motor vehicle taxes based on CO2 emissions. | | | | | | |
| IEM | Financial assistance of PCIs according to chapter V, article 14 of the EC Regulation 347/2013 | TRA | Revised motor vehicle taxes based on CO2 emissions. | | | | | | |
| IEM | Regulatory Decision 01/2017 on the Implementation of a Binding Schedule for the Full Commercial Operation of the New Electricity Market Model. | TRA | Integrated Fleet Management System (Central Government vehicles) | | | | | | |
| TRA | Installation of public charging stations | TRA | Replacement of the conventional transport fuels with biofuels | | | | | | |
| R&I | Energy efficiency network with voluntary agreements of businesses to reduce their energy consumption | R&I | RESTART 2016 - 2020 | | | | | | |
| | | R&I | Grant Scheme to Enhance Business Innovation | | | | | | |
| | | R&I | European Territorial Cooperation Programs - INTERREG | | | | | | |
| | | R&I | Climate-KIC | | | | | | |
| | | R&I | Horizon 2020 | | | | | | |
| | | R&I | LIFE | | | | | | |
| | | AGR | Promotion of anaerobic digestion for the treatment of animal waste | | | | | | |

3. Data for the Policies and Measures

The above list of policies and measures comes from the comprehensive list provided by Cypriot authorities to the European Commission in the frame of the draft NECP. The corresponding tables from which this information was obtained contain detailed data about

- Quantified objectives of each policy and measure
- The kind of greenhouse gases affected
- The budget of each measure
- Web references to the relevant studies or technical reports underlying each measure.

In agreement with the Tender Specifications of the project, these data comprise the ‘wish list’ of available data which the project team will use in the Impact Assessment. This information has been discussed with national authorities in view of potential updates that may have occurred since the submission of the draft NECP in January 2019, and is now ready to be utilised for the Impact Assessment. The detailed information is presented in the Appendix.

APPENDIX: DETAILED INFORMATION ABOUT POLICIES AND MEASURES

A1. Dimension Decarbonisation

A.1.1. Greenhouse gas emissions and removals

| Name of policy or measure | Quantified objective | Short description (precise scope and modalities of operation) | Sector(s) affected | Status of implementation | Implementation period |
|---|---|--|--------------------|--------------------------|-----------------------|
| Preparation of the proper recovery system for F-gases in equipment | WEM: start from 2020; 5% reduction of emissions 2030; 10% by 2040 WAM: 5% reduction of emissions 2020; 10% reduction of emissions 2030; 15% by 2040 | Preparation of the proper recovery system for F-gases in equipment; This is an obligation according to EU and national legislation. It is however still not properly implemented. WEM considers that the necessary implementing measures will be taken so that in 2020 proper recovery of F-gases in old equipment is performed. | F-gases | Planned | 2020- |
| Promotion of anaerobic digestion for the treatment of animal waste | WEM: cattle +0.5% annually; swine 75% 2040; sheep & goats 10% in 2040 from 2020; poultry 75% 2040 WAM: cattle +0.75% annually; swine 80% 2040; sheep & goats 20% in 2040 from 2020; poultry 80% 2040 | Further promotion of anaerobic digestion for the treatment and management of animal waste; Promotion of anaerobic digestion in existing biogas plants; Encouragement of new biogas plants to exploit organic waste from livestock breeding | Agriculture | Implemented | ongoing |
| Reduction of waste to solid waste disposal sites from sorting at production level | WEM&WAM: 40% sorting at source from 2021; 55% 2025; 60% 2030; 65% 2035 | Implementation of measures to increase sorting of municipal solid waste at the source; This will be achieved by reorganization of the currently implemented Municipal Waste Collection Scheme; waste will be separately collected with the goal to reduce the amounts of waste going to landfills. | Waste | Planned | 2021- |
| Reduction of organics to landfills | WEM&WAM: 15% of organics to landfill from 2021; 10% in 2035 | Implementation of measures to avoid disposal of organic municipal solid waste in disposal sites/landfills; According to the waste management hierarchy, landfilling is the least preferable option and should be limited to the necessary minimum and this is encouraged by the relevant national and EU legislation. This is an obligation and measures should be taken for its implementation. | Waste | Planned | 2021- |
| Promotion of anaerobic digestion for the treatment of the organic fraction of the municipal solid waste | WEM: from 2021 10% constant WAM: from 10% 2021 -> 40% 2035 | Implementation of measures to promote the use of anaerobic digestion for the management of organic municipal solid waste; Anaerobic digestion will be further exploited to treat the organic waste that will be diverted from the landfill. | Waste | Planned | 2021- |
| Biogas recovery from old solid waste disposal sites (deep unmanaged) | WEM: 20% reduction of emissions from deep unmanaged WAM: 30% reduction of emissions from deep unmanaged | Biogas recovery from deep unmanaged and managed anaerobic disposal sites; Part of the contracts for the recovery of old and currently operating landfills is biogas recovery. However, it is not possible to collect biogas from all landfills; the conservative collection rate of 20% has been chosen from deep unmanaged. | Waste | Planned | 2020- |

A.1.2. Renewable energy

| Name of policy or measure | Short description (precise scope and modalities of operation) | Sector(s) affected | Status of implementation | Implementation period |
|---|---|--|--------------------------|-----------------------|
| Support scheme for the production of electricity from renewable energy sources for own use Category A:Net-metering | The implementation of the measure started in 2013 as national policy to promote RES electricity. Currently the Net-metering category is applied for small scale photovoltaic systems with capacity up to 10KW, for all consumers (residential and non-residential).The scope of the net-metering is to provide the option to residential and small commercial consumers to cover all or part of their electricity consumption from a PV.The generated RES electricity is subtracted from building's electricity consumption. Consumers pay only for the difference between the energy consumed and energy produced (net electricity used) plus a cost that reflects the cost of the electricity grid to support continuous supply and taxes (VAT, RES levy). | Energy supply: electricity production Energy consumption : electricity in all end users (households, services, industry, agriculture) | Adopted | 2013 |
| Support scheme for the production of electricity from renewable energy sources for own use Category A:Net-billing | The implementation of the measure started in 2018 as national policy to promote RES electricity and reduce the cost of electricity in the commercial and industrial consumers. Currently the Net-billing is applied for RES installation with power 10kW to 10MW of commercial - industrial entities. .The scope of the measure is to provide an option to medium and large scale electricity consumers to cover all or part of their electricity consumption from RES.The generated RES electricity that is not self-consumed is credit to the consumer in the respective purchase price of electricity from RES and that amount is subtracted from the cost of the electricity bough from the grid. Fees that reflects the cost of the grid to support continuous supply and taxes (VAT, RES levy) are applied. | Energy supply: electricity production Energy consumption : electricity in commercial users | Adopted | 2018 |

| | | | | |
|---|---|---|---------|------|
| Self-consumption of electricity from renewable energy sources | Self-consumption of RES electricity was introduced in 2013 in the Support scheme for the production of electricity from renewable energy sources for own use. In 2018 the net-billing category was introduced as an alternative option to self-consumption. Self consumption is applied to all commercial and industrial consumers. It cover the installation of RES systems with power 10kW to 10MW. The scope of the measure is to provide an option to medium and large scale electricity consumers to cover all or part of their electricity consumption from RES. In this cause the consumer get no credit for the generated RES electricity that is not self-consumed. Fees that reflects the cost of the grid to support continuous supply and taxes (VAT, RES levy) are applied. Based on the Governmental Regulation and the amendments of RED II Directive after 2020 no fees may applied to the self-consumed electricity. After 2025 the existing net-metering and net-billing scheme will stop and only self-consumption may applied. | Energy supply: electricity production Energy consumption : electricity in commercial users | Adopted | 2013 |
| Stand alone RES systems | A support scheme for the installation of Stand-alone PV and small wind generators was in operation from 2004. Until 2013 a grand was provided for such installations. Currently stand alone PV and biomass/biogas installations can by used from all consumers. The capacity of the system is based on the annual electricity consumption of the user. | Energy supply: electricity production Energy consumption : electricity in commercial users | Adopted | 2004 |
| Installation of net-metering PV systems in houses of vulnerable consumers | Financial support of €900 per installed kW, with maximum grand amount €2700, is given for the installation of net-metering PV systems in houses of vulnerable consumers (families with low income, disability persons etc.). | Energy supply: electricity production Energy consumption : electricity in houses of vulnerable consumers | Adopted | 2013 |

| | | | | |
|---|---|---|-------------|-----------|
| Support scheme for the production of electricity from RES-Feed-in Tariffs for RES installations | The operation of the FIT scheme started in 2004 as a national policy to get both environmental benefits and introduce the use of RES in electricity. the scheme provide a fixed selling price for each RES technology for a period of 15 or 20 years. RES feed-in tariffs was in dependence of RES type and unit capacity and was calculated for an internal return rate of 12%. In 2013 the selling price of the electricity from large scale photovoltaic parks (with total capacity 50MW) was set after a tender. The measure stop in 2013. Currently only existing plants may receive the feed-in tariff. | Energy supply: electricity production | Implemented | 2004-2013 |
| Support scheme for the installation of net-metering photovoltaic systems with capacity up to 20KW, in public schools buildings. | The measure provides the regulatory framework for the installation of 4.2 MW of photovoltaic systems in 428 public schools. The PV system will operate under the net-metering schema. Each PV system will have a power up to 20kW. The roof tops were PV will be installed will be thermally insulated. | Energy supply: electricity production Energy consumption : electricity in public buildings | Planned | 2018 |
| Support scheme for the installation or replacement of solar water heaters in households | The measure provides a grand of €350 for the installation of a solar water heater and a grand of €175 for the installation/replacement of solar panels. The measure is in operation since 2004. | Energy consumption : heating in households | Adopted | 2004 |
| Support scheme for the promotion of renewable energy sources and energy saving | The measure was in operation from 2004 until 2013. Through the support scheme financial support was provided for the installation of solar water heater, solar space heating systems, geothermal systems and biomass heaters in residential and non-residential buildings. In 2015 operated the scheme 'Save & Upgrade' scheme for residential buildings and for enterprises, which provide financial support for the same installations | Energy consumption | Implemented | 2004-2013 |

| | | | | |
|--|--|--|---------|------|
| Rural development programme 2014-2020 of the Ministry of Agriculture, Rural Development and Environment. | Subsidy is granted under the scheme for actions that involve purchasing and installing PV systems used to generate energy for own use in agricultural holdings/enterprises. Subsidy is also granted for purchasing energy storage systems. | Energy consumption Agriculture | Adopted | 2016 |
| Support scheme for the installation of RES systems that will operate in the competitive electricity market | The Scheme covers the installation of commercial plants producing electricity from Renewable Energy Sources (RES) that will participate in the competitive electricity market (expected to be operational in 2021). Up to one year after the operation of the competitive electricity market, the produced electricity from RES will be sold to the Electricity Authority of Cyprus at the respective purchase price of electricity from RES (avoidance cost). The scheme allows the installation of commercial PV systems, wind parks, solar concentrated station, and biomass/biogas stations and wave energy systems. The Scheme opens for calls in 2016 and 2017 (until the end of April 2018). In the last call applications were submitted for a total capacity of 392MW, mainly for G11photovoltaic parks. (12.5MW wind park, 379 MW photovoltaic systems, 2.2MW biomass system)The first 120 MW have already been licensed. In the end of 2018 with a re-announcement of the Scheme, approvals will be given for more projects. | Energy supply: electricity production | Adopted | 2016 |
| Incentives for encouraging the use of RES in different types of developments. | On 17 November 2014, the Minister for Interior issued an order under Article 6 of the Town and Country Planning Act setting out incentives and/or requirements for encouraging the use of RES in different types of developments. The order aims to create the conditions for encouraging natural and legal persons to produce energy from RES and concerns different types of developments. The incentive granted consists in increasing the building permit ratio, or in some cases the use of RES is a requirement for applicability of other incentives under the development plans. | Energy consumption | Adopted | 2014 |

| | | | | |
|---|---|--|---------|------|
| Support scheme for storage units | Support scheme for the installation of electricity storage units in national grid that will allow the further penetration of RES | Energy supply: electricity production | Planned | 2019 |
| Certification of small-scale RES system installers | From 2015 a certification scheme is available for installers of small scale (up to 30kw) biomass boilers and stoves, photovoltaic systems, solar thermal system, shallow geothermal systems and heat pumps. The candidates after the completion of their training and a success in a theoretical and practical examination can be registered in a registry of certified installers of RES systems of the Ministry of Energy, Commerce, Industry and Tourism | Other sectors: Training, Information | Adopted | 2015 |
| Renewable Energy Communities | Implementation of an enabling framework to promote and facilitate the development of Renewable Energy Communities | Energy supply: electricity production Energy consumption : electricity in households and commercial users | Planned | 2020 |
| Research and innovation programs in the sector of RES | Participation in various Research programs regarding the implementation of CSP units, solar desalination, production of hydrogen from RES | Energy supply, energy consumption transport | Adopted | 2018 |

| | | | | |
|---|--|---|-------------|-----------|
| Framework for Repowering of existing RES systems | | Electricity production | Provisional | |
| Support Scheme for RES in order to promote innovation and reduce CO2 | NER300 Scheme, 2 CSP projects were financed and 1 Project with Smart Grid and Storage | Electricity production | Provisional | 2021-2022 |
| Renewable Energy Communities | Installation of PV Systems in Public Schools up to 20kW with Net-metering | Electricity production | Adopted | 2019-2021 |
| Renewable Energy Communities | Installation of PV Systems in Governmental buildings with the net-billing scheme. | Electricity production | Planned | 2019-2030 |
| Improve forecasting modelling tool for Weather to Energy production | The model will combine existing studies along with existing tools and forecasting models, in order to further improve the day to day operation for the System Operator | Energy Efficiency , Renewables, Security of supply, Internal Energy Market, Competitiveness | Planned | 2019-2021 |
| Create localised tools for selecting the appropriate PV size and scheme | | Energy Efficiency , Renewables, Competitiveness | | |
| Statistical Transfer Study | | Renewable Targets | | |
| Energy Storage, Further analysis for both behind the meter and central storage for further Penetration of RES | | | | |
| Virtual net metering | Extend net-metering scheme, in order to give the opportunity to both hotels and multi-apartment buildings to install a PV system with net-billing scheme (since no space is available) | | | |

A.1.3. Other elements of decarbonisation dimension

| Name of policy or measure | Short description (precise scope and modalities of operation) | Sector(s) affected | Status of implementation | Implementation period |
|---|--|------------------------------------|--------------------------|-----------------------|
| Enhance planting of trees | Planting trees: a) along streets; b) forest and arid areas; c) along road corridors . 1 million trees expected to be planted every year. | Forestry and land use, Air Quality | Planned | now- 2030 |
| Revised motor vehicle taxes based on CO2 emissions. | An amendment of the Motor Vehicles and Road Traffic Law in order to revise the vehicle taxes and annual circulation fees, as a measure to promote low emission vehicle including ZLEVs has been prepared. The proposed legislation was submitted to the House of Representatives for voting. | Transport, Air Quality | Implemented | 2019- |
| Replacement of the conventional transport fuels with biofuels | According to the relevant decree, the suppliers of transport fuels (petrol and diesel) are obliged to blend biofuels to conventional transport fuels in order to achieve a certain target, which is percentage of biofuels to whole annual sales of petrol and diesel, in energy content. | Transport, Air Quality | Implemented | 2008-2030 |

A.2. Dimension Energy Efficiency

| Name of policy or measure | Short description (precise scope and modalities of operation) | Sector(s) affected | Status of implementation | Implementation period |
|---|---|--|--------------------------|-----------------------|
| Support Scheme for promoting energy audits and energy management schemes in SMEs | The scope is to encourage SMEs to perform energy audits. Launching year is 2019. Target group is SMEs. It will provide financial support to cover part of the cost of the energy audit. Financial Support for energy management systems to be considered after 2019. The PAM will be implemented by the National Government. Source of financing: National funds | Agriculture, Industry, Service SME | Adopted | 2019-2030 |
| Fiscally neutral green tax reform by increasing environmental taxes while reducing labor taxation | The Government is examining a fiscally neutral green tax reform, which can significantly contribute towards transition to an economically and environmentally sustainable development. A gradual implementation of environmental taxes to sectors (that are not subject to the EU Emissions Trading System) and at the same time the reduction of other expenses related e.g. to labor cost, is expected to lead to energy savings and will notably reduce the energy dependency of Cyprus. | Agriculture, Industry, Service, Transport, Households, Energy supply | Provisional | 2019-2030 |
| Financing tool for energy efficiency investment | The European Structural and Investment Funds in the new Programming Period 2020 – 2026, under the "Greener low carbon Europe" thematic priority, will include actions to promote energy efficiency and the use of renewable energy sources. | Agriculture, Industry, Service SME Public sector Households | Planned | 2019-2031 |
| Financing tool providing soft loans for energy efficiency investments | The scope is to provide soft loan to cover the capital cost for implementing energy efficiency investments. Launching year is 2019 (estimated). Target group is households, SMEs and public sector. It will provide low interest loans. The PAM will be implemented by the National Government and local banks. Source of financing: European and Structural funds | Agriculture, Industry, Service SME Public sector Households | Adopted | 2019-2023 |
| Energy efficiency Obligation scheme | Under the obligation schemes, energy suppliers must save a certain annual rate of their energy sales with additional energy efficiency projects. The obligation schemes will play a major role in helping to fulfil part of the mandatory target and is directly and indirectly linked with the achievement of primary energy saving target, RES and CO2 targets up to 2030. | Agriculture, Industry, Service, Transport, Households | Planned | 2019-2030 |

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| Support Scheme for promoting roof thermal insulation | The scope is to encourage households to implement the measure. It will provide financial support to cover part of the cost of the investment (possibility to combine with installation of net metering photovoltaics). The PAM will be implemented by the National Government. Source of financing: National funds | Households | Adopted | 2018-2020 |
| Support scheme for the installation of solar hot water systems | The measure will provide financial support to cover part of the cost of the investment. The PAM will be implemented by the National Government. Source of financing: National funds | Households | Adopted | 2017-2019 |
| Support schemes to promote energy efficiency investments in agricultural sector | The measure will provide financial support to cover part of the cost of the investment and/or the energy audit. The PAM will be implemented by the National Government. | Agriculture Greenhouses and livestock units | Planned | 2021-2030 |
| Energy efficiency network with voluntary agreements of businesses to reduce their energy consumption | Voluntary commitment from businesses to reduce their emissions by more than 8% by 2030. It includes specific commitment for improving their energy efficiency. The PAM will be implemented by Cyprus Employers & Industrialists Federation, Cyprus Energy Agency and the National Government. | Agriculture, Industry, Service | Adopted | 2018-2030 |
| Additional floor space “allowance” for new buildings: incentive for new buildings with higher energy efficiency than EPBD requirements | Ministry of Energy, Commerce, Industry and Tourism and Department of Spatial Planning and Housing working together to revise the existing requirements that qualify a building to receive an extra 5% building factor. These requirements are examined to go beyond requirements for NZEB at least for new buildings. | Agriculture, Industry, Service, Households Buildings | Planned | 2020 onwards |
| uptake of energy efficiency services in public sector by removing procurement hurdles | templates and standard procedures for energy performance procurement in public sector will be prepared and disseminated to all public authorities. The PAM will be implemented by the National Government. | Service (Public Sector) | Planned | 2019-2030 |

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| capacity building, targeted trainings, information workshops and events for removing barriers that impede the uptake of energy performance contracting and the implementation of energy efficiency investments in general | targeted training and other events to be provided to selected target groups, involved in energy efficiency (implementation and financing). The PAM will be implemented by the National Government in cooperation with other parties/agencies/organizations. | Agriculture, Industry, Service, Transport, Households, Energy supply | Provisional | 2021-2030 |
| targeted awareness raising actions for energy efficiency | energy efficiency awareness campaign and other targeted actions of social influence (fairs, competitions, electronic tools, leaflets, energy days, workshops etc). The PAM will be implemented by the National Government in cooperation with other parties/agencies/organizations. | Agriculture, Industry, Service, Transport, Households, Energy supply | Planned | 2019-2030 |
| individual energy efficiency interventions and energy efficiency retrofits in selected governmental buildings | Implementation of individual measures in the building shell, in heating and cooling equipment and energy efficiency retrofits, based on energy performance certificate. The PAM will be implemented by the National Government | Agriculture, Industry, Service, Households Buildings | Planned | 2021-2030 |
| Applying a lower VAT rate for the renovation and repair of private dwellings. | Has been in force since December 2015 and relates to applying a lower VAT rate (5 %), instead of 19 %, for renovation and repair works carried out in existing private dwellings, for works consisting in applying thermal insulation on the external envelope and replacing external door and window frames. | Households | Adopted | 2015-2030 |

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| individual energy efficiency interventions and energy efficiency retrofits in selected governmental buildings | Implementation of individual measures in the building shell, in heating and cooling equipment and energy efficiency retrofits, based on energy performance certificate. The PAM will be implemented by the National Government | Service (Public Sector) | Planned | 2021-2030 |
| Net billing Scheme for high efficiency cogeneration (HECHP) | The net-billing scheme applies to commercial/industrial and public administration consumer categories for the installation of HECHP systems with the prime goal of covering their own consumption. The installed capacity of each net-billing system can be up to 5 MW. Launching year 2018 | Industry, Service | Adopted | 2018 onwards |
| Pilot projects for installing high efficiency cogeneration in public buildings | The general hospital of Nicosia and the University of Cyprus were selected to install and operate HECHP in order to cover part of their energy needs. The projects are on the tendering process and expecting to finalise in 2019 | Service (Public Sector) | Adopted | 2018-2020 |
| 'Save & Upgrade' grant scheme for promoting renovation in dwellings | <p>The scheme (1st call - 2015, 2nd call 2018) aims at implementing large-scale energy upgrading in existing buildings or building units used as dwellings, owned by natural persons. The scheme includes the following three (3) types of investment: A. Integrated energy upgrading of buildings or building units used as dwellings, to achieve at least an energy category B in the energy performance certificate or to achieve at least 40 % energy savings compared to the total energy consumption of the dwelling before the upgrade. B. Integrated energy upgrading of buildings used as dwellings with a view to turning them into nearly zero-energy buildings. C. Implementation of individual energy savings measures in buildings or building units used as permanent dwellings by vulnerable consumers.</p> <p>The public contribution percentage stands at 50 % of the total approved budget of the proposal. The public contribution amount for beneficiaries designated as vulnerable consumers represents 75 %. The energy upgrading grant amount may stand up to EUR 15 000 for each building, or EUR 10 000 for each building unit. Where the space heating/cooling system is to be replaced by a RES system, the grant amount may be increased by EUR 10 000.</p> | Households | Implemented | 2015-2018 |

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| <p>'Save & Upgrade' grant for promoting renovation of building in enterprises</p> | <p>This Scheme (1st call - 2015) aims to ensure large-scale energy upgrading in building facilities used by natural or legal persons governed by private law, which are owners or tenants of building facilities and SMEs carrying out an economic activity. The scheme includes the following two (2) types of investment:</p> <p>A. Energy upgrading of the building through a large-scale renovation, to achieve at least an energy category B in the energy performance certificate or to achieve more than 40 % savings in terms of the total energy consumption of the building.</p> <p>B. Energy upgrading of the building into a nearly-zero energy building, in compliance with the criteria laid down in the national legislation.</p> <p>The public contribution percentage stands at 50 % of the total approved budget of the proposal. The maximum grant amount will be EUR 200 000</p> | <p>Agriculture, Industry, Service Buildings</p> | <p>Implemented</p> | <p>2015-2017</p> |
| <p>Minimum energy performance requirements for new buildings (Law 142/2006)</p> | <p>All new tertiary sector buildings, except those described in the Annex to the Regulation on the Energy Performance of Buildings Law (Law 142(I)/2006) must satisfy the minimum energy performance requirements established by a relevant decree adopted by the Minister for Commerce, Industry and Tourism. This measure arises from Cyprus' obligation to implement the Buildings Directive concerning the energy performance of buildings. The purpose of the measure is described in the wider purpose of applying the Directive concerned.</p> | <p>Service Buildings</p> | <p>Implemented</p> | <p>2009- On going</p> |

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| Minimum energy performance requirements for new buildings (Law 142/2006) | All new dwellings, except those described in the Annex to the Regulation on the Energy Performance of Buildings Law (Law 142(I)/2006) must satisfy the minimum energy performance requirements established by a relevant decree adopted by the Minister for Commerce, Industry and Tourism. This measure arises from Cyprus' obligation to implement the Buildings Directive concerning the energy performance of new buildings. The purpose of the measure is described in the wider purpose of applying the Directive concerned. | Households | Implemented | 2009- On going |
| Grant scheme encouraging the use of RES (end use) in the residential sector | The scheme aims to provide economic incentives in the form of a State grant and/or subsidy for implementing investments to encourage the use of renewable energy sources (RES). The scheme covers investments consisting in purchasing and installing new equipment (Autonomous photovoltaic systems, Household solar systems, Solar space heating/cooling, Central active solar water heating systems, Solar swimming pool water heating systems, Heat pump with ground heat exchanger for space heating and cooling) . It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. The measure aims to foster RES in the residential sector, increase RES awareness among ordinary people and contribute towards RES and energy savings targets. | Households | Implemented | 2004-2013 |

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| Grant scheme encouraging the use of RES (end use) in the tertiary sector | The scheme aims to provide economic incentives in the form of a State grant and/or subsidy for implementing investments to encourage the use of renewable energy sources (RES). The scheme covers investments consisting in purchasing and installing new equipment (Autonomous photovoltaic systems, Solar space heating/cooling Central active solar water heating systems Solar swimming pool water heating systems, Heat pump with ground heat exchanger for space heating and cooling) . It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. This measure aims firstly to increase energy savings awareness in the business sector and secondly to have that sector contribute towards savings targets. | Service | Implemented | 2004-2013 |
| Grant scheme encouraging the use of RES (end use) in the industry sector and in agriculture. | The scheme aims to provide economic incentives in the form of a State grant and/or subsidy for implementing investments to encourage the use of renewable energy sources (RES). The scheme covers investments consisting in purchasing and installing new equipment (Solar space heating/cooling, Central active solar water heating systems, Autonomous photovoltaic systems) . It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. This measure aims firstly to increase energy savings awareness in the industry sector and secondly to have that sector contribute towards savings targets. | Agriculture , Industry | Implemented | 2004-2013 |

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| Energy savings grant scheme in the residential sector (existing dwellings) | The scheme aims to provide economic incentives in the form of a State grant for implementing energy savings (ES) investments. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers investments consisting in purchasing and installing new materials. The investments (Thermal insulation (walls) Thermal insulation (windows) Thermal insulation (roofs)) should relate to mature technologies/materials, exclusive of ones that are at a research and development stage. Upon application of new thermal insulation materials, the relevant U-values must be achieved, as laid down in the Minimum Energy Performance Requirements Decree. This measure aims firstly to have thermal insulation installed in as many existing or new homes constructed prior to the entry into force of the legislation on the mandatory thermal insulation of new dwellings as possible and secondly to increase energy savings awareness among people. | Households | Implemented | 2004-2013 |
| Energy savings / RES grant scheme for the public or broader public sector. | The scheme aims to provide economic incentives in the form of a State grant and/or subsidy or a special grant for implementing energy savings (ES) investments and encouraging the use of renewable energy sources (RES). The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers investments consisting in purchasing and installing new equipment and/or materials. It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. The measure aims to promote RES and ES in the public and broader public sector, to increase RES and ES awareness among civil servants and to contribute towards RES and ES targets. | Service (Public Sector) | Implemented | 2004-2013 |

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| Energy savings grant scheme (end use) in the tertiary sector (existing undertakings). | The scheme aims to provide economic incentives in the form of a State grant or special subsidy for implementing energy savings (ES) investments. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers investments consisting in purchasing and installing new equipment and/or materials. It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. 'Energy savings investment' means investment in systems, equipment and materials whose installation achieves at least 10 % energy savings in a specific application. The maximum grant amount that could be given depending on the type of investment and the form of the eligible grant (regional, de minimis / special subsidy) stood at EUR 250 000 per facility. This measure aims firstly to increase energy savings awareness in the business sector and secondly to have that sector contribute towards savings targets. | Service | Implemented | 2004-2013 |
| Energy savings grant scheme in the industrial (in existing undertakings). | The scheme aims to provide economic incentives in the form of a State grant or special subsidy for implementing energy savings (ES) investments. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers investments consisting in purchasing and installing new equipment and/or materials. It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. 'Energy savings investment' means investment in systems, equipment and materials whose installation achieves at least 10 % energy savings in a specific application. The maximum grant amount that could be given depending on the type of investment and the form of the eligible grant (regional, de minimis / special subsidy) stood at EUR 250 000 per facility. This measure aims firstly to increase energy savings awareness in the business sector and secondly to have that sector contribute towards savings targets. | Industry | Implemented | 2004-2013 |

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|--|--|-------------------------|-------------|-----------|
| Grant scheme for the installation of photovoltaic systems using the net metering method. | This measure aims at gradually installing as many as possible domestic photovoltaic systems with a capacity of 3kW - 7k in the following four (4) or five (5) years. Beneficiaries include all electricity consumers in the residential sector. Vulnerable groups will be given a grant of 50 % of the total investment cost from the Special Fund for RES and ES to purchase and install these systems. By the end of 2017 10.360 PV Systems of total capacity 33.213 Kw were installed. | Households | Implemented | 2013-2019 |
| Installation of PV systems for autoproduction | This measure aims at installing photovoltaic systems in the holdings of commercial and industrial consumers, for own use. Following a relevant decision of the Cyprus Energy Regulatory Authority (CERA), commercial and industrial consumers will be able to install PV systems on the roofs of their holdings, to generate electricity for own use. No grant will be given under this measure for purchasing and installing the systems. By the end of 2017 94 PV Systems of total capacity 4.276 Kw were installed. | Industry, Service | Implemented | 2013-2019 |
| National green public procurement action plan. | 'Green public procurement' (GPP) means that environmental factors are taken into account in entering into (public) contracts for buying products, services or works falling within the scope of the two Coordination of Public Procurement Procedures Laws , with a view to ensuring continued progress in environmental performance, by reducing environmental impacts and maintaining economic sustainability. | Service (Public Sector) | Implemented | 2007 - |
| Vehicle Scrapping Scheme | The Scrapping Scheme aims at protecting the environment and improving road safety. Scrapping of vehicles aged over 15 years. | Transport | Implemented | 2008-2010 |

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|--|--|-------------------------------------|-------------|-----------|
| Energy savings grant scheme in transport (purchasing hybrid, electric and low-pollutant vehicles) 2004-2009. | The scheme aims to provide economic incentives in the form of a State grant or special subsidy for implementing energy savings (ES) investments. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers only investments implemented in the absence of national or Community standards. The scheme covers investments consisting in purchasing and installing new equipment and/or materials. It also covers the cost of designs, where necessary. The investments should relate to mature technologies, exclusive of ones that are at a research and development stage. A grant is given for the purchase of up to seven (7) new vehicles by undertakings and one vehicle by natural persons for the vehicle categories described below. | Transport | Implemented | 2004-2009 |
| Compact fluorescent lamps campaign | This measure consisted in distributing 6 free compact fluorescent lamps to each domestic electricity consumer from 2006 to 2010, following a decision of the Council of Ministers. Beneficiaries included all EAC's domestic consumers falling under tariff categories 05, 06, 07 and 08, as well as all non-profit organisations, churches, schools, utilities and charitable institutions. Families with many children, non-profit organisations, churches, etc. are entitled to 10 compact fluorescent lamps. As it was impossible to distribute all lamps by the end of 2010, it was decided to carry on distributing them in 2011 and 2012. | Households, Service (Public Sector) | Implemented | 2007-2012 |
| Solar water heater replacement scheme | This scheme aims to provide economic incentives in the form of a State grant for replacing solar water heaters in existing dwellings. The scheme covers investments consisting in purchasing and installing new equipment / materials. The scheme relates only to the replacement of solar hot water production systems in existing private residential units. Subsidised systems should meet specified energy criteria. Also, an installation permit should be obtained from the competent town planning authority, as appropriate | Households | Implemented | 2015-2018 |

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|--|---|-------------------------------|-------------|-------------|
| Horizontal measures (information campaigns, training eco-driving, organisation of workshops, etc.) to attain the target referred to in Article 7 of the Directive. | This consists in implementing energy savings information campaigns, carrying out advertising actions, organising workshops, conducting pupils' competitions, etc. All these are organised by MECIT on an annual basis. | Industry, Service, Households | Implemented | 2014 - 2020 |
| Implementation of measures aimed at attaining the target referred to in Article 5 EED | This measure consists in implementing major renovation and individual energy savings measures in public sector buildings, as well as measures intended to improve user behaviour with a view to a more rational use of energy in public buildings | Service (Public Sector) | Implemented | 2014-2020 |
| Action plan to strengthen public transport | Cyprus does not have a developed public transport system, and there is serious traffic congestion in the major cities. The purpose of the plan is to promote and develop measures/projects/proposals to contribute towards alleviating traffic congestion in large cities. New buses were purchased in large cities in June 2010, as a first step towards implementing the plan. Furthermore, scheduled bus services were established in 2009 between large urban centres and the Larnaca Airport. The measures taken are still at an early stage, and more important developments are expected in the sector, as transport is responsible for almost 50 % of final energy consumption in Cyprus. Based on data from the Ministry of Transport and Works, a target has been set for increasing the percentage of public transport from 2 % in 2009 to 10 % in 2015. | Transport (Public Transport) | Implemented | 2010-2020 |

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| Increase in the RES fee applied on electricity. | This measure consists in increasing the RES and ES fee applied on electricity, which has been in force since 1 January 2017. From 01/01/2017 until 31/12/2019 the tax levy for RES and Energy Conservation in the electricity bill is increased from 0.5 euro cent per Kwh to 1 euro cent per Kwh. The measure applies to all electricity consumers excluding only the vulnerable consumers. | Agriculture, Industry, Service, Transport, Households | Implemented | 2017-2019 |
| Motor vehicle taxes based on CO2 emissions. | This measure relates to the tax imposed on vehicles with a view to reducing CO2 emissions, which has been in force since 2014. The latest amendment to the Motor Vehicles and Road Traffic Law (Law 100(I)/2013) of 9 September 2013 entered into force on 1 January 2014, which modified the annual vehicle tax to be paid for each M1 category motor vehicle, as it would be calculated from then on based on the carbon dioxide (CO2) emissions (combined cycle) in grams per kilometre (g/km), and this measure reduced the registration of vehicles with a high fuel consumption. | Transport | Implemented | 2014-2030 |
| Integrated Fleet Management System (Central Government vehicles) | The Department of Electrical and Mechanical Services, as the Public Authority for the management of the public vehicles in 2017 started to install an integrated Fleet Management System in the Public Vehicles. Some of the benefits of the system are: <ul style="list-style-type: none"> • The rational management of the Public Service Vehicle fleet through the data and reports generated by this system. • Direct information on the state of the vehicle fleet in terms of age, status (eg odometer indication), type of vehicle (eg passenger, commercial, truck). Better planning of vehicle maintenance through automated reporting that will send the system at predetermined mileage intervals. | Transport (Public Sector) | Implemented | 2016-2018 |

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| Energy efficient street lighting | The measure consists in replacing existing lamps / lighting fixtures lighting systems in public roads with new, more efficient ones. The measure concerns the replacement of existing lamps with more efficient ones in the national highway that is under the responsibility of Department of Electromechanical Services, as well as, in local roads that are under the responsibility of the municipalities | Service (Public Sector) | Planned | 2018- 2030 |
| incentives for new buildings with higher energy efficiency than EPBD requirements | new buildings and buildings renovated can receive a 5% extra building factor if they achieve higher energy efficiency than the minimum mandatory levels provided by the legislation | Service | Implemented | 2016- 2020 |
| Energy efficiency in existing buildings | Financial support, in a form of grants, for individual energy efficiency interventions. Implemented by the National Government | Service | Implemented | 2017- 2020 |
| Energy efficiency in electricity infrastructure | This measure aims to decrease system losses and lead to substantial energy savings in the distribution system by upgrading the medium nominal voltage of 11kV to 22kV. This will require designing new transmission/distribution substations at 22 kV of nominal voltage, upgrading switchgear and other equipment e.g. transformers operating at 11kV, planning to switch from 11kV to 22kV where the equipment is already upgraded to 22kV but operation is still at 11kV. This measure was indicated by the assessment that was undertaken to evaluate the energy efficiency potentials of the electricity infrastructure in Cyprus (Art. 15(2) of the EED). | Electricity Sector | Adopted | 2016- 2030 |
| Measures promoting the installation of small-scale renewable energy technologies on or in buildings | The implementation of this measure reduces energy purchased by the final customers where small-scale renewable energy technologies are installed. | Agriculture, Industry, Service, Transport, Households | Provisional | 2020-2030 |

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|--|---|---|-------------|-----------|
| Energy efficiency in electricity infrastructure | Increase of energy efficiency in electricity generation due to the increase of efficiency and the switching of the fuel to natural gas | Electricity Sector | Adopted | 2020-2030 |
| Efficient district heating and cooling | Development of efficient district heating and cooling infrastructure based upon RDF fired cogeneration technologies in tourist areas. | Service sector | Provisional | 2020-2030 |
| Energy efficiency defence and in water sector | promotion of measures in defence sector and in water sector (including production, cleanign, pumping, desalination etc) that will acheive end use savings | Service sector, defence sector and industry | Provisional | 2020-2030 |
| Increasing the share of cycle, pedestrian and PT trips | <p>This measure is expected to reduce CO2 emissions by reducing the number of car trips and replacing them with sustainable modes of transport including public transport,cycling and walking.</p> <p>This measure is expected to be implemented by the following actions, among others:</p> <ul style="list-style-type: none"> • High quality public transport services • Zero or near zero emission zones • Improvement of cycling and pedestrian facilities • Effective parking policy • Measures to promote the use of sustainable modes of transport and discouragement of the use of the passenger car • Introduction of tram system in Nicosia | Transport sector | Provisional | 2020-2030 |

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| Use of buses that have low or no GHG emissions | <p><u>This measure will be implemented by including specific requirements within the new bus operators' contract such as:</u></p> <ul style="list-style-type: none"> • Additional Cost for the Tenderer to Convert their bus fleet to Compressed Natural Gas (CNG), when such fuel source is available in Cyprus and the prerequisites for doing so exist. The proposal should be identifying, but not costing, the number of CNG Fuel Stations; • Additional Cost for the Tenderer to provide Electric Buses (maximum capacity 22 persons) in Historic City Centres of Nicosia, Limassol, Larnaca, Paphos and Famagusta (Paralimni & Agia Napa) - up to 4 buses per urban core. • May submit a variant to their standard offer (of 10year contract period), showing amortisation over a longer period – not exceeding 15years – for supplying a fleet with vehicles (buses) operating with electric energy, which are more expensive than the usual diesel buses, and will require further significant investments on charging stations in depots and key locations, but contribute towards a cleaner environment. To consider such a variant all vehicles shall be electric and the tenderer will carry out a detailed feasibility study taking into account all costs (including vehicle and infrastructure cost). • Provide more incentives for tourist buses to convert to renewable energy sources engines | Transport sector | Planned | 2023- 2025 |
| Introduction of enviromental fees for the use of the road network | <p>The car trips are expected to be replaced by other sustainable modes of transport by:</p> <ul style="list-style-type: none"> • Applying congestion charges in the city centers • Applying tolls on Highways, Initial toll charges applied to HGV on Motorways to be extended later to other roads and vehicle types <ul style="list-style-type: none"> • Increasing the taxes for fossil fuels. • Increasing the parking charges and penalties. | Transport sector | Provisional | 2020-2030 |

A.3. Dimension Energy Security

| Name of policy or measure | Short description (precise scope and modalities of operation) | Sector(s) affected | Status of implementation | Implementation period |
|---|--|---|---------------------------|---------------------------------------|
| Tender announcement for the LNG Import Terminal. | Design and Construction of LNG import terminal and 20 years operations and maintenance. | Power generation, diversification of energy mix | Implemented | |
| 1. Single Action Plan for the restoration of the electrical system after power blackout , 2. Setting certain Quality of Electricity Supply Indicators | <p>1. TSOC submits to CERA whenever it is considered necessary an updated action plan for the restoration of the electrical system after power blackout. The Action Plan includes among other issues the steps/actions to be taken by the TSOC and the Power Plants themselves, the critical support staff, alert mechanisms, means of communication and any other possible actions for the implementation of the Plan. The Action Plan is in force since 2014 and since then several revisions have been made. it is expected that in 2019 the TSOC will submit to CERA revised version of the Action Plan.</p> <p>2. In order to improve the quality of supply and taking into account CEER's recommendations to harmonise Electricity Continuity of Supply (CoS) indicators, data collection procedures and the methodology to calculate the value of CoS as well as other major aspects such as voltage quality and commercial quality, CERA is in the process of taking the decision on preparing such indicators with external assistance.</p> | Power generation | Implemented (bullet No.1) | Annually since 2014 (for bullet No.1) |

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| Ministerial Decision ΚΔΠ 212/2014 for holding of emergency oil stocks equivalent to 90 days of net imports of petroleum products. | The Cyprus Organization for the Storage and Management of Oil Stocks (KODAP) is the Central Stockholding Entity of Cyprus established by “The Maintenance of Oil Stocks Law of 2003” (N.149(I)/2003)”. According to this law, KODAP is responsible for the maintenance of the national oil stocks equivalent to 90 days of net imports. It acquires, maintains and sells national oil stocks, in conformity with the provisions of Directive 2009/119/EC. In the event of a major supply disruption, the Minister of Energy, Commerce, Industry and Tourism may implement the emergency procedures and measures provided by the law, including the release of emergency oil stocks. | Energy inland consumption | Implemented | Annually since 2004 |
| Ministerial Decision 77.286 on 16/11/2014 for the establishment of the New Energy and Industrial Area of Vasilikos | This area is designed to be used for the installations of the oil storage, LNG infrastructures and gas based industries. | Oil Industry, electricity production of Natural Gas | adopted | 2018-2022 |
| Ministerial Decision 77.286 on 16/11/2014 for concession to the KODAP suitable land in the Vasilikos area for the construction of privately owned oil terminal storage | KODAP is planning to built its own petroleum storage terminal in national territory in order to relocate its own oil stocks in Cyprus, as well as, to reduce the annual storage cost. | Oil Industry, energy inland consumption | Adopted | 2018-2022 |

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| <p>Ministerial Decision 84.952 on 14/5/2018 for the Signing of a Memorandum of Understanding and Agreement between the Government of the Republic of Cyprus and the Companies Marketing Petroleum Products, namely BP Eastern Mediterranean Ltd, ExxonMobil Cyprus Ltd, Hellenic Petroleum Cyprus Ltd, Intergaz Ltd, Petrolina (Holdings) Public Ltd and Synergaz Ltd for the relocation of petroleum and liquefied petroleum gas installations from the Larnaca coastline to the Vasilikos area</p> | <p>Oil companies are planning to built new petroleum storage terminals at Vasilikos area in order to relocate their own oil stocks from Larnaca.</p> | <p>Oil Industry</p> | <p>Implemented</p> | <p>2018-2020</p> |
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A.4. Dimension Internal Energy Market

| Name of policy or measure | Short description (precise scope and modalities of operation) | Sector(s) affected | Status of implementation | Implementation period |
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| Electricity Interconnectivity of Cyprus | EuroAsia Interconnector is a future cross border interconnector between Greek, Cypriot, and Israel Transmission Systems via the world's longest submarine HVDC power cable. HVDC onshore converter stations with rated capacity of either 2000 or 1000 MW will be located at the connection points. It is a leading Project of Common Interest of the European Union and also priority Electricity Highway Interconnector Project. The Interconnector is an energy highway bridging Asia and Europe. | Transmission of Electricity | Adopted | Expected completion dates for the 1st stage (1000 MW), as submitted to ACER (Progress report for Projects of Common Interest (PCIs) Crete - Attica 30/06/2022 Cyprus - Crete 31/12/2023 Cyprus - Israel 31/12/2023 as per Project Promoter |
| Development of natural gas network pipeline infrastructure in Cyprus | The project involves the development of natural gas network pipeline infrastructure network from the regasification facility in Vasilikos area to the three Power Plants (Vasilikos, Dhekelia and Moni) and the three IPPs | Energy sources for Power generation | | The target date for the completion of the entire network is 2023/2024 |
| Cyprus TSO Ten Year Network Development Plan 2019-2028 according to Article 63 of the Laws for the Regulation of the Electricity Market from 2003 to 2017. | The Transmission TYNDP (T-TYNDP) analyses the investments to be carried out during the ten year period between 2018 and 2027 for the development and the secure operation of the transmission electricity system. The TYNDP takes into consideration the total yearly demand forecast for the period 2016-2025 as well as the maximum forecasted demand for each transmission substation. The TYNDP is implemented by the Transmission System Owner. | Transmission System | Adopted | 2019-2028 |

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| Regulatory Decision 05/2017 on the Implementation of a Binding Schedule for the Full Implementation and Operation by the DSO of the Meter Data Management System (MDMS). | MDMS enables the registration and entry of the meters in a particular registry. The meter readings of all consumers are registered and communicated to respective suppliers. Manages the supplier switching process. | Electricity Supply | Adopted | 2019-2020 |
| Regulatory Decision 02/2018 on the Implementation of a Binding Schedule for the Mass Installation and Operation by the DSO of Advanced Metering Infrastructure (AMI). | AMI offers the necessary observability, monitoring and recoverability of data and measurements of electric energy and power at the customer's connection point. AMI increases the accuracy of load and demand forecasting, improves the system analysis, enables the load and demand management and in effect the optimisation of the operation of the Distribution System. AMI aids at managing EV Charging, PV System management and generation monitoring, optimisation of RES generation forecasting, maximises RES penetration, enables remote DSO operations (connections/ disconnections, meter reading), aids at the reduction of non-technical losses. | Rights of Electricity Customers | Adopted | 2021-2027 |
| Ministerial decision that dedicates MECIT as National Competent Authority (NCA). One of NCAs' obligations according to EU Regulation 347/2013/EC is to achieve real priority status for PCIs in public sector. | Priority status in each Ministry and governmental services of each Member State. A variety of Legislative and Non-legislative measures to simplify and accelerate the permitting granting process for PCIs. | Electricity supply/generation | adopted | |

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| Ministerial decision that dedicates MECIT as NCA. Transparency and public participation is an obligation for NCA according to EU Regulation 347/2013/EC. | Cooperation with all Project Promoters and stakeholders to create a National Public Consultation Plan for PCIs, data related to Public Consultation available on One-Stop Shop 4Energy PCIs website | Electricity supply/Gas supply/Power generation | adopted | |
| Ministerial decision that dedicates MECIT as NCA. The development of the One-Stop Shop 4Energy PCIs E-platform is an obligation for NCA according to EU Regulation 347/2013/EC. | The E-Platform for the One Stop Shop 4 Energy PCIs provides licensing and internal administration procedures for supporting Energy Investors Hub. | Electricity supply/Gas supply/Power generation | adopted | |
| MoU between the countries of Cyprus, Greece, Israel and Italy (05/12/2017, Nicosia). | Memorandum of Understanding between Cyprus, Greece, Israel and Italy for the EastMed pipeline project. This MoU is a prerequisite legal measure for the PCI implementation. This PCI is an offshore/onshore natural gas pipeline, directly connecting East Mediterranean resources to Greece via Cyprus and Crete | Gas supply/Power generation | Implemented | |
| Ministerial decision that dedicates MECIT as NCA. Cross Border collaboration with other EU Member States and Third Countries is an obligation for NCA according to EU Regulation 347/2013/EC. | Collaboration with Govermental Authorities, NRAs, NCAs (Cyprus, Greece, Israel), Transmission System Operators for Gas and Electricity in other countries. Assesment of Cross Border Environmental Impact Assesment. Public Consultation and Public surveys in parallel to all impacted countries. | Electricity supply/Gas supply/Power generation | adopted | |

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| Financial assistance for the Preparation of the Natural Gas Market in Cyprus. For example Cynergy programme and EU technical support (SRSP) requested according to chapter V, article 14 of the EU Regulation 347/2013/EC. | Study for the dedication of TSO Gas, Network codes, new legislation for natural gas, security of supply measures for Cyprus as part of the internal energy market | Electricity supply/Gas supply/Power generation | adopted | |
| Financial assistance of PCIs according to chapter V, article 14 of the EC Regulation 347/2013 | Local and European Financial Measures for PCIs | Gas supply/Power generation | adopted | |

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| <p>Regulatory Decision 01/2017 on the Implementation of a Binding Schedule for the Full Commercial Operation of the New Electricity Market Model.</p> | <p>The introduction of Forward and Day-Ahead Markets and at a later stage an Intraday market in order to allow for new RES, IPPs and Suppliers to compete in generating and supplying electricity to final customers. Forward market is based on bilateral over the counter trading between suppliers and generators. The incumbent's bilateral prices will be fixed at its Wholesale Regulated Tariff. Day-Ahead Market will be centrally operated by the TSOC (who is also the Market Operator), obligatory for conventional generators for their available capacity not contracted in the Forward Market or allocated to cover Replacement Reserve. The energy offer cap will be Administratively Defined by the Regulator. The minimum energy offer by the incumbent is equal to its generator's minimum variable cost. Integrated Scheduling Process will be used for preallocating balancing activation instructions to Balancing Responsible Parties (before real time Balancing) and procuring frequency ancillary services (FCR, aFRR, mFRR). ISP may modify the Unit Commitment (GUC). Schedule. Real time Balancing inherits ISP GUC. Dispatch instructions will be issued by the TSOC during real time balancing.</p> | <p>Competition in the electricity market</p> | <p>Adopted</p> | <p>2019-2021</p> |
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| Regulatory Decision on Storage Systems that are installed before the metering point. | <p>The (draft) Regulatory Decision permits the participation in the electricity market of licensed storage systems installed before the meter that are not combined with consumption of energy locally and calls the TSOC to amend the Market and Network Rules to enable their non-discriminatory participation in the market. The TSOC should also define the minimum capacity and technical characteristics of a storage system to be able to participate in the electricity market as a dispatched unit. The (draft) Regulatory Decision also calls the TSOC, in cooperation with the DSO, to take into consideration when drafting the Transmission - TYNDP any developments regarding the provision of services by storage systems in combination with the rate of RES development, the benefits due to loss reduction, investment avoidance and/or upgrading of the network and/or the Transmission and Distribution Substations. The Transmission TYNDP should also include storage systems before the metering point. The Regulatory Decision calls the TSOC to amend Market and Network Rules in order to allow for the provision of services by storage systems related to the operation of the transmission and distribution systems, to suggest network charges applicable during their charging cycle in the case that such systems offer services to the TSOC and/ or DSO related to the operation of the transmission and/or distribution system.</p> | Participation of RES in the Electricity Market | Planned | 2020 |
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| Amend the national law to enable operation of the electricity market and make the Market Operator/TSO independent from the vertically integrated electricity company | The amending Bill makes all necessary legislative changes to allow for the operation of the Net-Pool market electricity model. The Net-Pool market model is in compliance to the EU Target Model. The Bill introduces the category of "Aggregators" to allow for the combination of load and energy, including energy from storage systems. It also creates the category of "Storage Systems" and allows for the licensing of aggregators, storage systems and BRPs. The Regulator is authorized to decide on simplified licensing procedures for self-consumption, RES, suppliers and non-connected generation systems. Strengthens clauses related to the Distribution System Owner, Distribution System Operator. Foresees for the independence of the Cyprus TSO from the incumbent by providing to the former the necessary resources and autonomy in decision making related to its budget and personnel. Provides for a certification process for the TSO independence. Broadens the duties and responsibilities of the TSO to include Market Operation and provides to the MO/TSO the authority to enforce Market Rules. Strengthens clauses related to the Transmission TYNDP. The Bill also concentrates previously scattered clauses on Universal Service under a dedicated Article. | Competition in the electricity market | Planned | 2019 |
| Amend Trade and Settlement Rules and Transmission and Distribution Rules to allow for Demand Response in the market according to Art. 15(8) Directive 2012/27/EU | Technical modalities will be defined in order for the national law, as harmonized with Article 15(8) of the Directive, to be applied in practice. | Competition in the electricity market | Planned | 2020 |

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| Ministerial Order (no. K.D.P. 289/2015) regarding the energy poverty, the categories of vulnerable customers of electricity and the measures to be taken to protect such customers. | Based on the provisions of Directive 2009/72/EC that «each Member State shall define the concept of vulnerable customers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity to such customers in critical times..», the Minister of Energy, Commerce, Industry & Tourism, after consultation with the Cyprus Energy Regulatory Authority (CERA) and the Minister of Labour, Welfare and Social Insurance, has issued an Order (no. K.D.P. 289/2015) regarding the energy poverty, the categories of vulnerable customers of electricity and the measures to be taken to protect such customers. The Order determines the categories of vulnerable consumers of electricity. Additionally, the above Order defines the measures to protect vulnerable categories of electricity customers as follows: (a) reduced prices on electricity tariffs (special electricity tariff 08) which is based on a Ministerial Decision (no. K.D.P. 286/2016) (b) financial incentives (depending on the available budget) for installing a net-metering Photovoltaic system (c) financial incentives (depending on the available budget) for upgrading the energy efficiency of their houses (d) safeguarding the continuous supply of electricity, during critical periods, to those vulnerable consumers that uninterrupted power supply is essential for reasons related to their health | Vulnerable customers of electricity | implemented | (a) since 2006 (b) since 2013 (c) since 2014 (d) since 2015 |
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